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HOW "SPECIFIC" ARE GENDER-SPECIFIC REHABILITATION NEEDS?

An Empirical Analysis

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There has been relatively little empirical research on the distinctive characteristics and needs of female offenders that could help guide rehabilitative approaches that are gender specific. This study considered a sample of female offenders ($N = 886$) and male offenders ($N = 1{,}435$) who had been released from incarceration and provided with assessment services as part of the community reentry process. Comparisons were conducted using the employment, companions, and financial domains of the Level of Service Inventory (LSI-R and LS-CMI). Female offenders received significantly higher ratings in companion and financial deficits, consistent with some prior research suggesting that social and financial risk factors for offending may be more substantial in women. Implications for research and the practice of gender-specific rehabilitation approaches are discussed.

Keywords: gender-specific; rehabilitation; community corrections; criminogenic needs

Female offenders are not well understood by behavioral scientists or in our larger society. Relatively little theory or empirical research has focused exclusively on female offenders, and incarcerated women have often been classified with offenders more generally because they constitute such a small segment of the correctional population (Braithwaite, Treadwell, & Arriola, 2005; Campbell & Robinson, 1997; Dowden & Andrews, 1999; Jiang & Winfree, 2006; Jurik, 1983; Mears, Ploeger, & Warr, 1998; Shearer, 2003; Singer, Bussey, Song, & Lunghofer, 1995).

An increasing number of women have become involved with the criminal justice system over the past decade, however. This includes a significant rise in the rate of incarceration for females compared with that of males. Although more men than women remain incarcerated, the rate of growth in the female inmate population has dramatically outpaced the rate of growth in the male inmate population since 1995. Since 1995, the annual growth rate of women in the prison populations has increased by an average of 4.6%, compared to an average growth rate in the male prison population of approximately 3.0%. Incarcerated

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women constituted 7.0% of all incarcerated individuals in the United States in 2005, up from 6.1% in 1995 (Harrison & Beck, 2006).

The growth in the number of incarcerated female offenders has contributed to increased attention to female offenders in recent years. As this attention grew, so did criticisms of prevailing criminological theories explaining this segment of the offender population. Feminist criminologists (see, e.g., Blanchette & Brown, 2006) have observed that traditional gender-neutral theories either ignored women or generalized explanations for offending across genders without empirical support for doing so. Feminist scholars have also criticized the medical thinking that has been foundational in prison rehabilitation programs, noting that this approach readily conceptualizes many behaviors and emotions as pathological. In particular, Pollack (2005) observed that the cognitive-behavior therapy interventions often seen in prison programming have been accepted as effective based on empirical research using predominantly male offenders.

Feminist theorists and researchers (Blanchette & Brown, 2006) have also observed that females differ from males in the onset and maintenance of criminal behavior, noting the social factors that contribute to offending by women (e.g., poverty, systemic racism, and violence against women). It has been argued that there should be increased programming that is responsive to the experiences of women, highlighting the power differential in the relationship between therapist and client and incorporating terms such as "empowerment," "holistic," and "woman-centered" into the discourse on prison programming (Pollack, 2005).

This increasingly specialized focus on incarcerated women is seen particularly in gender-specific programming, which is designed to address rehabilitative needs that are particular to women. A number of theoretical treatment models have been developed to address gender disparities and differences and incorporate aspects of life considered most relevant to women. Such models include elements such as self-esteem, program environment, empowerment, and Prochaska's stages of change (Covington, 1998; Covington & Bloom, 2006; McClellan, Farabee, & Crouch, 1997; O'Brien & Young, 2006). But the shift from relatively little programmatic attention to highly specific rehabilitative strategies should be informed by empirical data addressing questions pertaining to differences between male and female offenders. To date, this shift has not been well informed.

We begin by summarizing the relevant data on female offenders, with associated strategies for rehabilitation. Next, we compare the data on women to what is known about male offenders and consider the extent to which current theory and practice regarding gender-specific rehabilitation is consistent with empirically supported gender differences. Finally, we fill some of the empirical gaps in our knowledge about gender differences through an analysis of a detailed archival data set and discuss the implications of these findings for the policy and practice of gender-specific rehabilitation.

From 1980 to 1998, the number of females under correctional supervision increased more than 500% (General Accounting Office, 1999), and the female prison population is rapidly increasing (Sabol, Minton, & Harrison, 2007). During the 1990s, the number of females per capita involved in any aspect of the correctional system, including probation, incarceration, or parole, increased 48%; the corresponding increase among males was 27% (Greenfeld & Snell, 1999). The number of incarcerated women increased by 57% between 1995 and 2005, relative to a 34% increase in incarcerated men (Harrison & Beck, 2006). Only recently have researchers begun to examine how female offenders differ in characteristics, risk factors, and

criminogenic needs from their male counterparts (Shearer, 2003; Sorbello, Eccleston, Ward, & Jones, 2002).

Drug and alcohol abuse are positively associated with offending in women, and incarceration for drug offenses has increased substantially (Lewis, 2006; Singer et al., 1995), increasing the overall rate of female incarceration. Incarcerated women show particularly high rates of heroin, cocaine, and poly-drug addiction, especially compared with men (Greenfeld & Snell, 1999; Lewis, 2006; McClellan et al., 1997). For example, McClellan et al. (1997) compared rates of drug use among males and females in a sample of incarcerated adults, and they reported that 54.8% of the females and 32.6% of the males reported use of crack cocaine, and 35% of the females compared with 23% of males reported use of heroin. It has been suggested that motivation to support a drug habit is common among those convicted of offenses such as theft and prostitution (Greenfeld & Snell, 1999), although motivation to offend in order to support a substance abuse habit clearly applies to both men and women.

Health difficulties are prominent among female inmates. Prominent problems include obesity, hypertension, and asthma, as well as Hepatitis B and C, Human Papillomavirus, cervical cancer, and HIV. An estimated 5% of women entering prison are pregnant; many of these women have high-risk pregnancies because of drug use and inadequate prenatal care (see, e.g., Braithwaite et al., 2005; Lewis, 2006).

Research also suggests that rates of mental illness differ between incarcerated males and incarcerated females. Mental and emotional disorders are quite prevalent among incarcerated women, and female inmates tend to have higher rates of mental illness than community females and incarcerated males (Lewis, 2006; Warren et al., 2002). Between one third and two thirds of women entering correctional institutions require mental health treatment, and one fifth of female inmates have taken psychotropic medications (Lewis, 2006). The most common diagnoses among female inmates are posttraumatic stress disorder, major depressive disorder, and generalized anxiety disorder (Connor, 1997; Lewis, 2006; Warren et al., 2002). Many female inmates experience these disorders comorbid with substance abuse or dependence (Lewis, 2006; McClellan et al., 2002; Sacks, 2004). One study found that 51.8% of incarcerated women who are substance dependent reported mental health problems that interfered with their lives, compared with 28.4% of incarcerated women who are not substance dependent. These figures stand in stark contrast to the figures reported for incarcerated men. For them, 30.7% of those who are substance dependent reported mental health problems, compared with 15.1% of nondependent men (McClellan et al., 1997).

Research also reveals differences between male and female inmates with respect to victimization. Victimization has been defined as the experience of physical or sexual abuse during childhood, battering by an intimate partner during adulthood, criminal or sexual assaults at any time in one's life, or any combination of these events (Lake, 1995; Lewis, 2006; McClellan et al., 1997). Although Lake (1995) reported that both incarcerated males and incarcerated females commonly reported experiencing physical abuse by parents during childhood (55.4% and 64.8%, respectively), she identified differences in other types of reported victimization. Specifically, although males and females report similar rates of victimization by strangers, males are more often physically assaulted and females are more often sexually assaulted (Lake, 1995).

Other research has also identified differences in victimization between male and female inmates. McClellan et al. (1997) found that more incarcerated females (30.8%) than incarcerated males (1.1%) reported experiencing sexual victimization during adulthood. In

addition, more female inmates (53.4%) than male inmates (7.7%) reported having been beaten during adulthood, typically by intimate partners (McClellan et al., 1997; see Warren et al., 2002).

REHABILITATING INCARCERATED WOMEN

GENDER-SPECIFIC PROGRAMMING

The recent shift involving greater focus on specific rehabilitative needs for female offenders is apparent in the approach termed "gender-responsive" or "gender-specific" programming (Bloom, Owen, & Covington, 2003; General Accounting Office, 1999). Noting the historical neglect of the specific rehabilitative needs of women in correctional facilities, the General Accounting Office (1999) described changes since 1980 in the three largest correctional systems for incarcerated women (the Federal Bureau of Prisons, the California Department of Corrections [DOC], and the Texas Department of Criminal Justice). Only the federal system has an explicit policy addressing gender-specific programming; California and Texas provide treatment that is not described as gender specific but comparable in quality for males and females. However, all three systems do provide some programs and services specifically for women.

According to Bloom et al. (2003), the National Institute of Corrections coordinated a 3-year study to examine treatment and programming for female inmates. The study reviewed existing research and summarized gender differences in domains that include pathways to involvement with the legal system, offenses, and offense circumstances. Observed gender differences were then evaluated for their potential impact on programmatic needs (Berman, 2005; Bloom et al., 2003; Van Voorhis, 2005). Results suggested that women have distinctive needs in mental health, drug use, family, education and vocation, and transportation and that these needs must be addressed during incarceration through gender-specialized services. Bloom et al. (2003) offered guidelines for corrections agencies in implementing such gender-specific programming. Using these guidelines, the National Institute of Corrections is seeking to assist various jurisdictions to develop similar programs (Berman, 2005; Bloom et al., 2003).

The Correctional Services of Canada set up a task force to identify and address specific problems that affect federally sentenced women in Canada (see Task Force on Federally Sentenced Women, 1990, for details). Interviews with federally sentenced women in prison and on parole or mandatory supervision were used to gather information about needs for programs and services. The task force identified problems in accommodation, prerelease, and community options. They made several recommendations: a new regional women's facility with a homelike environment, an aboriginal healing lodge to incorporate healing and religious aspects, and a community release strategy that would include halfway houses, aboriginal centers, satellite units, home placements, addiction treatment centers, and multi-use women's centers (Task Force on Federally Sentenced Women, 1990).

GENDER DIFFERENCES AND GENDER-SPECIFIC NEEDS

What is known empirically about the differences between incarcerated males and females that would inform the need for and implementation of gender-specific services? There are

several important differences between incarcerated men and women. Racial and ethnic minorities are overrepresented in both groups, but incarcerated women tend to be more economically disadvantaged—more females (30%) than males (8%) received social assistance immediately before the offense for which they were imprisoned, and fewer females (40%) than males (60%) in state prisons were employed full-time at the time of the arrest (Connor, 1997; Covington & Bloom, 2006; Greenfeld & Snell, 1999; Singer et al., 1995). Males in both state and federal prison systems have a higher average number of children younger than the age of 18 years than do female inmates in these systems (Greenfeld & Snell, 1999). For those in state custody, women with minor children are more likely than men with minor children (64% vs. 44%) to be residing with their children at the time of arrest. However, in the federal system, 80% of males with minor children resided with their children, compared with approximately 60% of females with minor children (Greenfeld & Snell, 1999). Jiang and Winfree (2006) reported that women are more often involved with child rearing than are men. Among those incarcerated, a higher proportion of females than males are serving sentences for drug or property offenses rather than violent offenses (Desrosiers & Senter, 2007; Harrison & Beck, 2006). Fewer females (19%) than males (38%) have a previous juvenile history, and fewer females (65%) than males (77%) had prior convictions (Greenfeld & Snell, 1999). Fewer females are rearrested, reconvicted, or returned to incarceration (either for a technical violation or a new offense; Langan & Levin, 2002).

Despite recognition that incarcerated men and women differ in certain respects, there is limited empirical research addressing differences in gender-specific criminogenic needs. Indeed, some researchers have suggested that there are no meaningful differences between genders in this regard. Dowden and Andrews (1999) addressed the question of whether characteristics and circumstances more common in women affect the applicability of risk, needs, and responsivity (Andrews & Bonta, 1998) to them. ("Risk" refers to the likelihood of reoffending, "needs" the deficits which function as risk factors for reoffending, and "responsivity" the likelihood of a favorable response considering characteristics of the intervention and its fit with the offender). Dowden and Andrews combined and measured adherence to these principles in treatment studies of female offenders. An analysis of the 45 effect sizes derived from 26 studies yielded stronger treatment effects in the form of reduced recidivism rates in treatment programs that (a) identified higher and lower risk groups, (b) addressed more criminogenic than noncriminogenic needs, and (c) used behavioral–social learning treatment rather than nonbehavioral treatments. The researchers concluded that the principles of risk, need, and responsivity apply to the rehabilitation of female as well as male offenders, although they acknowledged that they did not examine differences specifically associated with gender. This suggests that broad rehabilitation strategies may be comparable across genders but leaves open the possibility that specific interventions might be differentially effective.

With greater empirical attention to differences between male and female offenders, several possible differences relevant to risk and needs have emerged. One is the impact of victimization as a risk factor for offending in females. As previously noted, research has revealed differences between male and female inmates in terms of victimization. Warren et al. (2002) noted that 55% of female inmates reported a history of sexual or physical victimization before the age of 18, and McClellan et al. (1997) observed that in their sample of incarcerated adults, 30.8% of women had experienced sexual victimization and 43.8% had experienced mental/emotional victimization in adulthood. These figures are considerably

higher than the figures reported for male inmates. For example, McClellan et al. found that 1.1% of males had been sexually victimized and 12.3% had been mentally/emotionally abused in adulthood. To examine whether victimization functions as a risk factor for recidivism, Benda (2005) compared adult male and female graduates of a boot camp program. Using Cox's proportional hazards model, he identified physical or sexual abuse (reported either during childhood or currently) as a risk factor for females; self-reported abuse was a predictor of return to the custody of the DOC for parole violation or new felony within 5 years of release.

A second emerging area with potential implications for risk and responsivity in women involves the role of social relationships. One study (Alarid, Burton, & Cullen, 2000) found parental attachment to be a key protective factor for them, with the strongest predictor for female involvement in the criminal justice system being marriage or cohabitation—women whose romantic partners engaged in criminal behavior were more often engaged in criminal behaviors themselves. This does not make female offenders unique, of course. There is also a positive association between peer influence and criminal behavior in males (Alarid et al., 2000; Mears et al., 1998). Some (e.g., Mears et al., 1998) have speculated that peers may be a risk factor for juvenile males but a protective factor for juvenile females; such speculation is consistent with the results of a recent study of adult offenders which found that females tend to commit crimes by themselves or with males (Koons-Witt & Schram, 2003). This outcome raises the interesting prospect of the potential influence of romantic partners on female criminality, although there is clearly insufficient evidence to establish this relationship as yet.

THIS STUDY

Despite recent developments in gender-specific programming, there is a relative absence of empirical research that can inform the implementation of such interventions. This study is intended to fill a gap in the existing literature by empirically examining the characteristics and rehabilitative needs of female offenders that distinguish them from their male counterparts. This is an important first step in the process of empirically guiding the development of gender-specific rehabilitative programming. In this study, we examine differences between male and female offenders in terms of rehabilitative needs, with a particular focus on the role of social relationships, employment, and financial risk factors. It is hypothesized that males and females will differ significantly on these domains.

METHOD

PARTICIPANTS

Archival records from 2,321 individuals (1,435 male and 886 female offenders) were reviewed as part of this study. The male group was randomly sampled from offenders who had been released from two private assessment and rehabilitation centers in New Jersey between 1999 and 2003. The female group was composed of all women who were released between 2004 and 2006 from a private assessment and rehabilitation center operated by the same company. All offenders were on minimum-security status at the time they were

released from incarceration in New Jersey prisons and placed into the assessment and rehabilitation centers. Other criteria for placement into assessment centers include no history of adult arson or sex offenses, full minimum status, and 18 months from parole eligibility date. Participants were subsequently placed in community halfway houses in New Jersey following release from these assessment and rehabilitation centers.

About 20% of New Jersey inmates are released from prison through private assessment centers; the remainder are released on parole directly from prison or because they have completed their maximum sentence. The purpose of the assessment center is to provide a comprehensive risk/needs assessment so that the DOC can make an informed decision about the inmate's placement. Those transferred to these assessment centers operated by Community Education Centers are representative of the broader DOC population in age, ethnicity/race, criminal history, and substance abuse history (Heilbrun et al., 2008). An inmate is transferred to an assessment center after DOC approves the transfer. Such individuals are technically still in DOC custody while in the assessment center, where they stay between 60 and 90 days.

The ages of those in the male offender group ranged from 18 to 63, with a mean of 32.2 years (SD = 7.5). The male sample was predominantly African American (n = 1,026, or 71.5%), with a smaller number of Hispanic (n = 219, or 15.3%) and Caucasian (n = 184, or 12.8%) individuals. There were 6 males (0.4%) whose self-identified racial/ethnic category was "other." Approximately 23.6% (n = 339) of the males had a current violent offense, 29.3% (421) had a current property offense, and 57.8% had a current drug offense (some offenders had multiple offenses for which it was difficult to establish which was "primary," so these offenses add to more than 100%).

Female offenders ranged in age from 18 to 78, with a mean of 35.7 years (SD = 8.6). The female sample was also predominantly African American (n = 518, or 58.5%), with fewer Caucasian (n = 250, or 28.2%) and Hispanic (n = 107, or 12.1%) individuals. Six women (0.7%) were self-identified as "other" in racial/ethnic group, and there was no information for an additional 5 (0.6%) women. Approximately 15.2% (n = 135) women had a current violent offense, 24.0% (n = 213) had a current property offense, 36.5% (n = 323) had current drug offense, and 24.3% (n = 215) had an offense classified as "other" (e.g., prostitution).

MATERIALS

All individuals entering these assessment and rehabilitation programs received a battery of tests and were interviewed by master's-level assessment counselors as part of the initial intake. Information available for review as part of this assessment was quite detailed, including all DOC records. Males were administered a test of cognitive ability and aptitude (the Wonderlic Personnel Test; Wonderlic Associates, 2000) and a substance abuse measure (the Substance Abuse Subtle Screening Inventory; Miller, 1985). Test–retest reliability coefficients for the Wonderlic Personnel Test range from .82 to .94 (Wonderlic Associates, 2000), and alternate-forms reliability coefficients range from .73 to .95 (Spies, Plake, Geisinger, & Carlson, 2008). Buttigieg (2006) found few differences in scores by gender but moderate differences based on race. The assessment counselors were all trained by a certified expert Level of Service Inventory–Revised (LSI-R) trainer.

The Substance Abuse Subtle Screening Inventory measures the potential presence of a substance use disorder, with the anticipation of possible inaccurate responding on the part of the examinee. Internal consistency coefficients range from .27 to .95, and test–retest reliability

correlations average .96 (Feldstein & Miller, 2007). There was a mean test–retest correlation for the subscales of .66 at 2 weeks (Feldstein & Miller, 2007). The Substance Abuse Subtle Screening Inventory manual reports an accuracy rate of .94, with sensitivity and specificity also both reported to be .94; later studies offered somewhat lower estimates of the measure's sensitivity and specificity (Feldstein & Miller, 2007).

Males entering between 1999 and 2000 were administered the Correctional Offender Management Profiling for Alternative Sanctions (Brennan & Oliver, 2000), and those admitted between 2000 and 2003 were administered the LSI-R (Andrews & Bonta, 2001). The Correctional Offender Management Profiling for Alternative Sanctions is designed to assess offenders' level of risk and need. Internal consistency coefficients range from .52 to .90, and the measure's subscales show correlations with age at first arrest, number of previous arrests, number of times incarcerated, arrests on bail, and probation or parole revocation. Subscale scores have been found to be strong predictors of program failure for offenders in community programs (Brennan, Dieterich, & Ehret, 2007). The LSI-R is an assessment tool designed to aid in the classification of offenders with regard to recidivism risk and criminogenic needs. Internal consistency of the LSI-R has been reported between .64 and .90 across eight studies (Andrews & Bonta, 2001). Interrater reliability ranges from .87 to .94, and test–retest reliability ranges from .95 to .99 (Andrews & Bonta, 2001).

Females admitted between August 2003 and March 2006 received the LSI-R, whereas those entering after April 2006 received the Level of Service–Case Management Inventory (LS-CMI; Andrews, Bonta, & Wormith, 2004), a revised version of the LSI-R. According to Andrews et al. (2004), internal consistency alphas of the LS-CMI total and subcomponents of Section 1 range from .51 to .90 for U.S. offenders, and .47 to .89 for female offenders in the United States. Alphas for Subcomponents 2, 3, 4, and 5 range between .24 and .72 for incarcerated offenders. Interrater reliability has been reported at .88. Data on test–retest reliability are not available; the rationale for this involves the tool's measurement of both static and dynamic risk factors, with the expectation that some change over time will occur. LS-CMI recidivism risk level shows a correlation of .59 with general recidivism and .40 with violent recidivism in a sample of female offenders. The total score for Section 1 has a correlation of .63 with general recidivism and a correlation of .44 with violent recidivism in the same sample (Andrews et al., 2004). There were no significant differences found between ethnic groups or genders (Spies et al., 2008).

Entering females also were administered the Texas Christian University Drug Screen (TCU-DS-II), which is a measure of substance abuse (Simpson, Knight, & Broome, 1997). Test–retest reliability is reported to be .95 (Peters et al., 2000), and its accuracy in detecting either alcohol or drug dependence is 82.1%, with sensitivity at .85 and specificity at .80 in a sample of prison inmates (Peters et al., 2000). Women in the present study were also administered the Personality Assessment Inventory, which is a broad measure of personality and psychopathology (Morey, 1991). Among a census-matched sample, internal consistency coefficients for the 22 full scales range from .45 to .90, with a median alpha of .81 (Morey, 1991). In a combined sample of community participants and college students, test–retest reliability correlations ranged from .31 to .92 (Morey, 1991). The validity, clinical, treatment consideration, and interpersonal scales showed correlations with similar measures including the Minnesota Multiphasic Personality Inventory, NEO-Personality Inventory, and Beck Scales (Morey, 1991). The TCU-DS-II and the Personality Assessment Inventory are part of the standard battery given at the assessment and rehabilitation center.

These results are not reported because the present study is focused on gender differences in risk, needs, and responsivity as measured by the LSI-R and LS-CMI.

DESIGN AND PROCEDURE

A database was created in SPSS based on the information contained in a typical assessment file from the assessment and treatment center. In addition to the testing materials, each assessment file includes an assessment interview and report. Many of the variables in the assessment interview are obtained from the resident's DOC offender file; others are obtained through self-report. A coding manual was created containing the operational definition for each variable, and research assistants were trained in its use. Data were entered into the SPSS-compatible database created for the purpose of this study, consistent with the operational definitions described in the manual. When the same individual was admitted to the assessment and rehabilitation center more than once, only the data from the first admission were included. Individuals who were returned to prison directly from the assessment and rehabilitation center, and therefore did not enter a subsequent community placement, were also excluded from the database. A random sample of the files were re-entered by a separate researcher and the agreement between researchers was found to be excellent, with the only instances of disagreement involving two rater errors.

A total of 241 variables were included in the database. The database includes scores on all routinely administered measures. The variables included from the assessment interview included self-report and file data on the individual's family, education, employment, religion, substance abuse, criminal history, medical history, and psychiatric history.

The variables considered in this study included age, race, marital status, education, and gender. We also considered sentence length (as reported in the file), the overall score for the LSI-R, and the scores on several LSI-R domains. The domains selected specifically for use in this study, to make particularly relevant gender comparisons, included Financial, Education/Employment, and Companions.

RESULTS

Sample characteristics for male and female offenders (see Table 1) reflected few overall differences. There was a statistically significant difference between males and females in sentence length, with males serving longer sentences, $t(2,310) = 9.61$, $p < .01$, $r^2 = .038$. Chi-square tests of independence between males and females on marital status, family marital status, employment, companions, race, education, and financial variables reflected two differences. Males were more often single, and females more frequently divorced or widowed, $\chi^2(4, N = 2,314) = 32.02$, $p < .001$. There was also a significant difference between males and females in regard to race, with the male group having a higher percentage of African Americans and female group a higher percentage of Caucasians, $\chi^2(3, N = 2,316) = 88.18$, $p < .001$.

The LSI-R includes several domains used for analysis. A higher score on a given domain reflects a "satisfactory situation with no need for improvement" (Andrews & Bonta, 1995), whereas a lower score indicates an "unsatisfactory situation with a very clear and strong need for improvement" (Andrews & Bonta, 1995). The domains used in the present analysis were companions, financial, education/employment, family/marital, criminal history,

TABLE 1: Demographic Characteristics of Male (*N* = 1,435) and Female (*N* = 886) Offenders

	N	*M*	*SD*	Range
Age[a]				
Male	1,435	32.18	7.54	18-63
Female	882	35.72	8.60	18-78
Sentence length[b,*]				
Male	1,434	72.77	53.61	5.17-780
Female	878	52.03	44.55	6.60-720

	Male		Female	
	N	% of Total	*N*	% of Total
Marital status[c,**]				
Single	1,168	81.4	660	75.1
Married	107	7.5	63	7.2
Separated	57	4.0	62	7.1
Divorced	93	6.5	68	7.7
Widowed	10	0.7	26	3.0
Race/Ethnicity[d,**]				
Caucasian	184	12.80	250	28.4
African American	1,026	71.50	518	58.8
Hispanic	219	15.30	107	12.1
Indian	2	0.10	0	0
Middle Eastern	1	0.06	0	0
Native American	1	0.06	2	0.2
Other	2	0.01	4	0.4

Note. Age and sentence length between males and females was determined using a two-tailed *t* test. Marital status and race/ethnicity differences were determined using chi-square test of independence.
a. The ages of four women could not be determined.
b. The marital status of seven women could not be determined.
c. The sentence length of one man and eight women could not be determined
d. The racial/ethnic category of five women could not be determined.
*$p < .01$. **$p < .001$.

accommodation, alcohol/drug, and attitudes/orientation. The companions domain involves a rating of the quality of friends and acquaintances, and the financial domain reflected problems in a person's financial situation. The education/employment domain rated a combination of education and employment participation and performance. The family/marital domain encompasses the current level of family/marital interactions and relationships. Criminal history domain involved prior arrests and convictions, accommodation rated satisfaction with living situation and environment, the alcohol/drug domain addressed problems with substances, and the attitudes/orientation domain rated how a person thinks about himself or herself, others, and the world (Andrews & Bonta, 1995). As may be seen in Table 2, there was a significant difference between males and females in the companions domain, with more men in the medium range and a higher percentage of women in the very high range, reflecting very substantial problems, $\chi^2(2, N = 1{,}398) = 31.00$, $p < .001$. There was also a significant difference between men and women in the financial domain, with a higher percentage of males in the very low to low range, and more females in the high to very high range, $\chi^2(2, N = 1{,}398) = 23.48$, $p < .001$, again reflecting more women experiencing serious difficulties in this domain. There was also a significant different between males and females in the criminal history domain, $\chi^2(2, N = 1{,}398) = 49.61$, $p < .001$, with a higher percentage of men in the high to very high range. A further significant difference was

TABLE 2: Level of Service Inventory Domains for Male ($N = 1{,}025$) and Female ($N = 373$) Offenders

	Gender	*N*	*M*	*SD*
Financial**	Male	1,025	1.79	0.99
	Female	373	2.02	0.85
Companion**	Male	1,025	2.43	0.94
	Female	373	2.67	1.09
Education/Employment	Male	1,025	2.48	0.82
	Female	373	2.45	0.80
Family marital status**	Male	1,025	1.39	0.83
	Female	373	1.90	0.94
Criminal history**	Male	1,025	2.74	0.82
	Female	373	2.35	0.89
Accommodation**	Male	1,025	1.21	0.87
	Female	373	1.27	0.61
Alcohol/Drug*	Male	1,025	2.32	0.97
	Female	373	2.41	1.27
Attitudes/Orientation	Male	1,025	0.95	1.06
	Female	373	0.98	1.06

*$p < .01$. **$p < .001$.

observed in the family/marital domain, $\chi^2(2, N = 1{,}398) = 124.22$, $p < .001$, with a higher percentage of males in the very low to low range and more females in the high to very high range. The accommodation domain also showed significant differences, $\chi^2(2, N = 1{,}398) = 30.28$, $p < .001$, with a higher percentage of males in the medium range and a higher percentage of females in the very low to low range. The alcohol/drug domain, $\chi^2(2, N = 1{,}398) = 9.82$, $p = .007$, also showed a significant difference. The magnitudes of the gender differences in the accommodation and alcohol/drug domains were small, however, suggesting the unlikelihood of clinical significance. Also, there was no significant difference between men and women in the education/employment domain, $\chi^2(4, N = 1{,}398) = 2.01$, *ns*, or the attitudes/orientation domain, $\chi^2(2, N = 1{,}398) = 0.65$, *ns*.

DISCUSSION

In recent years, the number of women involved with the criminal justice system has increased substantially. Although female offenders were once largely neglected by researchers, primarily because they constituted a relatively small proportion of the correctional population, the recent and rapid rise in their numbers has resulted in increased attention from researchers. Feminist criminologists have noted certain flaws in traditional gender-neutral theories of crime, advocating the development of theory and practice that more fully addresses the experiences and needs of female offenders. However, only a small proportion of the empirical research focusing on female offenders has focused on differences between male and female offenders in terms of characteristics, risk factors, and criminogenic needs. Despite the absence of an adequate empirical foundation for assessing gender-specific risk and needs among offender populations, there has been a substantial movement toward gender-specific rehabilitative programming and treatment based on theoretically unique (or at least highly distinctive) risk factors and treatment needs of female offenders.

In this study, we examined potential differences relevant to rehabilitative needs between male and female offenders in a moderate-sized sample of minimum-security criminal

offenders released from several privately owned assessment and treatment centers in New Jersey. Taken as a whole, the results of between-groups analyses some few statistically significant differences between the male and female offenders. But, these results also appear to suggest substantial overlap in criminogenic risk and needs between the male and female offenders in our sample. This finding is consistent with the results of Dowden and Andrews's (1999) meta-analysis on treatment success among female offenders, in which the investigators reported that the clinically relevant principles of human service, risk, need, and responsivity apply similarly to both male and female offenders in terms of reducing risk for subsequent offending.

However, there were some important differences between the male and female offenders in this study. For example, the results revealed statistically significant difference between the males and females on the Financial domain of the LSI-R, with a higher percentage of men scoring in the very low to low range and a higher proportion of women scoring in the high to very high range. This suggests that the female offenders in our sample experienced greater levels of financial difficulty than the male offenders. This finding is consistent with prior studies that have documented greater numbers of women receiving social assistance immediately before the offense for which they were imprisoned, and fewer women in state prisons who were employed full-time when they were arrested (Connor, 1997; Covington & Bloom, 2006; Greenfeld & Snell, 1999; Singer et al., 1995). In addition, this study's results reflect a statistically higher proportion of the male offenders being single, whereas female offenders were significantly more likely to be divorced or widowed. This finding may have important implications regarding the role of social relationships among male and female offenders, as discussed next.

This study also points to an apparent difference between the male and female offenders in the area of social relationships. Specifically, the results revealed a statistically significant differences between the males and females on the companion variables from the LSI-R, with a higher percentage of the males scoring in the medium range and a higher percentage of the females scoring in the very high range. This finding suggests that these domains are more often criminogenic for the female offenders in our sample. Such a difference between male and female offenders in the area of social relationships has been observed by others. Mears et al. (1998) suggested that the presence of peers has a differential impact on males and females, with peers typically functioning as a risk factor for males and a protective factor for females. This is consistent with the results of a study by Koons-Witt and Schram (2003), which revealed that female offenders are more likely to commit crimes by themselves or with men and correspondingly less likely to engage in criminal behavior when with other women. Although the existing body of research is still not sufficient to permit one to draw definitive conclusions regarding the role of social relationships in offending behavior, the results of this study provide support for the prospect that the presence of companions has a differential impact on risk among male and female offenders.

The present results certainly highlight the importance of additional research in these areas, with a specific focus on criminogenic risk and needs. This may be particularly true for gender differences in social relationships, which have potential implications for risk, needs, and responsivity among female offenders. Along these lines, several organizations have called for greater gender-specific rehabilitative programming and treatment aimed at the unique needs of female offenders. For example, the Women's Prison Association, which is an advocacy organization and a subset of the Institute on Women and Criminal Justice,

is dedicated to expanding the availability and content of rehabilitative programming and treatment for female offenders involved in the criminal justice system. The Women's Prison Association focuses on areas that include family responsibilities (e.g., caring for dependent children), positive coping strategies, healthy social and familial networks, and access to educational and vocational opportunities that will lead to greater economic independence (Greene & Pranis, 2006). Another organization, the Sentencing Project, focuses on factors that make reintegration into society particularly difficult for female offenders, such as housing, transitional incomes, and employment (Sentencing Project, 2007).

The present study was conducted on a largely atheoretical basis. This certainly could affect the ultimate findings, as our efforts were not focused on particular areas of risk-relevant need identified by feminist criminological scholars, or by others whose theoretical model drives the identification of relevant domains (see, e.g., the "Good Lives Model" described by Ward, Mann, & Gannon, 2007, or the restorative justice model discussed by Davis, Messmer, & Umbreit, 1992). Several researchers have also recognized gender differences among offenders that have implications for the content of gender-specific rehabilitative programming and treatment. For example, Benda (2005) noted that females are often more socially oriented than males and thus derive more motivation for action from social relationships. McClellan et al. (1997) suggested that incarcerated women would likely benefit from prison programming that incorporates relationships and empowerment in its treatment, a suggestion consistent with those made by other researchers in this area (Covington & Bloom, 2006; O'Brien & Young, 2006). This might suggest that future research can profitably focus on specific areas within broader domains that arguably distinguish males and females. Gang involvement for males versus domestic partners and parenting for females might fall within the broader domain of social and family relationships but have very different implications regarding their investigation and probable outcomes. However, it should also be noted that the present research literature on gender differences is almost entirely theoretical and fairly limited empirically, so the addition of atheoretical, empirical results to the larger picture can potentially complement the application of particular theoretical approaches toward increasing our knowledge.

The findings of this study must be considered in light of several limitations. The nature of some of the variables examined in this study does not permit close scrutiny in areas that may effectively distinguish, in a more subtle fashion, between criminogenic risk and needs for male and female offenders. For example, although the LSI-R provides data across several important domains, some LSI-R variables are measured broadly. In addition, other variables that were collected as part of the routine intake process at the assessment and rehabilitation centers, such as history of child abuse, were simply measured dichotomously (presence/absence), which limits the types of statistical analyses that can be conducted. In particular, no data in this study directly addressed the issue of parenting, which is likely to be a variable on which male and female offenders have distinctive experience and needs.

There are also several factors that limit the generalizability of this study's findings. Although the sample size of 2,321 male and female offenders was fairly large, all of the offenders came from a single state (New Jersey) and from several private assessment and rehabilitation centers owned and operated by the same company. Moreover, all of the offenders in the sample were of minimum-security status at the time they were released from incarceration and placed into the assessment and rehabilitation centers. Given these considerations, it is not clear whether this study's results would extend to offenders at higher levels of security, so the generalizability of these findings must be viewed with caution.

The results of this study, and the associated limitations, suggest several promising areas for future research. Studying gender-specific criminogenic risk and needs among a more diverse sample of male and female offenders, recruited from more than one state and consisting of varying risk levels, would provide important data about the robustness of the present findings. In addition, using data collection techniques that provide more detailed information about the offenders would assist researchers in making finer distinctions regarding the criminogenic risk and needs of male and female criminal offenders, particularly in additional promising areas such as parenting. Finally, outcome research examining gender-specific programming and treatment would provide important data about the effectiveness of gender-specific intervention approaches.

As the call for gender-specific rehabilitative programming and treatment among criminal offenders becomes more prevalent and influential, it is important that these intervention approaches are informed by the results of well-designed empirical studies. Research examining the differences between male and female offenders, particularly related to gender-specific criminogenic risk and needs, should be used as a basis to inform the development and implementation of gender-specific rehabilitative strategies. The present study takes an important step in identifying certain differences between male and female offenders and failing to detect differences in other areas. The results have clear implications for the development of gender-specific rehabilitative programming and treatment and associated research on its implementation and effectiveness.

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