GENDERED PATHWAYS

A Quantitative Investigation of Women Probationers' Paths to Incarceration

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Although qualitative research in the area of gender-responsive offending pathways has grown extensively, little quantitative work has been conducted. This study utilizes interview and survey data to assess various gender-responsive needs with an intake cohort of 313 women probationers. Using a path analytic approach, the study statistically supported three gendered pathways to women offenders' incarceration: (a) a pathway beginning with childhood victimization that contributed to historical and current forms of mental illness and substance abuse; (b) a relational pathway in which women's dysfunctional intimate relationships facilitated adult victimization, reductions in self-efficacy, and current mental illness and substance abuse; and (c) a social and human capital pathway in which women's challenges in the areas of education, family support, and self-efficacy, as well as relationship dysfunction, contributed to employment/financial difficulties and subsequent imprisonment. Support for such gendered pathways has implications for both criminological explanations of female offending and correctional interventions for women.

Keywords: gendered criminal pathways; women offenders

Because crime is predominately a "man's game," it comes as no surprise that most criminological knowledge focuses on how and why men engage in criminal activity. Indeed, women comprise slightly more than 7% of the prison population in the United States (Bureau of Justice Statistics [BJS], 2008a). Pragmatically speaking, this may be one of the principal reasons why there are significantly fewer research endeavors exploring women's criminal behavior. However, when considering other forms of correctional supervision such as probation, women represent upward of 23% of supervised probationers in the United States (BJS, 2008b). Furthermore, the numbers of women under

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correctional supervision are increasing rapidly. Between 1995 and 2007, the total number of incarcerated women rose 67% (BJS, 1996a, 2008a), and the total number of women probationers rose 52% (BJS, 1996b, 2008b). Given that more than 1 million women in the United States are currently under some form of correctional supervision, more study is needed to explore how and why women initially engage in crime and what factors contribute to their sustained offending behavior.

Although criminological scholarship devoted to female offending has certainly increased in recent years, there is still significantly less cumulative knowledge regarding female offending in comparison to male offending. Contributions to the female offending literature have recently emerged within a criminological research framework denoted the "pathways" perspective, which investigates whether women have distinct pathways to initial crime and recidivism compared to men. The pathways research has been significantly informed by looking to alternative fields of study in which women are studied quite extensively, particularly within the fields of psychology, addictions, and social welfare. In fact, feminist criminologists have incorporated the important implications of these bodies of work into their own scholarship for decades (e.g., Arnold, 1990; Bloom, 1996; Chesney-Lind & Rodriguez, 1983; Daly, 1992; James & Meyerding, 1977; Owen, 1998; Smart, 1976). Furthermore, the pathways literature embraces the extensive qualitative research base detailing the broad life disadvantages and social circumstances that put women at risk of ongoing criminal involvement, many of which are fundamentally gendered experiences. Beyond the "triple jeopardy" many women offenders must face related to their race, class, and gender (Bloom, 1996), several unique experiences have been described by women offenders in narratives of their life experiences leading to continued recidivism. Among them are poverty-stricken backgrounds, lifelong traumatic and abusive events, serious mental illness with self-medicating behaviors as coping mechanisms, little social support, dysfunctional intimate relationships, and difficulty managing and providing for their dependent children.

Although these experiences are unfortunately common struggles for women offenders, there is limited research that statistically explores how each of these needs may be structured in women's lives to affect their likelihood of recidivism. To date, the pathways research is enriched mainly by qualitative methodologies, which reflects the perspective's emphasis on capturing women's voices but also its relatively early stage of research development. These qualitative studies undoubtedly provide an essential knowledge base. However, an important methodological step forward is to explore whether such gendered pathways withstand statistical testing. In an effort to draw more definitive conclusions regarding the generalizability of gender-responsive pathways, this study quantitatively investigates women's possible unique routes to ongoing criminal behavior and in many ways complements much of qualitative research.

Specifically, this study used a path analytic statistical procedure with a sample of women offenders to investigate three pathways to women's recidivism that dominate the discussion in the extant literature. Each model is based on prior research and theory extended from the pathways perspective. Additionally, the third model is also informed by gender-neutral concepts of human and social capital and recent research investigating social capital specifically with women offenders (Giordano, Cernkovich, & Rudolph, 2002; Holtfreter, Reisig, & Morash, 2004; Reisig, Holtfreter, & Morash, 2002). All models

reflect the prevailing theme so frequently heard from women offenders in the literature: Dysfunctional and traumatic relationships, poverty, limited human and social capital, addiction, and mental illness coalesce to create common routes to ongoing criminal involvement (Bloom, Owen, & Covington, 2003).

PATHWAYS PERSPECTIVE

Gendered pathways research has focused on girls' and women's life histories in order to understand links between child and adult experiences and offending behaviors (Belknap, 2007). The pathways perspective recognizes various biological, psychological, and social realities that are unique to the female experience and synthesizes these key factors into important theoretical trajectories that describe female offender populations. This literature argues that women's criminal development and, more relevant to the current study, *recidivism* are based on factors either (a) not typically seen with men, (b) typically seen with men but in even greater frequency with women, or (c) seen in relatively equal frequency but with distinct personal and social effects for women (e.g., Belknap & Holsinger, 2006; Chesney-Lind & Shelden, 2004; Farr, 2000; Funk, 1999; Gavazzi, Yarcheck, & Chesney-Lind, 2006; Holsinger, 2000; Holtfreter & Morash, 2003; Reisig, Holtfreter, & Morash, 2006).

Extensive retrospective interviews with female offenders have been tremendously informative in revealing the life experiences that place girls and women at risk. Consistently, data have shown that criminally involved women have life histories plagued with physical and sexual abuse, poverty, and substance abuse (Arnold, 1990; Belknap, 2007; Browne, Miller, & Maguin, 1999; Chesney-Lind & Rodriguez, 1983; Chesney-Lind & Shelden, 2004; Daly, 1992; Gilfus, 1992; Holsinger, 2000; Owen, 1998; Richie, 1996).

For example, Chesney-Lind (1997, 2000; Chesney-Lind & Rodriguez, 1983; Chesney-Lind & Shelden, 2004) has long argued that female offending pathways are unique from male offending pathways. Chesney-Lind's work highlights the intersection of abuse, depression, and drugs for women: Victimization and trauma often lead to depression and other internalized mood disorders, which then frequently lead to self-medicating behavior by abusing drugs. Additionally, although girls and boys generally run away at approximately the same rates, girls are more frequently arrested for this behavior compared to boys (Chesney-Lind, 2000). Unfortunately, this serves as a mechanism for getting girls involved in the juvenile justice system and can ultimately lead to (a) their incarceration if they choose to continue to flee from abusive homes or violate other conditions placed on them; (b) surviving on the streets; (c) prostitution, which can facilitate drug use; and (d) relationships (sometimes violent) with antisocial men who provide for licit or illicit financial needs (Chesney-Lind & Shelden, 2004). Similar arguments regarding these pathways were offered by Arnold (1990) in her study of incarcerated African American women and by Gilfus's (1992) in-depth interviews with 20 female inmates.

Kathleen Daly's (1992, 1994) work also greatly contributed to the pathways perspective, revealing how experiences with abuse, substance abuse, poverty, dysfunctional families, and intimate relationships are distributed differentially across women offenders. Daly (1992) described five unique pathways to felony court based on her thorough review of the

court records of 40 women offenders: (a) "Harmed and harming" women, who experienced abuse or neglect as children, were labeled as "problem" children, acted out frequently, and suffered from substance abuse and mental illness; (b) "street" women, who often fled from abusive homes as children and became addicted to substances and involved in prostitution and other criminal means, which contributed to extensive criminal histories; (c) "battered" women, whose involvement in the criminal justice system was directly attributable to the abuse they experienced from violent intimate partners; (d) "drug-connected" women, who became recently addicted to substances in the context of intimate or familial relationships; and (e) "other" women, who have been described elsewhere as "economically motivated" (e.g., see Morash & Schram, 2002), with no histories of abuse, addiction, or violence.

Daly (1992) acknowledged that although a significant amount of abuse and trauma is found in women offenders' lives, not all women in the system have been abused. Similarly, not all girls who experience abusive and traumatic home situations become involved in criminal behavior. Scholars and practitioners have not been quick to consider abuse as a risk factor for future offending or to develop programs to address abuse. Empirical support for doing so, however, appears to be emerging (Siegel & Williams, 2003; Van Voorhis, Salisbury, Wright, & Bauman, 2008; Widom, 1989).

The context of abuse and victimization plays a primary role in the pathways argument, contending that child abuse is more relevant to female offending behavior than male offending behavior. For instance, girls are more likely than boys to be sexually abused by someone close to them, such as a father or stepfather (Browne & Finkelhor, 1986; Faller, 1990). The relational proximity between the abuser and the child typically results in the abuse being more frequent over a longer period of time, producing more acute short- and long-term impacts (Browne & Finkelhor, 1986; Faller, 1990) including low self-esteem, shame, depression, substance abuse, and anxiety (Gelinas, 1982; Miller, 1988).

Further evidence to support a gendered pathway perspective has come from criminological scholars who did not necessarily seek to explicitly test a pathways model. For example, McClellan, Farabee, and Crouch (1997) investigated both male and female inmates for differences in childhood and adult victimization, substance abuse, and depression. They found several results that illustrated differences in women's pathways to crime compared to men's pathways, including higher rates of (a) child and adult victimization, (b) depression, and (c) overall illicit drug use. Furthermore, the depression of women was more significantly related to their childhood victimization than that of men (i.e., $r = .30$ vs. $r = .18$). In addition, the severity of substance abuse explained more variation in predicting property crime for women than for men. Interestingly, McClellan et al. also found a strong relationship between women's depression and substance abuse: Substance-abusing women inmates were more than twice as likely to have major problems with depression as nonaddicted women inmates. Similar results were found with a random sample of 500 women inmates by Marquart, Brewer, Simon, and Morse (2001).

Finally, more recent evidence has begun to question the applicability of gender-neutral risk/needs assessments to women who followed gendered pathways. Reisig and colleagues' (2006) investigation of the predictive ability of the Level of Service Inventory–Revised (LSI-R; Andrews & Bonta, 1995) with women offenders revealed that for the 76% of women who followed one of the four "troubled" pathways from Daly's (1992, 1994) typology, the LSI-R was unable to accurately predict their subsequent recidivism.

SOCIAL AND HUMAN CAPITAL PERSPECTIVE

In addition to the pathways work, research from a social capital framework is also informative in deciphering patterns of female persistence in offending behavior. Women offenders are largely a group deficient in both social and human capital and often come from very disadvantaged and poverty-stricken backgrounds (Holtfreter et al., 2004; Owen & Bloom, 1995; Richie, 2001) characterized by few social networks and thus little social capital (Lin, 2000).

Although there have been various definitions of social capital over time, Portes (1998) indicated that there is general consensus among sociologists that social capital "stands for the ability to secure benefits by virtue of membership in social networks or other social structures" (p. 6). Social ties equate with "resources for action," creating opportunities for individuals to achieve their goals (J. S. Coleman, 1988, p. S95). More specifically, Bordieu's (1985) definition emphasized the concept's two distinct components: (a) the social relationship that enables individuals to achieve access to desired resources and (b) the quantity and quality of those resources.

Social capital serves as a means to create a source of family support, which has been described as primarily contributing to children's educational and personality development (Portes, 1998). Social capital, or lack thereof, developed from family sources continues to affect children into adulthood, particularly with regard to education and employment outcomes. Moreover, social capital provides benefits through extrafamilial support, which Portes (1998) suggested was its most common function. Social relationships beyond immediate family have the potential to create access to employment and, in turn, pecuniary success.

Relatedly, J. S. Coleman (1988) explicated the development of human capital from social capital. Human capital refers to the internal knowledge, skills, and capacities that make individuals able to act in new ways (e.g., education; J. S. Coleman, 1988). The translation of social capital into human capital (J. S. Coleman, 1988) parallels the effects of social empowerment on psychological empowerment. When individuals experience social conditions that are empowering, this inevitably increases personal psychological empowerment—or the attitude that each individual determines his or her own life path (Pollack, 2000). Although Coleman operationalized human capital as educational achievement, human capital might also be viewed as self-efficacy, or personal confidence to act in the best interest of achieving specific goals. Self-efficacy continues to be an element that gender-responsive and strengths-based literature highlights as a central element to women's desistance from crime (Bloom et al., 2003; Rumgay, 2004), and it appears to be working (Fortuin, 2007; Salisbury, Van Voorhis, & Spiropoulos, in press).

Additionally, increasing social, human, and state capital may be one pathway to criminal desistance for women offenders. Research has supported this notion. Holtfreter et al. (2004) found that providing state capital to poor women offenders (i.e., services related to education, health care, housing, and job training) in order to support their economic needs reduced the odds of recidivism by 83%. In addition, Reisig et al. (2002) found that among a group of felony-convicted women, higher educated women reported larger social networks and more social support. Furthermore, women with "higher" income (more than $8,000 legal income annually) also were members of larger social networks that provided significantly more emotional, social, and overall support than poor women offenders

received. Moreover, the longitudinal research conducted by Giordano and her colleagues (2002) indicated that high-quality employment and marriages as described by women offenders served as insulating mechanisms from criminal activity.

THE CURRENT STUDY

Given what is known about the prevalence of various gender-responsive needs of women offenders, coupled with their significant reductions in social and human capital, an important step forward is to understand statistically how these factors are related to one another in facilitating continued offending. From a research perspective, it is important to offer multivariate, quantitative evidence of the existence of these pathways. Additionally, from a treatment perspective, it is beneficial to understand whether women's gender-responsive needs are directly or indirectly correlated with measures of recidivism. That is, even if a direct relationship were not found between women's needs and recidivism (i.e., if gender-responsive needs are not determined to be risk factors[1]), they may still be integral in creating an indirect recidivistic pathway for women through other behavioral factors. This may be particularly true for those needs that are more distal to offending behavior (e.g., suffering from child abuse).

CHILDHOOD VICTIMIZATION AND RELATIONAL MODELS

The first two path models in the study represent two pathways frequently described by feminist scholars throughout the literature on women's offending pathways. The first model, labeled a *childhood victimization model*, includes measures of victimization as a child, mental illness history, substance abuse history, current depression/anxiety, and dynamic substance abuse. The temporal ordering of gender-responsive risks and needs in this pathway is largely informed by Daly's (1992, 1994) "harmed and harming" women as well as McClellan et al. (1997). This model assumes that among the effects of child abuse, the onset of mental illness occurs prior to substance abuse. Although addictive behaviors might precede mental illness after experiencing childhood abuse, women offenders more frequently describe self-medicating behaviors to manage depression and symptoms related to posttraumatic stress disorder—or the onset of addiction after mental illness has been established (Chesney-Lind, 1997; Covington, 1998).

Furthermore, both historical and dynamic forms of mental illness and addiction are incorporated into the model because they are discussed as conceptually distinct phenomena in the gender-responsive literature. Women offenders' struggles with mental illness and substance abuse are understood to be lifetime struggles (Covington & Surrey, 1997; Peters, Strozier, Murrin, & Kearns, 1997).

A second *relational model* is also analyzed. This model temporally begins with intimate relationship dysfunction, which is hypothesized to lead to reduced levels of self-efficacy and greater likelihood of adult victimization, followed by struggles with depression/anxiety and substance abuse. The relational model is particularly informed by the work of Jean Baker Miller (1986, 1988) and relational theory. According to relational theory, a woman's identity, self-worth, and sense of empowerment are said to be defined by the quality of relationships she has with others (Gilligan, 1982; Kaplan, 1984; Miller, 1976; Miller & Stiver, 1998). Women's dysfunctional relationships with significant others may lead to

feelings of hopelessness and intense feelings of shame, self-blame, and guilt, which, in turn, could result in drug-abusing behaviors (Miller, 1988).

SOCIAL AND HUMAN CAPITAL MODEL

The third model reflects a *social and human capital model* based on recent research investigating social capital specifically with women offenders (Giordano et al., 2002; Holtfreter et al., 2004; Reisig et al., 2002). Risk/need factors in this hypothesized pathway include educational strengths, relationship dysfunction, familial support, self-efficacy, and employment and financial difficulties. The social and human capital model investigates how women's social relationships (with intimate others and family) produce human capital (educational achievement, self-efficacy, and fewer employment/financial needs) to create opportunities to desist from criminal activity. This model is informed by both gender-neutral and gender-responsive frameworks given the (a) generalizability of the benefits of social and human capital for both men and women offenders but also the (b) inclusion of gender-specific constructs related to women's intimate relationships and self-efficacy.

Method. Data for this investigation are derived from the Women's Needs and Risk Assessment Project, a large-scale research study funded by the National Institute of Corrections (NIC), which designed and validated a gender-responsive risk/needs assessment instrument. The NIC's recognition of the multitude of problems that plague women's classification and assessment systems, largely because they were originally designed for men, led to a gender-responsive research initiative within the institute (for a thorough discussion, see Hardyman & Van Voorhis, 2004). The Women's Needs and Risk Assessment Project collected data on women offenders from four correctional jurisdictions between 2003 and 2007 and found that many gender-responsive needs were predictive of women's institutional and community risk (Van Voorhis et al., 2008; see also Salisbury et al., in press; Wright, Salisbury, & Van Voorhis, 2007). The current study analyzed data collected from one of these research sites—specifically, women probationers from the state of Missouri.

SAMPLE AND PARTICIPANTS

Probation districts were selected jointly by Missouri Department of Corrections (DOC) staff and researchers according to a stratified sampling plan. First, districts were selected throughout the state to represent urban and rural areas, and then each district was assigned a quota of participants proportionate to the district's population size. Out of 54 districts, a total of 17 were sampled in the study.

The study included 390 women probationers who were processed through the Missouri DOC[2] between January 27, 2004, and October 5, 2005. The sample of participants represented an intake cohort. A total of 77 probationers opted not to participate, resulting in an acceptable response rate of 80% and a final participant sample of 313 women. Significant differences between participants and nonparticipants were found for race. Specifically, there was a greater number of African Americans among the nonparticipants than the participants ($\chi^2 = 19.37$, $p < .001$; 56% vs. 30%, respectively). Upon comparison of the

TABLE 1:   Sample Descriptives: Demographics and Criminal Histories for Women Probationers

Characteristic	N	%
	313	100.0
Age (n = 307)		
17 years	3	1.0
18-20 years	36	11.7
21-30 years	109	35.5
31-40 years	90	29.3
41-50 years	58	18.9
51 years and older	11	3.6
M = 31.9 years/SD = 9.8		
Race (n = 301)		
White	204	67.8
African American	90	29.9
Asian	3	1.0
Hispanic/Latino	3	1.0
Biracial	1	0.3
Most serious present offense (n = 305)		
Possession of controlled substance/drug paraphernalia	86	28.2
Manufacture of controlled substance	8	2.6
Distributing/delivering/trafficking controlled substance	21	6.9
Child abuse/endangerment/molestation	16	5.2
Assault	7	2.3
Forgery	45	14.8
Fraud (passing bad checks, unlawful use of credit device)	27	8.9
Burglary	9	3.0
Theft	44	14.4
DUI/DWI	9	3.0
Tampering with a moving vehicle (MV)	7	2.3
Leaving scene of an MV accident	1	0.3
Other	25	8.2
Present offense involved violence/harm		
Yes	23	7.3
Present violent/harmful offense committed in self-defense (n = 308)		
Yes	5	1.6
Prior felonies (n = 305)		
None	246	80.7
1-2	55	18.0
3-5	4	1.3
M = 1.3 felonies/SD = 0.7		
Prior offenses involving assault or violence (n = 305)		
Yes	10	3.3
Ever served any other prison terms		
Yes	12	3.8
M = 1.1 terms/SD = 0.3		
Been on supervised probation or parole prior to present offense (n = 309)		
Yes	79	25.6
Currently married		
Yes	74	23.6
Have children younger than age 18		
Yes	205	65.5
Employment (n = 302)		
Employed (full- or part-time, child care, student, or disabled)	199	65.9
Not employed	103	34.1
Graduated from high school or received a GED (n = 307)		
Yes	198	64.5

sample versus the total population of new probationers for fiscal year 2005, the sample racial distributions remained significantly different ($\chi^2 = 4.61$, $p = .03$); however, this analysis revealed that African Americans were actually slightly overrepresented in the sample compared to the population (30% vs. 25%, respectively).

Selection criteria for study participants were as follows: (a) Only women who were newly convicted of a felony were eligible—misdemeanants, 120s (i.e., released offenders from 120 days of shock incarceration), and probation violators (i.e., revoked and reinstated) were not included; (b) participants must have had at least a 2-year sentence of probation; and (c) offenders who were assigned to specialized women offender caseloads were also ineligible. This latter group of women was excluded because they were supervised by probation officers specifically trained on gender-responsive principles, including the pathways perspective and relational theory. Thus, their supervision was likely a fundamentally unique experience in comparison to most other women probationers.

Table 1 presents sample descriptives of the probationers' demographic and criminal histories. The mean age of the sample was nearly 32 years, and slightly more than two thirds were White ($n = 204$), with the remaining women being mostly African American (approximately 30%, $n = 90$). A large percentage of women were on probation for drug-related offenses (37.7%, $n = 115$), with forgery (14.8%, $n = 45$) and theft (14.4%, $n = 44$) also quite prevalent. As expected, only a small proportion of current offenses involved violence or harm (7.3%, $n = 23$). Of the 23 women who committed a violent or harmful act, three were characterized as being in self-defense. Additionally, the majority of women had never been convicted of any felonies other than the current one (80.7%, $n = 246$).

Nearly two thirds of the women had children younger than 18 years ($n = 205$), but only 24% were married ($n = 74$). Sixty-four percent achieved a high school education ($n = 198$), and 66% were employed ($n = 199$). Employment was broadly measured, encompassing full- and part-time employment, full-time child care, full-time school, or disability.

MEASURES

Key measures of women's needs were obtained from two instruments developed for the Women's Needs and Risk Assessment Project: (a) a risk/needs assessment interview created by the Missouri Women's Issues Committee, in conjunction with researchers at the University of Cincinnati, that captured both traditional and gender-responsive needs and (b) a self-report, paper-and-pencil survey completed individually, which was designed to supplement the risk/needs assessment interview by tapping additional gender-responsive needs. The Women's Needs and Risk Assessment Project was reviewed and approved by the Institutional Review Board at the University of Cincinnati.

Items comprising the various domains from both instruments were factor analyzed using principal components extraction unless otherwise noted. As a general rule, items that loaded above .50 among each domain were retained and subsequently added together to create a summed Risk/Need scale. Exceptions to the .50 cutoff were made for some items that either loaded well in other project samples or were too critical among currently established risk instruments to be excluded (e.g., was present offense violent). For ease of interpretation, scales were coded so that they are true to their labels (i.e., high on "self-efficacy" indicates strong self-efficacy, whereas high on "relationship dysfunction" indicates more problems with intimate relationships). Additionally, Table 2 presents measures of central tendency, dispersion, and internal consistency for each scale discussed below.[3]

TABLE 2:   Measures of Central Tendency, Dispersion, and Internal Consistency for Risk/Need Scales

Risk/Need Scale	M	Mdn	SD	Min.-Max.	Eigenvalue	% Variance Explained	α
Assessment interview							
Employment and Financial Needs	3.72	4.00	2.26	0-8	2.31	32.96	.65
Educational Strengths	1.46	1.00	1.20	0-4	1.96	49.08	.65
Family Support	2.83	3.00	1.31	0-4	2.24	55.91	.72
Substance Abuse—History	3.51	3.51	3.28	0-10	5.94	59.36	.92
Substance Abuse—Dynamic	0.69	0.00	1.04	0-6	2.12	35.29	.62
Mental Illness—History	1.84	1.00	1.85	0-6	3.09	51.42	.81
Current Depression and Anxiety	1.99	1.00	2.06	0-6	3.26	54.24	.83
Child Victimization	0.64	0.00	0.82	0-2	Not applicable		
Adult Victimization	0.68	1.00	0.74	0-2	Not applicable		
Self-report survey							
Child Victimization	6.34	3.00	8.65	0-38	10.39	54.70	.95
Adult Physical Abuse	7.43	4.00	8.71	0-30	10.25	68.36	.96
Adult Emotional Abuse	15.45	15.00	10.42	0-32	11.34	70.89	.97
Adult Harassment Abuse	5.30	3.00	5.73	0-22	6.21	56.44	.92
Self-Efficacy	43.84	44.00	5.84	20-51	6.43	37.80	.89
Relationship Dysfunction	6.32	6.00	2.46	4-14	3.18	52.91	.81

ASSESSMENT INTERVIEW

Employment and Financial Needs scale. Socioeconomic strain is a commonly assessed need among risk assessment instruments. Feminist scholars highlight women offenders' extreme poverty and economic marginalization, often in more frequent numbers than men (BJS, 1999; Holtfreter et al., 2004). Furthermore, legislative changes leading to welfare reform have exacerbated women's difficulties in gaining adequate-paying jobs to support themselves and their children (e.g., Personal Responsibility and Work Opportunity Reconciliation Act of 1996). The Employment and Financial Needs scale was comprised of seven items. Two items reflected employment measures (employment status at the time of arrest and difficulty finding and keeping a job in the last 3 years), while the remaining five items represented measures of poverty and economic dependence (no automobile, no checking or savings accounts, unable to pay bills without assistance, and ever been homeless).

Educational Strengths scale. Educational achievement has been used to operationalize human capital in sociological research (J. S. Coleman, 1988). Research has shown that state capital, including educational programming, may reduce the odds of female recidivism by as much as 83% (Holtfreter et al., 2004). The Educational Strengths scale was comprised of four yes/no items: (a) graduated from high school or GED, (b) attended some post–high school classes/college for at least one academic term, (c) received any job-related licenses or certificates, and (d) obtained a college degree.

Family Support scale. Family support in this study denotes a dynamic variable measuring the current social support from women offenders' families of origin. Although few studies have investigated the relationship between this type of family support and recidivism among

women offenders, there are indications that this is a factor important to women's desistance (Arditti & Few, 2006; Benda, 2005; Dowden & Andrews, 1999; Flavin, 2004, Van Voorhis et al., 2008). For instance, a recent study revealed that having a supportive family relationship was a statistically significant protective factor for women offenders, but not for men offenders (Benda, 2005). The Family Support scale included four items that represented prosocial relationships with the family of origin (with little conflict) and frequent communication with family members who encouraged self-improvement and offered assistance in meeting the conditions of supervision (e.g., child care, transportation, and financial support).

History of Substance Abuse scale. A large proportion of offenders enter the criminal justice system with problems related to addiction. More than 60% of female state inmates met *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.) (American Psychiatric Association, 1994) criteria for having a drug dependence or abuse problem during the year prior to their incarceration, and 59% reported having abused substances in the month prior to their offense (BJS, 2006). Although it is true that both male and female offenders struggle with addiction at high rates, the gender-responsive paradigm interprets a woman's substance abuse history as a possible coping mechanism for handling mental illness, perhaps as a result of suffering from abusive experiences (Bloom et al., 2003; Covington, 1998). Ten dichotomous items measuring static substance abuse history (i.e., both alcohol and drug use) were asked of the offenders. Many of these were behaviorally specific in nature, such as whether substance abuse had ever made it difficult to perform at work or school, resulted in financial problems, or caused marital or family fights.

Dynamic Substance Abuse scale. This scale attempted to capture a more current, dynamic problem with addiction. As previously mentioned, the pathways literature discusses this behavior as a way to numb physical or psychological pain often due to physical or sexual abuse (Covington & Bloom, 2006). Both alcohol and drug use dependency were measured using six items. Items in the Dynamic Substance Abuse scale were largely obtained through record checks regarding current use, prevalence of recent (prior 6 months) positive or diluted urinalyses, recent (prior 6 months) legal violations due to substance abuse, peer associations with users, missed treatment or support group meetings, and whether the offender's home was free of substance abuse. The correlation between the Dynamic and Static Substance Abuse scales was strong ($r = .35$, $p < .001$).

History of Mental Illness scale. Gender-responsive research interprets women's histories of mental illness as a possible sequela of trauma and abuse as well as a facilitator of self-medicating behavior (Covington, 1998). Several studies have supported such strong connections (e.g., Kaplan, 1984; Marquart et al., 2001; McClellan et al., 1997). The interview scale included items reflecting whether offenders had ever attempted suicide, been involved in counseling or therapy, taken medication, seen things or heard voices, been hospitalized, or been diagnosed with mental illness.

Current Depression/Anxiety scale. Most recently, "personal distress" has been dismissed as a major criminogenic need, sometimes becoming defined as a "responsivity" factor (Andrews & Bonta, 2003; Blanchette & Brown, 2006). However, research conducted in the

spirit of evidence-based practice may be missing mental heath issues particularly prevalent with women, such as depression and anxiety. Furthermore, behaviorally specific measures of depression and anxiety may be necessary to best capture this need. Thus, this scale included detailed behavioral items to capture common symptoms associated with depression and anxiety. Interviewers asked women whether they were currently experiencing six behaviorally specific symptoms commonly observed with diagnoses of depression and anxiety. Specifically, women were asked dichotomous yes/no questions regarding current mood swings, loss of appetite, trouble sleeping, fearing the future, trouble concentrating, and difficulty functioning as a result of worrying.

Childhood and Adult Victimization scales. Clearly, the importance of abuse and trauma throughout women offenders' lives is strongly emphasized in the pathways literature. The experience of abuse as a child is proposed to be a critical starting point for the development of delinquency (Chesney-Lind & Shelden, 2004) and may also be a distal source for continued criminal conduct among offenders (Marquart et al., 2001; McClellan et al., 1997; Teague, Mazerolle, Legosz, & Sanderson, 2008; Widom, 1989). Furthermore, adult victimization is also argued throughout the literature to play a critical role in women's offending behavior (Daly, 1994; Marquart et al., 2001; McClellan et al., 1997; Richie, 1996).

Importantly, this study incorporated multiple measures of childhood and adult victimization due to the sensitive nature of the information. The first child and adult victimization measures were obtained from the assessment interview and included only two items. Respondents were asked by trained interviewers whether they had ever experienced physical or sexual abuse as (a) a child or (b) an adult. Both scales were cumulative in that responses to both child physical and sexual abuse were summed.

Although these interview scales have the strength of being administered by trained interviewers, they nevertheless were somewhat general and cursory in scope. Browne et al. (1999) noted that such measures typically suppress rates of abuse and victimization and that more specific behavioral indicators are a superior measurement method. Thus, as described below, secondary measures of child and adult abuse were also assessed through a confidential self-report survey that included behaviorally specific abusive acts such as slapping, humiliation, threats, and many others. Comparisons of both types of child and adult victimization measures were conducted in the path models.

SELF-REPORT SURVEY

Childhood and Adult Victimization scales. Items contained in both the Child and Adult Victimization scales from the confidential self-report survey were informed by Belknap, Fisher, and Cullen (1999); Campbell, Campbell, King, Parker, and Ryan (1994); F. L. Coleman (1997); Holsinger, Belknap, and Sutherland (1999); Murphy and Hoover (1999); Rodenberg and Fantuzzo (1993); and Shepard and Campbell (1992). The Child Victimization scale included 19 behaviorally specific items pertaining to abuse and victimization during childhood (e.g., Were you kicked, beaten, or choked?). Respondents were asked to mark one of three response choices for each of the items: (1) *never*, (2) *less than five times*, and (3) *more than five times*.

The Adult Victimization scale was similar in structure. Items measured three distinguishable types of adult victimization: (a) physical, (b) emotional, and (c) harassment. The

Adult Physical Abuse scale contained 15 items, many of which reflected actual physical aggression, while others measured verbal threats of violence. The Adult Emotional Abuse scale incorporated 16 items that reflected jealousy, insults, and controlling behaviors. Finally, the Adult Harassment Abuse scale included 11 items, 3 of which also fell into the Adult Emotional Abuse scale (i.e., harassed you over the phone, harassed you in person, and followed you). This scale represented abusive stalking behavior.

Self-Efficacy scale. Women offenders' lack of self-esteem and self-efficacy often result from frequently experiencing painful dysfunctional relationships or trauma (Covington, 1998). Reduced levels of self-esteem and self-efficacy may be one route through which mental illness and substance abuse are fostered (Miller, 1988). The Sherer Self-Efficacy scale (Sherer et al., 1982) was used to measure this construct and consisted of 17 items using a 3-point Likert-type answer format. Items on this scale were coded so that high values indicated high self-efficacy.

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 "codependency" to describe such difficulties (see Beattie, 1987; Bepko & Krestan, 1985; Woititz, 1983). The six-item Likert-type scale contained items that were influenced by, but not identical to, scales developed by Fischer, Spann, and Crawford (1991; Spann-Fischer Codependency scale), Roehling and Gaumond (1996; Codependent Questionnaire), and Crowley and Dill (1992; Silencing the Self scale). Items pertained to loss of a sense of self in relationships; getting into painful, unsatisfying, and unsupportive relationships; and a greater tendency to incur legal problems when in an intimate relationship than when not in one.

RECIDIVISM MEASURE

A dichotomous measure of prison admission (0 = *no*, 1 = *yes*) at 2 years following admission to probation was used to capture recidivism. Incarcerations for any reason, either for a violation of supervision or for a new offense and conviction, were included. Use of similar measures of incarceration are not uncommon to research in corrections (Lowenkamp, Holsinger, & Latessa, 2001; Lowenkamp, Latessa, & Smith, 2006), and it has been noted that even though prison admissions represent a conservative estimate of future criminal conduct, it is quite possibly the most valid measure that some antisocial behavior did occur (Lowenkamp et al., 2001).[4] Data on admissions to prison were downloaded by Missouri DOC staff from their internal database. A total of 304 (97%) women were able to be tracked. Fifty-two women (17.1%) recidivated and were admitted to prison. The majority of admissions were for violations of probation supervision rather than for new convictions (73.1%). On average, it took just more than 1 year for women to be incarcerated, although the range was between 26 days and 23.6 months.

DATA ANALYSIS

Path analysis, an extension of multiple regression, was used to test the three hypothesized gendered pathways. The temporal order of variables in each path model was heavily guided by prior research and theory, and only recursive models were estimated. Path coefficients

TABLE 3:   Bivariate Correlations—Childhood Victimization Model

	Prison Admission	Child Abuse (Survey)	History of Mental Illness	Current Depression and Anxiety	History of Substance Abuse	Dynamic Substance Abuse
Prison Admission	—	.01	.06	.18**	.18**	.23***
Childhood Victimization (survey)		—	.36***	.22***	.06	.03
History of Mental Illness			—	.41***	.34***	.09
Current Depression/ Anxiety				—	.27***	.23***
History of Substance Abuse					—	.35***
Dynamic Substance Abuse						—

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

were estimated using a series of ordinary least squares (OLS) regression analyses, progressing from left to right in each model. A dichotomous prison admission measure was used as the endogenous variable in the final regression analysis of each model.[5]

RESULTS

CHILDHOOD VICTIMIZATION MODEL

Bivariate correlations. Table 3 presents the bivariate correlation results from the child victimization model. Variables in this model included measures of victimization during childhood, history of mental illness, history of substance abuse, current depression/anxiety, dynamic substance abuse, and prison admission. Scales that were more strongly correlated with prison admission included both measures of substance abuse (both static and dynamic; $r = .16$, $p < .01$, and $r = .23$, $p < .001$, respectively) and current depression/anxiety ($r = .18$, $p < .01$).

There were also several moderate and strong intercorrelations among the gender-responsive needs. First, childhood victimization was associated with the two mental health variables, history of mental illness ($r = .36$, $p < .001$) and current depression/anxiety ($r = .22$, $p < .001$). Not surprisingly, both mental health variables were highly correlated ($r = .41$, $p < .001$) as well as both forms of substance abuse ($r = .35$, $p < .001$). Additionally, history of mental illness was significantly related to history of substance abuse ($r = .34$, $p < .001$), but not to dynamic substance abuse.

Current depression/anxiety, beyond its associations with childhood victimization and history of mental illness, was also strongly correlated with static and dynamic forms of substance abuse ($r = .27$, $p < .001$, and $r = .23$, $p < .001$, respectively). In fact, current depression/anxiety had strong correlations with every other scale in the model. This suggests it may play an integral role in women's pathways to recidivism.

Path model analyses. Path model results are shown in Figure 1 and can be interpreted as standardized OLS regression coefficients. Every possible recursive path was estimated in the model, but only significant paths are shown. Analyses indicated that although childhood victimization was not directly related to prison admissions, it was an indirect influence as an impetus for psychological sequelae that in turn created five distinct paths to recidivism
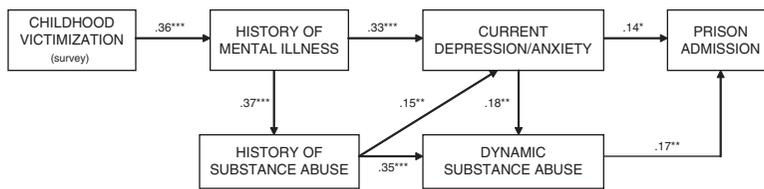
Figure 1:   Childhood Victimization Path Model
Note. Only paths significant at *p* < .05 are shown.
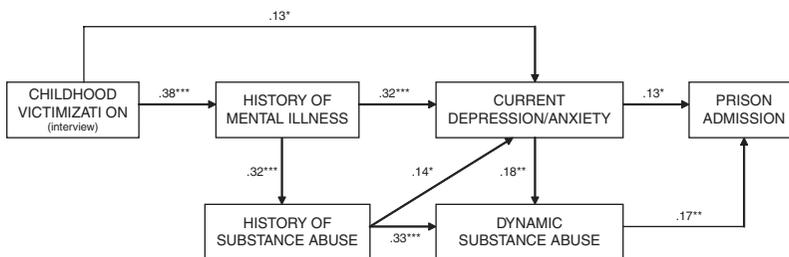*p < .05. **p < .01. ***p < .001.

Figure 2:   Childhood Victimization Path Model—Replicated With Childhood Victimization Interview Measure
Note. Only paths significant at *p* < .05 are shown.
*p < .05. **p < .01. ***p < .001.

for women. Women's childhood traumas were related to major mental health problems, especially depression and anxiety, as well as addictive behaviors. Indeed, it appears that child abuse cannot be ignored in facilitating women's criminal behavior.

Each of the independent variables had some type of effect on recidivism, either directly or indirectly. Symptoms of Depression and Anxiety and Current Drug Addiction were the two variables that directly led to women's recidivism. However, at the root of women's addictions and depressive or anxious symptoms were experiences of childhood abuse.

Overall, this model illustrated the detrimental intersecting effects of women's abuse, mental health, and addiction on continued criminal behavior. Importantly, these pathways were replicated with a secondary measure of childhood victimization from the interview assessment, as seen in Figure 2. Notably, one unique difference in the replicated analysis was a significant direct link between child victimization and current depression/anxiety (β = .13, *p* < .05). The primary analysis using the behaviorally specific survey measure of child victimization (Figure 1) indicated that this effect did not reach statistical significance (β = .09, *p* = .11).

RELATIONAL MODEL

Bivariate correlations. The second model tested was a relational model. Variables in this path analysis included relationship dysfunction, adult victimization, self-efficacy, current depression/anxiety, dynamic substance abuse, and prison admission. Zero-order correlations are presented in Table 4.

TABLE 4:   Bivariate Correlations—Relational Model

	Prison Admission	Relationship Dysfunction	Adult Victimization (Interview)	Self-Efficacy	Current Depression and Anxiety	Dynamic Substance Abuse
Prison Admission	—	.01	.05	−.12*	.18**	.23***
Relationship Dysfunction		—	.33***	−.36***	.28***	.09
Adult Victimization (interview)			—	−.15**	.32***	.00
Self-Efficacy				—	−.35***	−.26***
Current Depression and Anxiety					—	.23***
Dynamic Substance Abuse						—

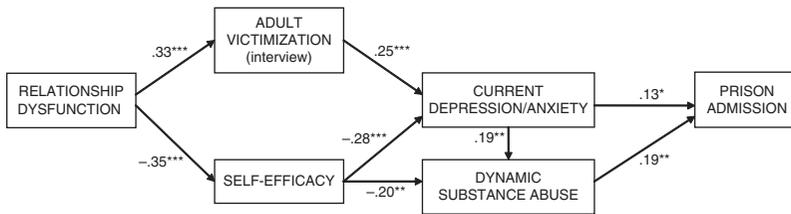*$p < .05$. **$p < .01$. ***$p < .001$.

Figure 3:   Relational Path Model—General Adult Victimization From Interview
Note. Only paths significant at $p < .05$ are shown.
*$p < .05$. **$p < .01$. ***$p < .001$.

Among the risk/need factors in this model, Self-Efficacy, Current Depression and Anxiety, and Current/Dynamic Substance Abuse were all significantly associated with women's admissions to prison within 2 years of their initial interview. Relationship Dysfunction and Adult Victimization did not exhibit meaningful correlations with recidivism.

Several intercorrelations among risk/need factors were also present. Women's Relationship Dysfunction were correlated with Adult Victimization ($r = .33$, $p < .001$), Self-Efficacy ($r = −.36$, $p < .001$), and Depression/Anxiety symptoms ($r = .28$, $p < .001$). Women involved in unhealthy intimate relationships also tended to be victims of adult abuse, have lowered self-efficacy, and suffer from depression or anxiety. Interestingly, there were no relationships between Dynamic Substance Abuse and Adult Victimization or Relationship Dysfunction, results that theoretically would be expected according to the pathways perspective. There were, however, significant associations between Substance Abuse and Current Depression/Anxiety ($r = .23$, $p < .001$) and Adult Victimization and Current Depression/Anxiety ($r = .32$, $p < .001$). Indeed, the mental health measure was strongly correlated with each risk/need factor. Similarly, Self-Efficacy was also associated with each of the other risk/need factors in the model, illustrating its role in women's offending pathways.

Path model analyses. The path model shown in Figure 3 illustrates additional gendered pathways relevant to women offenders. Recall that the Relationship Dysfunction scale was characterized by (a) a loss of a sense of self in relationships; (b) painful, unsatisfying, and unsupportive relationships; and (c) a greater tendency to incur legal problems when in an
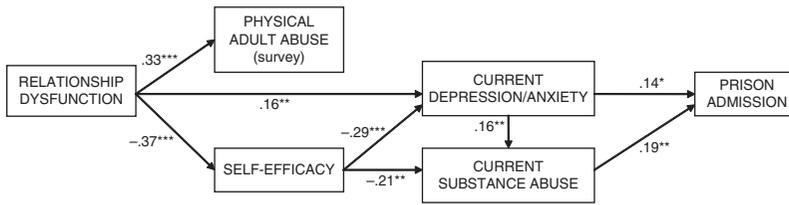
Figure 4:   Relational Path Model—Physical Adult Abuse From Survey
Note. Only paths significant at *p* < .05 are shown.
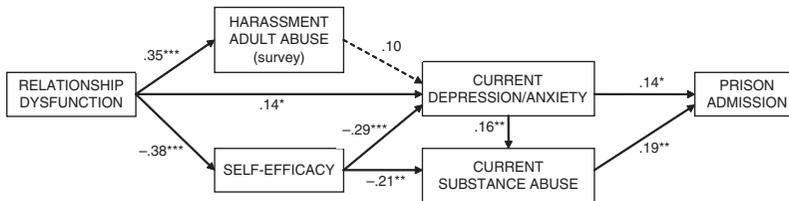**p* < .05. ***p* < .01. ****p* < .001.

Figure 5:   Relational Path Model—Harassment Adult Abuse From Survey
Note. Only paths significant at *p* < .05 are shown. However, the dashed path between Harassment Adult Abuse and Current Depression/Anxiety approached significance at *p* = .07.
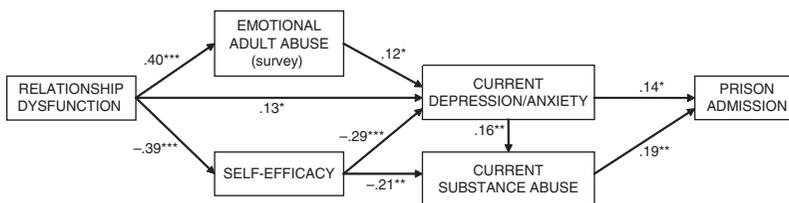**p* < .05. ***p* < .01. ****p* < .001.

Figure 6:   Relational Path Model—Emotional Adult Abuse From Survey
Note. Only paths significant at *p* < .05 are shown.
**p* < .05. ***p* < .01. ****p* < .001.

intimate relationship than when not in one. Women's unhealthy relationships with intimate others were indirectly related to prison admission through adult victimization, reduced self-efficacy, depression and anxiety, and addiction.

Path analysis revealed that each risk/need factor in the model either directly or indirectly affected recidivism. Similar to the childhood victimization model presented above, Symptoms of Depression and Anxiety and Current Drug Addiction were the two variables that directly led to women's recidivism. However, this model indicated that depression/anxiety and substance abuse were also affected by relationship dysfunction, reduced self-efficacy, and adult victimization.

The relational model in Figure 3 included a more general form of adult victimization from the interview assessment, whereby the interviewer asked women whether they had ever experienced physical and/or sexual abuse as an adult. Because additional self-report survey measures of adult victimization were captured in the study, these too were incorporated to determine

TABLE 5:   Bivariate Correlations—Social and Human Capital Model

	Prison Admission	Educational Strengths	Relationship Dysfunction	Self-Efficacy	Employment and Financial Difficulties	Family Support
Prison Admission	—	−.19**	.01	−.12*	.21***	−.08
Educational Strengths		—	.10*	.20***	−.22***	−.03
Relationship Dysfunction			—	−.36***	.22***	−.08
Self-Efficacy				—	−.24***	.07
Employment and Financial Difficulties					—	−.14**
Family Support						—

*$p < .05$. **$p < .01$. ***$p < .001$.

whether a general pattern of results existed across various types of adult victimization. Path models including adult physical, harassment, and emotional forms of victimization from the confidential self-report survey can be seen in Figures 4, 5, and 6 for comparative purposes.

Taken together, the four analyses of the relational model illustrated general consistency across the various forms of adult victimization. Similar to results found with the childhood victimization model, although women's unhealthy, nonempathic relationships with their partners were not directly related to their likelihood of imprisonment, these dysfunctional relationships were still important in creating pathways toward criminal behavior. Such relationships increased the likelihood of abuse during adulthood and diminished women's sense of self-confidence. In turn, women's mental capacities and abilities to cope without substances were significantly hampered, enabling sustained criminal behavior.

SOCIAL AND HUMAN CAPITAL MODEL

Bivariate correlations. The social and human capital model represented a model that incorporated elements from both gender-neutral and gender-responsive pathway perspectives. Table 5 presents the bivariate correlations between variables in this model, including family support, educational strengths, relationship dysfunction, self-efficacy, employment and financial difficulties, and prison admission. Three significant zero-order correlations were found with prison admissions, including with educational strengths ($r = −.19$, $p < .01$), self-efficacy ($r = −.12$, $p < .05$), and employment/financial difficulties ($r = .21$, $p < .001$). Women with fewer educational achievements, lower self-efficacy, and problems related to employment and financial assistance were significantly more likely to be incarcerated.

There were also several moderate intercorrelations among factors in the social and human capital model. The Educational Strength factor was significantly associated with each of the other factors, with the exception of Family Support. Not surprisingly, there was a moderately strong negative correlation between Educational Strength and Employment and Financial Difficulties ($r = −.22$, $p < .001$). The more educational strengths women had, the less likely they were to have problems with employment and finances. Additionally, the Educational Strength–Self-Efficacy relationship was also moderately strong ($r = .20$, $p < .001$). Women with stronger educational backgrounds tended to have more self-efficacy.

As one of the central components of the gender-responsive perspective, women's dysfunctional relationships were significantly correlated with three other risk/need factors. First, Relationship Dysfunction was negatively associated with Self-Efficacy ($r = −.36$,
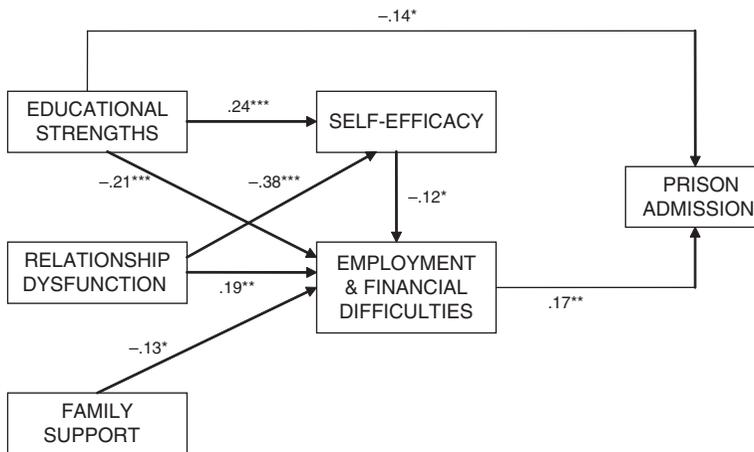
Figure 7: Social and Human Capital Path Model
Note. Only paths significant at *p* < .05 are shown.
**p* < .05. ***p* < .01. ****p* < .001.

p < .001) and positively associated with Employment and Financial Problems (*r* = .22, *p* < .001). These results indicated that the greater the dysfunction in women's intimate relationships, the more likely they were to have had lower self-efficacy and limited socio-economic status. Conversely, a weak *positive* correlation was found between Relationship Dysfunction and Educational Strengths (*r* = .10, *p* = .04), suggesting that women involved in harmful relationships may not necessarily have limited educational backgrounds. Finally, Employment and Financial Difficulties was also inversely related to Self-Efficacy (*r* = −.24, *p* < .001) and Family Support (*r* = −.14, *p* < .01). That is, women with lower self-confidence and little to no support from family tended to have greater problems with keeping and maintaining a job and establishing financial independence.

Path model analyses. Path analysis of the social and human capital model revealed additional relevant criminal pathways. Figure 7 presents the standardized coefficients for the model, showing only significant paths. Among the distal variables, analyses indicated several significant paths existed among educational strengths, relationship dysfunction, self-efficacy, and employment and financial difficulties. Two variables led to increased self-efficacy, including educational strengths and lower dysfunction in intimate relationships.

Two independent variables had significant direct effects on prison admissions and represented socioeconomic constructs: educational strengths and employment/financial difficulties. This is certainly consistent with many gender-neutral perspectives. However, it is important to highlight that there were underlying gender-responsive constructs that contributed to women's financial and employment issues, specifically, low self-efficacy, relationship dysfunction, and reduced family support.

DISCUSSION

There is mounting evidence to suggest that women have unique life experiences that create unconventional pathways to recidivism not typically observed with men. Three such

pathways were analyzed in this study. One path model explored how intersections between childhood victimization, mental illness, and substance abuse led to ongoing offending. The second model focused on how relational dysfunction with intimate partners established linkages to recidivism. A third model reflecting women's social and human capital, or lack thereof, was also analyzed for its utility in facilitating continued criminal conduct.

Taken together, results from the three path models were largely consistent with previous qualitative work highlighting the intersection of women's struggles with unhealthy relationships, trauma, mental illness, and substance abuse. First, the childhood victimization model revealed that child abuse, while not directly affecting women's recidivism, created five indirect pathways to continued offending through its psychological and behavioral effects. Symptoms of ongoing depression and anxiety as well as engagement in substance abuse directly led to women's imprisonment. These effects were found regardless of the type of childhood victimization measure used.

Second, the relational model demonstrated that women who experienced painful, unsupportive, and unsatisfying intimate relationships in which they had little personal voice or power were at indirect risk for engaging in continued offending behavior. Such dysfunctional relationships promoted women offenders' recidivism through increased risk of victimization as an adult, reduced self-efficacy, depressive and anxious affect, and addictive behavior.

Third, findings from the social and human capital path model revealed meaningful linkages between social and human capital in women offenders' lives and how reductions in both contributed to women's continued offending behavior. To be true, the traditionally gender-neutral risk factors of employment and financial problems along with lower educational achievements directly contributed to women's incarcerations. However, these needs, particularly employment and financial needs, were exacerbated by gendered constructs including a lack of support in their romantic and familial relationships as well as their diminished self-efficacy.

As with any research study, certain limitations and caveats must be outlined. First, path analysis does not statistically provide any additional information beyond what conventional multivariate regression analysis can give. Readers should not interpret the results as one independent variable *causing* another (e.g., relationship dysfunction causes adult abuse) because definitive conclusions about the temporal ordering of the risk/need scales in each model cannot be made without longitudinal data. However, when based on sound research and theoretical assumptions, path analysis enables the calculation of indirect effects of independent variables on dependent variables. Indeed, it is in the interpretation of patterns of relationships where path analysis becomes invaluable (Duncan, 1966). Thus, taking into account the previous research allows the results of each model to be put in their proper context. This is where, for instance, the previous qualitative work becomes particularly useful because the path models were largely consistent with these studies.

Second, it should be noted that the best method of investigating differential pathways to recidivism would examine both women and men at multiple time points. As the gender-responsive and pathways research area expands, such a research agenda should be pursued. Nevertheless, prior research including both sexes indicated that the risk/need factors in the child abuse and relational models are more relevant to female offending than male offending (e.g., Benda, 2005; McClellan et al., 1997).

Third, it must be underscored that this study included a sample of women who were already involved in the criminal justice system. The pathways explored in this study relate

to women's *repeated* offending, not to the influences on initial crime. Girls' and women's onset of offending may or may not be influenced by the various risk/need factors included in the pathways tested here. Empirical efforts to determine this would need to include a group of females who become criminally involved and a group who do not.

Last, among the women who were revoked and admitted to prison, nearly three fourths of these admissions were due to violations of probation supervision as opposed to new crimes. Although technical violations certainly indicate that some form of antisocial behavior did occur, these women appear to be a relatively low-risk group. Nevertheless, the path models were supported, suggesting that even for these low-risk women, many risk/need factors were important in creating pathways to prison. It is possible that similar path analyses tested with higher risk probationers might demonstrate even stronger effects, though this is a question left for future empirical inquiry.

Although there are important caveats to the interpretation of the current study, findings should be considered in the context of the larger research knowledge base. This study provides one of the first quantitative attempts to explicitly examine women's gendered pathways. As such, there are several implications for criminological theory and correctional interventions with women.

Overall, results of the path model analyses provide further support for the notion that some women offenders may follow pathways of continued offending not typically seen with men offenders. In particular, this research suggests that a taxonomic approach, rather than general theoretical explanations, may be especially informative in studying women's offending behavior. Although this study did not separate women probationers into separate categorical models, as has recently been suggested among leading researchers in the area of assessment (Brennan, 2008; Brennan & Breitenbach, 2008; Reisig et al., 2006), such a distinction might further enhance quantitative understanding of the gendered pathways perspective as initially elaborated by feminist researchers such as Daly (1992, 1994) and Beth Richie (1996).

Additionally, readers who are well informed about the principles of effective intervention (Gendreau, 1996) might be tempted to conclude that the current study simply reiterates the importance of the responsivity principle—that women's trauma, depression, anxiety, relational, and self-efficacy needs should be accommodated through specific responsivity efforts reserved for exceptional offenders. Yet some of these needs, particularly depression and anxiety, might represent criminogenic needs for women, as evidenced here, requiring a more intensive intervention. Other needs, especially those more distal to reoffending, directly contribute to criminogenic needs, which implies that perhaps they should be weighted more heavily than the concept of responsivity allows. In other words, results from this study appear to move a bit beyond the principles of effective intervention.

For instance, the childhood victimization model implies that the most effective treatment modalities for women's co-occurring disorders (i.e., mental illness and substance abuse) will be those that provide women (with child abuse histories) with strong skills for coping with previous childhood victimization. If issues surrounding early victimization are not addressed, it is plausible that women offenders may never fully recover from their addiction and mental illness, keeping them at risk for recidivism (Covington, 1998). Practically speaking, this assumes that women are emotionally prepared to engage in therapeutic efforts targeting prior traumatic experiences—women should not be forced into such treatment if they are not ready.

Similarly, the relational model suggests that attempts to increase women's self-efficacy and self-management of unhealthy connections with their partners would assist in stabilizing women's moods and reducing their substance-abusing behaviors. Again, targeting addiction and mental illness alone without a more holistic approach may not be sufficient in reducing women's long-term likelihood of imprisonment. Relatedly, much of the feminist and pathways literature has long advocated for holistic correctional treatment efforts, taking into account the context of women's prior experiences with trauma (Bloom et al., 2003; Chesney-Lind, 1997; Covington, 1998; Covington & Bloom, 2006; Pollock, 1998). Traditionally, needs such as mental illness and addiction have been compartmentalized, addressing one need at a time—or worse, only through medication, which has been shown to be used as a mechanism for behavioral control, not necessarily for treatment purposes (McCorkel, 1996).

Findings from the social and human capital model are also consistent with previous work that showed that providing women with sources of state capital (i.e., including job training) reduced the odds of women's recidivism by 83% (Holtfreter et al., 2004). Similar needs in this model directly affected women's likelihood of incarceration. Thus, it would certainly be expected that providing welfare to the women in this study would also facilitate their desistance.

Importantly, however, implications from the social and human capital model go beyond providing women with educational and vocational assistance alone. According to this model, if such assistance were provided without also reintegrating their families, enhancing their self-efficacy, and managing their unhealthy intimate relationships, it may likely serve to produce only short-term gains in reducing their recidivism. As noted by Blanchette and Brown (2006), "While programmes targeting vocational skills might help to address the poverty issue, we note a weaker association between women's employment histories and recidivism [compared to men's employment histories]. This suggests that there are broader social factors at play" (p. 104).

Benefits from strengthening women's social capital, in conjunction with their human and economic capital, have been described in the literature. Flavin (2004) highlighted the critical role of family support in facilitating women's desistance. Specifically, she detailed the promising outcomes of a family case management program located in New York City called La Bodega de la Familia. The program treats probationers and parolees (both men and women) suffering from addiction who have at least one family member willing to engage in programming and has been favorably evaluated (Sullivan, Mino, Nelson, & Pope, 2002). Attempts to improve offenders' family relationships are certainly likely to facilitate reductions in reoffending for both men and women. Yet because women offenders typically have less social capital than men offenders, enhancing women's familial support may be all the more critical to facilitating women's desistance.

Empirical support of distinct recidivistic pathways for women certainly has widespread implications, particularly in its potential to inform the paradigm shift currently underway within the field of corrections. This shift is an attempt to merge the areas of evidence-based practice and gender-responsive principles. At a recent NIC-sponsored meeting in November 2006 in Washington, D.C., scholars and practitioners convened to discuss issues of consistency and discord between the two areas. A frequent discussion point centered on the lack of available quantitative research on gendered criminal pathways. Moreover, current correctional research has aptly identified that "direct tests of the [gendered pathways] theory are

noticeably absent" (Blanchette & Brown, 2006, p. 36). Thus, the current study, in part, fulfills a clear calling for more statistically generalizable evidence of possible gendered pathways from both academic and practical perspectives. Such pathways were statistically supported in this study using a multivariate regression method, contributing to the notion that "gender matters" (Bloom et al., 2003) in the supervision and treatment of women offenders.

Beyond generally directing the field toward a more gender-responsive paradigm, the study's results may also affect a range of criminal justice procedures. For instance, results support the notion that many gender-responsive needs should be incorporated into current risk and needs assessment and classification instruments. Understanding areas where women offenders struggle would facilitate the design of both humane correctional environments and interventions to reduce risk. Furthermore, early preventative interventions in the lives of young women may be particularly informed by the more detailed knowledge regarding gendered pathways provided in this study.

NOTES

1. Importantly, current evidence reveals many gender-responsive needs to be risk factors for women offenders. See Salisbury, Van Voorhis, and Spiropoulos (in press); Van Voorhis, Salisbury, Wright, and Bauman (2008); and Wright, Salisbury, and Van Voorhis (2007).

2. The Division of Probation & Parole is under the auspices of the Missouri Department of Corrections.

3. Details regarding the internal factor structure of each scale and other psychometric properties are available from the first author by request.

4. Rearrest data were initially considered as another possible source of recidivism for this study. However, new arrest data were less readily available for this research.

5. Traditionally, a continuous dependent variable is necessary to conduct path analysis using ordinary least squares (OLS) regression. However, a recent article appearing in *Criminology* by Jeffries, Fletcher, and Newbold (2003) showed that path analysis using OLS regression could be conducted with a dichotomous, categorical dependent variable (i.e., judicial decision to imprison), which provided justification for doing so in this study. It is understood that the interpretation of path coefficients is the same as if the dependent variable were continuous.

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