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Substance Use Among Victimized Women on Probation and Parole

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Abstract

Victimized women within the criminal justice system are an important group and understanding their substance use is critical. Substance use was examined among 406 victimized women on probation and parole in an urban community from 2010 to 2013. Ninety-three percent reported lifetime use of an illicit substance, while 58% and 45% reported use of at least one illicit substance in the past two years and 12 months, respectively. Among probationers, having been in a controlled environment was associated with a higher prevalence of illicit substance use as compared to parolees. Implications for practice, policy and future research are discussed.

Keywords

Women; substance use; women; victimization; probation; parole

Over 7 million adults in the United States were under the supervision of correctional authorities by yearend 2010 (Glaze, 2011). Although greater numbers of men are involved in the criminal justice system, women represent one of the fastest growing segments of the correctional population. For example, between 1980 and 2009, women's arrest rates for simple assault increased 281% compared to 69% for men; similarly, female arrest rates for

drug possession or use rose 225% from 1980 to 2009 while those for men increased by 104% during the same period (Snyder, 2011). Likewise, the number of women incarcerated in state or federal prison from 2000 to 2009 rose by 21.6%, compared to a 15.6% increase for men (Mauer, 2013). Current data indicate that 1 out of every 89 women in the U.S. is involved in the criminal justice system (Glaze & Bonczar, 2011; Sabol & Couture, 2008) and that over 85% of these women are sanctioned within the community (e.g., probation, parole; Greenfeld & Snell, 2000; Shilton, 2000).

The growth in the female criminal justice population has been fueled by the ‘war on drugs’ and associated drug laws and sentencing procedures (Golder, 2012; Grella & Greenwell, 2006; Prendergast, Wellisch, & Wong, 1996; Strauss & Falkin, 2001; Wahler, In Press). As such, illicit substance use is a major contributing factor to women’s involvement in the criminal justice system (Bennett, Holloway, & Farrington, 2008; DeGroot, 2001; DeGroot, Zierler, & Stevens, 1996; Teplin, Abram, & McClelland, 1996). In fact, evidence suggests that female drug users may be more likely to engage in lawbreaking behavior than their male counterparts (Bennett, et al., 2008). National data from the Bureau of Justice Statistics support this assertion. For example, both female jail and prison inmates are more likely than their male counterparts to be incarcerated for a drug offense (Carson & Sabol, 2012; James, 2004). Among female jail inmates 29.2% are drug offenders, while among state prisoners 25% are drug offenders; this is compared to 24.1% and 17%, respectively of men in jail and state prison (Carson & Sabol, 2012; James, 2004). Similarly, in a recent study of 500 female jail detainees in rural and urban counties in the U.S., 83% had a lifetime substance use disorder and 53% met the criteria for a substance use disorder in the past 12 months (S. Lynch, DeHart, Belknap, & Green, 2012a).

In particular, for women being sanctioned in the community, substance use is a major factor contributing to return to custody for parole and probation violations (Burke, Gelb, & Horowitz, 2007; Henderson, 1998; Marlowe, 2003; Office of Nation Drug Control Policy, N.D.). Research has consistently found that alcohol and illicit substance use negatively impact recidivism, specifically and criminal conduct, generally (Bennett, et al., 2008; Carmichael & Koons-Witt, 2007; Chesney-Lind & Rodriguez, 1983; Crawford, 1990; Dowden & Brown, 2002; Greenfeld & Snell, 2000; Marlowe, 2003; Mumola, 1998; Warner & Kramer, 2009). In a randomized trial of probation case management among 183 female offenders it was found that alcohol and illicit substance use during supervision was the strongest predictor of whether women were able to successfully complete their probation or parole sentence (Carmichael & Koons-Witt, 2007). Research that provides in-depth information about substance use, for example, identifying commonly and/or recently used substances, may assist in the development of policy and programming to more effectively target drug and alcohol use among this group.

In addition, while there are undoubtedly similarities among women on probation and parole, they are not a homogenous group. Probation and parole represent different ends of the criminal justice continuum (Center for Substance Abuse Treatment, 2005). Women on parole have been incarcerated and are on conditional supervised release from prison, whereas women on probation are under community supervision rather than serving a prison or jail sentence (and may or may not have ever been incarcerated). Furthermore, there is

evidence that probation and parole populations may differ in meaningful ways with parolees being at higher risk for recidivism in some instances (Daly & Peck, 2007; Center for Substance Abuse Treatment, 2005). Therefore, documenting and exploring differences and similarities between women on probation and parole, particularly as they relate to known areas of risk, such as substance use, may have immediate implication for criminal justice policy and practice.

Further complicating the picture is the interrelated nature of victimization and substance use. Among substance-involved women, up to 88% have experienced some form of victimization in their lives (i.e., childhood, intimate partner, non-intimate partner; Tjaden & Thoennes, 2000), while up to 80% of women in the criminal justice system have experienced such violence (Browne, Miller, & Maguin, 1999; El-Bassel et al., 1996; Green, Miranda, Darowalla, & Siddique, 2005; Greenfeld & Snell, 1999; Lynch, DeHart, Belknap, & Green, 2012b; Shannon Lynch, Fritch, & Heath, 2012; McClellan, Farabee, & Crouch, 1997; Owen & Bloom, 1995; Reichert, Adams, & Bostwick, 2010)¹. The available evidence strongly suggests that for women in the criminal justice system in particular, there is a significant and overlapping relationship between substance use and victimization (Hall, Golder, Conley, & Sawning, 2013). Furthermore, this relationship may affect women's continued engagement in substance use and other high-risk behaviors contributing to recidivism and continued criminal justice involvement. For these reasons, victimized women within the criminal justice system are an especially important group and understanding their patterns of substance use is critical.

In summary, the majority of justice involved women are sanctioned within the community (Greenfeld & Snell, 2000; Shilton, 2000). As such, it is important to identify any existing similarities and differences among female probationers and parolees, particularly, within those areas that are most closely associated with recidivism (i.e., substance use). Similarly, there is a critical need for additional research focused explicitly on victimized women within the criminal justice system; foremost, research that documents and explores patterns of substance use among this particularly high-risk subpopulation. Thus, the present study had the following goals: 1) to comprehensively document substance use among a sample of victimized women on probation and parole; 2) identify differences and similarities in substance use and associated descriptive and behavioral domains between victimized female probationers and parolees; and, as engagement in substance abuse treatment (e.g., residential/inpatient treatment) is often a condition of probation and/or parole, 3) explore whether being in a controlled environment affected engagement in substance use for either group of women.

¹Actually, Reichert et al. (2010) found that 99% of the women in their sample of 217 women randomly selected from the population of female inmates in three Illinois prisons had experienced some form of lifetime victimization, a figure is significantly higher than prior research.

Methods

Participants and Procedures

The sample consisted of 406 women on probation and/or parole in Jefferson County, Kentucky. Jefferson County is a large, urban area that encompasses Louisville. Recruitment methods included: face-to-face recruitment at all of the probation and parole offices located within the county; direct mailings to women on probation and parole in Jefferson County; advertisements in the local newspaper, the website *craigslist*, and public access TV; fliers posted in a variety of public locations (e.g., bus stops, convenience stores, apartment complexes), community based organizations, government agencies, and health care facilities; as well as community outreach by study personnel.

To be eligible for participation, women had to meet the following criteria: a) be on probation and parole in the aforementioned county; b) at least 18 years of age; c) report that they either had sex with men only or both women and men (women who had been recently incarcerated were asked about the year prior to incarceration)²; and d) report any experience of physical and/or sexual victimization as a child or an adult from a parent or caretaker, intimate partner, and/or non-intimate partner (i.e., stranger; acquaintance). Screening for eligibility was conducted by telephone (90%) and in person (10%). Eighty-one percent of the women screened were eligible to participate. Women who were screened reported learning about the study from the following sources (participants could identify more than one source): direct mail (33%); word of mouth (e.g., a probation officer, mother, friend; 33%); fliers posted in public locations (15%); community based organization (11%); direct contact with study personnel (9%); and newspaper/radio/internet (2%). The most common reasons for ineligibility were not being on probation or parole, no history of victimization, and reporting only female sexual partners. All interviews were administered face-to-face by trained female staff using audio computer-assisted interviewing (ACASI; NOVA Research Company, 2003). Participants were debriefed and compensated \$35 for their time. The [UNIVERSITY'S NAME] Institutional Review Board approved the study.

Measures

Five categories of measures were used: sociodemographic characteristics; victimization; correctional status, offense, and controlled environment; substance use; and dynamic drug- and crime-involvement factors. Descriptions are found below.

Sociodemographic Characteristics—Six sociodemographic variables (age, race/ethnicity, intimate partner status, educational attainment, current employment, and homelessness) were examined. Respondents' age was provided in years. Three categories were used to describe the race/ethnicity of the participants: Black, non-Hispanic; white, non-Hispanic; and other (participants who reported being Latina, Asian/Pacific Islander, Native American, multi-racial, and other). Intimate partner status was assessed by three categories

²Intimate partner violence between same gender female partners is an important and understudied issue. The dynamics of intimate partner violence between same gender partners may be both similar to and distinct from violence between opposite gender partners. This however, is an empirical question/issue. Furthermore, there was concern that inclusion of women who only had sex with other women would yield a subsample that was too small for meaningful analysis.

that indicated whether a respondent reported being: single; married or cohabitating with a sexual partner of the opposite gender; or being divorced, separated, or widowed at the time of the interview. Five categories described educational attainment: less than a high school diploma/GED; high school diploma/GED; trade/technical training; some college/college graduate; some graduate school/graduate school degree. Current employment status was operationalized as unemployed, working full or part-time, disabled, in school only, or “other”. Finally, women were asked if they considered themselves homeless (yes=1; no=0).

Victimization—Cumulative victimization was described by three categories of violence assessing childhood, intimate partner violence (IPV), and non-intimate partner victimization. Victimization questions were adapted from the National Crime Victimization Survey (which includes the National Violence against Women Survey) and intimate violence literature including the Revised Conflict Tactics Scale and Tolman’s Psychological Maltreatment of Women Inventory (Straus, Hamby, Boney-McCoy, & Sugarman, 1996; Tjaden & Thoennes, 1998, 2000; Tolman, 1999; Tolman, 1989). All questions have been used in previously published research (Golder & Logan, 2010; Logan, Cole, & Leukefeld, 2003).³ For each of the aforementioned categories of victimization, three subtypes of victimization (i.e., psychological, physical, and sexual) were assessed by dichotomous variables (yes=1; no=0), with the exception of non-intimate adult victimization, where only physical and sexual victimization were examined.

Childhood psychological abuse was measured by eight items assessing potentially psychologically abusive experiences (e.g., “insulted, shamed or humiliated you in front of others”). An affirmative response (yes=1; no=0) to any of the questions was treated as an indication of psychological victimization (similar coding procedures were followed for all abuse items). Physical childhood abuse was assessed by four items asking respondents if they had ever been physically hurt on purpose, beat up, or attacked with a weapon. Childhood sexual victimization was measured by three questions that asked respondents if they had ever been forced or threatened to do: “sexual things other than sexual intercourse (e.g., petting, oral sex)”; “to have sexual intercourse but it did not actually occur”; and/or “to have sexual intercourse and it actually happened”.

Psychological IPV was measured by six dichotomous questions (e.g., “your partner has stopped you from seeing and/or talking to your family or friends”). Physical IPV was assessed by five questions asking the respondent if her partner had physically hurt her on purpose, caused her to have an accident, beat her up, used a knife, gun or some other thing (like a club or bat) to get something [from her], and/or attacked her with a weapon. The same three questions used to assess sexual abuse in childhood were used to evaluate sexual IPV (the stem was changed accordingly). Non-intimate partner violence was defined as victimization perpetrated by a stranger, acquaintances, or relative (other than guardians/parents or spouses). All variables were measured by the same sets of questions (the stem was changed accordingly) and operationalized in the same fashion as questions assessing IPV.

³A complete list of questions used to assess victimization is available from the first author.

Correctional status, offense, and controlled environment—Correctional status was assessed by asking women to indicate whether they were on probation, parole, or both. They were also asked to indicate all the charges that lead to their current probation and/or parole assignment. Response options included: shoplifting/vandalism; parole/probation violations; drug charges; forgery; weapons offenses; burglary/larceny/breaking and entering; robbery; assault; arson; homicide/manslaughter; prostitution; contempt of court; and other. Questions adapted from the ASI (McLellan et al., 1992) were used to assess whether participants had been in a controlled environment and/or halfway house/recovery home in the past 12 months (yes=1; no=0) and for how many days.

Substance use—Substance use items examined alcohol use to intoxication as well as the use of 10 illicit drugs: marijuana; cocaine; crack; heroin; other opiates (e.g., “Percocet, OxyContin, Tylenol 2”); hallucinogens, sedatives/tranquilizers/barbiturates (e.g., “Benzos, Xanax, Seconal, Valium”); club drugs (e.g., “GHB [Xyrem], Rohypnol, Ketamine [Special K]; or MDMA [ecstasy]), and prescription drugs).⁴ For each substance, respondents were asked if they had ever used a particular substance (yes=1; no=0), age at first use, use in the past two years (yes=1; no=0), use in the past 12 months (yes=1; no=0), and frequency of use in the past 12 months (only once or twice; 1 to 2 times per month; 1 to 2 times per week; 3 to 5 times per week; almost every day; more than one time per day). Frequency of use was coded one through six with higher scores reflecting greater frequency of use. Four summary variables were also created reflecting whether a respondent reported using any illicit drugs in the past two years and 12 months, respectively, as well as the sum of the number of illicit drugs used during these two times.

Dynamic drug- and crime-involvement factors—Adapted from Salisbury and Van Voorhis (2009), dynamic drug- and crime-involvement factors provide an opportunity to capture the complex context of women’s engagement in behaviors and environments related to their substance use. Seven variables operationalized this construct. Participants were asked whether they had ever been in alcohol or drug treatment (yes=1; no=0), been in treatment during the past 12 months (yes=1; no=0), and the total number of lifetime treatment episodes. Lifetime and past 12 months involvement in two specific drug-related lawbreaking activities was also assessed: driving while intoxicated or high (DUI) (yes=1; no=0); and, selling, distributing, or helping to make illegal drugs (yes=1; no=0). Additionally, the frequency with which participants had engaged in each of these behaviors in their lifetime and during the past 12 months was also assessed.

Data Analysis

In order to meet the research goals, descriptive data, including means, percentages, and standard deviations are presented; all between group differences were assessed using chi-square analyses (for categorical level variables) and analyses of variance (ANOVA; for variables that were interval level or higher).

⁴Prescription drug misuse was operationalized as ever using, “prescription drugs that were not prescribed to you, in excess of what was prescribed for you, and/or for recreational purposes”.

Results

Table 1 presents data on the sociodemographic characteristics, victimization, correctional status, offense, and controlled environment. Tables 2 and 3, respectively, provide data on differences between women on probation and parole with respect to prevalence of substance use and dynamic drug- and crime-involvement factors. Table 4 describes the prevalence of substance use for women on probation and parole based on their history in a controlled environment.

Sociodemographic characteristics and victimization

The majority of women in the sample were either White (50.6%) or Black (41.7%), on average 37 years old (range, 19 to 69), and largely single (i.e., women reported that they were not married and/or living with a partner at this time; 44.5%) or divorced/separated/widowed (38.8%). Approximately 27% of the women had less than a high school diploma/GED, 36% had a high school diploma or GED, while 33.3% had some college or graduate school. Approximately 29% of the women were working part- or full-time. Thirty-four percent of the women considered themselves homeless.

Sixty-nine percent of the women had experienced either physical or sexual victimization as children, 90% had experienced similar victimization with an intimate partner, and 72% had experienced physical or sexual violence with a non-intimate partner.

Correctional status, offense, and controlled environments

Overall, 307 (75.6%) women were on probation, 92 (22.7 %) were on parole, and 7 (1.7%) had both a probation and parole sentence. The most common charges leading to a women's current probation or parole sentence were drug, "other", and probation and parole violations. Over half of the women (57.4%) reported they had spent time in either a controlled environment or halfway house in the past 12 months for an average of 50 days.

Substance use.⁵

The vast majority of women (93%) reported lifetime use of at least one illicit drug, and on average, lifetime use of four different illicit drugs. Marijuana was the most commonly used illicit substance with 86.4% of participants reporting lifetime use. Fifty-nine percent and 46% of the women reported illicit substance use in the past two years and 12 months, respectively. After marijuana, cocaine, crack, and other opiates were the most commonly used drugs in the past two years and 12 months. Drinking alcohol to intoxication was also quite common; approximately one-quarter to almost three-fourths of the sample reported drinking to intoxication during one of the measured timeframes. Data on frequency of drinking to intoxication indicated that women were on average drinking to intoxication one to two times per month.

Examination of Table 2 illustrates highly similar patterns of use for cocaine and crack. Post hoc correlations (Spearman's rho) between cocaine and crack use in the past two years (.

⁵The following data are not reported in the table: 5.9% of the respondents reported no use of alcohol or illicit substances ever, 22.9% reported use of illicit substances only; 1.0% reported use of alcohol only and 70.2% reported use of both alcohol and illicit substances.

781; $p < .01$) and past 12 months (.759; $p < .01$) suggest that use of these substances is virtually the identical. To a somewhat lesser degree, use of different categories of prescription drugs was also similar. Use of other opiates, sedatives, and prescription drugs over the past two years (range: .577 to .630; $p < .01$) and 12 months (range: .506 to .587; $p < .01$), respectively, demonstrate some overlap in the use of these particular types of substance as well.

Dynamic drug- and crime-involvement factors

The majority of women reported they had been in alcohol or drug (AOD) treatment sometime in their lives (66.7%). Women averaged two lifetime AOD treatment episodes, and almost 40% reported being in treatment in the past 12 months. Fifty-five percent and 40% of the women reported engaging in DUI and the selling, distributing and/or manufacturing of drugs, respectively, during their lives. In the past 12 months approximately 12.8% and 8.0%, respectively, reported engaging in these drug-related lawbreaking behaviors.

Differences in substance use and associated descriptive and behavioral domains among women on probation and parole (Tables 1 to 3)

Compared with women on probation, women on parole were on average four years older, less likely to report being married and/or living with a partner of the opposite gender, and more likely to report being divorced/separated/widowed (Table 1). The only significant differences in regard to offense associated with their current probation or parole charge were for parole and/or probation violations and assault. Women on parole reported more parole and probation violations (chi-square=25.833, $p=.000$; (1, N=399)) and women on probation reported more assault offenses (chi-square=5.752, $p=.016$; (1, N=399)). Parolees were more likely to report being in a controlled environment/halfway house (chi-square=7.534, $p=.006$; (1, N=399)) and to have spent more days in a controlled environment/halfway house during the past 12 months as compared to probationers ($F(1, 398)=35.090$, $p=.000$).

Women on parole and probation were further distinguished by distinct substance using profiles. Women on probation were more likely to have used any illicit drugs in the past two years (chi-square=23.190, $p=.000$; (1, N=399)) and previous 12 months (chi-square=29.161, $p=.000$; (1, N=399)) as compared to women on parole. In general, women on probation evidenced greater use of illicit drugs in the past two years and 12 months, respectively, than their counterparts on parole. Specifically, within these timeframes, women on probation reported more frequent use of marijuana, cocaine, crack, heroin, sedatives, club drugs, and prescriptions drugs than women on parole (Table 2).⁶

In regards to the dynamic factors (Table 3), few differences between the women on probation and parole were identified. A higher percentage of women on parole indicated at least one episode of AOD treatment in their lifetime (chi-square=11.874, $p=.001$; (1, N=399)) as well as a greater number of treatment episodes ($F(1, 398)=5.251$, $p=.022$);

⁶These analyses were conducted without consideration as to whether a woman had been in a controlled environment in the past 12 months or two years.

however there was no significant difference between the two groups in regards to AOD treatment in the past 12 months. In terms of lawbreaking, women on probation reported more DUI behavior in the past 12 months than women on parole (chi-square=14.602, $p=.001$; (1, N=399)).

Did being in a controlled environment affect substance use for either group of women (Table 4)?

Examination of Table 4 indicates that for probationers being in a controlled environment was significantly related to a *higher prevalence* of illicit drug use. Specifically, among women on probation who had been in a controlled environment, higher percentages reported past 12 months use of 10 of the 11 substances assessed (inclusive of alcohol to intoxication) as compared those who had not been in controlled environments; differences between these groups were statistically significant for seven substances (alcohol to intoxication, crack, heroin, other opiates, sedatives, methamphetamine, and prescription drugs).

Discussion

This research provided a unique opportunity to begin addressing a significant gap in our understanding of a key criminal justice population, victimized women on probation and parole. Empirical research, as well as evidence-based principles of practice, indicate that substance use is a risk factor that should be targeted for intervention in order to reduce further involvement in the criminal justice system and engagement in lawbreaking (Andrews, Bonta, & Hoge, 1990; Golder et al., 2005; Hall, et al., 2013). As such, this research contributes significantly to our understanding of substance use among this understudied population; this constitutes a necessary and critical step in developing effective intervention strategies and policies for the majority of women under the control of the criminal justice system. These findings also have important implications for future research.

While the link between substance use and victimization (childhood, IPV) has been clearly established, the extent of illicit substance use in the current sample of victimized women appeared particularly high. Drinking to intoxication and illicit substance use were essentially ubiquitous among the participants, with the majority of women reporting use of at least one illicit substance and alcohol to intoxication in their lives. Marijuana use among the participants was remarkably high. In fact, marijuana use was more common than drinking to intoxication for each time interval assessed (i.e., ever, past two years, past 12 months). In comparison, national estimates, indicate that 20.6% of individuals on probation and parole report current use of marijuana (SAMHSA, 2011), while among women in the general population, 36.8% and 8.6% report lifetime and past year use of marijuana, respectively (SAMHSA, 2008 and 2009). These data strongly imply that the use of marijuana among women on probation and parole is so common as to be a normative behavior. A number of factors may contribute to this finding. Environmentally, it is likely that marijuana is prevalent in the respondents' social circles and readily available within their urban neighborhoods, potentially even more so than alcohol or cigarettes (Lee & Kirkpatrick, 2005). Attesting to the environmental prevalence of marijuana, Kentucky has ranked third out of all states in terms of arrests for marijuana offenses (Gettman, 2009).

Extensive marijuana use among the respondents may also be related to their experiences of victimization. Marijuana use among adolescents and young adults is associated with “adverse rearing environments” including physical and sexual victimization (Fergusson, Boden, & Horwood, 2008; Hayatbakhsh et al., 2009). In fact, young adult women who experienced forced or pressured sexual contact prior to the age of 16 were almost four times more likely to report frequent marijuana use at age 21 compared to peers that had not experienced similar victimization (Hayatbakhsh, et al., 2009). Similarly, there is considerable empirical evidence linking women’s marijuana use with their experience of IPV (Moore et al., 2008; Nabors, 2010; Railford, Wingood, & Diclemente, 2007; Reingle, Staras, Jennings, Branchini, & Maldonado-Molina, 2011). Future research will seek to examine the relationship between victimization (childhood, IPV, non-intimate partner violence) and its’ association with marijuana use, specifically, and other illicit substances, generally, in order to better understand the influence of victimization on drug use among this population.

Notwithstanding the possible environmental and psychosocial factors that contribute to marijuana use, the regularity with which participants in this study use marijuana suggests that indicated preventive interventions targeting women who smoke marijuana should be considered for regular inclusion in programming for women in the criminal justice system. Motivational enhancement therapy (MET) and cognitive behavior therapy (CBT) are common drug treatment approaches and both have been shown to reduce marijuana use (Nordstrom & Levin, 2007). Notably, even relatively brief exposure to MET and CBT (between two and five sessions) resulted in higher rates of abstinence from marijuana relative to those who did not receive treatment (Nordstrom & Levin, 2007). To address problematic marijuana use, as well as accompanying probation and parole violations, it is recommended that these brief, evidence-based treatments be incorporated into probation and parole programming.

Rates of prescription drug misuse (i.e., other opiates, sedatives, and/or prescription drugs) were also high. Post hoc analysis support prior empirical findings that prescription drug misusers tend to use more than one class of prescription drugs (Hall, Howard, & McCabe, 2010a). For example, 74% of prescription opiate users in this study also used sedatives.⁷ Thus, it is reasonable that use of these two classes of prescription drugs can be conceptualized as general prescription drug misuse. Future research is needed to determine whether substance use characteristics can be used to empirically and qualitatively establish distinct subgroups of women within this population. Previous studies have identified subgroups of prescription drug misusers based on motive(s) for use, route(s) of administration, and whether the drugs were co-ingested with alcohol (McCabe, Boyd, & Teter, 2009). Other work has identified subgroups of sedative and tranquilizer misusers based on mental health status (Hall, Howard, & McCabe, 2010b). Such efforts are important as they may allow treatment providers to better match prescription drug misusing women in the criminal justice system to appropriate services. For example, if levels of anxiety differed significantly among subgroups of prescription sedative and tranquilizer misusers, it may

⁷Based on post-hoc analysis; not reported elsewhere in this paper.

suggest a need for intensive mental health treatment among some categories of misusers. Similarly, research is needed to determine if there are meaningful differences between women who report more recent use of illicit drugs and those that do not.

In addition to documenting substance use patterns among this population, differences between women on probation and parole were also examined. These findings strongly suggest that illicit substance use is a more acute issue for female probationers than for parolees. In particular, it appears that use of marijuana, heroin, other opiates, sedatives, and prescription drugs are particularly problematic for probationers. This is consistent with data suggesting that prescription drug misuse is a significant problem in the U.S. generally, and within Kentucky specifically (Leukefeld et al., 2005; SAMHSA, 2012; Warner, Chen, Makuc, Anderson, & Minino, 2011). In fact, data from Kentucky indicates that prescription opiates and sedatives are among the fastest growing categories of abused substances in the state (Mateyoke-Scriver et al., 2009). This finding, along with those presented in the prior paragraph, strongly suggests that it may be important for correctional agencies to identify and specifically target the subgroup of female probationers who are ‘prescription drug misusers’ for intervention.

Relatedly, the findings regarding the effects of being in a controlled environment on substance use were potentially concerning. For women on parole, the data trend suggested that there was no consistently discernible effect on substance use, while for probationers, being in a controlled environment was associated with a *higher prevalence* of illicit drug use. There are at least two competing explanations for this finding. It may be that the relationship between controlled environments and a higher prevalence of illicit substance use for probationers reflects a period of bingeing/increased use prior to and/or resulting in their engagement in the criminal justice system and confinement within a controlled environment. However, in contrast, it may be that associating with high-risk others (i.e., substance users; crime- and drug-involved individuals) within controlled environments increases the likelihood that women will initiate or continue to engage in substance use. Clearly, further research is needed to document the chronology of substance use and time spent in controlled environments so that the relationship between these factors for both women on probation and parole can be more clearly elucidated.

Finally, it is important to note that women in the criminal justice system have been identified as an economically marginalized and vulnerable population. A large proportion of women in the present study reported being homeless, with a significantly higher percentage of women on parole reporting homelessness than those on probation. The absence of stable housing increases the difficulty of finding and maintaining employment, accessing needed services (e.g., substance abuse treatment; medical care), and maintaining and/or restoring formal and informal social support networks (Metraux & Culhane, 2004; Wilkins, 2012). Homelessness puts parolees and probationers at higher risk for violating the conditions of their supervision and housing instability is connected to increased risk of re-arrest (The National Reentry Resource Center, 2012; Metraux & Culhane, 2004; Wilkins, 2012). Taken together, these data strongly suggest that assisting women to establish stable housing is a key element of a successfully “reentry” plan.

This research has several limitations. First, as the sample was not randomly selected, results may not be representative of all women on probation and parole in the U.S.. However, the 406 participants who participated in the study represented approximately one-fifth of all women on probation and parole in Jefferson County at the time recruitment was initiated (Kentucky Department of Corrections, 2010). Second, the self-report nature of the measures may have resulted in the underreporting of some sensitive information, though evaluations of IPV and substance use self-report measures support the integrity of such data (Caetano, Schafer, Field, & Nelson, 2002; Darke, 1998; Fincham, 1992; Hser, Maglione, & Boyle, 1999; Magdol, Moffitt, & Silva, 1998; Rouse, Kozel, & Richards, 1985). Furthermore, the use of ACASI technology for data has numerous advantages over other data collection methods (Newman et al., 2002; Williams et al., 2000) and is the most reliable method for collecting information about potentially stigmatized behaviors/experiences (Wolff & Shi, 2012). Finally, this study was cross-sectional and cannot describe the temporal relationship between risk factors and problematic behavior.

In spite of these limitations, this research contributes significantly to our understanding of substance use among an understudied population, victimized women in the criminal justice system. The findings presented here have direct implications for the development of effective intervention strategies and policies within the criminal justice system as well as other service systems providing care to drug- and crime-involved women. Future research with women on probation and parole should include longitudinal studies to examine risk behaviors over time, as well as intervention studies focused on substance abuse treatment and relapse prevention, particularly among probationers.

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- SAMHSA. Table B.8 Nonmedical Use of Pain Relievers in Past Year, by Age Group and State: Percentages, Annual Averages Based on 2007 and 2008 NSDUHs. 2012.
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Table 1
Sociodemographic Characteristics, Victimization, Correctional Status, Associated Charge, and Controlled Environment

	Sample (N=406)	Probation (n=307)	Parole (n=92)	Chi-Square/F ² (p)
	Mean/Percentage (SE)	Mean/Percentage (SD)	Mean/Percentage (SD)	
Sociodemographic Characteristics				
Race				
African American	41.9%			
White	50.5%			
Other	7.6%			
Age	37.2 (10.2)	36.4 (10.4)	39.7 (9.2)	7.397 (.007)
Partner Status				
Single	44.6%	44.7% ^A	45.1% ^A	10.330 (.006)
Married/living with a partner of the opposite sex	16.7%	19.9% ^A	6.6% ^B	
Divorced/separated/widowed	38.7%	35.4% ^A	48.4% ^B	
Educational Attainment				
Less than a HS diploma/GED	27.1%			
GED/HS diploma	36.2%			
Trade School	3.4%			
Some college to College Degree	30.0%			
Some Graduate school to Graduate Degree	3.2%			
Work Status				
Unemployed	40.9%			
Working	28.8%			
Disabled	20.2%			
In School	3.7%			
Other	6.4%			
Homeless	34.2%			
Victimization				
Childhood				
Any physical or sexual	69.5%			
Psychological	75.1%			

	Sample (N=406)	Probation (n=307)	Parole (n=92)	Chi-Square/ χ^2 (p)
	Mean/Percentage (SE)	Mean/Percentage (SD)	Mean/Percentage (SD)	
Physical	64.3%			
Sexual	38.7%			
IPV				
Any physical or sexual	90.4%			
Psychological	95.3%			
Physical	89.7%			
Sexual	53.2%			
Non-Intimate Partner Violence				
Any physical or sexual	72.2%			
Physical	56.7%			
Sexual	59.6%			
Correctional Status				
Probation	75.6%			
Parole	22.7%			
Both	1.7%			
Offense Associated with Current Probation/Parole Charge				
Shoplifting/vandalism	14.0%			
Parole/probation violations	19.2%	13.4%	37.0%	25.833 (.000)
Drug charges	36.0%			
Forgery	16.0%			
Weapons offenses	3.2%			
Burglary/larceny/B&E	6.4%			
Robbery	6.2%			
Assault	9.6%	11.7%	3.3%	5.752 (.016)
Arson	1.2%			
Homicide/manslaughter	0.2%			
Prostitution	1.2%			
Contempt of court	0.5%			
Other	32.5%			
Controlled Environment				

	Sample (N=406)		Probation (n=307)		Parole (n=92)		Chi-Square/ χ^2 (p)
	Mean/Percentage (SE)	SD	Mean/Percentage (SD)	SD	Mean/Percentage (SD)	SD	
Controlled Environment and/or Halfway House, Past 12 Months ^B	57.4%		53.4%		69.6%		7.534 (.006)
Total Days in Controlled Environment and/or Halfway House	46.9 (75.4)		35.6 (63.4)		86.9 (98.2)		35.090 (.000)

The same superscripts denote that means between the two groups for each variable are statistically equivalent (i.e., not significantly different).

^A Between group differences were assessed using chi-square analyses (for categorical level variables) and analyses of variance (ANOVA; for variables that were interval level or higher). Chi-square, F, and associated *p* values are only reported for those between group differences that met the criteria for conventional statistical significance (*p* .05).

^B 48.5% of respondents reported being in a controlled environment; 30.3% reported being in a halfway house.

Table 2

Comparisons of Women on Probation (N = 307) and Parole (N = 92) Across Substance Use Measures

Substance	Lifetime (%)	Age First Use <i>M</i> (<i>SD</i>)	Past Two Years (%)	Chi-Square ^A (<i>p</i>)	Past 12 Months (%)	Chi-Square (<i>p</i>)	Frequency of Use, Past 12 Months <i>M</i> (<i>SD</i>)
Any illicit drug use							
Sample	93.1%		59.1%		46.1%		
Probation			66.1%		53.7%		
Parole			38.0%	23.190 (.000)	21.7%	29.161 (.000)	
Alcohol to intoxication							
Sample	71.4%	15.3 (5.3)	33.7%		23.3%		2.4 (1.4)
Probation							
Parole							
Marijuana							
Sample	86.4%	14.6 (4.4)	38.9%		27.9%		3.1 (1.9)
Probation			45.6%		33.7%		
Parole			18.5%	21.754 (.000)	9.8%	19.943 (.000)	
Cocaine							
Sample	70.4%	21.4 (7.1)	26.7%		18.0%		3.0 (1.7)
Probation					21.2%		
Parole					8.7%	7.434 (.006)	
Crack							
Sample	52.0%	25.1 (8.7)	21.5%		14.8%		3.1 (1.7)
Probation					17.3%		
Parole					7.6%	5.211 (.022)	
Heroin							
Sample	17.7%	27.1 (9.6)	7.4%		6.2%		3.4 (2.1)
Probation			9.4%		7.8%		
Parole			1.1%	7.114 (.008)	1.1%	5.460 (.019)	
Other Opiates							
Sample	41.7%	21.6 (7.5)	24.3%		19.8%		3.9 (1.9)
Probation			27.5%		23.0%		
Parole			14.1%	6.885 (.009)	9.8%	7.689 (.006)	

Substance	Lifetime (%)	Age First Use <i>M (SD)</i>	Past Two Years (%)	Chi-Square ^A (<i>p</i>)	Past 12 Months (%)	Chi-Square (<i>p</i>)	Frequency of Use, Past 12 Months <i>M (SD)</i>
Hallucinogens							
Sample	27.9%	18.2 (5.1)	2.0%		0.7%		1.3 (0.5)
Probation							
Parole							
Sedatives							
Sample	40.6%	21.4 (7.7)	21.9%		17.0%		3.6 (1.8)
Probation			25.4%		20.2%		
Parole			10.9%	8.702 (.003)	7.6%	7.841 (.005)	
Methamphetamine							
Sample	29.1%	23.4 (7.9)	10.9%		7.4%		3.0 (1.828)
Probation							
Parole							
Club Drugs							
Sample	22.9%	23.0 (7.6)	4.9%		2.7%		2.0 (1.2)
Probation			6.2%				
Parole			1.1%	3.870 (.049)			
Prescription Drugs							
Sample	38.3%	21.1 (8.1)	19.2%		13.1%		3.9 (1.8)
Probation			22.1%		16.3%		
Parole			10.9%	5.727 (.017)	3.3%	10.427 (.001)	

^A Chi-square and associated *p* values are only reported for those between group differences that met the criteria for conventional statistical significance (*p* .05).

Table 3

Dynamic Crime and Drug Factors for Women on Probation (n = 307) and Parole (n = 92)

	Sample	Probation	Parole	Chi-Square/F ² (p)
Drug treatment, ever	66.7%	62.2%	81.5%	11.874 (.001)
Number of times in drug treatment, ever	2.3 (5.0)	2.0 (3.4)	3.4 (8.4)	5.251 (.022)
Drug treatment – 12 months	40.1%			
Drug related crime, ever				
DUI	54.9%			
Drug Crime	40.2%			
Number of Times Engaged in Specific Drug Related Crime, Lifetime				
DUI	20.8 (53.4)			
Drug Crime	28.6 (83.0)			
Drug Related Crime, Past 12 Months				
DUI	12.8%	15.8%	2.2%	14.602 (.001)
Drug Crime	8.0%			
Number of Times Engage in Specific Drug Related Crime, Past 12 Months				
DUI	1.5 (7.5)			
Drug Crime	2.1 (11.1)			

A. Between group differences were assessed using chi-square analyses (for categorical level variables) and analyses of variance (ANOVA; for variables that were interval level or higher). Chi-square, F, and associated *p* values are only reported for those between group differences that met the criteria for conventional statistical significance (*p* .05).

Table 4

Comparison of the Prevalence of Illicit Substance Use in the Past 12 Months Between Women on Probation and Parole by Controlled Environment

Substance	Use in the Past 12 Months (%)			Chi-Square ^A (p)	Use in the Past 12 Months (%)		
	Probation (n=307)		Not in Controlled Environment (n=28)		Parole (n=92)		
	Not in Controlled Environment (n=143)	Controlled Environment (n=164)		Controlled Environment (n=64)	Chi-Square (p)	Controlled Environment (n=64)	Chi-Square (p)
Alcohol to Intoxication	19.7%	30.1%	21.4%		15.6%		
Marijuana	33.1%	34.1%	7.1%		10.9%		
Cocaine	16.8%	25.2%	14.3%		6.3%		
Crack	11.2%	22.7%	14.3%	7.048 (.008)	4.7%		
Heroin	4.2%	11.0%	0%	4.873 (.027)	1.6%		
Other Opiates	16.3%	28.7%	7.1%	6.536 (.011)	10.9%		
Hallucinogens	0%	1.8%	0%		0%		
Sedatives	14.0%	25.6%	10.7%	6.404 (.011)	6.3%		
Methamphetamine	3.5%	12.8%	0%	8.539 (.003)	4.7%		
Club Drugs	5.6%	1.8%	0%		0%		
Prescription drugs	9.1%	22.6%	3.6%	10.166 (.001)	3.1%		

^A Chi-square and associated *p* values are only reported for those between group differences that met the criteria for conventional statistical significance (*p* .05).