ENGAGEMENT AND PERSISTENCE IN PROSTITUTION:
UNDERSTANDING THE INFLUENCE OF SEXUAL VICTIMIZATION,
MENTAL HEALTH, AND DRUG USE

by
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A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Arts in Sociology

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I would like to thank my family and friends for their unconditional love and support. Specifically, my parents, Gail and Dave Bonistall, who have always believed in my ability to succeed and have supported me to the fullest; and my sisters, Tara and Beth, who prove that sisters make the best friends. Finally, thank you to my loved ones in Delaware who have helped support me academically, socially, and emotionally; your friendship has been pivotal to my success and happiness.
DEDICATION

This thesis, as the first formal document of my career, is dedicated with love to my cousin Lindsey Bonistall. After her life was violently taken from her, I vowed to spend my career studying violence against women to help further our understanding of the topic in order to better help victims and their loved ones. This thesis is a small step in that direction. When the process seemed too heavy to continue, Lindsey was the drive I needed to maintain passionate purpose. May she continue to serve that role for me as I continue to serve others in my career.
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ABSTRACT

Using a sample of incarcerated drug involved women, this research investigates the factors related to women engaging in prostitution with a primary focus on the effect of sexual violence as a primary trauma that influences drug use, mental health, and prostitution. Specifically, several research questions are examined. First, what predicts prostitution behaviors? Second, are drug use and mental health conditions mediating factors that influence the effects of early sexual violence trauma on prostitution behaviors? And finally, what predicts persistence in prostitution? By looking at prostitution behaviors and changes in this behavior over time, we can uncover the influence of primary trauma on the initiation and persistence of prostitution behaviors.
SECTION 1
INTRODUCTION

Many scholars have noted the relationship between prostitution and other types of deviance, such as drug use, running away, and victimizations, particularly sexual abuse (Center for Disease Control, 1987; Chesney-Lind, 1997, 2001; James, 1978; Savitz & Rosen, 1988; Sable, Fieberg, Martin & Kupper, 1999; Silbert & Pines, 1981). However, very few have examined these relationships with prostitution behavior over time. Do the same factors that affect the initiation into prostitution also affect the persistence of such behavior over time? Using a sample of incarcerated drug involved women, this research first seeks to determine the factors related to a woman’s decision to sell her body. Specifically, it will first be determined whether previous sexual victimization acts as a primary trauma that mediates the effects of drug use, mental health and prostitution. Second, this research will examine whether the same factors related to the initiation of prostitution are also related to the persistence of prostitution over time. Finally, because the sample includes women who were differentially involved in drug/alcohol treatment, this study will also reveal any effect of treatment on prostitution net of the other independent variables.
These research questions have clear policy relevance. By examining prostitution behaviors over time, we can uncover the influence of the primary trauma of sexual victimization and whether drug treatment in general helps women desist from prostitution. Policies designed to better serve the needs of female offenders has been called for by scholars in the past (Henderson, 1998), however, this concern is even more urgent given the increasing number of female offenders serving time in American prisons today (Glaze & Bonczar, 2007; Richie, 2001; Scroggins & Malley, 2010).
SECTION 2
LITERATURE REVIEW

It is imperative to study prostitution through a gendered lens because of the gendered nature of the behavior. Past perspectives of understanding gender treated gender as an individual attribute and would approach a gendered perspective of prostitution as a crime perpetrated by predominately females. A newer approach views gender as a process embedded throughout social life (Risman, 2004). Looking at gender as a process recognizes that gender is constantly created and re-created through the actions and interactions of men and women (West and Zimmerman, 1987). It is important to understand gender within the context of other axes of oppression (Collins, 2000), so that gender can be seen as a fluid social process that exists on its own, but also one that coexists with every other social process and system of inequality. Using this new approach to understanding gender shows how gender inequality influences females to engage in criminality because “patriarchal power relations shape gender differences in crime, pushing women into crime through victimization, role entrapment, economic marginality, and survival needs” (Steffensmeier & Allan, 1996: 470). These varying forms of inequality, coupled with gender inequality, show how studying prostitution through a gendered lens means much more than taking an individualized approach to
gender; it means we must see how women’s social position influence their pathway to prostitution.

There is much extant literature that has found a relationship between prostitution and sexual victimization, drug use, and mental health. Many researchers have found a great deal of evidence that these variables are correlated. Table 1 provides an overview of literature that has found relationships between mental health, sexual victimization, drug use, and prostitution.

Table 1 • Established Connections

<table>
<thead>
<tr>
<th>Sexual Victimization &amp; Prostitution</th>
<th>Sexual Victimization &amp; Mental Health</th>
<th>Sexual Victimization &amp; Drug Use</th>
</tr>
</thead>
</table>
Some scholars have focused primarily on the effect of childhood sexual victimization and women’s engagement in prostitution (Silbert and Pines 1981, 1982, 1983). Silbert and Pine’s study (1982) of 200 juvenile and current and former street prostitutes found that 61% had childhood sexual abuse in their histories and nearly 70% of the women reported that their becoming a prostitute was definitely affected by their sexual victimization. Dalla’s (2003) mixed-methods study confirmed this finding by discovering lifelong patterns of victimization among prostitutes that continued into their adult lives. Even higher than the percentage found in Silbert and Pines (1982),
Bagley and Young (1987) found that 70% of the prostitutes they interviewed had experienced childhood sexual abuse.

Despite these consistent findings of sexual abuse in the histories of prostitutes, some scholars believe this connection between sexual victimization and prostitution is indirect and is mediated by runaway behavior (Nandon, Koverola, & Schuldermann, 1998). Others contend that victims of physical and sexual abuse, especially childhood abuse, have an increased prevalence of mental illness symptoms such as anxiety, depression, poor self-esteem, sexual dysfunction, and symptoms of PTSD (Burnam et al., 1988; McLeer, Deblinger, Atkins, Foa, & Ralphe, 1988; Menard, 2001; Messman-Moore & Long, 2002; White, Halpin, Stromg & Santilli, 1988). Other maladies have been connected to sexual victimization as well. These conditions may also affect the relationship between child abuse and prostitution. For example, Saunders et al. (1992) found that victims of child rape were more likely than non-victims to experience a depressive episode, obsessive-compulsive disorders, social phobia, and sexual disorders. McGuigan’s (2005) study, which utilized a sample of mostly African American women, discovered that those who experienced both sexual abuse in childhood and interpersonal violence in adulthood had higher frequencies of depressive symptoms. These findings are supported by consistent results of various instruments that women who suffer interpersonal violence, or battered women, are more likely to suffer depression compared to those who have no history of abuse.
Scholars find that the trauma experienced from sexual victimization leaves victims feeling guilty, shameful, having low self-esteem, and willing to engage in rebellious behavior, including prostitution (Jaffe, 1975; James, 1976; Gagnon, 1965; Weiner, 1964). James (1976) argues that the feelings of guilt, shame, and lowered self-esteem may aid in viewing themselves as a commodity for sale. Some scholars argue that it is the concurrent nature of many of these variables that influences the emergence of these mental illness symptoms. For example, Farley and Barkan (1998) explain that it is also the lifetime experiences of violence, not simply the engagement in prostitution, which led 68% of prostitutes to meet the criteria for a diagnosis of PTSD.

Some scholars have examined these concurrent effects with consequent maladaptive outcomes such as drug and alcohol use. Of course, uncovering the correct time-order between these variables is important. Feelings of depression, anxiety, and psychological distress can be caused from the degrading circumstances of prostitution (El-Bassel et al., 1997; Inciardi, Lockwood, & Pottieger, 1993; Young, Boyd & Hubbell, 2000). Many scholars have found that prostitutes turn to drugs to help them detach, cope with the stress, decrease their feelings of guilt and sexual distress (Gossop et al, 1994; Graham & Wish, 1994; James, 1976; Silbert, Pines, and Lynch,
1982; Young, Boyd & Hubbell, 2000), similar to the way survivors of sexual victimization use antisocial behaviors such as drug and alcohol abuse to cope (Bagley & Young, 1987; Bagley, Bolitho & Bertrand, 1997; Conte & Schuermann, 1987). Additionally, it has been found that women who are engaged in prostitution also use drugs to increase feelings of confidence, sense of control, and feelings of closeness (Young, Boyd & Hubbell, 2000).

Although much research has shown that women engage in drug use in order to cope with the circumstances of prostitution, other scholars argue that women enter prostitution to fund their drug habits (Goldstein, 1979; James, 1976; Potterat, Rothernberg, Muth, Darrow, Phillips-Plummer, 1998). This argument is often tied to the rise of crack cocaine in the 1980’s and the economic influence it had on women’s engagement in prostitution. Erickson et al (2000) discovered that the crack-addicted prostitutes in their sample “work in the sex trade to get money and/or crack to support their own usage” (784). This process of addiction preceding prostitution where prostitution becomes the means to meet the economic demands of addiction was coined by Goldstein (1979) as the Enslavement Theory of prostitution. Although Goldstein’s (1979) theory referred to heroin addiction, many scholars have found the process to be true for crack cocaine. In addition, scholars have found that crack changed the way women engaged in prostitution by compelling them to make just enough money for their next hit, and engaging in dangerous tricks in order to get a hit of crack (Bourgois & Dunlap, 1993; Inciardi, 1993; Pottieger & Tressell, 1999; Maher
& Daly, 1996). As can be seen, the correct time order between prostitution and drug use is not clear. As such, conceptualizing the drug-prostitution connection as cyclical behavior in which engaging in one increases the likelihood of the other behavior may more validly reflect reality (Young, Boyd, & Hubbell, 2000).

By using a longitudinal data set that tracked female offenders two years after release from prison, the present paper will more adequately control for the proper time order between prostitution, sexual victimization, mental health, and drug use. The purpose of this paper is to uncover the ways in which these variables interact to predict a woman’s initiation into prostitution and the persistence of this behavior over time.
SECTION 3

METHODOLOGY

3.1 Sample

The data set utilized for this study is a subset of data collected by the Center for Drug and Alcohol Studies in 1999 and which consists of 748 incarcerated drug offenders who were interviewed prior to their release from prison and again at twelve and twenty-four months after release (see Inciardi et al., 2004; Inciardi et al., 2006; O’Connell et al., 2007). Due to the present paper’s focus on female prostitution behaviors, a sub-sample of 162 female offenders which includes three waves of data totaling 486 person-waves will be utilized. The research protocol included three fixed choice survey interviews, with the first administered while the respondent was in prison and both follow-ups conducted in the community.

3.2 Dependent Variable

The variable of interest in this analysis is engagement in prostitution behavior. Variables were created to account for engagement in prostitution between 1980 and the time of the first interview, as well as prostitution behaviors 6 months prior to the first interview, and the 12 months between the second and third interviews. The first variable, engaging in prostitution behaviors between 1980 and the time of the first interview, was created by combining three questions. When the women in this sample
were asked at what age they engaged in prostitution for the first time (whether or not they were arrested), 26 of 162 (16.0%) provided ages, indicating that 26 of them had engaged in prostitution. Another question asked respondents whether they had sex to get money and 69 of them (42.6%) responded affirmatively. And finally, 56 of the women (34.6%) said they had engaged in sex to get drugs. Relying on Goldstein’s (1979) definition of prostitution that includes bartering sex for drugs, women who answered affirmatively to any of these three questions were coded as engaging in prostitution behaviors (pastprostitution, coded 1 and 0 for those who had not). In this sample, 47.5% of the women had engaged in prostitution behaviors at baseline.

In order to account for the persistence of prostitution behaviors, variables were created to account for recent engagement in prostitution. In each wave of interviews, the women were asked about their sexual activity; specifically they were asked whether they had given sex for money, and whether they had given sex for drugs. Women who answered affirmatively to either question were coded as engaging in prostitution behaviors (prostitution, coded 1 and 0 for those who had not). In this sample, 16.67% engaged in prostitution behaviors in the 6 months prior to the first interview, 7.41% did so in the 12 months between the first and second interviews, and 2.76% did so in the 12 months between the second and third interviews.
### 3.3 Independent Variables

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Variable Description</th>
<th>Mean or Percent</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pastprostitution</td>
<td>Engagement in prostitution behavior from 1980 until first interview (1 = did engage)</td>
<td>47.17%</td>
<td>.49</td>
</tr>
<tr>
<td>Runaway</td>
<td>The respondent ran away from home (1 = ran away)</td>
<td>37.27%</td>
<td>.48</td>
</tr>
<tr>
<td>Haskids</td>
<td>The respondent has children (1 = has children)</td>
<td>86.34%</td>
<td>.34</td>
</tr>
<tr>
<td>Age</td>
<td>Respondent’s age</td>
<td>33.01</td>
<td>7.54</td>
</tr>
<tr>
<td>Race</td>
<td>The respondent’s race (1 = minority)</td>
<td>6.22%</td>
<td>.48</td>
</tr>
<tr>
<td>Education</td>
<td>The respondent’s education level (1 = hs diploma, some college, college degree)</td>
<td>59.63%</td>
<td>.49</td>
</tr>
<tr>
<td>Childtrauma</td>
<td>Sexual victimization in childhood scale (1 no victimization to 5 high victimization)</td>
<td>1.94%</td>
<td>1.38</td>
</tr>
<tr>
<td>Depression</td>
<td>Mental health scale (0 poor mental health to 3 strong mental health)</td>
<td>1.31</td>
<td>.71</td>
</tr>
<tr>
<td>Selfesteem</td>
<td>Self-esteem scale (.5 low self-esteem to 1.5 high self-esteem)</td>
<td>1.26</td>
<td>.27</td>
</tr>
<tr>
<td>Rape</td>
<td>Respondent’s recent sexual victimization (1 = raped since last interview)</td>
<td>1.75%</td>
<td>.13</td>
</tr>
<tr>
<td>Employment</td>
<td>Respondent’s employment history (1 = was employed)</td>
<td>.71</td>
<td>.76</td>
</tr>
<tr>
<td>Everheroin</td>
<td>Respondent’s use of heroin (1 = used heroin)</td>
<td>14.29%</td>
<td>.35</td>
</tr>
<tr>
<td>Freqheroin</td>
<td>Respondent’s frequency of heroin use (1 = heavy user)</td>
<td>8.07%</td>
<td>.27</td>
</tr>
<tr>
<td>Everalcmarj</td>
<td>Respondent’s use of alcohol and marijuana (1 = used alcohol or marijuana)</td>
<td>52.59%</td>
<td>.49</td>
</tr>
<tr>
<td>Freqalcmarj</td>
<td>Respondent’s frequency of alcohol and marijuana (1 = heavy user)</td>
<td>24.02%</td>
<td>.43</td>
</tr>
</tbody>
</table>
Table 2 continued

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Percentage</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evercocaine</td>
<td>Respondent’s use of cocaine (1=used cocaine)</td>
<td>35.82%</td>
<td>.48</td>
</tr>
<tr>
<td>Freqcocaine</td>
<td>Respondent’s frequency of cocaine (1=heavy user)</td>
<td>13.25%</td>
<td>.34</td>
</tr>
<tr>
<td>Prostitution</td>
<td>Respondent’s current prostitution behaviors (1= engaged in prostitution since last interview)</td>
<td>9.32%</td>
<td>.29</td>
</tr>
</tbody>
</table>

This study includes both time invariant and time varying independent variables. First, time invariant variables were asked only at the baseline interview. Respondents were asked how often they ran away from home (*runaway*, where any response other than 0 indicated they had run away and were coded 1, and 0 for those who had not), and 37.7% of them responded that they had run away from home. Additionally, when asked if they had children, (*haskids*, coded 1 for those who have children and 0 for those who do not), 86.4% of them had at least one child. Education level was accounted for by creating a variable that coded 1 for individuals who had a high school diploma or GED, attended some amount of college or received a college degree (*education*, and 0 for those who did not achieve a high school diploma or GED); 59.88% of the sample had achieved at least a high school diploma. Other demographic information was also controlled including the respondent’s age (*age*) and race (*race*, coded 0 for white and 1 for minority). Finally, although sexual victimization was accounted for in each wave of data, a scale was created to account for the primary trauma of childhood sexual abuse. The scale (*alpha reliability*= .9594)
consists of five questions about whether the respondents had been touched in a sexual way while growing up, whether someone threatened to hurt them unless they did something sexual, whether someone tried to make them do sexual things or watch sexual things, whether the respondent believed they had been molested, and whether the respondent believed they were sexually abused.

Time-varying variables could vary over the three waves of data. In the first wave, respondents were asked about their employment history over the last three months on the street, specifically whether they had a legal job, \(employment\)^1, which 66.25\% of them had a part or full time legal job. At the second and third interview, respondents were asked if they were currently employed since the last interview. At the second interview, 45.53\% of the respondents were employed and 43.12\% were employed at the third interview.

Respondents’ drug use was measured using both type and frequency information: (1) whether the respondent had ever used cocaine, heroin or alcohol and marijuana, and (2) the frequency of use of each. To create variables that accounted for whether respondents had used heroin, cocaine or alcohol/marijuana in the three months prior to each of the three interviews, responses to three questions were

\[^1\text{The wording of the question regarding employment changed from wave one to wave two, where wave one asked specifically about whether they were engaged in a legal job, and waves two and three simply asked if they were employed. Although the wording is not exact between the waves, the intention and interpretation of the variables are very similar. Therefore, the variables are coded the same to allow for longitudinal analysis of the respondent’s employment.}\]
combined. Regarding heroin, the respondents were asked “About how often did you use heroin in the last 3 months you were on the street before you were arrested?” The three questions asked how often did they “smoke heroin,” “inject heroin,” and “sniff, snort, swallow or other use of heroin.” Respondents who answered affirmatively to any of these three questions were coded as using heroin at least once (everheroin, coded 1 and 0 for those who had not). In this sample, 31.06% had used heroin at least once in the three months prior to the first interview, 8.64% had done so between the first and second interviews, and 3.7% had done so between the second and third interviews. The same strategy was used to create a variable regarding alcohol and marijuana use (everalcmarj) where respondents who answered affirmatively to how often they drank or used marijuana were coded 1 and 0 for those who had not. In this sample, 98.75% had drank or smoked marijuana at least once in the three months prior to the first interview, 30.25% had done so between the first and second interviews, and 29.01% had done so between the second and third interviews. Finally, a variable (evercocaine) was created that accounted for cocaine use which followed the same process outlined above so that respondents who answered affirmatively to using cocaine were coded 1 and those who did not were coded 0. In this sample, 80.63% had used cocaine at least once in the three months prior to the first interview, 17.90% had done so between the first and second interviews, and 9.26% had done so between the second and third interviews.
The frequency of drug and alcohol/marijuana use was also taken into account by creating variables that coded for heavy users versus other users. The various ways that individuals used heroin (smoke, inject, other) were combined and coded so that those who reported using heroin once a day or several times a day were coded 1, and those who had never, rarely or used heroin a few times a month were coded 0 (freqheroin). In the sample, 16.15% had used heroin daily or multiple times a day in the three months prior to the first interview, 5.56% had done so between the first and second interviews, and 2.47% had done so between the second and third interviews. The same process was used for cocaine use (freqcocaine), where 27.95% of the respondents had used cocaine daily or multiple times a day prior to the first interview, 7.41% had done so between the first and second interviews, and 4.32% had done so between the second and third interviews. Finally, respondents’ frequency of alcohol and marijuana use was created from the same process (freqalcmarij); 48.13% of the respondents drank alcohol or smoked marijuana daily or multiple times a day prior to the first interview, 12.35% did so between the first and second interviews, and 11.11% did so between the second and third interviews.

Indexes were created to encompass other variables of interest including mental health, self esteem, and sexual victimization. Guided from the literature, the mental health issues that need to be addressed are respondents’ levels of depression and self esteem. Therefore, a depression scale was created (depression) using questions that addressed the symptoms on the DSM-IV’s requirements for depression. This scale
combined responses from questions about whether the respondents’ blamed themselves, felt lonely, felt blue, worried too much about things, felt fearful, had difficulty making decisions, felt hopeless about the future, had trouble concentrating, felt that everything was an effort and feelings of worthlessness. This scale was created at each wave of data where the first wave’s scale alpha reliability=.8440, second wave’s scale alpha reliability=.9115, and the third wave’s scale alpha reliability=.8939. The self esteem index (selfesteem) combined respondents’ responses of “agree or disagree” to six statements which said they feel they are a failure, they do not have much to be proud of, they are satisfied with themselves, they wish they had more respect for themselves, they feel useless at times, and they think they are no good at all. This scale was created at each wave of data where the first wave’s scale alpha reliability=.7240, second wave’s scale alpha reliability=.7328, and the third wave’s scale alpha reliability=.7878.

An index was also created to account for sexual victimization that occurred within the 6 months prior to the interview. For each wave, respondents who had been forced against their will to have vaginal or anal sex since the last interview were coded 1 and 0 for those who had not experienced sexual victimization (rape). Four women (2.52%) reported that they had been raped in the six months prior to the first interview, 2 women (1.85%) reported at the second interview that they had been raped since the first interview, and no women reported being raped after the second interview.
To determine any influence of drug treatment on respondents’ persistence in prostitution post release, a dichotomous variable was created to capture individuals who participated in drug treatment voluntarily, including AA, NA, CA or a methadone program (treatment, coded 1 for those who have and 0 for those who have not). In this sample, all of the women had gone through drug treatment at baseline, although only 35.19% did so voluntarily (voldrgtrt). Respondents were asked at the second and third interview whether they had been to any kind of treatment program since the last interview; 57.72% of them had gone between the first and second interviews, and 35.78% of the respondents had gone to some kind of treatment program between the second and third interviews.

Concluding the data manipulation stage of this project was the reshaping of the dataset from wide to long which strung the variables across the three waves of data, thus, allowing for longitudinal data analysis. Hence, while variables were created for each wave (i.e., prostitution1, prostitution2, and prostitution3), in the final dataset they were strung together to account for each wave of data within the variable prostitution. This process leverages the variant aspect of the data and allows the analysis to take into account the 450+ person-waves that were created. Table 2 provides an overview of the independent variables, many of which were dichotomous, thus permitting the interpretation of the mean coefficients as frequency percentages.
SECTION 4
DATA ANALYSIS STRATEGY

As noted above, this research project examines two research questions that each call for specific statistical techniques. In order to answer the first question, “What predicts prostitution behaviors at baseline?” a logistic regression was used to predict whether respondents engaged in prostitution prior to prison. To examine the second question, “What predicts persistence in prostitution behaviors?” a longitudinal random intercepts logistic regression was used that accounted for changes in the women’s prostitution behavior over time. Utilizing a random intercepts logistic regression model with this data is superior to other model choices because longitudinal studies such as this repeatedly measure responses on the same subject over time creating correlated errors (Rabes-Hesketh & Skrondal, 2008). Without accounting for these correlated errors, standard errors are inevitably biased and correct conclusions are not guaranteed; utilizing a random intercepts logistic regression model alleviates these issues.

The variables included in the final model of each analysis were determined using a nested model approach. This approach was utilized to address issues of multicollinearity since diagnostics for addressing between-variable collinearity are not
as developed for longitudinal data. Thus, a stepwise model approach shows which significant results are consistent while illuminating potential multi-collinearity issues for variables whose statistical significance drops off due to the inclusion of other variables. Issues of within-subject collinearity were addressed by using the random intercept model described above.
SECTION 5

RESULTS

The first model determined what independent variables predicted the dependent variable, \textit{pastprostitution}. Since the dependent variable measured prostitution behaviors over the past twenty years, using current measures (such as those measuring the respondent’s mental health or drug use at the time of the survey) would provide an inaccurate picture of the hypothesized causal process. Therefore, after the nested model approach\textsuperscript{2}, only four demographic variables (\textit{runaway, age, race, education}), and the child sexual victimization variable (\textit{childtrauma}) were included in the final model. Results from the logistic regression yielded that all five variables were significant at $a \leq 0.05$. For full results, please see Table 3. Results show that women who had experienced childhood victimization were more likely than women who had not to engage in prostitution. Similarly, women who had run away from home were more likely to engage in prostitution than women who had not. Minority women were also more likely to engage in prostitution compared to white women. Older women and women with at least a high school education were less

\textsuperscript{2} The variable \textit{haskids} was dropped from analysis because of its consistent non-significance.
likely to engage in prostitution compared to younger women and those without a high school degree.

Table 3 • Results from Model 1 where the DV is pastprostitution

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>childtrauma</td>
<td>.47***</td>
<td>.08</td>
<td>1.60</td>
</tr>
<tr>
<td>runaway</td>
<td>.43*</td>
<td>.21</td>
<td>1.54</td>
</tr>
<tr>
<td>Age</td>
<td>-.023*</td>
<td>.01</td>
<td>.97</td>
</tr>
<tr>
<td>Race</td>
<td>.52*</td>
<td>.22</td>
<td>1.69</td>
</tr>
<tr>
<td>education</td>
<td>-.50*</td>
<td>.21</td>
<td>.61</td>
</tr>
</tbody>
</table>

LR chi2 = 68.33**  Log likelihood = -291.15  N= 471

*p<.05; **p<.01; ***p<.001

Although all of the variables included in the first model were significant predictors of whether a woman would engage in prostitution behaviors, when controlling for the other variables the strongest predictors of that behavior were childhood sexual victimization and race. Results show that the odds of a woman engaging in prostitution behaviors increased by 69% when the woman was a minority. Additionally, when a woman had experienced childhood sexual victimization, the odds of engaging in prostitution behaviors increased by 59.74%, which is well supported in the literature (Jaffe, 1975; James, 1976; Gagnon, 1965; Weiner, 1964).
The purpose of the second model was to determine what independent variables predicted the dependent variable of persistence in prostitution (*prostitution*). The

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runaway</td>
<td>1.07</td>
<td>.83</td>
<td>2.91</td>
</tr>
<tr>
<td>Age</td>
<td>.08</td>
<td>.067</td>
<td>1.08</td>
</tr>
<tr>
<td>Race</td>
<td>.84</td>
<td>.85</td>
<td>2.31</td>
</tr>
<tr>
<td>Education</td>
<td>-.06</td>
<td>.75</td>
<td>.94</td>
</tr>
<tr>
<td>Childtrauma</td>
<td>.27</td>
<td>.25</td>
<td>1.31</td>
</tr>
<tr>
<td>Pastprostitution</td>
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<td>1.21</td>
<td>41.85</td>
</tr>
<tr>
<td>Rape</td>
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<td>2.11</td>
<td>36.69</td>
</tr>
<tr>
<td>Evercocaine</td>
<td>2.26*</td>
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<td>9.56</td>
</tr>
<tr>
<td>Everheroin</td>
<td>-.37</td>
<td>.99</td>
<td>.69</td>
</tr>
<tr>
<td>Everalcmarj</td>
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<td>.97</td>
<td>1.51</td>
</tr>
<tr>
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<td>.78</td>
<td>.52</td>
</tr>
<tr>
<td>Freqheroin</td>
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<td>9.29</td>
</tr>
<tr>
<td>Freqalcmarj</td>
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<td>.71</td>
<td>1.86</td>
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<tr>
<td>Depression</td>
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<td>.617</td>
<td>1.15</td>
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<tr>
<td>Selfesteem</td>
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<td>1.37</td>
<td>.081</td>
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</tbody>
</table>

Likelihood-ratio test of rho=0: 11.14***   N=447

*p<.05; **p<.01; ***p<.001
results of the model are presented in Table 4. This model used an xtlogit command, the longitudinal version of a logistic regression. The significance of the log likelihood (p<.001) on the model indicates that the longitudinal analysis fits the data better than a non-longitudinal model would. Results yielded two variables significant at the α≤.05 level: past engagement in prostitution behavior (p<.001) and cocaine use (p<.05). Those who had engaged in prostitution prior to prison were more likely to do so post release. The only other factor that increased the probability of prostitution behavior over time once other variables were controlled was a history of cocaine use. It should be noted, however, that several variables including childhood trauma remained significant when predicting post-release prostitution until prior prostitution and cocaine use were added to the model. While it is logical to assume that past prostitution will be related to post prostitution, it was important to determine that these results were valid and not the result of a statistical aberration. One factor that may be responsible for these two variables eroding the significance of the other variables is a lack of variation at the bivariate level, that is, if all of those who had engaged in post prostitution also engaged in prostitution before prison. Results of Crosstabulations indicated that of the forty-five women whose prostitution behaviors persisted, only three of them had not engaged in prostitution prior to imprisonment. The bi-variate relationship between cocaine use and persistence in prostitution showed more variation, where 20% of the women who were persisting in prostitution had never used
cocaine compared to the 80% who had. However, due to the sample size, this means only 9 of the 45 women had ever not used cocaine.

This lack of variability, particularly in the relationship between previous and post-prostitution, may be unduly influencing the null hypothesis tests of other independent variables in the model. Table 5 presents the results of a model predicting post-release prostitution with previous prostitution and cocaine use excluded. Four variables emerged as significant: childhood sexual trauma, rape, alcohol and marijuana use, and self esteem. Those who had experienced childhood sexual trauma, rape as an adult, had lower levels of self esteem, and used alcohol and marijuana were more likely to engage in prostitution after release from prison.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
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<td>2.41</td>
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<td>1.06</td>
</tr>
<tr>
<td>Race</td>
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</tr>
<tr>
<td>Education</td>
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<td>.74</td>
<td>.73</td>
</tr>
<tr>
<td>Childtrauma</td>
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<td>.27</td>
<td>1.77</td>
</tr>
<tr>
<td>Rape</td>
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<td>74.34</td>
</tr>
<tr>
<td>Everheroin</td>
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<td>1.48</td>
</tr>
<tr>
<td>Everalcmarj</td>
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<td>.77</td>
<td>5.32</td>
</tr>
<tr>
<td>Variable</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Freqcocaine</td>
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<td>1.17</td>
</tr>
<tr>
<td>Freqheroin</td>
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<td>1.23</td>
<td>11.81</td>
</tr>
<tr>
<td>Freqalcmarj</td>
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<td>.68</td>
<td>1.99</td>
</tr>
<tr>
<td>Depression</td>
<td>.13</td>
<td>.57</td>
<td>1.15</td>
</tr>
<tr>
<td>Selfesteem</td>
<td>-3.11*</td>
<td>1.26</td>
<td>.05</td>
</tr>
</tbody>
</table>

Likelihood-ratio test of rho=0: 11.14***  N=447
SECTION 6
DISCUSSION

The results of this paper illuminate the fact that those factors that may be responsible for a woman to engage in prostitution initially may not be related to her persistence in prostitution. Consistent with the extant literature, childhood sexual victimization was significantly related to prostitution prior to prison (Jaffe, 1975; James, 1976; Gagnon, 1965; Weiner, 1964). However, the only variables that significantly affected prostitution behavior post release were past prostitution behavior and a history of cocaine use. When these variables were excluded from the model, however, childhood sexual trauma, self esteem, experiencing rape as an adult, and alcohol and marijuana use each predicted engaging in prostitution over time. Given the small sample size, it is not clear whether the two variables’ (past prostitution behavior and cocaine use) overwhelming significance over the other variables is due to their true influence or to the low variation of the data. Despite the lack of significance in the longitudinal model that included past prostitution and cocaine use, childhood sexual victimization did predict the onset of engaging in prostitution, and this trajectory increased the probability of the persistence in the behavior. This finding is a direct benefit of the longitudinal nature of this dataset because it provides context that
is otherwise lost in a cross-sectional analysis. A time-specific look at these data would disregard childhood sexual victimization as a predictor of persistence in prostitution because it lacks the contextual influence of the past; the longitudinal nature of this provides another explanation. This finding supports the extant literature (for example, Jaffe, 1975; James, 1976; Gagnon, 1965; and Weiner, 1964) that experiences of sexual victimization, especially in childhood, can increase the likelihood that victims will engage in prostitution. Although women with higher depression scores and lower levels of self-esteem were more likely to persist in prostitution, these factors were not significant once the other variables were controlled. As such, we can only speculate about the causal mechanism between childhood trauma and prostitution.

Finally, the finding that cocaine use was a significant predictor of persistence in prostitution behaviors is not surprising since this connection has been previously established in the literature (Bourgois & Dunlap, 1993; Inciardi, 1993; Pottieger & Tressell, 1999; Maher & Daly, 1996). However, the non-significance of heroin use as a predictor of the dependent variable is an interesting finding, especially considering Goldstein’s (1979) Enslavement Theory was established on the strong connection between heroin use and prostitution. In the nested model approach, heroin use was significant in the model for heavy users but once cocaine use was put into the model it became non-significant. This finding supports the extant literature that cocaine was a predictor of prostitution behaviors. However, to explore Young, Boyd, and Hubbell’s (2000) conceptualization of this relationship as cyclical, an additional model was run
to see whether prostitution had an effect on drug use. Results showed that just as heroin use was not a significant predictor of prostitution, prostitution was neither a significant predictor of heroin use, when controlling all other variables. However, as cocaine use was a significant predictor of prostitution, prostitution was a significant predictor of cocaine use (p<.05) even after all other variables were controlled. This finding supports Young et al’s (2000) cyclical approach to understanding the relationship between drug use and prostitution.
SECTION 7
LIMITATIONS

As with any research, the present study has limitations. The cyclical approach that was confirmed in the results is both a strength and limitation of this study. One of the major discrepancies within the extant literature is the causal direction of the prostitution-drug use connection. Although current findings indicate that cocaine use affects persistence in prostitution, causality is still undeterminable. Other limitations include the limited sample size. With a larger sample size, some of the other coefficients in the model may have achieved significance despite the lack of variation between past prostitution and prostitution after release from prison. Moreover, because the sample was interviewed over a decade ago, the findings may not reflect the etiology of prostitution today. And finally, this research was not able to include a measure of income from illicit activities. In wave one, the respondents were asked how much of their expenses were paid for by crimes. In the second and third interviews, respondents were asked how much of their income came from crime. Although the intention of the question was to measure income from illicit activities, they were not similar enough to be able to link them throughout the waves.
SECTION 8

IMPLICATIONS AND CONCLUSIONS

The findings of this research have both theoretical and policy implications. Understanding the long term effects of childhood sexual victimization supports the need for therapy in general, but especially in coordination with drug treatment in prison. If childhood victimization is the primary trauma that influences whether a woman will both begin to engage in prostitution and persist in this behavior over time, therapeutic intervention may stop the trajectory. Providing female offenders with drug treatment is necessary but not enough; this research calls for the addition of female-centered treatment. Moreover, the direct relationship between past prostitution and prostitution after release from prison indicates that policies should be directed at harm reduction for women who are more likely to engage in this high risk behavior. For example, programs that equip them with the knowledge to use safe sex practices combined with curricula that simultaneously increase their motivation to do so would appear to be urgently needed. Finally, the research illuminates the importance of longitudinal analysis of prostitution over time as it provides necessary context to be able to understand persistence. Future longitudinal research should continue to examine the factors related to prostitution over the lifecourse.
SECTION 9

REFERENCES


