Gender Responsive Risk/Needs Assessment

Final Report[1]

Prepared for the Maui CARE Project

Submitted by

Patricia Van Voorhis, Ph.D.
University of Cincinnati

Emily Salisbury, M.S.
University of Cincinnati

Ashley Bauman, M.S.
University of Cincinnati

Emily Wright, M.S.
University of Cincinnati

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Mahalo Nui!!!

We are pleased to submit the final report for the Gender-Responsive Risk/Needs Assessment Project (a.k.a., "The Trailer Project"). In doing so, we hope that the findings reported in the following pages will help Maui CARE and other organizations to develop and support important economic, social service, mental health, and public health services for women in Hawaii. Most importantly, we hope that stakeholders concur that the project affords an assessment tool that will continue to generate important information on into the future.

As will become apparent in the pages that follow, this project was a success. It produced a useful assessment tool and valuable, policy-relevant findings. But as all of the individuals mentioned below will confirm, these 62 pages of text belie the actual labor involved in completing a study of this nature. Without question, there are many individuals to thank for the successful conclusion of this project.

First we recognize the stakeholders who identified a need and sought support to facilitate their goal of improving services to women in Maui. Certainly, Hon. Shackley Raffetto, Hon. Joseph Cardoza, and Cheryl Marlow were key visionaries in this regard. Early leadership from Anne McDiarmid and financial support from the National Institute of Corrections were key to the collaborative effort that formed the Maui CARE group and then designed this study and formulated a method for using the results to inform community development efforts in Maui.

As all involved will attest, the major portion of this effort involved the day to day work of conducting interviews, administering surveys, keeping data logs, solving discrepancies, and resolving larger problems. To this end, Gail Nakamae, Wayne Matsuda, and Dr. Lorrin Pang devoted many hours of their time and expertise. Additionally, we wish to thank Ernest Delima and Rick Fujihara (administrators of Adult Client Services and the Hawaii Paroling Authority, respectively) for encouraging and supporting the cooperation of their professional staff. The bulk of the LSI-R interviews were conducted by Wayne Matsuda, Katherine Patricio, Lydia Hockridge-Terry, and Craig Hirayasu. As the findings will prove, these interviews were conducted by highly skilled staff. We hasten to add that Dr. Pang and Tina Pedro volunteered time to administer over 190 surveys during precious weekend hours. In addition, Gary Morgan also volunteered much of his time for the completion of the follow-up forms for the probation sample. Thanks also to Gail Nakamae for her patience in securing essential outcome data during the final months of the project.

We are especially grateful to the women offenders who participated in this study. They did so with little reward other than a suggestion that the research might improve women's programs and services at some future point in time. These women gave up weekend time to participate in the completion of self-report surveys and did so quite willingly. Refusal rates were quite low. We also note that women offenders in all of the NIC project sites offered input into research design issues and opinions about the importance of specific risk factors. Their opinions were invaluable.

My staff and co-authors at the University of Cincinnati conducted all of the data preparation, maintained a wonderful working relationship with Maui personnel, wrote major sections of the report, and conducted most of the data analysis. Dr. Emily Salisbury was the Project Coordinator and co-researcher for this study. The project benefited tremendously from her talent as well as her meticulous attention to the many details of bringing the research to this stage of completion. Additionally, Ashley Bauman and Emily Wright provided much assistance in completing the final report. I am also grateful to my staff for their skill, commitment, and good cheer.

Financial support, guidance, and oversight were provided by the National Institute of Corrections which funded both the present study as well as the community development grant which generated the beginning work of Maui CARE. Special thanks to Phyllis Modley and Maureen Buell, Correctional Program Specialists at the National Institute of Corrections, for their vision and support.

In closing, this project met all of the characteristics of solid action research. Maui CARE involved the research group at the University of Cincinnati in a team effort at all junctures of this project. Research findings were used at many points prior to the completion of this report in forums involving both the Maui CARE Policy Group and the Maui CARE Providers' Group. These were most enjoyable sessions. I am sure that Dr. Salisbury joins me in noting that we personally enjoyed the working relationships that developed over the course of this project. Finally, because the greater Maui community likely will never know of the dedication demonstrated by the public servants mentioned in this acknowledgement, I thank you on their behalf.

I wish you all the best in your future endeavors.

Pat Van Voorhis

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This is the final report of a four-year research project designed to assist the work of Maui CARE (Creating a Responsive Environment for women and families). The goals of this research were as follows:

- To validate the LSI-R among women offenders assigned to probation and parole in Maui County;
- To develop at gender responsive trailer to the LSI-R that amends the dynamic risk factors currently assessed by the LSI-R to include scales relevant to parenting, abuse, relationship issues, self-esteem, and self-efficacy;
- To provide ongoing information to county planners profiling the programmatic needs of community-based women offenders in Maui;
- To participate in a national study designed to develop new risk/needs assessments for women offenders.

The larger study was a collaborative project between the National Institute of Corrections (NIC), the University of Cincinnati, and four correctional jurisdictions, the Colorado Department

of Corrections, Maui County, the Missouri Department of Corrections, the Minnesota Department of Corrections, and three Minnesota county probation departments. Funded by NIC, this research is now concluding the development and construction validation of six new risk/needs assessments specifically for women offenders.[2]

This work builds from two perspectives on offender rehabilitation: a) research by Canadian scholars Donald Andrews, Paul Gendreau, James Bonta, and others which stresses the importance of assessing and treating dynamic risk factors[3] (see Andrews & Bonta, 2003; Gendreau, Little & Goggin, 1996); and b) work by feminist criminologists (e.g., Joanne Belknap, 2007; Kathleen Daly, 1992; Meda Chesney-Lind,1997; Barbara Bloom, Barbara Owen, and Stephanie Covington, 2003) stressing the importance of women's unique "pathways to" crime. Both perspectives are relevant to the importance of programming for dynamic risk factors. However, the pathways perspective asserts that women's unique needs (listed above) are not adequately tapped by the current generation of risk/needs assessments, such as the LSI-R.

The present report focuses on the Maui findings, and the development of a "trailer" which policy-makers may wish to use in conjunction with the LSI-R (Andrews & Bonta, 1995). We have included a literature review that provides additional evidence in support of programming for gender-responsive needs. Finally, the report presents profiles of women offenders in Maui, across psychosocial, demographic, offense, economic, and medical characteristics.

[2] The Project created full risk/needs assessments for three separate applications: prisons, probation, and parole. In addition, separate "trailer" instruments for probation, parole, and institutional settings were designed to be used in conjunction with existing gender-neutral instruments such as the Northpointe Compas (Northpointe Institute for Public Management, 2002) or the Level of Service Inventory-Revised (Andrews & Bonta, 1995).

[3] The term "dynamic risk factor" refers to a dynamic need that can get better or worse over time that is also a predictor of future offending. Examples would be substance abuse, employment, education, etc. Dynamic risk factors, in other words, are important to prediction and to programming for problems that contribute to future offending.

It should be noted that the effort to identify an optimal assessment design involved testing several assessment models in the jurisdictions listed above. The assessment that we recommend for use in Maui community correctional settings is similar but not identical to the design tested in Maui. More specifically, the final trailer provides for the assessment of additional risk factors. It also benefits from the knowledge accumulated across all of the jurisdictions. We discuss the recommended assessment at the end of this report and provide evidence from the Maui data to show that the new design is likely to be valid for use in Maui.

Project History

This study was secured through the auspices of Maui CARE, a county-wide policy team formed in 2002 when county officials applied for and were ultimately selected to be one of the participating sites in NIC's Improving Community Responses to Women Offenders initiative. The mission of Maui CARE is to serve as an "interagency collaboration with the communities of Maui, Molokai, and Lanai to improve criminal justice responses and outcomes for women and their families." The community development work of Maui CARE has resulted in the formation of community partnerships involving: a) the County Courts (District Court, Circuit Court, Family Court and Drug Court); b) Adult Client Services; c) Maui Community Correctional Center; d) Special Services Branch of the Hawaii Judiciary; e) Intake Services Center; f) Maui Community College; g) Hawaii Interagency Council on Intermediate Sanctions; h) Hawaii Adult Mental Health; i) Maui Police Department; j) Office of the Public Defender; k) Hawaii Paroling Authority; l) County Department of Housing and Human Concerns; m) Maui Economic Opportunity; n) Department of the Prosecuting Attorney; o) Hawaii Department of Human Services; and p) Hawaii Department of Health. Over the intervening years, the collaborative policy team has worked to share information and secure additional resources to support system-

wide and seamless interventions and alternatives for women offenders. Shortly after its formation, the team identified a number of barriers to securing favorable outcomes for women, including housing, methamphetamine use, transportation, employment, mental health, education, domestic violence, health, and childcare. The team also mapped criminal justice practices, tracking women across various criminal justice decision points and identifying a number of local practices that discouraged successful reintegration. Finally, a Providers Group was formed that brought together a number of human services agencies on the island.

One of the barriers to service noted early on was the lack of adequate information on women offenders. Minutes from 2002 meetings made frequent mention of the fact that current information was largely anecdotal and hindered efforts to provide adequate case management to women at all levels of the system. As well, community planning, fund-raising, and other advocacy efforts of the CARE team were hampered by the lack of "hard data" showing aggregate levels of needs across a variety of social, economic, mental health, and medical needs.

The LSI-R (one source of such information) had not been implemented at that time; staff had been trained but not fully certified to administer the assessment. Additionally, a number of concerns were voiced about whether the LSI-R was valid for women, and for whether it identified needs most relevant to women offenders. The LSI-R identified the following needs: a) criminal thinking; b) antisocial associates; c) family marital; d) substance abuse; e) accommodations; f) use of leisure time; g) emotional issues; h) financial; and i) employment and education. CARE policy team members voiced concern for the lack of assessment scales pertaining to parenting, abuse, self-efficacy, self-esteem and relationship issues.

Against this background, Maui CARE secured NIC support in 2003 to conduct the present validation study. The project involved planning meetings and several conference calls to

design and review research documents and to develop data collection procedures. Team members along with Anne McDiarmid, an NIC-appointed facilitator of early CARE project activities, and Dr. Patricia Van Voorhis from the University of Cincinnati developed a face sheet to accompany the assessment tools being tested. The face sheet collected background information not contained on the LSI-R or the self-report survey[4] Major responsibilities for assessment administration and data collection were assumed by Gail Nakamae (Special Services); Wayne Matsuda (Intake Services Center); Dr. Lorrin Pang (District Health Administrator, Department of Health); Ernest Delima (Adult Client Services); and Rick Fujihara (Hawaii Paroling Authority).

This report is not the first report of research findings. Annual reports have been made to the CARE Policy Team as well as to the CARE Providers Group since 2004, as soon as enough data was available to provide stable research findings.

Apart from the Maui project, researchers at the University of Cincinnati conducted extensive literature reviews of social science literature regarding the gender-responsive needs that became the focus of this and other studies. In addition, focus groups with correctional staff administrators and women offenders which were convened in Colorado, Nebraska, Oahu, Minnesota, and Missouri, greatly informed the present study. We discuss the results of that exploration in the next section.

Supporting Research

While males comprise the majority of offenders, the number of incarcerated women in the United States is increasing at a faster rate than that of men. Since 1995 the number of incarcerated females has increased 53 percent compared to 32 percent for incarcerated males

[4] The self-report survey was tested in all of the NIC research sites.

(Bureau of Justice Statistics, 2005). This increase draws attention to current practices of assessing the risk and needs of convicted female offenders.

Many of these assessments were originally created for men and then applied to female populations without being evaluated for their appropriateness or their validity (Bloom, Owen, & Covington, 2003; Chesney-Lind, 1997; Morash, Bynum, & Koons, 1998; Van Voorhis & Presser, 2001). With respect to prisoners, one national survey of state correctional classification directors found that: a) 36 states had not validated their institutional classification systems on women, b) many assessments "over-classified" women (meaning they designated women as requiring higher custody levels than warranted by their actual behavior), and c) current assessments ignored needs specific to women such as relationships, depression, parental issues, self-esteem, self-efficacy, and victimization (Van Voorhis & Presser, 2001). Community correctional assessments were also plagued by the lack of attention to validation and gender-responsive factors (Blanchette, 2004; Blanchette & Brown, 2006; Brennan, 1998; Brennan & Austin, 1997; Farr, 2000; Reisig, Holtfreter, & Morash, 2006). As a result, gender-responsive factors had not been sufficiently tested for their ability to predict recidivism.

Historically, risk and needs assessments were separate assessments and tasks (Van Voorhis, 2004). Risk assessments, predicting an offender's likelihood of re-offending, focused on static measures such as current offense and criminal history; needs assessments assessed such issues as education, employment, and physical and mental health. The needs assessments then guided program referrals and interventions. Later research found that many of these needs were also important risk factors (Andrews, Bonta, & Hoge, 1990). Accordingly, today's risk assessments, called dynamic risk/needs assessments, combine risk assessment with needs assessment to present correctional practitioners with a complete picture of an offender's risk for

recidivism as well as the needs that contribute to the risk projection. Dynamic instruments such as the Northpointe COMPAS (Brennan et al., 2006) and the Level of Service Inventory-Revised (Andrews & Bonta, 1995) are used primarily for community risk assessments, but they have also been shown to predict institutional misconducts (e.g., see Bonta, 1989; Bonta & Motiuk, 1987, 1990, 1992; Kroner & Mills, 2001; Motiuk, Motiuk, & Bonta, 1992; Shields & Simourd, 1991).

Without question, current correctional policies give high priority to the risk that offenders pose to institutional and community safety (Cullen, Fisher, & Applegate, 2000; Feeley & Simon, 1992), and dynamic risk/needs assessments are particularly relevant to these concerns. Emerging practices of risk assessment and targeting risk factors in the course of correctional programming are backed by evidence from a group of meta-analyses of the research on correctional effectiveness (Andrews et al., 1990; Gendreau, Little, & Goggin, 1996; Izzo & Ross, 1990; Lipsey, 1992). In summarizing these meta-analyses Andrews and associates (Andrews, Bonta, & Hoge, 1990; Andrews et al., 1990) put forward two principles of effective correctional intervention: *the risk principle* and *the needs principle* The risk principle states that programs that are most successful in reducing recidivism are those which provide high levels of services to medium and high risk offenders (Andrews et al., 1990; Bonta, Wallace-Capretta, & Rooney, 2000; Lipsey, 1992; Lipsey & Wilson, 1998; Lowenkamp & Latessa, 2002) while the needs principle maintains that those reductions can only take place if the risk factors targeted in treatment are dynamic needs known to be correlated with recidivism (Andrews, Bonta, & Hoge, 1990; Andrews et al., 1990). Key among such dynamic needs are the "Big Four" (i.e., antisocial attitudes, peers, personality, and criminal history), noted to be the strongest predictors of recidivism and therefore put forward as the most important treatment targets (Andrews & Bonta, 2003; Andrews et al., 1990; Gendreau, 1996). Other relevant dynamic risk factors such as

substance abuse, quality of family life, and employment are also included in current dynamic risk/needs assessments.

When this paradigm is applied to women offenders, two concerns are raised. The first acknowledges that research generating current risk/needs assessments and the principles which follow consists primarily of studies of male offenders. Even so, a number of studies have found dynamic risk assessments to be valid for women (see Andrews, Dowden, & Rettinger, 2001; Blanchette & Brown, 2006; Coulson, Ilacqua, Nutbrown, Giulekas, & Cudjoe, 1996; Holsinger, Lowenkamp, & Latessa, 2003) while others have produced conflicting results (see Blanchette, 2005; Law et al., 2006; Olson et al., 2003; Reisig, Holtfreter, & Morash, 2006). One meta-analysis found dynamic risk factors, contained on the current generation of risk/needs assessments, to be predictive for both men and women (Dowden & Andrews, 1999; Simourd & Andrews, 1994). Of concern, however, is that the foundational studies did not test the factors that are currently put forward in the gender-responsive literature; specifically the early studies do not inform whether gender responsive factors are risk factors or not (Blanchette & Brown, 2006). Thus, regardless of whether current assessments are valid, they are not likely to be the assessments we would have if we had started with women offenders.

Because the current dynamic risk assessments guide correctional policy and practice while at the same time ignoring many gender-responsive factors, it is likely that the importance of gender-responsive factors are being ignored. It is, after all, difficult to advocate for or treat unidentified problems.

The second concern calls correctional officials to the task of securing a sound and accurate understanding of the risk that women pose to society. Although women can be classified at different levels of risk relative to each other, they still pose less risk to society than

men, even if they are classified into the high risk category. Men's aggressive incidents occur at substantially higher rates in prison than women's (see Hardyman & Van Voorhis, 2004). In community settings the incidence of recidivism is also lower for women than for men in the higher risk classifications. Simply put, the meaning of high risk is much different for women than men. If risk is not properly understood by policy makers, officials and practitioners, even the gender-responsive assessments will dictate over-classification and overly restrictive policies --- practices that are not appropriate to the harm and risk women actually pose to society.

Gender Responsive Needs

Had the development of dynamic risk assessments begun with research on women, current assessments might look quite different (see Berman, 2006; Bloom, Owen, & Covington, 2003). The growing gender-responsive literature suggests women have unique pathways to crime (Bloom et al., 2003; Daly, 1992, 1994; Owen, 1998; Reisig, Holtfreter, & Morash, 2006; Richie, 1996) grounded in the following needs: a) histories of abuse and trauma, b) dysfunctional relationships, c) low self-esteem and self-efficacy, d) mental illness, e) poverty and homelessness, f) drug abuse, and g) parental stress.

Victimization and Abuse

Studies have shown that female offenders are more likely to suffer physical and sexual abuse as children and adults than both male offenders and women in general (Bureau of Justice Statistics, 1999; McClellan, Farabee, & Crouch, 1997). Estimates of physical abuse range from 32 to as high as 75 percent for female offenders compared to 6 to 13 percent for males (Bureau

of Justice Statistics, 1999; Browne, Miller, & Maguin, 1999; Greene, Haney, & Hurtado, 2000; Owen & Bloom, 1995).

Research linking victimization and crime, however, has produced mixed results. While there is growing support for the connection between child abuse and juvenile delinquency in girls (Hubbard & Pratt, 2002; Siegel & Williams, 2003; Widom, 1989), the link between abuse (both that experienced as a child and that experienced as an adult) and recidivism in adult female offenders has not been clearly established. Some studies have reported no relationship between abuse and recidivism (Bonta, Pang, & Wallace-Capretta, 1995; Loucks, 1995; Rettinger, 1998). Two studies have suggested abused women were less likely to offend (Blanchette, 1996; Bonta et al., 1995), and one reported that abuse did not improve prediction beyond the LSI-R (Lowenkamp, Holsinger, & Latessa, 2001). However, other studies, including a recent meta-analysis (Law, Sullivan, & Goggin, in press), have found evidence in support of the connection between victimization and recidivism (Widom, 1998; Siegel & Williams, 2003). Daly (1992) reported that some female offenders become involved with the criminal justice system following domestic violence. Law, Sullivan, and Goggin (in press) suggested further that the relationship between victimization and recidivism may be contingent on the type of recidivism. For example, they found child abuse predictive of recidivism in the community but not of institutional misconducts. Research results may also be mixed due to differing measures of victimization (such as use of an interview versus a self-administered survey).

Dysfunctional Relationships

A widely regarded theory of women's identity, Relational Theory, posits that a woman defines herself by her relationships with others (Gilligan, 1982; Kaplan, 1984; Miller, 1976).

Thus, healthy relationships are especially important to women. Unfortunately, female offenders have often been so victimized that their ability to have healthy relationships is compromised (Covington, 1998). Additionally, the co-dependent relationships that women often engage in may influence their criminal behavior via the criminal activity of their partners (Koons, Burrow, Morash, & Bynum, 1997; Richie, 1996).

In contrast, Blanchette and Brown (2006) have suggested that females may avoid criminal behavior because of the risks to their relationships with others. This may only apply to women in relationship with pro-social partners, however, since the same relational attachment process might also explain women's *increased* participation in crime if they are involved in antisocial relationships. Research on the issue has been quite limited. One study reported that relationships with intimate partners influenced female offenders both positively and negatively (Benda, 2005). That is, satisfying intimate relationships predicted desistance; relationships with antisocial intimates played a role in future criminal behavior. In focus groups with female prisoners, women voiced concern about future involvements with antisocial men (Van Voorhis et al., 2001). Relationship dysfunction has been shown to be related to serious prison misconducts (Salisbury et al., forthcoming; Wright et al, forthcoming), and correctional treatment programs integrating relationships into the curriculum have appeared promising (Koons et al., 1997).

Mental Health

Female offenders are more likely than male offenders to exhibit depression, anxiety, and self-injurious behavior (Belknap & Holsinger, 2006; Bloom, Owen, & Covington, 2003; McClellan, Farabee, & Crouch, 1997; Peters, Strozier, Murrin, & Kearns, 1997). Female offenders commonly suffer from mood disorders, panic disorders, post-traumatic stress, and

eating disorders (Bloom et al., 2003; Blume, 1997). As well, co-occurring disorders such as depression and substance abuse afflict these women much more often than men (Bloom et al., 2003; Holtfreter & Morash, 2003; Owen & Bloom, 1995, Blume, 1997).

It has been suggested that mental health issues are not related to recidivism among women offenders (Andrews, Bonta, & Hoge, 1990; Blanchette & Brown, 2006); however, this research may be influenced by two major issues. First, offenders may suffer from mental illnesses that have not been officially diagnosed. In this sense, mental health problems are frequently under-reported. However, studies using behavioral measures of mental health (such as suicide attempts) find strong links between mental health and recidivism (Benda, 2005; Blanchette & Motiuk, 1995; Brown & Motiuk, 2005). Interestingly, this does not hold true for men (Benda, 2005). Second, it may be that specific mental illnesses are linked to recidivism while others are not. In contrast, the prevailing research often compiles all mental disorders into one category (see Law et al, in press) which may mask the effects of particular illnesses. Such literature does little to address the concerns of the gender-responsive literature which specifically attends to the importance of depression, anxiety, PTSD, trauma, and co-occurring disorders.

Self-Esteem and Self-Efficacy

Considerable research (primarily on male offenders) has examined the relationship between recidivism and self-esteem. These studies report that low self-esteem, often characterized as “personal distress”, was not correlated with recidivism (Andrews & Bonta, 2003), and programs attempting to increase self-esteem actually increased recidivism (Andrews, 1983; Andrews, Bonta, & Hoge, 1990; Gendreau, Little, & Goggin, 1996; Wormith, 1984). However, in the gender-responsive literature, self-esteem is more closely linked to the idea of

"empowerment," meaning not only increased self-esteem, but also an increased belief in women's power over their own lives (Task Force on Federally Sentenced Women, 1990). Correctional treatment staff, researchers, and female offenders all assert this idea of empowerment to be tied to desistance from crime (Carp & Schade, 1992; Case & Fasenfest, 2004; Chandler & Kassebaum, 1994; Koons, Burrow, Morash, & Bynum, 1997; Morash, Bynum, & Koons, 1998; Prendergast, Wellisch, & Falkin, 1995; Schram & Morash, 2002; Task Force on Federally Sentenced Women, 1990), and one meta-analysis has shown a link between low self-esteem in female offenders and antisocial behavior (Lavivière, 1999).

Similar to self-esteem is the concept of self-efficacy or a person's belief in their ability to accomplish their goals. As in the research on self-esteem, self-efficacy has been likened to "personal distress" and not shown to influence recidivism in male offender populations. While little research exists on the relationship between self-efficacy and recidivism among women offenders, some suggest it is important (Rumgay, 2004) and should be key to gender-responsive treatment (Bloom et al., 2003; Bloom, Owen, & Covington, 2005).

Poverty and Homelessness

Many female offenders lead lives plagued by poverty (Belknap, 2007; Bureau of Justice Statistics, 1999; Chesney-Lind & Rodriguez, 1983; Daly, 1992; Owen, 1998; Richie, 1996) with only 40 percent of women in state prisons reporting full-time employment and two-thirds reporting their highest hourly wage to be no higher than $6.50 (Bureau of Justice Statistics, 1999). Research by Owen and Bloom (1995) reports that women offenders are limited in educational and vocational skills which could better prepare them for higher paying employment opportunities. Many also report a lack of employment due to drug/alcohol dependence, child care

responsibilities, and illegal opportunities offering more financially rewarding returns. As a result when asked about their primary source of income before incarceration only 37 percent reported that it was from legitimate employment, while 22 percent reported public assistance and 16 percent reported selling illegal drugs (Owen & Bloom, 1995). As a result of extreme poverty and economic marginalization (as well as addiction, abuse, and relationship problems), many female offenders find themselves faced with the added problem of homelessness (Bloom, 1998).

The most convincing evidence of the role of poverty in the future of women offenders was seen in a study by Holtfreter, Reisig, and Morash (2004). Their recidivism study found that poverty increased the odds of rearrest by a factor of 4.6 and the odds of supervision violation by 12.7 after controlling for minority status, age, education, and the LSI-R risk score. Furthermore, among the women who were initially living below the poverty level, public assistance with economic-related needs (e.g., education, healthcare, housing, and vocational training) reduced the odds of recidivism by 83 percent.

Drug Abuse

Like male offenders, large numbers of female offenders suffer from drug addiction (Bureau of Justice Statistics, 2006). In fact, some studies report that the incidence of illegal drug use is higher among female offenders than male offenders (McClellan et al., 1997). A recent meta-analysis has reported drug abuse to be predictive of both general and violent recidivism in female offenders (Law et al., in press). Other recent studies examining the connection between drug abuse and recidivism among female offenders have also produced significant correlations (Wright, Salisbury, & Van Voorhis, 2006; Salisbury et al., 2006).

Scholars warn that substance abuse also co-occurs with trauma and mental health problems (Bloom et al., 2003; Henderson, 1998; Langan & Pelissier, 2001; Messina, Burdon, Prendergast, 2003; Owen & Bloom, 1995; Peters, Strozier, Murrin & Kearns, 1997). In fact, a trajectory from abuse to mental illness to criminal behavior was recently found among women but not men (McClellan, Farabee, & Crouch, 1997).

Parental Stress

Over 70 percent of women under correctional supervision are mothers to minor children (Bureau of Justice Statistics, 1999). Financial strain and substance abuse problems may add to their child care responsibilities and overwhelm these women (Greene, Haney, & Hurtado, 2000). Research has shown a connection between parental stress and crime (Ferraro & Moe, 2003; Ross, Khashu, & Wamsley, 2004; Salisbury et al., 2006), particularly among those female offenders who were single parents (Bonta, Pang, & Wallace-Capretta, 1995).

It would seem that women who are faced with the possibility of losing custody of their children would experience the greatest degree of parental stress. Child custody issues pose considerable stress to incarcerated offenders, although contrary to popular beliefs, loss of custody more frequently occurs prior to incarceration rather than during (Ross, Khashu, & Wamsley, 2004).

Most research on the parental issues of women offenders focuses on the effects of incarceration on mothers and their children (Baunach, 1985). Their custody and visitation issues also receive attention (Clark, 1995; Enos, 2001; Kampfner, 1995; Kazura, 2001). Mothers serving community correctional terms are, for the most part, ignored. However, the impact of

their stress on future offending may be particularly potent, because most of these women are actively parenting their children.

In sum, there is both theoretical and empirical support for conducting research on gender responsive needs and their relevance to risk/needs assessment for women offenders. It is hoped that doing so would bring these needs more clearly to the forefront of the work of policy makers and practitioners.

Study Methodology

Sample

All women serving either probation or parole who a) had at least six months of supervision remaining on their term, b) were convicted of a felony, and c) could speak English were asked to participate in this study. Overall, a total of 202 women participated. Only 11 women refused to participate, representing an impressive 95 percent participation rate. Among the participants, 79 were sentenced to probation DAG/DANC[5], 70 were sentenced to regular probation with some jail time, 32 were admitted to parole, and 21 women were sentenced to drug court. Because sub-sample sizes were relatively small, some samples were merged. For

[5] Kassebaum, Davidson-Coronado, Allen, & Perrone (2000) stated that: "The Deferred Acceptance of a Guilty (DAG) plea and Deferred Acceptance of a Nolo Contendere (DANC) plea are special types of sentences authorized by HRS 853. Upon a guilty plea submitted prior to trial, where it appears to the court that the defendant is not a likely repeat offender, and where the ends of justice do not require imposition of the penalty for the offense charged, the court may defer proceedings for any period of time up to the maximum provided for conviction of the offense charged. Upon satisfactory completion of the period imposed and any other condition ordered, the court may dismiss the charges. The defendant may also apply for expungement of the charges under HRS 831-3.2. Thus, such cases are under different terms and conditions than regular probation…" (p. 10).

example, nine women from the drug court sample who were identified as being on Track 3 (probation violators) were integrated into the probation DAG/DANC sample at the recommendation of Maui staff. Furthermore, the two probation samples (DAC/DANC and probation with jail) were also combined (n = 158; hereafter referred to as the "probation/jail" sample). Criminal history and demographic information were found to be similar upon comparison of these two samples, providing justification for the integration. In addition to the probation/jail sample, analyses are reported for a parole sample (n = 32) and a supervised release sample (n = 63). The supervised release sample were pretrial defendants who were determined eligible for a non-cash, supervised release. These women did not complete more lengthy LSI-R or trailer assessments, but participated to the point of completing the face sheet, so that the CARE team could obtain important social, economic, health, family, and offense-related information to inform community planning.

Table 1 presents demographic and criminal history characteristics for the three samples. The average ages of women from the probation/jail and supervised release samples were comparable (34.3 and 33.0 years, respectively), while women who were on parole were understandably slightly older (38.1 years). The racial distribution was widely diverse, with most being Hawaiian or part-Hawaiian followed by Whites. The proportion of Hawaiian or part-Hawaiian women was greatest in the sample of parolees (65.6%). Asians, Filipinas, Hispanics, and Pacific Islanders (not Hawaiian) also were represented. There were few, if any, African American women in these samples.

Many women were charged with multiple offenses, so it was important to determine the most serious offense committed by each woman. Of the cases in which the most serious current offense could be determined, the most common offenses were theft and drug-related. Theft most

often occurred in the form of credit card theft, and was often committed in conjunction with credit card fraud. Drug-related offenses most often pertained to possession of drug paraphernalia, with some women attempting to sell or distribute drugs, or traffic them from one place to another; offenses of distribution and trafficking were much less common than possession of drug paraphernalia. Also of note is that most women in Maui committed less serious offenses classified as Class C felonies. Very few women (6 in all) committed felonies serious enough to be classified as Class A felonies, and only a minority committed Class B felonies (12.7 percent, 21.3 percent, and 9.5 percent of probationers/jailed offenders, parolees, and women on supervised release, respectively). Thus, it appears that most women committed low-level felonies such as theft and drug possession offenses. Finally, approximately 6.5 percent of the current offenses involved violence or harm for the probation/jail and supervised release samples, while parolees' offenses were somewhat more often characterized by violence/harm (12.6 percent).

Educational attainments at or above the high school/GED level characterized 84.3 percent of probationers, 81.2 percent of parolees, and 68.3 percent of women on supervised release. Probation/jail women were also more likely to be employed (i.e., full or part-time, full-time student, or homemaker; 62%) compared to parolees (37.5%) and women on supervised release (33.3%).

With regard to significant others, most women in the probation/jail and supervised release samples were single and never married (38.9% and 47.6%, respectively), while most women on parole had been divorced (31.3%). Similar to other female correctional research samples, a large proportion of women in Maui were responsible for children under the age of 18. Percentages were particularly high for women from the supervised release (76.2%) and parole

Table 1: Demographic and Criminal History Characteristics by Sample Type

	Probation/Jail		Parole		Supervised Release	
Characteristic	**N**	**Percent**	**N**	**Percent**	**N**	**Percent**
	158	100.0	32	100.0	63	100.0
Age			N = 31		N = 62	
18-29 years old	54	34.2	7	22.6	27	43.5
30-39 years old	65	41.1	11	35.5	19	30.6
40 years and older	39	24.7	13	41.9	16	25.8
	Mean = 34.3 yrs		Mean = 38.1 yrs		Mean = 33.0 yrs	
Race	N = 157					
African American	2	1.3	0	0.0	1	1.6
White	47	29.9	3	9.4	20	31.7
Hawaiian or part Hawaiian	61	38.9	21	65.6	32	50.8
Filipina	10	6.4	1	3.1	3	4.8
Pacific Islander, not Hawaiian	5	3.2	0	0.0	2	3.2
Asian	10	6.4	3	9.4	3	4.8
Hispanic/Latina	6	3.8	0	0.0	2	3.2
Other	16	10.2	4	12.5	0	0.0
Most Serious Charge/Conviction	N = 155					
Possession of controlled substance/drug paraphernalia	14	9.0	8	25.0	19	30.2
Distribute/deliver/trafficking controlled substance	10	6.5	2	6.3	7	11.1
Assault	6	3.9	2	6.3	3	4.8
Forgery	3	1.9	2	6.3	0	0.0
Fraud (social services, welfare, insurance)	9	5.8	0	0.0	0	0.0
Robbery	2	1.3	2	6.3	0	0.0
Burglary	3	1.9	3	9.4	4	6.3
Theft	87	56.1	12	37.5	17	27.0
Murder/manslaughter	2	1.3	0	0.0	1	1.6
Unauthorized control/entry of a MV	1	0.6	0	0.0	2	3.2
Other	18	11.6	1	3.1	10	15.9

Table Continues

Table 1: Demographic and Criminal History Characteristics by Sample Type, continued.

Characteristic	Probation/Jail		Parole		Supervised Release	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
	158	100.0	32	100.0	63	100.0
Class of Most Serious Offense	N = 144		N = 31			
Class A	0	0.0	1	3.1	5	7.9
Class B	20	12.7	10	31.3	6	9.5
Class C	124	78.5	20	62.5	52	82.5
Present Offense Involving Violence/Harm						
Yes	19	12.0	6	18.8	8	12.7
Highest Education Level Completed						
8th grade or less	4	2.5	3	9.4	5	7.9
Some high school	21	13.3	3	9.4	15	23.8
High school grad or GED	74	46.8	16	50.0	26	41.3
Attended college	38	24.1	9	28.1	16	25.4
Associate's degree	11	7.0	0	0.0	0	0.0
Post high school technical Certificate/degree	5	3.2	0	0.0	0	0.0
Bachelor's degree	5	3.2	1	3.1	1	1.6
Employment						
Employed (full or part time, homemaker, student)	98	62.0	12	37.5	21	33.3
Not employed	60	38.0	20	62.5	42	66.7
Marital Status	N = 157					
Single, never married	61	38.9	9	28.1	30	47.6
Married	34	21.7	6	18.8	4	6.3
Married, but not living with partner	17	10.8	5	15.6	8	12.7
Divorced	33	21.0	10	31.3	20	31.7
Not married, but living with partner	12	7.6	2	6.3	1	1.6
Responsible for Children Under 18	N = 156					
Yes	101	64.7	23	71.9	48	76.2

Table Continues

Table 1: Demographic and Criminal History Characteristics by Sample Type, continued.

Characteristic	Probation/Jail		Parole		Supervised Release	
	N	**Percent**	**N**	**Percent**	**N**	**Percent**
	158	100.0	32	100.0	63	100.0
Prior Felony Convictions			N = 30		N = 62	
Yes	46	29.1	19	63.3	12	19.4
	Mean = 2.0 felonies		Mean = 3.5 felonies		Mean = 5.5 felonies	
Prior Incarcerations	N = 157		N = 29		N = 61	
Yes	57	36.3	18	62.1	23	37.7
	Mean = 2.3 incarcerations		Mean = 2.1 incarcerations		Mean = 2.5 incarcerations	
Parole/Probation Revocations	N = 156		N = 31		N = 62	
Yes	40	25.6	20	64.5	10	16.1
	Mean = 1.3 revocations		Mean = 1.4 revocations		Mean = 1.6 revocations	
Age at First Offense			N = 30		N = 62	
17 years old or less	26	16.6	6	20.0	15	24.2
18 to 30 years old	82	52.2	15	50.0	29	46.8
31 years and older	49	31.2	9	30.0	18	29.0
	Mean = 26.3 yrs		Mean = 25.0 yrs		Mean = 25.6 yrs	

samples (71.9%).

Based on the percentage of women with prior felonies, incarcerations, and revocations, women from the parole sample appeared to have the most serious criminal histories. Interestingly, of the supervised release women who had prior felonies, the mean number was unexpectedly high at 5.5 felonies. However, this was because one woman reported incurring 38 prior felonies. If this outlier is removed, the mean becomes 2.5 felonies for the supervised release group. Age of first offense was comparable across the three samples, falling between 25.0 and 26.3 years.

Procedures

Assessment data collection began in June 2003 and continued through October 2005. Women meeting the eligibility criteria were asked if they were interested in participating in a study that would assist in better meeting the needs of women offenders in Maui. Women were informed in advance that participation would involve affording researchers access to their LSI-R interviews and other background information. Furthermore, they were asked to complete a confidential self-report survey with questions about their relationships, self-esteem, self-efficacy, parenting, and adult and child victimization experiences. This survey was completed during a subsequent supervision meeting, and was administered by individuals not affiliated with the Maui criminal justice system. Women sealed their surveys in envelopes upon completion. These were then mailed to UC researchers.[6] All women who agreed to participate signed consent forms agreeing that they understood the nature of the study. Importantly, the study was reviewed and approved by the Institutional Review Board (IRB) at the University of Cincinnati.

[6] For the supervised release sample, only an intake interview was administered. Women on supervised release caseloads did not complete the LSI-R or the trailer self-report survey, and follow-up recidivism data was also not obtained on this sample.

Measures

Face Sheet

As noted earlier, a 57-item face sheet was designed to capture important information on women's criminal and psychosocial history, as well as their general demographic, economic, and medical characteristics. The primary purpose of this instrument was to assist the Maui CARE Policy Team in obtaining better profiles of their women offender populations and to inform CARE's program development efforts. In addition, some of the items contained on the face sheet were also potential risk factors, e.g., homelessness, poverty, mental health, domestic violence, and abuse.

Level of Service Inventory-Revised

The LSI-R (Andrews & Bonta, 1995) is a well established dynamic risk/needs assessment consisting of a semi-structured interview, supplemented by a review of official records. The interview is comprised of 54 items measuring ten distinct domains, including criminal history, education/employment, financial situation, family/marital relationships, accommodation, use of leisure time, companions, alcohol/drug use, emotional/personal, and attitude/orientations. Table 2 presents the mean, median, standard deviation, and range of LSI-R total and subscale scores.

Self-Report Supplemental Survey

An important part of the study was the administration of a self-report, paper-and-pencil survey tapping gender-responsive measures of dysfunctional relationships, self-esteem, self-efficacy, parenting, child abuse, and adult victimization. Each woman in the study completed the instrument individually, although in a group setting. The survey took approximately 30 minutes to complete. Completed surveys were kept confidential from Maui criminal justice staff and were sent directly to researchers at UC for entry and analysis. The instrument was developed by

Table 2: LSI-R Descriptives by Sample Type

	Probation/Jail (N = 158)				Parole (N = 32)			
LSI-R Scale	**Mean**	**Median**	**SD**	**Min-Max**	**Mean**	**Median**	**SD**	**Min-Max**
Total Score	15.14	14.00	8.65	1-36	17.06	17.00	6.28	7-33
Criminal History	2.65	2.00	2.22	0-8	5.10	5.00	2.21	1-9
Education/Employment	2.96	2.00	2.55	0-9	2.45	2.00	2.63	0-10
Financial	0.96	1.00	0.85	0-2	0.84	1.00	0.78	0-2
Family/Marital	1.41	1.00	1.17	0-4	1.68	2.00	0.91	0-4
Accommodation	0.58	0.00	0.80	0-3	0.55	0.00	0.77	0-2
Leisure/Recreation	0.72	0.00	0.87	0-2	0.42	0.00	0.72	0-2
Companions	2.12	2.00	1.50	0-4	2.71	3.00	1.38	0-4
Alcohol/Drugs	2.37	2.00	2.21	0-9	1.74	1.00	1.32	0-5
Emotional/Personal	1.09	1.00	1.30	0-5	1.16	1.00	1.44	0-4
Attitudes/Orientation	0.30	0.00	0.80	0-4	0.39	0.00	0.67	0-2

UC researchers, however, several of its scales were already well-established in the literature prior to the study's implementation (e.g., Rosenberg Self-Esteem Scale and the Sherer Self-Efficacy Scale). Other scales were informed by extensive research and literature reviews. A discussion of each scale included in the self-report survey is presented below.

For purposes of data reduction, items from each scale in the self-report survey were factor analyzed using principal components extraction and varimax rotation. Once the scales were defined, a final confirmatory analysis (principal component extraction) was conducted to examine the final factor structures. As a general rule, items which loaded above 0.50 among each domain were retained and subsequently summed into a final risk/need scale.[7] Exceptions to the 0.50 cutoff were made for some items which loaded well in other project samples. Appendix A presents the internal factor structure of each scale, along with measures of internal consistency (Chronbach's alpha). Notably, the factor structures of the risk/need scales were comparable across other project samples, including institutional and pre-release samples. Table 3 provides information on each scale's construct validity, or the extent to which each scale is correlated with similar variables. Finally, Table 4 presents the scale descriptives of these gender-responsive measures.[8] Scales were collapsed for inclusion in the final instrument. Collapsed values are also shown in Table 4.

[7] Factor analyses were only conducted with the probation/jail sample. The parole sample was not large enough to conduct such analyses (n = 32). However, summed gender-responsive scales from the self-report survey were created for both the probation/jail and parole samples. These scales were uniform across all of the NIC samples, including another parole sample, so it was not deemed necessary to have the factor analysis findings from the Maui parole sample in order to create scales of that sample.

[8] In addition to the self-report survey scales, descriptives for several gender-responsive items from the intake face sheet are reported in Table 5.

Table 3: Self-Report Survey: Construct Validity of Gender-Responsive Scales (Pearson *r*, one-tailed)

Gender-Responsive Scales	Probation/Jail *r*	Parole *r*	External Variable
Self-Esteem Scale	.70***	.76***	Self-Efficacy Scale
Self-Efficacy Scale	.70***	.76***	Self-Esteem Scale
Child Abuse Scale	.32***	.31**	Victim of emotional/physical assault
	.38***	---	Adult Emotional Abuse Scale
	.38***	---	Adult Physical Abuse Scale
	.44***	.26*	Adult Harassment Scale
Adult Emotional Abuse Scale	.70***	.81***	Adult Physical Abuse Scale
	.75***	.89***	Adult Harassment Scale
	.57***	.51***	Victim of emotional/physical assault
	.64***	.59***	Victim of domestic violence
	.53***	.72***	Forced to do something embarrassing
Adult Physical Abuse Scale	.70***	.81***	Adult Emotional Abuse Scale
	.67***	.74***	Adult Harassment Scale
	.55***	.53***	Victim of emotional/physical assault
	.65***	.58***	Victim of domestic violence
Adult Harassment Scale	.67***	.74***	Adult Physical Abuse Scale
	.75***	.89***	Adult Emotional Abuse Scale
	.45***	.39**	Victim of emotional/physical assault
	.53***	.43***	Victim of domestic violence
	.58***	.63***	Another harmed themselves to get your attention
Relationship Dysfunction	.31***	---	Marital dissatisfaction (LSI-R)
	.56***	---	Hard to be self when in a relationship
	.49***	.30*	Uncomfortable saying no to significant others
Parental Stress (mothers only)	---	.41**	Child neglect on record
	.20**	---	Ever lost custody of children
	.16**	---	Number of children living with woman before arrest

Note: * $p < .10$, ** $p < .05$, *** $p < .01$

Table 4: Gender-Responsive Needs Descriptives by Sample Type

	Probation/Jail (N = 158)				Parole (N = 32)			
Gender-Responsive Need	**Mean**	**Median**	**SD**	**Min-Max**	**Mean**	**Median**	**SD**	**Min-Max**
Trailer Scales								
Self-Esteem	25.73	27.00	4.38	13-30	26.48	26.74	3.41	16-30
Self-Esteem (Collapsed)	.56	1.00	.50	0-1	.66	1.00	.48	0-1
Self-Efficacy	44.89	47.00	5.92	25-51	46.04	46.04	4.73	31-51
Self-Efficacy (Collapsed)	.92	1.00	.28	0-1	.94	1.00	.26	0-1
Relationship Dysfunction	3.05	2.00	2.51	1-11	2.93	2.68	2.19	1-11
Relationship Dys. (Collapsed)	.94	1.00	.83	0-2	1.00	1.00	.67	0-2
Parental Stress	12.56	12.00	5.76	1-26	11.59	11.30	3.66	6-20
Parental Stress (Collapsed)	1.09	1.00	.79	0-2	.94	1.00	.66	0-2
Child Abuse	7.75	4.00	8.98	0-38	9.63	7.00	9.20	0-32
Adult Physical Abuse	11.86	11.00	8.90	0-30	15.50	17.50	8.99	0-30
Adult Harassment Abuse	6.90	6.00	5.78	0-22	10.03	12.00	7.02	0-22
Adult Emotional Abuse	19.09	20.50	9.88	0-32	22.75	29.50	12.32	0-32
Intake Interview Items								
Victim of emotional/physical assault	0.63	1.00	0.49	0-1	0.78	1.00	0.42	0-1
Victim of domestic violence	0.59	1.00	0.49	0-1	0.81	1.00	0.40	0-1
Mental health diagnosis (ever)	0.26	0.00	0.44	0-1	0.39	0.00	0.50	0-1
Current diagnosis of depression	0.14	0.00	0.35	0-1	0.28	0.00	0.48	0-1
Uses crystal methamphetamine	0.27	0.00	0.45	0-1	0.66	1.00	0.48	0-1
Family supportive of prosocial behavior	0.92	1.00	0.28	0-1	0.97	1.00	0.18	0-1
Homeless prior to arrest	0.15	0.00	0.35	0-1	0.09	0.00	0.30	0-1
Income (ordinal scale)[a]	1.81	2.00	0.98	1-5	1.72	2.00	0.75	1-3

[a] Income is measured on an ordinal scale where 1 = $0-10,000; 2 = $10,000-20,000; 3 = $20,000-30,000 and so on.

Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (Rosenberg, 1979) includes 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 (see Dahlberg, Toal, & Behrens, 1998; Rosenberg, 1979). Factor analysis revealed that all 10 items loaded at or above the .50 cutoff and were therefore retained (eigenvalue = 5.293; explained variance = 52.93%). This was not surprising given that this is a well-established scale (alpha = .89). High scores on this scale reflected higher self-esteem. A construct validity test showed strong consistency with a similar construct (self-efficacy)($r = .70$, $p < .01$ and $r = .76$, $p < .01$ for the probation and parole sample, respectively). The scale was collapsed, into two categories, with 1-26 equal to 0, and above 26 equal to 1. These collapsed values were incorporated into the Trailer as strengths which were subtracted from the sum of the risk factors.

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. Similar to the self-esteem scale, the self-efficacy scale retained all 17 items when subjected to factor analysis. The eigenvalue associated with the scale was equal to 6.699 and explained 39.40% of the variance. The alpha reliability was high at .90, as was the results of the construct validity test. High scores represented higher self-efficacy. The scale was collapsed into two levels (high self-efficacy =36 through 51; low self-efficacy = 1 though 35). Self-efficacy is also included into the Trailer as a strength (see Appendix B for the Scoring Guide for the Trailer).

Relationship Dysfunction 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 (see Beattie, 1987; Bepko & Krestan, 1985; Woititz, 1983). However, we understand that this construct has not been widely researched.

The 15-item, Likert-type questionnaire contained questions which 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 (55.02%; eigenvalue = 3.301) tapped items describing a lack of satisfaction and support from one's partner, neglect of other relationships and responsibilities, and a greater tendency to incur legal problems when in an intimate relationship than when not in one (alpha = .81). High scores indicated higher relationship dysfunction. The scale correlated to an acceptable degree with other measures of relationship satisfaction and quality (Table 3). This scale was collapsed into a 3 point scale, corresponding with cut-points established in other studies.[9]

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 [a) never, b) less than five times, and c) more than five times] for each of the 54 items. Factor analysis of the items revealed three factors: a) Physical Abuse, containing 15 items explaining 66.26 percent of

[9] As will be shown in Table 5, the relationship scale failed to correlate with outcome measures in the Maui samples. As a result cutpoints and other decisions are those established in the Missouri and the Minnesota studies, where this scale *was* related to offender outcomes.

the variance (eigenvalue = 9.938); b) Emotional Abuse, consisting of 16 items explaining 64.47 percent of the variance (eigenvalue = 10.316); and c) Harassment, containing 11 items explaining 54.55 percent of the variance (eigenvalue = 6.000). Alpha reliabilities were high for all three adult victimization scales reaching .96, .96, and .92, respectively.

The child abuse scale initially contained 24 behavioral indicators of abuse and had the same response choices as the adult victimization scale. Factor analysis of the scale indicated a single factor of 19 items explaining 55.94 percent of the variance (eigenvalue = 10.628). Items tapped largely physical, but also some emotional, forms of abuse during childhood. The alpha reliability reflected strong internal consistency, alpha = .95.

Because the abuse items were not associated with offender outcomes, they were not collapsed for inclusion in a final "trailer" scale.[10]

Parental Stress Scale. Modifications were made to a 20-item, Likert-type scale developed by Avison and Turner (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 (explained variance = 37.40%; eigenvalue = 4.488). High scores on this scale denoted higher stress. Chronbach's alpha was .83. Correlations with other parenting measures (see Table 3) ranged from .16 to .41. The scale was collapsed into four levels to simplify case planning; however, it was not added to the final risk scale. Doing so would have necessitated two assessments, one for mothers and another for women without children.

[10] Analyses across all studies, found these scales to be psychometrically strong scales. However, we obtained similar levels of predictive validity from much more efficient interview questions. As a result final assessment scales contain the interview rather than the survey questions.

Recidivism Measures

Probation/Jail Sample. Women were tracked for two-years to determine their recidivism, defined by re-arrests. Any type of arrest was included in the measure, including arrests that occurred due to violations of probation supervision. The follow-up period began on the date women completed their self-report survey and concluded two-years later. After 6-months, 17 out of 158 women were re-arrested at least once (10.8%). The same figure only increased by five women to 22 after 12-months (13.9%). Lastly, 35 women had at least one re-arrest after two years (22.2%).[11]

Parole Sample. Similar to the probation/jail sample, parolees were tracked for two years initially using CJIS re-arrest data to define recidivism. Only four women were determined to have incurred at least one re-arrest during that time, or 12.5 percent of the sample (n = 32). This two-year recidivism rate did not appear to be consistent with other recidivism figures from the Hawaii Paroling Authority. Therefore, parole technical violations and returns to prison were also investigated through CJIS reports, Offender Track databases, and from parole officers and their case files. In sum, 14 women had incurred at least one parole violation and two women were sent back to prison during the two years beyond participation in the study.

[11] After two-years, the first re-arrests for 15 women were due to probation violations (either for criminal contempt of court, failure to appear, probation-no bail, or some combination of these). The remaining 20 women were charged with new offenses for their first re-arrests.

Results

Bivariate Analyses

Pearson bivariate correlations (Pearson *r*, one-tailed) were conducted to measure the predictive validity of each risk/need area. That is, each risk/need domain was correlated with re-arrests for the probation/jail sample and parole sample, respectively. Given that this research area is still emerging within the field of corrections, correlations with alpha levels of .10 and below were flagged as significant.

Probation/Jail Sample

Pearson *r* bivariate correlations between risk/need scales and re-arrests after 6, 12, and 24 months are presented in Table 5. The LSI-R total scale and most subscales were significantly associated with re-arrests between 6-months and 2 years. However, patterns for female probationers were somewhat different than common perceptions of the most important predictors. With the exception of criminal history and antisocial peers, the strongest predictors of rearrests were factors related to financial circumstances, education/employment, and substance abuse. Notably, however, the accommodation, emotional/personal, and antisocial attitudes subscales were relatively weak and inconsistent in predicting re-arrests. The association between the LSI-R total scale and 24-month recidivism is especially strong and is well within, if not somewhat higher, than predictive validity typically seen for the LSI-R.

Among the gender-responsive scales, low self-esteem, low self-efficacy, and high parental stress were significantly related to rearrests. The remaining gender-responsive scales from the self-report survey were not significantly predictive. Turning to the gender-responsive

Table 5: Bivariate Correlations (one-tailed) with LSI-R, Trailer Scales, Intake Items and Outcome Data, Probation/Jail Sample

	Re-Arrests					
	6-month		12-month		24-month	
Scales	**Y/N**	**N**	**Y/N**	**N**	**Y/N**	**N**
LSI-R Total Score	.25***	.29***	.24***	.25***	.36***	.30***
LSI-R Subscales						
Criminal History	.22***	.24***	.29***	.28***	.32***	.30***
Education/Employment	.20***	.23***	.16**	.20***	.26***	.24***
Financial	.19***	.15**	.19***	.12*	.25***	.20***
Family/Marital	.12*	.18**	.11*	.17**	.13*	.15**
Accommodation	.08	.03	.05	.10	.07	.14**
Leisure/Recreation	.11*	.16**	.11*	.17**	.08	.13*
Antisocial Peers/Companions	.19***	.20***	.12*	.15**	.19***	.19**
Alcohol/Drugs	.16**	.15**	.17**	.09	.33***	.16**
Emotional/Personal	.05	.05	.03	.01	.10	.02
Antisocial Attitudes/Orientation	.02	.17**	-.02	.10	.18**	.11**
Trailer Scales						
Relationship Dysfunction	-.04	.00	-.08	-.02	-.01	-.01
Relationship (Collapsed)	-.07	-.01	-.10*	-.02	.00	.02
Self-Esteem	-.08	-.12*	-.05	-.08	-.22***	-.11*

Table Continues

Table 5: Bivariate Correlations (one-tailed) with LSI-R, Trailer Scales, Intake Items and Outcome Data, Probation/Jail Sample, continued.

	Re-Arrests					
	6-month		12-month		24-month	
Scales	**Y/N**	**N**	**Y/N**	**N**	**Y/N**	**N**
Trailer Scales (continued)						
Self-Esteem (Collapsed)	-.11*	-.11*	-.09	-.03	-.24***	-.09
Self-Efficacy	-.05	-.11*	-.01	-.06	-.16**	-.06
Self-Efficacy (Collapsed)	-.05	-.17**	-.01	-.14**	-.17**	-.12*
Child Abuse	.04	.04	.03	-.03	.10	.02
Adult Physical Abuse	-.01	-.03	.06	-.02	.06	.02
Adult Emotional Abuse	-.06	-.03	.00	-.02	.05	.04
Adult Harassment Abuse	.01	.08	.00	.06	.06	.03
Parental Stress (N=114)	.10	.06	.15*	.02	.20**	.09
Parental Stress (Collapsed)	.11	.06	.15*	.02	.18**	.07
Intake Items						
Income	-.21***	-.19**	-.21***	-.18**	-.18**	-.17**
Homeless Prior to Arrest	.09	.08	.19***	.14**	.21***	.19***
Victim of Emotional/Physical Violence/Assault	-.07	-.03	.00	-.04	.00	-.02
Victim of Domestic Violence	.00	.05	.08	.02	.11*	.05

Table Continues

Table 5: Bivariate Correlations (one-tailed) with LSI-R, Trailer Scales, Intake Items and Outcome Data, Probation/Jail Sample, continued.

	Re-Arrests					
	6-month		12-month		24-month	
Scales	**Y/N**	**N**	**Y/N**	**N**	**Y/N**	**N**
Intake Items (continued)						
Mental Health Diagnosis (Ever)	.03	.02	.05	-.03	.13**	-.02
Current Diagnosis of Depression	.04	.04	.00	.00	.09	-.01
Family Supportive of Prosocial Behavior	-.13*	-.07	-.08	-.05	-.18**	-.06
Uses Crystal Methamphetamine	-.03	.04	-.05	.01	.02	-.01

* $p < .10$, ** $p < .05$, *** $p < .01$; Y/N = "yes/no" prevalence measure; N = "number" incidence measure.

items from the intake interview, poverty-related factors were strongly correlated with future arrests. The negative correlations between income and re-arrests suggested that the less income women had, the more likely they were to be re-arrested. Additionally, being homeless at some point prior to their initial arrest was a significant predictor of future criminal behavior.

Interestingly, women's experiences with emotional or physical violence and domestic violence did not appear to be related to future offending whether measured by survey, or by the intake face sheets. We note only a modest correlation ($r = .11$, $p < .10$) between history of victimization and re-arrests at 24 months. These findings counter those found in prison and parole samples in Missouri, Colorado, and all of the Minnesota samples.

Perhaps even more striking is the lack of predictive power among the mental health variables, particularly current diagnosis of depression. Our other research samples have revealed that symptoms of depression and anxiety are strong predictors of antisocial conduct among women offenders (Wright et al, 2007; Van Voorhis et al., 2007). The inconsistency is likely to be attributable to differences in measurement. For instance, the measure used in this study tapped diagnostic history, while research from other sites interviewed women for current, behaviorally-specific symptoms.

In the course of completing the face sheet, women were also asked whether their family was supportive of their prosocial behavior (0 = no; 1 = yes). This item showed a relationship with 6 and 24 month-rearrests, suggesting that women's supportive families may be a key protective factor against criminal conduct. This observation is seen in all of the other samples studied in the larger NIC project.

Finally, given that over a quarter (27.2%) of probation/jail women had problems with crystal methamphetamine, or ice, it was surprising that it was not predictive of future re-arrests.

The LSI-R alcohol/drug scale, however, was strongly correlated with re-arrests at 24 months; r = .33, $p < .01$.

Parole Sample

Results for the parole sample are shown in Appendix C. As can be seen, the analysis produced counter-intuitive results (e.g., the LSI-R was not related to offender outcomes --- those scoring high on the substance abuse scale were less likely to re-arrested than those with no substance abuse issues) and many instances of contradictory findings. Instability in the correlations is symptomatic of extremely poor variation on the outcome variables. Only, four women were rearrested during the 24 month follow-up period. Given that the sample was small to begin with (n=32) the poor variation on the arrest variable could not support the data analyses intended for this portion of the analysis. The results do not, in other words, fault the LSI-R or the gender-responsive items, but rather the small sample and poor variation on the outcome variables. Most of the remaining discussions refer to the probation sample, only.

Construction of the Final Trailer

It was initially assumed that the "trailer" would consist of only those items contained in the self-report survey that was tested in this study (e.g., self-esteem, self-efficacy, relationship dysfunction, parental stress, child abuse, and adult victimization). However, research with Missouri probationers identified additional dynamic risk factors that were considered important to include. These were obtained through an interview and included such factors as mental health history, symptoms of depression, symptoms of psychosis, poverty, housing safety, anger, family conflict, family support, and educational strengths (Van Voorhis, 2007). Some items on the

current survey (which was tested in Maui) such as self-esteem, self–efficacy, and parental stress, of course, were quite predictive. Across the other NIC studies, especially in parole and prison samples, we learned that child abuse and adult victimization variables could actually be obtained through an interview rather than the longer survey format. It became clear, as methods were compared across sites, that some approaches were better than others. For example, it was learned in three Missouri sites, that most of the gender responsive factors could be obtained through an interview format. Additional ones, such as relationship dysfunction, parental stress, self-esteem, and self-efficacy were more effectively garnered through the survey process, likely because these items required too much subjectivity on the part of interviewers.

Gender-responsive factors considered most important to women offenders and the optimal method of obtaining these factors are shown in the comparison of findings across probation sites. Of the important factors shown in Figure 1, most are not contained on the current generation of dynamic risk needs instruments. Nevertheless, they clearly appear to be risk factors for women offenders (e.g., depression, psychosis, anger, family conflict, and parental stress). Additionally, strengths, such as self-esteem, self-efficacy, family support, and educational assets translate into desistance from crime and are also relevant to women's future prospects. These also do not appear on the current generation of dynamic risk/needs assessments. In addition to adding new risk factors, some of the measures on current risk assessment instruments could be redefined for better relevance to women. Accommodations, financial issues, and mental health might best be approached by assessing housing safety, poverty, and identification of specific mental health issues.

Finally, the abuse factors tend to be stronger predictors for parole and institutional populations than probation samples, where they are more sample-specific and typically modest predictors.

This comparative analysis and the decisions regarding the design of the final trailer are shown in Figure 1, below. The trailer consists of a short interview (Appendix D) and a shorter survey than the survey administered during the present study (see Appendix E). Results for both are summed on a scoring sheet (Appendix B).

Figure 1: Effects of Research Items on Returns to Prison (Missouri) and Rearrests (Maui and Minnesota): A Comparison Across Sites.[a]

Gender-Responsive Need	Missouri	Maui	Minnesota	Decision
Interview Scales				
Employment/Financial	.29***	.25***[b]	.19***[b]	New trailer assesses poverty through interview-administered questions.
History of mental illness	Ns	Ns[b] .13**[c]	.20***[b]	Combining all forms of mental illness into a single measure, may be hiding the true impact of certain symptoms on future offending. In probation and other samples, current symptoms of anxiety or psychosis (below) appear to be as if not more important than a composite variable.
Housing safety	.30***	.14**[b]	.25***[b]	New trailer assesses safety of the environment as opposed to antisocial influences (LSI-R). Housing safety is a series of interview items
Depression/anxiety (Symptoms)	.20***	Na	Na	New trailer scale taps current symptoms of anxiety. LSI-R combines all symptoms into one scale. Record data likely underreports.

Figure continues

Figure 1: Effects of Research Items on Returns to Prison (Missouri) and Rearrests (Maui and Minnesota): A Comparison Across Sites, continued.

Gender-Responsive Need	Missouri	Maui	Minnesota	Decision
Interview Scales (continued)				
Psychosis Symptoms	.17***	Na	Na	New trailer scale taps current symptoms of psychosis. LSI-R combines all symptoms into one scale. Record data likely underreports.
Anger/hostility	.17***	Na	Na	New trailer obtains measures of anger through the interview process.
Child abuse (interview)	.09*	Ns	Ns	Among probationers, results of abuse scales were inconsistent across sample. As such, they do not appear on the risk scale of the new trailer, but they are listed in an informational section of the trailer.
Victimization (adult) (interview)	.09*	.11*	Na	
Family conflict	.15***	Na	Na	These needs were tapped in the Missouri study but not in the others. They are interview-based scales and appear on the new trailer.
Educational assets	-.22***	Na	Na	
Family support	-.11***	-.18** [c]	Na	
Self-Report Survey Scales				
Parental stress	.20***	.20***	.24***	New trailer keeps to the format used in the present study. Scale is obtained through a survey.
Self-esteem	-.10**	-.24***	-.17***	New trailer keeps to the format used in the present study. Scale is obtained through a survey.
Self-efficacy	-.21***	-.16**	-.22***	New trailer keeps to the format used in the present study. Scale is obtained through a survey.

Figure continues

Figure 1: Effects of Research Items on Returns to Prison (Missouri) and Rearrests (Maui and Minnesota): A Comparison Across Sites, continued.

Gender-Responsive Need	Missouri	Maui	Minnesota	Decision
Self-Report Survey Scales (continued)				
Adult victimization	Ns	.11* [b]	.24***	Results of abuse scales were inconsistent across probation samples. They were however, predictive in institutional and parole samples. As such, they do not appear on the risk scale of the new trailer, but they are listed in an informational section of the trailer. For purposes of efficiency, the interview scales (4 questions) are used in future instruments.
Child abuse (survey)	Ns	ns	.14**	
Relationship Dysfunction	Ns	ns	.30***	New trailer keeps to the format used in the present study. Scale is obtained through a survey.

[a] Correlations are the strongest noted against numerous outcomes.
[b] Item was taken from the LSI-R.
[c] Item coded from record data.
Na=not collected.
Ns=Not significant.

When these measures are summed into a final risk/needs scale, does the scale effectively predict offender recidivism? An examination of the predictive validity of the proposed trailer is shown in the results for a sample of Missouri probationers on Table 6 (Van Voorhis et al., 2007)(see Gender-Responsive Trailer, Missouri) since that is the site where all of the variables for the proposed trailer were tested. We are unable to produce the same findings for Maui, because we did not have the same interview variables. However, we did secure some measures through the face sheet which, while not identical to the new trailer items, nevertheless support their use. For example, the new interview combines employment and indicators of poverty into a

scale called Employment/Financial. We have a rough measure of the same by looking at incomes of less than $20,000. Similarly, it is possible to substitute homelessness for housing safety. Many of these comparable variables were found to be significant predictors of rearrests in Maui as well as Missouri (see Figure 1, above). When we create a risk scale that strives for comparability with the Missouri Trailer scale, we see results shown in Table 6. These are somewhat more attenuated than the findings for the Missouri Trailer, but it is possible to see that the key items are important to consider. It is important to note that the proxy measure of items similar to the trailer still omits key needs such as housing safety, family conflict, anger, and current mental health symptoms.

Table 6 also summarizes the development of the NIC probation instruments. There are two instruments, a full instrument and a trailer. Missouri DOC created a full gender responsive risk needs assessment which contained both gender-neutral (items similar to those contained on the LSI-R) and gender responsive items. As can be seen in Table 6, the full instrument, showed favorable predictions of outcome. AUCs[12] for the instrument were above .70 across 6, 12, and 24 month follow-up periods. Such scores are considered to indicate that the tool is strongly predicting returns to prison and doing so in a manner that creates a favorable ratio of true positives (hits) to inaccurate predictions. It is also surprising that the trailer with only the gender-responsive items (see Appendix B) showed high predictive validity. This is surprising, because the trailer was not designed to be used without predictors pertaining to criminal history, antisocial associates, antisocial attitudes, substance abuse, employment, education, financial

[12] AUC stands for Area Under the Curve. AUC is a statistic that is common to prediction research, computed following the constructions of Receiver Operating Characteristic (ROC) curves. Generally, values at .70 or above are considered adequate for prediction instruments (see Quinsey, Harris, Rice & Cormier, 1998; Swets, Dawes, & Monahan, 2000).

situation and others. Even so, the trailer items alone were strongly associated with return to prison figures at 6, 12, and 24 month follow-up periods.

When findings for Maui are examined, the LSI-R is found to be a strong predictor of rearrests. Correlations with rearrests are stronger at most of the follow-up points than the Missouri full instrument, but AUCs are somewhat weaker. Results do not change with the addition of the trailer items by more than plus or minus one correlation points. Again, however, this is with only rough estimates of some of the trailer items. The final trailer measures poverty, housing safety, depression, psychosis, educational assets, family conflict, and family support in a much more systematic manner than what we were able to produce here through record checks. The final trailer also accounts for items that were not collected in the Maui study, e.g., anger and hostility and family conflict.

Some might observe from these findings that, because the trailer does not contribute predictive strength over and above the LSI-R, jurisdictions should omit any further consideration of such instruments or of gender-responsive programming. To address this issue, multivariate analysis were conducted where all predictors, LSI_R domains plus the gender responsive domains were entered to assess the comparative contributions of each dynamic need, controlling for the effects of intercorrelated domains. The significant contributors to the multivariate prediction model were criminal history, education/employment, financial issues, antisocial associates, substance abuse, criminal thinking, family support, homelessness, self-efficacy, and self-esteem. In other words, a combination of gender neutral and gender-responsive items make up the optimum prediction of offender recidivism, a finding which was also recently noted

Table 6: Bivariate Correlations (one-tailed) and AUC of Total Assessment Scales with Probation Outcomes, Missouri and Maui.

	Follow-up Data								
	6-month			12-month			24-month		
Assessment Scale	**Y/N**	**N**	**AUC**	**Y/N**	**N**	**AUC**	**Y/N**	**N**	**AUC**
Full Gender Responsive Risk/Needs Assessment, Missouri[a]									
Risk Scale	.18***		.76	.26***		.77	.30***		.72
Risk Scale Adj. Strengths	.18***		.77	.26***		.77	.31***		.73
Final Levels (High, Med, Low)	.18***		.74	.26***		.73	.30***		.70
Gender-Responsive Trailer, Missouri[a]									
Trailer	.21***		.74	.26***		.73	.28***		.69
Trailer Adj. Strengths	.21***		.76	.26***		.75	.30***		.71

Table continues

Table 6: Bivariate Correlations (one-tailed) and AUC of Total Assessment Scales with Probation Outcomes, Missouri and Maui, continued.

	Follow-up Data								
	6-month			12-month			24-month		
Assessment Scale	**Y/N**	**N**	**AUC**	**Y/N**	**N**	**AUC**	**Y/N**	**N**	**AUC**
				LSI-R Plus Trailer, Maui[b]					
LSI-R, Only	.25***	.29***	.70	.23***	.25***	.68	.36***	.30***	.72
Trailer Items (Proxy)[c]	.14**	.16**	.62	.17	.11**	.64	.31**	.15**	.68
LSI-R Plus Trailer	.24***	.28***	.69	.23***	.24***	.68	.37***	.29***	.73

[a] Follow up data for Missouri was best captured as returns to prison.

[b] Follow up data for Maui was best captured as rearrests.

[c] This is a proxy measure of the trailer that was developed from the Missouri project. It omits measures pertaining to housing safety, family conflict, anger, and specific mental health symptoms. Even so, it shows a strong correlation with outcome at the 24 month period.

among incarcerated offenders (Salisbury et al., forthcoming; Wright et al., 2007).[13] Thus, while the LSI-R is certainly adequate, it is not optimal for programs seeking gender-responsive approaches to women offenders.

Summary of Implementation Considerations

If Maui officials choose to implement the gender-responsive assessment for probationers, it will involve administration of the LSI-R and the Trailer. The Trailer now consists of a short 30-minute interview (Appendix D) followed by a 15 minute survey (Appendix E) which the offender completes on her own. Pilot tests of these instruments find that scoring takes approximately 15 minutes (see Appendix B). Overall the trailer should require approximately one hour to finish and score; actual staff time will involve about 45 minutes. Officials may wish to limit the application of the trailer to only those women who score medium to high on the LSI-R. Doing so, however, may exclude some women from services who score high on one or two needs, but not on enough needs to bring them into the medium risk group. This would affect from 10 to 20 percent of the low risk offenders, depending upon the need domain. Just the same, the two assessments are related to each other; women in the probation/jail sample who scored low on the LSI-R, also tended to score low on the trailer ($r=.48$; $p<.01$).

This section outlines the recommended steps in implementing this gender-responsive assessment. We also have some important comments to make about the cut-points of the LSI-R and begin with that discussion.

[13] We do not advocate the use of multivariate technologies for treatment-intended assessments, however. Doing so creates a situation where shared variation excludes key variables from achieving significance. Mental health, for example, may be "pushed out" of the model by virtue of shared variation with substance abuse, yet, from a treatment and a risk standpoint, we would not want to conclude that mental health issues are not important.

LSI-R

The predictive validity of the LSI-R among the probation/jail group was strong. It achieved correlations with outcomes that were associated with well-trailed interviewers and are among the more favorable validity figures seen across numerous studies conducted to date. We are less confident of parole findings (see Appendix C). Among paroled women, the LSI-R was not significantly associated with arrest data at any follow-up point. Before concluding that this was totally the result of low recidivism rates, let us also say that the LSI-R correlation with trailer results was also low ($r=.26$; $p<08$), a finding indicating that interviewers may have been less skilled, offenders less honest, or both. As a result we again limit our discussion to results for the probation/jail group.

This research found that the cut-points currently in use for determining risk levels, those developed by the publisher (Multi-health Systems), were not sufficiently differentiating risk groups for women offenders. This is seen in Figure 2, below, where the two lowest risk groups had similar two-year recidivism rates, and the moderate group had a higher recidivism rate than the medium high risk group. In contrast, we would have wanted to see more of a "stair-step effect" where recidivism rates increased along with each increase in risk level.

Further analysis recommended the following cut-points for women probationers: a) low risk = 0-18; b) medium risk = 19-24; c) high risk = 25 and higher. Using these cut-off scores, the differences between groups became much clearer (see Figure 3, below).

Figure 2: Percent with At Least One New Arrest (2 Years Following Interview) Using MHS Cutpoints, Probation/Jail Sample.

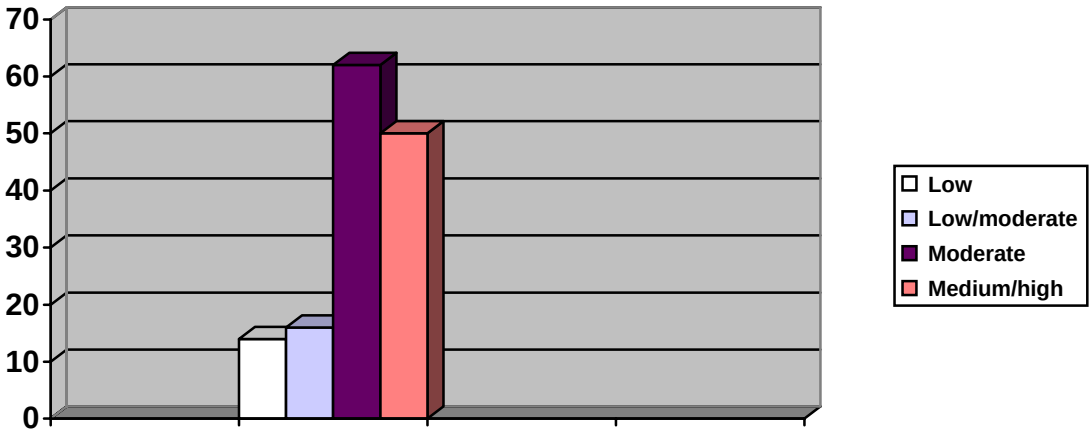
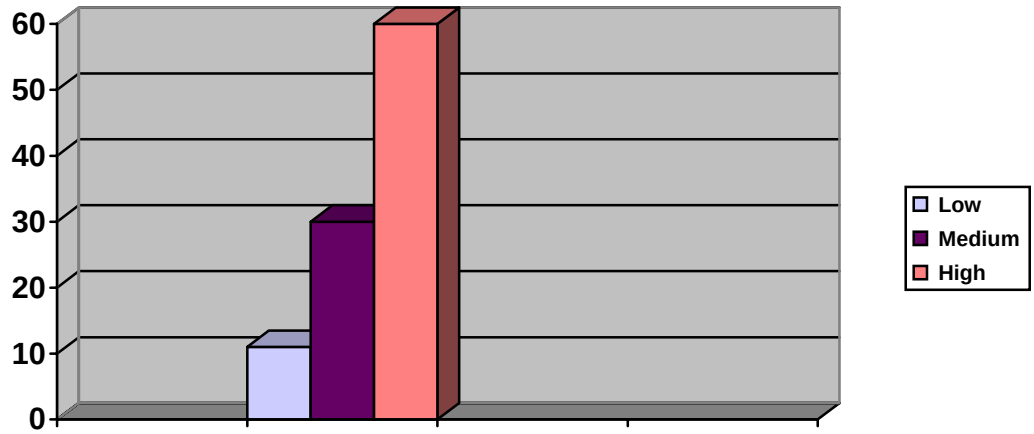


Figure 3: Percent with At Least One New Arrest (2 Years Following Interview) Using Recommended Cut Points, Probation/Jail Sample.



As might be expected, correlations with recidivism (Tau_c) were not as strong (.26; $p<.001$) for the cut-points recommended by MHS as they were when the new cut points were examined (.32, $p<.001$).

Case Management: Addressing Women's Needs

In this context, we recommend that the LSI-R continue to be used to determine risk levels. Sixty percent of the women in the high risk group were rearrested by two years following their interviews. Those women, warrant more careful supervision. However, it is noteworthy that even at this rate, rearrest rates and offense severity are likely to occur at lower levels for women than men.

In this model the LSI-R could also continue to identify offenders who are in need of services relevant to education/employment, financial issues, substance abuse, antisocial associates, and criminal thinking. The trailer should be used as a tool guiding treatment planning or additional assessment around needs pertaining to poverty, housing safety, key dimensions of mental illness, anger, family conflict, relationship dysfunction, parental stress, abuse, as well as strengths (self-efficacy and self-esteem, educational assets, and family support). It was found in the Missouri probation study that women who scored high across a number of the gender-responsive scales were also at high risk of re-offending.

The gender-responsive approach differs somewhat from current practice in Maui. Its main departure from the LSI-Based approach, however, relates only to the identification and treatment of additional risk factors and strengths. As well, it would be important for treatment providers to understand exactly what each risk scale points to in terms of treatment recommendations. These are noted on the scoring form for the trailer (Appendix B) and in training protocols developed by the University of Cincinnati.

As with the LSI-R, appropriate use of the trailer requires training related to its administration, scoring, and case management procedures. We would expect that users understand the Canadian "what works" model, core assumptions of the LSI-R, and the risk and

needs principles (Andrews & Bonta, 2003). Gender-responsive approaches are intended to build from this foundation; however, training would require familiarity with the each of the domains on the trailer as well as what high scores mean in terms of appropriate interventions. On a local level, users would need full familiarity with the links between the assessment scales and the services put forward through partnerships with Maui Care and the Providers Group. Additionally, users would be expected to demonstrate competence in interviewing, listening skills, motivational interviewing, therapeutic relationships, and case planning.

The trailer, funded by the National Institute of Corrections, is considered to be a public domain instrument, available to users without charge as long as appropriate precautions are taken to assure the integrity of its use. Permission for its use may be obtained from the University of Cincinnati, but is contingent upon assurances that: a) appropriate training will be assured and approved by the University of Cincinnati prior to the issuance of permission;[14] b) changes will not be made to the trailer scales and the questions that formulate the scales; and c) users will not extend permission to third parties to use the instrument (agreements are on a case by case basis). Ideally, the University of Cincinnati would also wish to secure data to support further development of the trailer; at such date, however, is not required of future users. This would include assessment date as well as follow-up data on offense-related outcomes.

[14] A staff-training curriculum is available through the University of Cincinnati Corrections Institute, but users are not required to subscribe to it as long a detailed training plan is submitted and approved.

Prospective users should also be aware that the NIC project has developed the following instruments:

1. Full institutional risk/needs assessments that do not have to be appended to other instruments;
2. A trailer for use with other institutional risk/needs instruments;
3. Full prerelease/parole risk/needs instruments;
4. A trailer for use with other prerelease/parole risk/needs instruments;
5. Full probation risk/needs instruments;
6. A trailer for use with other probation risk/needs instruments.

The sixth instrument, of course, is the tool highlighted in this report. We would have preferred to have been able to provide a way to add scores for the trailer to the LSI-R prior to setting the cut-points for low, medium, and high risk. Given that many of the factors on the trailer are predictive of community recidivism, it would make good sense to do this. It would also increase the usefulness of the trailer to officers and treatment providers. Unfortunately, we could not provide scoring rules for adding trailer scores to LSI-R scores, because many of the trailer variables were not tested in Maui. Therefore, the following implementation options are available:

1. Use the trailer only as a needs assessment and do not combine scores with the LSI-R. In doing so, however users should appropriately differentiate those needs that are risk factors from those that are not;

2. Use the trailer as a needs assessment and submit additional LSI-R, trailer, and outcome data from a pilot sample to a researcher for purposes of determining appropriate cut points for the accumulated LSI-R and trailer dynamic risk factors. The University of Cincinnati would be willing to do this without charge, provided that Maui officials oversee the data collection;

3. Use the stand alone probation instrument which has cut-points established for Missouri probationers. These cut-points should also be re-evaluated on a pilot sample of Maui probationers.

We anticipate that the second option will be of most interest to the Maui CARE team. It should be noted that, notwithstanding the need for additional research, the trailer as well as the stand alone instrument are ready to be used for supervision and treatment planning purposes.

Summary of Policy Implications

As noted in presentations throughout the course of this project, risk/needs assessments offer a number of policy recommendations when results are viewed in the aggregate. This section reviews the study findings for their implications for program planning and community development in Maui. Clearly, a substantial proportion of the participants in this study warrant careful attention to the issues that are likely to bring them back into the system. If we adhere to the risk principle (Andrews et al., 1990; Lovins, Lowenkamp, Latessa, & Smith, 2007), for example, 32.9 percent of the probation/jail group and 43.8 percent of the parole group are classified at medium to high risk according to the cut points recommended above.

It is also possible to establish some programming priorities through an examination of highly prevalent needs which were also determined to be risk factors. Large percentages of women scored above the scale midpoints on the need domains.[15] Table 7 shows the proportion of women who scored above the mid-point of each of the scales studied in this research as well as those who evidenced a specific need identified on the face sheet. The table also notes, in bold font, those needs which were associated with either desistence or recidivism.

It is apparent from this analyses, reported in Table 7, that poverty, noted as high scores on the LSI-R, limited incomes, or homelessness, characterized very large proportions of the

[15] Because the scale mid-point is often considered to be a treatment threshold where program referrals and other interventions should be considered, we set that point for our empirical presentations. However, sources warn that such arbitrary cut-points are not intended to substitute for good case management and further research designed to identify scale thresholds indicative of a need for intervention.

Table 7: Frequency and Percent Distribution of Offenders by Programming Needs

Characteristic	Probation/Jail		Parole		Supervised Release	
	N	Percent	N	Percent	N	Percent
	158	100.0	32	100.0	63	100.0
LSI-R Subscales						
Education/Employment	**49**	**31.0**	7	22.6	--	--
Financial	**98**	**62.0**	19	61.3	--	--
Family/Marital	**61**	**38.6**	17	54.8	--	--
Accommodation	21	13.3	5	16.1	--	--
Leisure/Recreation	**71**	**44.9**	9	29.0	--	--
Antisocial Peers/Companions	**59**	**37.3**	16	51.6	--	--
Alcohol/Drugs	**30**	**19.0**	2	6.5	--	--
Emotional/Personal	31	19.6	8	25.8	--	--
Antisocial Attitudes/Orientation	**15**	**19.5**	3	9.7	--	--
Med/High Risk LSI-R						
MHS Cutpoints	27	17.1	3	9.7	--	--
New Cutpoints	52	32.9	14	43.8	--	--
Survey Scales						
Relationship Dysfunction	50	30.6	7	21.9	--	--
Self Esteem	**69**	**43.7**	11	34.4	--	--
Self Efficacy	**60**	**38.0**	7	21.9	--	--
Parental Stress	**41**	**25.9**	3	17.6	--	--
Other Measures						
Income (<$20,000)	**122**	**78.2**	24	82.7	56	87.3
Homeless Prior to Arrest	**23**	**14.6**	3	9.4	10	16.4
Has Transportation	144	91.1	30	93.8	31	49.2
Language is a Barrier	5	3.2	1	3.1	2	3.4
Victim Emotional/Physical Violence/Assault	**99**	**62.7**	25	78.1	33	52.4
Victim of Domestic Violence	**93**	**58.9**	26	81.3	35	55.6
Has Children Under 18	101	63.9	23	71.9	48	76.2
Has Lost Custody (Parents)	28	17.7	11	36.7	31	60.8
Pregnant (at interview)	4	2.6	0	0.0	5	7.9
Family Lives on the Island	132	83.5	28	87.5	53	84.1
Family Supports Prosocial Behavior	**142**	**91.6**	31	96.9	53	85.5

Table Continues

Table 7: Frequency and Percent Distribution of Offenders by Programming Needs, continued

Characteristic	Probation/Jail		Parole		Supervised Release	
	N	Percent	N	Percent	N	Percent
	158	100.0	32	100.0	63	100.0
Other Measures (continued)						
Mental Health Diagnosis (Ever)	**41**	**26.1**	12	38.7	16	25.4
Current Diagnosis of Depression	22	13.9	9	28.1	8	12.7
Variables Below were Not Subjected to the Recidivism Analysis						
Past Suicide Attempt	32	20.3	4	12.5	5	8.1
Receiving Mental Health Treatment	27	17.1	7	21.9	10	15.9
Current Medical Problem	38	24.2	11	34.4	12	19.0
Currently Receiving Medical Care	43	27.4	11	34.4	15	23.8
On Medication	47	30.1	7	21.9	16	25.8
Medical Insurance						
None	33	21.0	2	6.3	29	46.8
Medquest	56	35.7	9	28.1	25	40.3
Medicare	3	1.9	2	6.3	1	1.6
Employer/Commercial	65	41.4	19	59.4	7	11.3
Past Substance Abuse Treatment	66	41.8	25	78.1	24	38.7
Primary Drug (N=87)						
Alcohol	15	17.2	2	7.4	2	3.6
Cocaine/Crack	6	6.9	2	3.7	2	3.6
Ice	34	39.1	16	59.3	33	58.9
Opiates	5	5.7	0	0.0	1	1.8
Marijuana	14	16.1	1	3.7	4	7.1
Multiple	13	14.9	7	25.9	14	25.0
Uses Crystal Methamphetamine	43	27.2	21	65.6	44	69.8
Use in Family	53	34.2	13	40.6	18	28.6
Receiving Assistance						
Housing	9	5.7	2	6.5	4	6.3
Medquest	46	29.1	8	25.8	25	39.7
DHS	29	18.4	7	22.6	8	12.7
SSI	3	1.9	1	3.2	5	7.9
Food Stamps	42	26.6	9	29.0	15	23.8
Unemployment	1	0.6	0	0.0	0	0.0
Other	9	5.7	1	3.2	2	3.2
Benefit Disqualification	59	37.3	5	16.7	4	6.3

women offenders regardless of sample (probation/jail, parole, or supervised release). Economic factors constituted the most prevalent need, and they were also strongly associated with recidivism. In contrast, educational levels were high in comparison to the other NIC sites, a finding that may bode well for the employment prospects of these women. Just the same, education was strongly related to recidivism. Those with limited educations were more likely to be rearrested than those with high school diplomas and post high school degrees. At a policy level, these findings advocate strongly for continued education, and economic and job development opportunities.

Substance abuse was also observed to be a key issue for these women. It was strongly associated with new arrests, however, only 19.6 percent of the probation/jail participants and 6.2 percent of the parolees scored high on the substance abuse of the LSI-R. The observation of substantially higher proportions of offenders with previous substance abuse treatment (41.8 percent, 78.1 percent, and 38.7 percent for probation/jail, parole and supervised release groups, respectively) as well as high prevalence regarding the use of crystal methamphetamine suggested that the LSI-R domain may be underestimating the prevalence of use. In this regard, it should be emphasized that the LSI-R scale measures more than use, alone; it also taps the extent to which substance abuse has interfered with other life issues.

Women with antisocial associates characterized 37.3 and 51.6 of the probation/jail and parole samples, respectively. It was a moderately strong predictor of recidivism in the probation/jail sample and should be considered in programming, counseling and other interventions for women. Another dynamic risk factor common to the Canadian “what works’ model, antisocial attitudes, was correlated with recidivism at the 24 month follow up point,

however, relatively few women scored above the mid-point on this scale---19.5 percent of probation/jail participants and 9.7 percent of parolees.

Current perspectives on offender recidivism downplay the importance of self-esteem and self-efficacy. Yet, in Maui and other NIC sites, self-esteem was strongly associated with recidivism; low self-esteem characterized over a third of both the probation/jail and the parole groups. Low self-efficacy (self-confidence) was seen in 38.0 percent of the probation/jail group and 21.9 percent of the parole group, and it was modestly related to offender recidivism. Fortunately, new gender-responsive curricula have been developed (Van Dieten, 1998) to work with these needs. Providers are also encouraged to take self-esteem and self-confidence into consideration in their interactions and therapeutic relationship styles with women offenders (for some suggestions, see Bogue, Nandi, & Jongsma, 2003)

Proportions of women who had experienced some form of prior abuse ranged from a low of 55 percent in the pre-release sample to a high of 81 percent in the parole sample. Abuse was not strongly associated with recidivism in most probation samples; however, it was associated with offender outcomes in prison and parole samples. It is also noted to be strongly associated to other risk factors (see Salisbury, 2007; McClellan et al., 1997).

We would like to have offered more guidance regarding relationship dysfunction and the role it plays in women's recidivism. However, in this and some of the other NIC sites we did not feel that a good understanding of women's intimate relationships was reached. Two sites (Maui and Missouri) found no relationship between the relationship dysfunction scale and offender outcomes, while Minnesota and Colorado detected strong correlations with outcomes. This may reflect women's reluctance to speak about intimate relationships; there may also be aspects of the survey environment that may need to be and will be changed in future studies.

This study, however, does offer guidance about family of origin and parenting. In almost all samples, including Maui, family support was a major source of resilience. Families who supported the woman offenders and encouraged pro-social behavior contributed much to the desistance of those who did not return to the system during the two year period they were tracked. Thus, programmatic efforts to include families in the supervision process and to advise them on effective and ineffective support strategies as well as family reunification projects are well advised.

Sixty four percent of the probation/jail participants and 71.9 percent of parolees were mothers of children below the age of 18. Of those women, 25.9 percent of the probation/jail group and 17.6 percent of the parole group scored high on the parental stress needs scale. Parental stress, as this assessment scale is defined, should not be considered indicative of bad parenting. Instead, the scale identifies those mothers who receive little support from family members or the father(s) of their children. These women also report stress and difficulties controlling the behavior of their children. The measure was designed to identify mothers who could benefit from parenting classes geared to parenting skills and behavioral management; many of these women are also likely to require child care services. It is important to stress that the scale says nothing about parental affection, overly harsh disciplinary practices, or abuse; as such, it not intended to inform child custody decisions in any way.

We were initially surprised that mental health issues were not more prevalent or relevant to recidivism. However, when the analysis of data from other NIC sites was completed, we learned that the strongest correlations were seen for measures that separately tap current symptoms of anxiety/depression and psychosis. Historical scales and those that combined all symptoms into one scale clearly attenuated the true importance of mental health issues for

women. Even though we did see a modest correlation with 24 month re-arrests among Maui probation/jail participants, it is likely that the new trailer scales for mental health (Appendix D) will prove to be more informative.

It is important to stress that these women bring many strengths to their correctional experience, and where present, these should be factored into correctional supervision and treatment planning. High proportions of these women approached correctional supervision with a good deal of support from families who lived on the islands. Many had post high school educations. Those with sufficient self-esteem and self-efficacy also brought much to the correctional experience. These factors clearly worked to the benefit of correctional clients, their families, and their communities. Fostering their development would likely encourage favorable outcomes.

The prevailing model of correctional intervention in Hawaii, favors the guidelines and principles of the LSI-R which stress the importance of targeting antisocial attitudes, antisocial personality, and antisocial associates. For women, this model might better be amended to give strongest priority to:

- Poverty, employment, education, and homelessness;
- Substance abuse;
- Antisocial associates;
- Parental Stress.

Strengths (or lack thereof) are also extraordinarily important to these women, including:

- Family support;
- Education;
- Self-esteem;
- Self-efficacy.

This is not to downplay the importance of other risk factors, such as antisocial attitudes, and use of leisure time, but it is to suggest that the optimal service delivery model for women is somewhat different from what is currently advocated. Policy makers are also advised to consider additional factors which were found to be important in the Missouri probation study and may prove important in Maui as well, once data from the new trailer are collected and examined. These needs include: a) current symptoms of depression/anxiety; b) current symptoms of psychosis; c) housing safety; d) anger; and e) family conflict. We would expect that future studies will have more to say about mental health and relationships. The new trailer provides scales for these domains; future analyses may change the aforementioned priorities, somewhat.

An overview of the constellation of needs discussed in this section fits well with the organization and planning already conducted though Maui CARE and its Providers Group. Providers might also wish to consider adoption of one or more of the women's curricula, that are emerging from the gender-responsive literature and advocacy groups, including Moving On (Van Dieten, 1998), Seeking Safety (Najavitz, 2007), or Helping Women Recover (Covington, 1999).

Given that these developments have already been planned for or are likely to be put in place in the near future, we hope that the trailer proves to be a useful tool for guiding practitioners to the women most appropriate for these services.

REFERENCES

Andrews, D. A. (1983). Assessment of outcome in correctional samples. In M. J. Lambert, E. R. Christensen, & S. S. DeJulio (Eds.), *Assessment of psychotherapy outcome* (pp. 160-201). New York: Wiley.

Andrews, D. A., Zinger, I., Hoge, R. D., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does correctional treatment work? A clinically-relevant and psychologically-informed meta-analysis. *Criminology 28,* 369-404.

Andrews, D. A., Bonta, J., & Hoge, R. D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior, 17,* 19-52.

Andrews, D. A., & Bonta, J. (1995). *Level of Service Inventory-Revised.* North Tonawanda, NY: Multi-Health Systems.

Andrews, D. A., & Bonta, J. (2003). *The psychology of criminal conduct* (3rd ed.). Cincinnati, OH: Anderson.

Andrews, D. A., Dowden, C., & Rettinger, L. J. (2001). Special populations within corrections. In J. A. Winterdyck (Ed.), *Corrections in Canada: Social reactions to crime* (pp. 170-212). Toronto: Prentice-Hall.

Antonowicz, D., & Ross, R. (1994). Essential components of successful rehabilitation programs for offenders. *International Journal of Offender Therapy and Comparative Criminology, 38,* 97-104.

Avison, W. R., & Turner, R.J. (1986). Screening for Problem Parenting: Preliminary Evidence on a Promising Measure. *International Journal of Child Abuse and Neglect* 10(2):157-170.

Baunach, P. J. (1985). *Mothers in prison.* New Brunswick, NJ: Transaction Books.

Beattie, M. (1987). *Codependent no more.* New York: Harper/Hazelden.

Belknap, J., Fisher, B., & Cullen, F. T. (1999). The development of a comprehensive measure of the sexual victimization of college women. *Violence Against Women, 5,* 185-214.

Belknap, J., & Holsinger, K. (2006). The gendered nature of risk factors for delinquency. *Feminist Criminology, 1,* 48-71.

Belknap, J. (2007). *The invisible woman: Gender, crime, and justice* (3rd ed.). Belmont, CA: Thompson Wadsworth.

Benda, B. B. (2005). Gender differences in life-course theory of recidivism: a survival analysis. *International Journal of Offender Therapy and Comparative Criminology, 49,* 325-342.

Bepko, C., & Krestan, J. (1985). *The responsibility trap: A blueprint for treating the alcoholic family.* New York: Macmillan.

Berman, J. (2006). *Responding to Women Offenders: The Department of Women's Justice Services in Cook County, Illinois*. Washington, DC: USDOJ, National Institute of Corrections.

Blanchette, K., & Motiuk, L. L. (1995). *Female offender risk assessment: The case management strategies approach.* Poster session presented at the Annual Convention of the Canadian Psychological Association, Charlottetown, Prince Edward Island.

Blanchette, K. (1996). *The relationship between criminal history, mental disorder, and recidivism among federally sentenced female offenders.* Unpublished master's thesis, Carleton University, Ottawa, Ontario, Canada.

Blanchette, K. (2004). Revisiting effective classification strategies for women offenders in Canada. *Feminism & Psychology, 14,* 231-236.

Blanchette, K. (2005). *Field-test of a gender-informed security reclassification scale for female offenders.* Unpublished doctoral dissertation, Carleton University, Ottawa, Ontario, Canada.

Blanchette, K., & Brown, S. L. (2006). *The assessment and treatment of women offenders: An integrative perspective.* Chichester: Wiley.

Bloom, B. (1998). Women with mental health and substance abuse problems on probation and parole. *Offender programs report: Social and behavioral rehabilitation in prisons, jails and the community, 2*(1), 1-13. Kingston, NJ: Civic Research Institute.

Bloom, B., Owen, B., & Covington, S. (2003). *Gender-responsive strategies: Research practice and guiding principles for women offenders*. Washington, DC: USDOJ, National Institute of Corrections.

Bloom, B., Owen, B., & Covington, S. (2005). *Gender-responsive strategies for women offenders: A summary of research, practice, and guiding principles for women offenders.* Washington, DC: USDOJ, National Institute of Corrections.

Blume, S. (1997). Women: Clinical aspects. In J. Lowinson, P. Ruiz, A. Milkman, & J. Langrod (Eds.), *Substance abuse: A comprehensive textbook* (pp. 645-654). Baltimore, MD: Williams and Wilkins.

Bogue, B., Nandi, A. & Jongsma, A. (2003). *The Probation and Parole Treatment Planner.* Hoboken, NJ: John Wiley & Sons.

Bonta, J. (1989). Native inmates: Institutional responses, risks, and needs. *Canadian Journal of Criminology, 31,* 49-62.

Bonta, J., & Motiuk, L. L. (1987). The diversion of incarcerated offenders to correctional halfway houses. *Journal of Research in Crime and Delinquency, 24,* 302-323.

Bonta, J., & Motiuk, L. L. (1990). Classification to correctional halfway houses: A quasi-experimental evaluation. *Criminology, 28,* 497-506.

Bonta, J., & Motiuk, L. L. (1992). Inmate classification. *Journal of Criminal Justice, 20,* 343-353.

Bonta, J., Pang, B., & Wallace-Capretta, S. (1995). Predictors of recidivism among incarcerated female offenders. *The Prison Journal, 75,* 277-294.

Bonta, J., Wallace-Capretta, S., & Rooney, J. (2000). A quasi-experimental evaluation of an intensive rehabilitation supervision program. *Criminal Justice and Behavior, 27,* 312-329.

Brennan, T., & Austin, J. (1997). *Women in jail: Classification issues.* Washington, DC: USDOJ, National Institute of Corrections.

Brennan, T. (1998). Institutional classification of females: Problems and some proposals for reform. In R. T. Zaplin (Ed.) *Female offenders: Critical perspectives and effective interventions* (pp. 179-204). Gaithersburg, MD: Aspen Publishers.

Brennan, T., Dieterich, W., & Oliver, W. (2006). *COMPAS: Technical manual and psychometric report Version 5.0.* Traverse City, MI: Northpointe Institute.

Browne, A., Miller, B., & Maguin, E. (1999). Prevalence and severity of lifetime physical and sexual victimization among incarcerated women. *International Journal of Law and Psychiatry, 22,* 301-322.

Brown, S. L., & Motiuk, L. L. (2005). *The Dynamic Factor Identification and Analysis (DFIA) component of the Offender Intake Assessment (OIA) process: A meta-analytic, psychometric, and consultative review* (Research Report R-164). Ottawa, Ontario: Correctional Service Canada.

Bureau of Justice Statistics. (1999). *Special report: Women offenders.* Washington, DC: USDOJ.

Bureau of Justice Statistics. (2005). *Prisoners in 2004.* Washington, DC: USDOJ.

Bureau of Justice Statistics. (2006). *Mental health problems of prison and jail inmates.* Washington, DC: USDOJ.

Campbell, D., Campbell, J., King, C., Parker, B., & Ryan, J. (1994). The reliability and factor structure of the Index of Spouse Abuse with African-American women. *Violence and Victims, 9,* 259-274.

Carp, S. V., & Schade, L. (1992). Tailoring facility programming to suit female offender's needs. *Corrections Today, (August),* 154-158.

Case, P., & Fasenfest, D. (2004). Expectations for opportunities following prison education: A discussion of race and gender. *Journal of Correctional Education, 55,* 24-39.

Chandler, S. M., & Kassebaum, G. (1994). Drug-alcohol dependence of women prisoners in Hawaii. *Affilia, 9,* 157-170.

Chesney-Lind, M., & Rodriguez, N. (1983). Women under lock and key. *Prison Journal, 63,* 47 -65.

Chesney-Lind, M. (1997). *The female offender: Girls, women, and crime.* Thousand Oaks, CA: Sage.

Clark, J. (1995). The impact of the prison environment on mothers. *The Prison Journal, 75,* 306-329.

Coleman, F. L. (1997). Stalking behavior and the cycle of domestic violence. *Journal of Interpersonal Violence, 12,* 420-432.

Coulson, G., Ilacqua, G., Nutbrown, V., Giulekas, D., & Cudjoe, F. (1996). Predictive utility of the LSI for incarcerated female offenders. *Criminal Justice and Behavior, 23,* 427-439.

Covington, S. (1998). The relational theory of women's psychological development: Implications for the criminal justice system. In R. T. Zaplin (Ed.), *Female offenders: Critical perspectives and effective interventions* (pp. 113-128). Gaithersburg, MD: Aspen Publishing.

Covington, S. (1999). Helping Women Recover: Correctional Package. San Francisco, CA: Jossey-Bass.

Crowley, J. D., & Dill, D. (1992). Silencing the Self Scale. *Psychology of Women Quarterly, 16,* 97-106.

Cullen, F. T., Fisher, B. S., & Applegate, B. K. (2000). Public opinion about punishment and corrections. In M. Tonry (Ed.), *Crime and justice: A review of research, Vol. 27* (pp. 1-79). Chicago: University of Chicago Press.

Dahlberg, L., Toal, S., Behrens, C. (1998). *Measuring violence-related attitudes, beliefs, and behaviors among youth.* Washington, DC: U.S. Department of Health and Human Services.

Daly, K. (1992). Women's pathways to felony court: Feminist theories of lawbreaking and problems of representation. *Southern California Review of Law and Women's Studies, 2,* 11-52.

Daly, K. (1994). *Gender, crime, and punishment.* New Haven, CT: Yale University Press.

Dowden, C., & Andrews, D. A. (1999). What works for female offenders: A meta-analytic review. *Crime & Delinquency, 45,* 438-452.

Enos, S. (2001). *Mothering from the inside: Parenting in a women's prison.* Albany, NY: SUNY Press.

Farr, K. A., (2000). Classification for female inmates: Moving forward. *Crime & Delinquency, 46,* 3-17.

Feeley, M. M., & Simon, J. (1992). The new penology: Notes on the emerging strategy of corrections and its implications. *Criminology, 30,* 449-474.

Ferraro, K.J., & Moe, A.M. (2003). Mothering, Crime, and Incarceration. *Journal of Contemporary Ethnography, 32,* 9-40.

Fischer, J., Spann, L., & Crawford, D. (1991). Measuring codependency. *Alcoholism Treatment Quarterly, 8,* 87-99.

Fowler, L.T. (1993). What classification for women? *Classification: A Tool for Managing Today's Offenders.* Laurel, MD: American Correctional Association.

Garrett, C. (1985). Effects of residential treatment on adjudicated delinquents: A meta-analysis. *Journal of Research on Crime and Delinquency, 22,* 287-308.

Gendreau, P. (1996). The principles of effective intervention with offenders. In A. T. Harland (Ed.), *Choosing correctional options that work: Defining the demand and evaluating the supply* (pp. 117-130). Thousand Oaks, CA: Sage.

Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology, 34,* 575-607.

Gilligan, C. (1982). *In a different voice: Psychological theory and women's development.* Cambridge, MA: Harvard University Press.

Greene, S., Haney, C., & Hurtado, A. (2000). Cycles of pain: Risk factors in the lives of incarcerated mothers and their children. *The Prison Journal, 80,* 3-23.

Hardyman, P. L., & Van Voorhis, P. (2004). *Developing gender-specific classification systems for women offenders.* Washington, DC: USDOJ, National Institute of Corrections.

Harer, M. & Langan, N. (2001). Gender differences in predictors of prison violence: Assessing the predictive validity of a risk classification system. *Crime and Delinquency, 47,* 513-536.

Henderson, D. J. (1998). Drug abuse and incarcerated women: A research review. *Journal of Substance Abuse Treatment, 15,* 579-587.

Holsinger, K., Belknap, J., & Sutherland, J. (1999). *Assessing the gender specific program and service needs for adolescent females in the juvenile justice system.* Presented to the State of Ohio's Office of Criminal Justice Services, November.

Holsinger, A.M., Lowenkamp, C.T., & Latessa, E.J. (2003). Ethnicity, Gender, and the Level of Service Inventory-Revised. *Journal of Criminal Justice, 31,* 309-320.

Holtfreter, K., & Morash, M. (2003). The needs of women offenders: Implications for correctional programming. *Women & Criminal Justice, 14,* 137-160.

Hubbard, D. J., & Pratt, T. C. (2002). A meta-analysis of the predictors of delinquency among girls. *Journal of Offender Rehabilitation, 34(3),* 1-13.

Izzo, R., & Ross, R. (1990). Meta-analysis of rehabilitation programs for juvenile delinquents: A brief report. *Criminal Justice and Behavior, 17,* 134-142.

Kampfner, C. J. (1995). Post-traumatic stress reactions in children of imprisoned mothers. In K. Gabel & D. Johnson (Eds.), *Children of incarcerated parents* (pp. 21-30). New York: Lexington Books.

Kaplan, A. G. (1984). *The "self in relation": Implications for depression in women.* Publication No. 14. Wellesley, MA: Stone Center.

Kassebaum, G., Davidson-Coronado, J., Allen, J., & Perrone, P. (2000). *Compliance and sanctions in the community: Felony probation in Hawaii 1996-1999*. Oahu, HI: Department of the Attorney General, Crime Prevention and Justice Assistance Division.

Kazura, K. (2001). Family programming for incarcerated parents: A needs assessment among inmates. *Journal of Offender Rehabilitation, 32,* 67-83.

Koons, B. A., Burrow, J. D., Morash, M., & Bynum, T. (1997). Expert and offender perceptions of program elements linked to successful outcomes for incarcerated women. *Crime and Delinquency, 43,* 515-532.

Kroner, D. G., & Mills, J. F. (2001). The accuracy of five risk appraisal instruments in predicting institutional misconduct and new convictions. *Criminal Justice and Behavior, 28,* 471-489.

Langan, N. P., & Pelissier, B. (2001). Gender differences among prisoners in drug treatment. *Journal of Substance Abuse, 13,* 291-301.

Larivière, M. (1999). *The relationship between self-esteem, criminality, aggression, and violence: A meta-analysis.* Unpublished comprehensive examination, Carleton University, Ottawa, Ontario, Canada.

Law, M. A., Sullivan, S. M., & Goggin, C. (in press). *Security classification measures for female offenders and predictors of female criminal conduct: A literature review.* Ottawa, Ontario: Correctional Service Canada.

Lipsey, M. (1992). Juvenile delinquency treatment: A meta-analytic inquiry into the variability of effects. In T. Cook, H. Cooper, D. Cordray, H. Hartmann, L. Hedges, R. Light, T. Louis, & F. Mosteller (Eds.), *Meta-analysis for explanation* (pp. 83-127). New York: Russell Sage Foundation.

Lipsey, M., & Wilson, D. (1998). Effective intervention for serious juvenile offenders: A synthesis of research. In R. Loeber & D. Farrington (Eds.), *Serious and violent juvenile offenders: Risk factors and successful interventions* (pp. 313-345). Thousand Oaks, CA: Sage.

Lipsey, M., Chapman, G., & Landenberger, N. (2001). Cognitive-behavioral programs for offenders. *The Annals of the American Academy of Political and Social Science, 578 (November),* 144-157.

Lösel, F. (1995). Increasing consensus in the evaluation of offender rehabilitation? Lessons from recent research synthesis. *Psychology, Crime, & Law, 2,* 19-39.

Loucks, A. D. (1995). Criminal behaviour, violent behaviour, and prison maladjustment in federal female offenders. Unpublished Doctoral Thesis. Kingston, ON: Queen's University.

Lowenkamp, C. T., Holsinger, A. M., & Latessa, E. J. (2001). Risk/need assessment, offender classification, and the role of childhood abuse. *Criminal Justice and Behavior, 28,* 543-563.

Lowenkamp, C. T., & Latessa, E. J. (2002). *Evaluation of Ohio's community-based correctional facilities and halfway house programs.* Cincinnati, OH: University of Cincinnati.

Lovins, L., Lowenkamp, C., Latessa, L., & Smith, P. (2007). Application of the Risk Principle to Female Offenders. *Journal of Contemporary Criminal Justice.* In press.

McClellan, D. S., Farabee, D., & Crouch, B. M. (1997). Early victimization, drug use, and criminality: A comparison of male and female prisoners. *Criminal Justice and Behavior, 24,* 455-476.

Messina, N., Burdon, W., & Prendergast, M. (2003). Assessing the needs of women in institutional therapeutic communities. *Journal of Offender Rehabilitation, 37,* 89-106.

Miller, J. B. (1976). *Toward a new psychology of women.* Boston: Beacon Press.

Morash, M., Bynum, T. S., & Koons, B. A. (1998). *Women offenders: Programming needs and promising approaches.* Washington, DC: USDOJ, National Institute of Justice.

Motiuk, M. S., Motiuk, L. L., & Bonta, J. (1992). A comparison between self-report and interview-based inventories in offender classification. *Criminal Justice and Behavior, 19,* 143-159.

Murphy, C., & Hoover, S. (1999). Measuring emotional abuse in dating relationships as a multifactorial construct. *Violence and Victims, 14,* 39-53.

Najavits L (2007). Seeking Safety: An evidence-based model for substance abuse and trauma/PTSD. In: KA Witkiewitz & GA Marlatt (Eds.), Therapists' Guide to Evidence-Based Relapse Prevention: Practical Resources for the Mental Health Professional, pages 141-167. San Diego: Elsevier Press.

Olson, D.E., Alderden, M., & Lurigio, A.J. (2003). Men are from Mars, Women are from Venus, But What Role Does Gender Play in Probation Recidivism? *Justice Research and Policy, 5,* 33-54.

Owen, B., & Bloom, B. (1995). *Profiling the needs of California's female prisoners: A needs assessment.* Washington, DC: USDOJ, National Institute of Corrections.

Owen, B. (1998). *In the mix: Struggle and survival in a woman's prison.* Albany, NY: State University of New York Press.

Pearson, F. S., Lipton, D. S., Cleland, C. M., & Yee, D. S. (2002). The effects of behavioral/cognitive-behavioral programs on recidivism. *Crime & Delinquency, 48,* 476-496.

Peters, R. H., Strozier, A. L., Murrin, M. R., & Kearns, W. D. (1997). Treatment of substance abusing jail inmates: Examination of gender differences. *Journal of Substance Abuse Treatment, 14,* 339-349.

Prendergast, M., Wellisch, J., & Falkin, G. (1995). Assessment of services for substance-abusing women offenders and correctional settings. *The Prison Journal, 75,* 240-256.

Quinsey, v., Harris, G., Rice, M., & Cormier, C. (1998). *Violent Offenders: Appraising and Managing Risk.* Washington, DC: American Psychological Association.

Reisig, M. D., Holtfreter, K., & Morash, M. (2006). Assessing recidivism risk across female pathways to crime. *Justice Quarterly, 23*, 384-405.

Rettinger, L. J. (1998). *A recidivism follow-up study investigating risk and need within a sample of provincially sentenced women.* Unpublished doctoral dissertation. Carleton University, Ottawa, Canada.

Ritchie, B. (1996). *The gendered entrapment of battered, black women.* London: Routledge.

Rodenberg, F., & Fantuzzo, J. (1993). The measure of wife abuse: Steps toward the development of a comprehensive assessment technique. *Journal of Family Violence, 8,* 203-228.

Rosenberg, M. (1979). *The concept of self.* New York: Basic Books.

Ross, T., Khashu, A., & Wamsley, M. (2004). *Hard data on hard times: An empirical analysis of maternal incarceration, foster care, and visitation.* New York: Vera Institute of Justice.

Rumgay, J. (2004). Scripts for safer survival: Pathways out of female crime. *The Howard Journal of Criminal Justice, 43,* 405-419.

Salisbury, E. J., Van Voorhis, P., & Wright, E. (2006). *Construction and validation of a gender responsive risk/needs instrument for women offenders in Missouri and Maui.* Presented at the Annual Meeting of the American Society of Criminology, Los Angeles, CA.

Salisbury, E., Van Voorhis, P. & Spiropoulis, G. (accepted for publication). The Predictive Validity of a Gender Responsive Risk/Needs Assessment. *Crime and Delinquency.*

Schram, P. J., & Morash, M. (2002). Evaluation of a life skills program for women inmates in Michigan. *Journal of Offender Rehabilitation, 34,* 47-70.

Sherer, M., Maddux, J.E., Mercadante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R.W. (1982) The self-efficacy scale: Construction and Validation. *Psychological Reports*, 51, 663-671.

Shepard, M., & Campbell, J. (1992). The Abusive Behavior Inventory: A measure of psychological and physical abuse. *Journal of Interpersonal Violence, 7,* 291-305.

Shields, I. W., & Simourd, D. J. (1991). Predicting predatory behavior in a population of incarcerated young offenders. *Criminal Justice and Behavior, 18,* 180-194.

Siegel, J. A., & Williams, L. M. (2003). The relationship between child sexual abuse and female delinquency and crime: A prospective study. *Journal of Research in Crime and Delinquency, 40,* 71-94.

Simourd, L., & Andrews, D. A. (1994). Correlates of delinquency: A look at gender differences. *Forum on Corrections Research, 6,* 26-31.

Swets, J., Dawes, R., & Monahan, J. (2000).Psychological Science Can Improve Diagnostic Decisions. *Psychological Science in the Public Interest, 1,* 1-26.

Task Force on Federally Sentenced Women. (1990). *Creating choices: The report of the Task Force on Federally Sentenced Women.* Ottawa, ON: Ministry of the Solicitor General Canada.

Van Dieten, M. (1998). Moving On. Toronto, ON: Orbis Partners, Inc.

Van Voorhis, P., Pealer, J., Spiropoulos, G., & Sutherland, J. (2001). *Validation of offender custody classification and needs assessment systems for incarcerated women offenders in the (Unidentified State) Department of Corrections.* USDOJ, National Institute of Corrections.

Van Voorhis, P., & Presser, L. (2001). *Classification of women offenders: A national assessment of current practices.* Washington, DC: USDOJ, National Institute of Corrections.

Van Voorhis, P., Braswell, M., & Lester, D. (2004). *Correctional Counseling and Rehabilitation,* (5th ed.), Cincinnati, OH: Anderson Publishing Co.

Van Voorhis, P., Salisbury, E., Bauman, A., & Wright, E. (2007). Gender Responsive Assessment Project in Missouri: Final Report. Cincinnati, OH: University of Cincinnati Criminal Justice Research Center.

Washington State Institute for Public Policy. (2003). Washington's Offender Accountability Act: An analysis of the Department of Corrections risk assessment. Olympia, WA: WSIPP.

Widom, C. S. (1989). Child abuse, neglect, and violent criminal behavior. *Criminology, 27*, 251-271.

Woititz, J. (1983). *Adult children of alcoholics.* Hollywood, FL: Health Communications, Inc.

Wormith, J. S. (1984). Attitude and behavior change of correctional clientele: A three year follow-up. *Criminology, 23*, 326-348.

Wright, E., Salisbury, E. J., & Van Voorhis, P. (2006). Gender-Responsive Needs: Preliminary Analyses of Six-Month Outcome Data from a Sample of Women Offenders in Minnesota. Presented at the Annual Meeting of the American Society of Criminology, Los Angeles, CA.

Wright, E., Salisbury, E. & Van Voorhis, P. (accepted for publication). Predicting the Prison Misconducts of Women Offenders: The Importance of Gender Responsive Needs. *Journal of Contemporary Criminal Justice*.