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Motivation to Reduce Risk Behaviors While in Prison: Qualitative Analysis of Interviews with Current and Formerly Incarcerated Women

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Abstract

Prison is an environment in which programs can be implemented to change harmful behaviors among high-risk populations. Incarcerated women experience high rates of HIV and other sexually transmitted diseases (STDs), yet little research has examined women's motivation to reduce risky behaviors during incarceration. In-depth individual interviews were conducted with former and current women prisoners in two North Carolina correctional facilities and analyzed to identify barriers and facilitators of behavior change while in prison. Analyses revealed key motivators of behavior change: Viewing prison as a place to recover from past trauma, removing oneself from negative social networks, gaining access to needed mental and physical health services, and engaging in self-care and self-reflection. Barriers to behavior change include fear of recidivism, stigma of being in prison, and return to undesirable social networks post-release. Moreover, women noted that the provision of mental health services, educational enhancement and housing assistance could help them reduce engagement in high-risk behaviors after their incarceration. These findings can be incorporated into HIV/STD risk reduction interventions to facilitate positive behavior change among incarcerated women prisoners.

Prison itself is a tremendous education in the need for patience and perseverance. It is above all a test of one's commitment.

—Nelson Mandela, 1995

Women represent a fast growing prison population in the United States (Beck & Harrison, 2006; Carlson, Shafer, & Duffee, 2010; Staton, Leukefeld, & Webster, 2003). Incarceration rates among women have increased steadily over the past two decades, with the largest increase reported among women from underserved and marginalized communities in the

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South (Carlson et al., 2010). In 2005, women accounted for 7% of all inmates in state and federal prisons, and from 1995 to 2005, the annual rate of growth in the number of female inmates averaged 4.7% compared to 3.0% among males (Baletka & Shearer, 2005; Beck & Harrison, 2006). Rates of recidivism are also high among female inmates. According to the online *Prisoner Recidivism Analysis Tool*, nearly 60% of all female inmates were rearrested for a new crime within three years of their release, and 24% were rearrested within six months of release (Bureau of Justice, 2011).

Despite the punitive aspects of incarceration, prison can be viewed as an environment in which programs can be implemented to reduce harmful behaviors and enhance positive coping strategies among women (Bradley & Davino, 2002; Leukefeld et al., 2012). Some incarcerated women view prison as a more safe and secure environment than familial and neighborhood environments on the outside (Bradley & Davino, 2002). Therefore, it may be possible that incarcerated women can engage in self-reflection and healing during their prison stay, particularly if the facility offers services to aid in their recovery and rehabilitation (Leukefeld et al., 2012).

In our study, a qualitative analysis framework is used to identify self-reported motivators to change risk behaviors, barriers to recovery, and perceived risk of recidivism among current and former women prisoners in two southern correctional facilities.

RISK FACTORS LEADING TO INCARCERATION OF WOMEN

Several studies indicate that incarcerated women in the US experience a greater number of risk factors, including heightened HIV/STD risk, substance abuse, and childhood and adult abuse. In 2002, incarcerated women were 15 times as likely as women in the general US population to be infected with HIV (DeGroot & Uvin, 2005), and from 2007–2008, a greater percentage of female inmates across the US were HIV-positive, compared to male inmates (1.9% vs. 1.5%, respectively) (Maruschak & Beavers, 2009). Among adult correctional inmates and juvenile detainees, adult women in 2006 had higher positivity rates of Syphilis (7.5% vs. 2.3%) and Chlamydia (6.3% vs. 5.4%) than adult men (Hammett & Drachman-Jones, 2006). Risk factors associated with high rates of HIV and other STDs include a history of engaging in commercial sex work, having multiple concurrent partners, exchanging sex for drugs, and being exposed to physical, emotional and sexual abuse during childhood and adulthood (DeGroot & Maddow, 2006; Fogel & Belyea, 1999; Hammett & Drachman-Jones, 2006; Hogben & St. Lawrence, 2000; McClelland, Teplin, Abram, & Jacobs, 2002).

There is evidence suggesting that drug and alcohol abuse are factors associated with rising incarceration and recidivism rates among women (Carlson et al., 2010). In 2006, over 200,000 adult women were arrested for drug abuse violations, representing a 23% increase from 2002 (Women's Prison Association, 2011). Previous studies report that four out of five incarcerated women were under the influence of drugs or alcohol prior to their arrest (Brewer-Smyth, Wolbert-Burgess, & Shulta, 2004), and 70 to 80% of incarcerated women report struggling with substance abuse issues prior to their incarceration (Karberg & James, 2002).

Lifetime psychosocial stressors such as childhood and adult sexual abuse, social marginalization and poverty have been linked to increases in substance abuse and rates of incarceration and recidivism among women (United States Department of Justice, 1997). Exposure to a constellation of risk factors or a “nexus of risk” can lead women to use substances as a coping mechanism (O’Leary, 2001), which in turn can influence behaviors resulting in initial and repeat incarcerations (Bradley & Davino, 2002). Prior research on the lives of incarcerated women commonly uncover episodes of violence and abuse starting at a young age and continuing through adulthood (Asberg & Renk, 2012; Bradley & Davino, 2002; Walsh, Gonsalves, Scalora, King, & Hardyman, 2012); between one-half to two-thirds of female inmates had experienced childhood sexual abuse (Asberg & Renk, 2012), and one in five female inmates reported some sort of physical or sexual abuse at the time of their arrest (Beck, Harrison, Berzofsky, Caspar, & Krebs, 2010). In a recent study of 168 incarcerated women interviewed in a Midwestern correctional facility, over 75% reported at least one form of sexual, physical or emotional abuse during childhood, 9% reported at least one instance of sexual coercion, and 22% reported experiencing a forced sexual encounter during their current incarceration (Walsh et al., 2012).

Cumulative effects of stressors such as substance abuse, exposure to childhood and adult trauma, and poverty on health and well-being are evidenced in the range of problems commonly reported by women at the time of their incarceration (Staton et al., 2003). These problems include alcohol and drug addiction, STDs, and mental health diagnoses such as depression, anxiety, and posttraumatic stress disorder. According to one study, only one-quarter of women who needed mental health services while in jail actually received services, and a mere 13% received substance abuse treatment despite a persuasive need (Teplin, Abram, & McClelland, 1997). In addition, assistance with post-release housing, vocational training, and general health care are frequently not provided to women during or after their incarceration (Carlson et al., 2010).

PROJECT POWER: AN ADAPTATION OF PROJECT SAFE

Our research was part of the Adopting and Demonstrating the Adaptation of Prevention Techniques (ADAPT-2) project to systematically adapt and test the efficacy of evidence-based HIV behavioral interventions for populations at greatest risk for HIV (Centers for Disease Control and Prevention, 2007). In-depth semi-structured interviews were conducted with current and former female inmates to adapt an evidence-based HIV behavioral prevention intervention, Sexual Awareness for Everyone (SAFE) (Shain, Piper, & Holden, 2004), for use with incarcerated women, resulting in Providing Opportunities for Women’s Empowerment, Risk-Reduction & Relationships (POWER) (Fasula et al., 2013). Many of the life stressors experienced by incarcerated women and identified in the literature were referenced by women in these interviews. Issues such as substance abuse, childhood and adult abuse, mental illness, and the need for services emerged as themes that both inspired incarcerated women to engage in behavior change, and served as barriers to their rehabilitation and increased risk of recidivism.

METHOD

Participants

A total of 53 women (25 current prisoners and 28 former prisoners) participated in in-depth interviews between September 2008 and June 2009. The results reported in this paper are based on interviews with 17 women (8 former prisoners and 9 current prisoners) who participated in the formative research. These interviews were selected for analysis because the women spontaneously discussed their views on prison as an environment to motivate a reduction in risk behaviors. The remaining 36 women did not mention views on incarceration during their interview.

Current prisoners included women incarcerated at the North Carolina Correctional Institute for Women (NCCIW) and the Fountain Correctional Center for Women (FCCW). Former prisoners included women who had been recently incarcerated but were residents of metropolitan and rural jurisdictions in North Carolina. A random sampling strategy was used to select current prisoners. Women were eligible for the study if they were aged 18 or older, HIV-negative, and had prior sexual activity with a man. An additional criterion for current prisoners was a sentence length of 12 months or less, so these women could more readily remember sexual activity prior to incarceration and project experiences post-release. Women who were intoxicated or under the influence of drugs (former prisoners), exhibited an inability to focus or understand explanations, were unable to speak English, or had symptoms of acute psychosis as determined by North Carolina Department of Corrections (NCDOC) mental health or social work staff were excluded.

Current prisoners were recruited from the (NCCIW), the state's primary processing facility and largest women's state prison, which housed over 1100 inmates. Women were also recruited at the minimum security (FCCW), which housed over 500 women. Research staff compiled a list of women with sentences of 12 months or less who had no more than 6 months remaining on their sentence and were currently housed at NCCIW or FCCW. The sentencing data and current addresses were obtained from the NCDOC database. Current women prisoners were randomly selected to participate in the study. A trained female research assistant approached the women, explained the study to each potential participant, and asked if she was willing to participate. If a woman met all study criteria, informed consent was obtained by a trained research assistant.

Network sampling was used to recruit former women prisoners by using word of mouth referrals to access socially marginalized and hard-to-reach populations (Burns & Grove, 2001). Research staff also contacted former prisoners who had participated in previous studies conducted by the principal investigator. In addition, women who enrolled in the study were asked if they had acquaintances who might be interested in the study. If a woman indicated interest, she was enrolled following the process used for current prisoners.

After providing informed consent, the current prisoners were individually interviewed in a private room in the correctional facility. Women received a small snack for their participation because study staff were not permitted to provide monetary or other tangible reimbursements according to NCDOC regulations. After their release from prison, women

were mailed a cosmetics case containing condoms, lubricant, and body lotion as a token of appreciation for their participation.

The Institutional Review Boards of the University of North Carolina Chapel Hill and the CDC approved the study protocol. NCDOC also reviewed and approved the study protocol.

Data Collection

Trained research assistants conducted semi-structured qualitative interviews lasting 60 to 120 minutes that were digitally audio-recorded. Demographic data consisted of age, education, race/ethnicity, incarceration status (i.e., misdemeanor vs. felony), and previous/current work status. The individual interview included 12 questions with probes and was designed to elicit information related to STD/HIV knowledge, male-female relationships, sexual risk behaviors, perceptions of personal risk, motivations to reduce risk, factors that facilitate/prevent use of sexual risk reduction practices, attitudes toward safer sex practices, resumption of sexual activity after release, conditions of life, lifestyle and daily living concerns, personal intimate relationships prior to incarceration, and sources of social support. An example of questions include: “What do you think would/has put *you* in harm’s way?” and probes such as “What part of this, if anything, do you think is due to ...being a woman, where you live, having been in prison?” Another example is: “When do you protect yourself and when don’t you?” and probes such as “With what types of partners would you have to protect yourself?” A final question elicited women’s views regarding what they thought we should teach women about STIs/HIV prevention.

Questions about women’s feelings about their incarceration were not explicitly asked during the interviews. Instead, discussion of their time in prison emerged organically within conversations regarding their views on a wide range of HIV/STD-relevant topics, including perceived personal and community-level risk, availability of treatment and services, and attitudes towards risk behaviors in general.

Data Analysis

Audio-recorded interviews were transcribed verbatim, independently reviewed for transcription accuracy, and then uploaded into NVivo 8.0 qualitative analysis software (QSR International, 2012). Once uploaded, the transcripts were reviewed and segmented for coding and iteratively coded by a team of trained coders using established coding protocols (Bernard, 2006). Using a grounded-theory approach, codes reflected the major themes and patterns in the data and included specific beliefs, attitudes, opinions and values of the participants (Strauss & Corbin, 1990).

Coding consisted of two phases: (1) initial coding during which meaning units (words, lines, segments, and incidents) were identified and coded, and (2) focused coding during which the initial codes that seemed the most useful were identified and entered into a codebook (Miles & Huberman, 1994). As new data were gathered, codes were revised and the data recoded as needed. The codebook underwent multiple iterations until it satisfactorily reflected the themes present in the data (Miles & Huberman, 1994).

Coders independently coded identical text segments with the same codebook. The coded text was compared for reliability between two coders and problem codes were identified. NVivo 8.0 reliability functions were used to calculate the percent agreement on use of the codes, and Cohen's kappa coefficient was computed for inter-coder reliability. This information was used to modify the codebook and identify weaknesses in the coding scheme, including codes that had been assigned to text segments differently, unclear code definitions, or unintentionally overlapping or redundant codes. An overall kappa of 0.81 was achieved, indicating good reliability between coders (Fleiss, 1981; Landis & Koch, 1977). Disagreements were resolved by consensus discussion by the coders and other members of the research team.

Findings were reported as: Themes and patterns in the coded data; illustrative participant quotes for each theme to assist in interpretation; and frequency tables for the themes and patterns for each interview item and any global themes that occur across items. Findings were organized by question topics following the interview instrument protocols.

RESULTS

Table 1 compares key demographic characteristics of the subsample of 17 women who spontaneously offered views on their incarceration with data from the 36 women who did not offer such views. The groups did not significantly differ on any demographic criteria, including race/ethnicity ($\chi^2(1, N=53) = 2.710, p=.10$). Both groups averaged 33 years of age and had a high school education, and the majority in both groups were white and committed a felony that led to their incarceration. About one-quarter of women in both groups reported having a full-time job prior to incarceration.

The qualitative analysis of interviews with the 17 women who spontaneously offered views on their incarceration identified two main themes: (1) prison can be an opportunity for behavior and life change, and (2) barriers to rehabilitation and risk of recidivism. Next, we expanded on each of these themes and sub-themes with representative quotations from participants. For each quotation, we indicate current prisoners as [C] and former prisoners as [F].

Main Theme 1: Prison as an Opportunity for Behavior and Life Change

Time for reflection—The majority of the women who spoke of their feelings toward incarceration and their time in prison were mothers who identified challenges they experienced trying to financially support themselves and their children. Women reported that prison afforded them a break or an opportunity to reflect on their life, and many indicated they could only support their children with the assistance of male partners and family members. As one woman stated: “This is a break, it’s a period where I can just concentrate on me ‘cause for one thing, that’s something I’ve never done all my life. It’s always been about somebody else” [C].

Being both financially and emotionally dependent on these relationships, women often had to defer decision-making to male partners and family members and were torn between the interests and needs of their children, partners, and family members. Women also indicated

that prison was a place where they could be removed from this role strain and place their own needs first. As expressed by one woman:

Those are some of the things that helped me while I was incarcerated you know as far as change is concerned, being specific and drilling down and catering to my needs. You know I don't really want to think about nobody else right now but me. This is my one time I get to be selfish. It's all about me [F].

Slightly less than half of the women indicated they had an opportunity while in prison to reflect on issues such as sexual abuse, addiction, mental health, and illiteracy.

Safe haven and removal from poor social and sexual networks—Several women viewed prison as a safe haven that temporarily removed them from undesirable and sometimes violent relationships, and risky environments. One woman shared:

Because [prison] took me away from a domestic violence situation, it allowed me to clear my head, it kept me safe, it allowed me to build some relationships with some people as far as friendships, and to see how the other world lives because I ain't never been snotty or thought I was better; I never thought I'd be in prison [F].

For these women, this view of prison as a safe haven included being sheltered from a network of peers, who like themselves, were often involved in a cycle of sex trade and substance use. As one woman described:

Being in prison, if anything it makes you stop and think, 'Hey, this is not for me'... you have to get away from those people. There's a section in [prison] that's just as bad as on the street. There was this girl who was getting out and they were picking her up with an ounce of crack... There's people that care, there's people that don't care, and then you got people that's never getting out so they really don't care but they ain't never gonna get out anyway so they're kinda different. So you've got different categories of people. I just kept to myself. I just kept to myself [F].

In addition, women often turned to sex trade for money when they perceived a lack of viable employment opportunities. Back home and on the streets, drugs and alcohol were commonly used as a coping mechanism while turning tricks which eventually led to addiction. Beyond sex trade and drug addiction, it was common for women's social networks to include men and women involved in criminal activity such as robbery, drug dealing and theft. Women caught in this cycle saw little opportunity to break away from these harmful social networks.

Place to love oneself—Some women expressed that prison became a place where they were able to rediscover love for themselves. As stated by one woman:

I was saying earlier, you know people come to prison they thinking all negative. I think about the pros in it you know. This is a time for me to heal, you know. It really is a healing experience for me" [C].

For these women, feelings of self-love and worth were achieved by reading or attending religious or spiritual services at the prison. Other women reported that their ability to focus on self-love was the result of being alone for the first time in their lives.

Yeah I mean you're not on the streets, you're not in a home, you have none of your family here. It's time. When you come to prison, you did something wrong to get here. It's time to work on yourself. Realize who you are and what you want [C].

Resource for unmet needs—Many women believed that prison provided them with resources they did not have outside of prison. Women often shared histories of sexual abuse, addiction, and mental health issues, and prison was the first place where they had ever received any form of counseling service.

There's a lot of people [in here] that have major traumatic events, sexual abuse, physical abuse, mental abuse, everything that happened when they were little. So I think that [to receive] some type of outreach program, prison probably the best way to come [C].

Women who were placed into programs for basic sexual health information, including STD and pregnancy prevention, reported that prison provided them with skills and educational opportunities (e.g., GED and trade courses) that could benefit them at the time of their release. Some women stated that having the option to take job-related courses made them more optimistic about their opportunities to gain sustainable employment post-release.

You can go to school and get your GED, go to school and finish college, go out there and use the trainings that you got in here. The clothes, house, the kitchen, the paint crew, the road squad—go out there and use that as your training to get a job on the outside [C].

This woman's experience in a mandated drug course inspired reflection that led her to acknowledge her struggle with addiction:

I learned a lot of stuff in prison; I learned to appreciate a lot of stuff in prison but I learned that prison life is not the life for me. But as far as learning about sexually transmitted diseases, HIV, drugs that's probably when I was an addict, honest to God, and it was not the first time, it was the second time that I went and they wanted me to go realized it was God's will because I had never admitted that I was an addict until then [F].

New start—Several women reported that prison provided them an opportunity for a new start in their lives. They expressed that events which led to their incarceration were a low-point and prison offered them an opportunity to wipe the slate clean and start over. These women also referred to their time in prison as a chance to regroup and prepare themselves for better lives after release. At least one woman planned to use her time in prison to develop plans to move away from her previous neighborhood, find a job, reconnect with her children, and start over. The advice given by this woman was:

Find a different neighborhood. I mean move to a different town. Just start your life over again. Prison is basically a new life. I mean, they get you ready, they get you cleaned up and they give you a job to give you that incentive to go out there and find a real job in the world to make your own money, to have your own family and your own life and not to go out there and screw it up, but I mean with you being in

the situation, you go out there in the same place with the same people to do the same thing just to end up right back here. Don't do that to yourself [C].

Main Theme 2: Barriers to Rehabilitation and Risks of Recidivism

Resources after prison—Several former inmates noted a lack of resources available to them post-release in their community. Women discussed cuts to government programs that impeded their ability to access services in their communities, particularly services related to mental health and trauma counseling. As revealed by one woman:

Well, I started counseling and had to stop because the government's cut funding and it would require me to pay for most of my services with my income and I can't. And I need counseling 'cause I was abused as a child and then I was in several relationships where I was severely abused [F].

This lack of services posed significant barriers to their recovery and rehabilitation, as expressed by a former prisoner:

I was like wait a minute I thought prison was supposed to rehabilitate; I'm wanting to be rehabilitated. The way I'm thinking right now, I'm going right back to that life when I leave here, I don't want to do that. Rehabilitate me [F].

Temptation of previous lifestyles—Women discussed the possibility of being tempted to return to previous harmful lifestyles post-release, including substance abuse and participation in risky sexual behavior. One woman shared: "People don't have nowhere to go so they're going to go out in the streets again 'cause 85% of these girls are going right back to where they come from" [C]. One major reason for this concern involved their former social networks in which substance use and other risky behaviors were prevalent.

Women reported that a lack of support from their families also contributed to overall feelings of social isolation, particularly when a participant's family was unsupportive of changes she had attempted to make in prison. One woman recounted her story of feeling unsupported by family upon her release:

Okay I'm changed now. Everything's all better now. My family should just come with open arms. And that's not the case...And then you have the other side of things where some people are going back to family who are doing things that are illegal you know and that's a big influence 'cause where else do you go, but back home to your family? 'Cause that's people's comfort zone [F].

Stigma—Several women cited the stigma of being in prison as a barrier to rehabilitation. Women expressed a fear that they would be judged negatively by their family, peers, community, and potential employers when they were eventually released, despite having enhanced their skills while in prison:

Even if you try to open that door to take a change to start over, someone always shuts it because you've already got all those bad things and negative things against you. If the person is willing to change and shows a commitment to change, then someone needs to give them that chance and that's the main problem a lot of people

don't get that chance so they end up going back to what they know and next thing you know they have a disease or they're dead [F].

Prison-related stigma was particularly common among formerly incarcerated women who discussed their experiences searching for employment post-release. As one woman expressed:

When you have a prison record, you can't get a good job. If you do, you have to lie about it. You know what I'm saying you pretty much have to lie about it you know and who wants to say on your résumé, "Oh I used to be a prostitute," you know what I'm saying? I've been a prostitute; I've been to prison... those are the ones that are going to get the door shut in their face the quickest so they're just stuck in this never ending cycle of going going going so I think that society needs to at least not be so judgmental of people that are trying to change [F].

Many former inmates discussed stereotypes that members of the community held about them due to their being incarcerated, and how it hindered their ability to take the steps necessary to establish a new life.

DISCUSSION

The findings of this study demonstrate that prison was viewed by some current and former incarcerated women as a place where they could marshal internal and external resources to engage in behavior change to assist in their rehabilitation and recovery. Women reported that prison offered them time for reflection, a place to love oneself, a safe haven, resources for unmet needs, and a chance for a new start. However, despite the optimism reported by some women, others acknowledged that the temptation of previous harmful lifestyles, prison-related stigma, and not getting needed structural services post-release present significant barriers to sustained risk behavior change and post-incarceration rehabilitation.

Our research builds upon previous research which has shown that some incarcerated women view prison as a more safe and secure environment than familial and neighborhood environments on the outside (Bradley & Davino, 2002; Henriques & Jones-Brown, 2000). The finding in Bradley and Davino's (2002) study that prison can be viewed as a place of safety needs to be considered within the context of severe and significant interpersonal violence that often pervades these women's familial and social relationships. The women in our study echoed the need for a safe haven to remove them from undesirable and sometimes violent relationships and environments, as well as a place to love themselves, obtain needed services, and make a new life for themselves. Based on these views, prison can be a viable environment to implement programs aiming to reduce harmful behaviors and enhance positive coping strategies among women (Bradley & Davino, 2002; Leukefeld et al., 2012). Our research also documents incarcerated women's motivation to enhance their psychological well-being by reducing substance use and sexually risky behaviors.

There were no questions on the interview guide that directly asked or probed women on their experiences while in prison or their motivation for behavior change as a result of their incarceration. Despite this, our analysis shows that about one-third of the overall sample of current and former women prisoners spontaneously stated that prison can serve as a

motivator for positive behavior change. Though not captured in the original interview guide, the unplanned recurrence of this theme suggests that these ideas may be important to some incarcerated women. Qualitative researchers specializing in grounded theory analysis posit that words and themes that occur frequently are often seen as being salient in the minds of respondents (Strauss, 1992; Strauss & Quinn, 1997).

Participants who did not mention the aforementioned perspectives toward incarceration may have different opinions about prison as a place or institution for motivating or changing risky behavior. Although there were no significant demographic differences, it is noted that fewer black women spontaneously discussed their incarceration. It is possible that black incarcerated women might have less positive views of prison than white women. Future research could further probe diverse populations of incarcerated women on their perceptions of prison as a motivator of behavior change.

There are a number of limitations to this study. With regard to the generalizability of the study findings, we recruited current and former women prisoners who were HIV-negative and serving (served) less than a 12-month sentence. This was done because the principal purpose of the formative research was to adapt an evidence-based behavioral HIV prevention intervention (Project SAFE) for a new population, incarcerated women. Both the original and the adapted interventions focused on primary prevention of HIV and other STDs. By excluding HIV positive women and those serving longer sentences, we may have missed different perspectives on why these women engaged in risky behavior and how their prison experience could impact future behaviors. The current and former women prisoners in our sample were incarcerated in correctional facilities in North Carolina. It is possible that many of the themes identified in the interviews may only pertain to the lives of incarcerated women in North Carolina and may not be generalizable to women prisoners in other jurisdictions. Lastly, former prisoners who participated in this study were recruited from earlier studies or referred from other projects led by the principal investigator. While their responses might not be representative of the incarcerated female population at large, their identification of facilitators and barriers to behavior change consistent with current prisoners suggests candor in their views during the interviews. Each of these limitations could be addressed in future research studies.

CONCLUSION

Our study corroborates prior research in which some incarcerated women viewed their time in prison as a safe haven (Bradley & Davino, 2002). Aspects of incarceration that can provide motivation for behavior change despite the stress and hardship associated with prison are detailed. Interventionists and policy makers interested in facilitating positive behavior change and rehabilitation of women prisoners can use formative research to identify women's intrinsic motivations for behavior change and provide services that can best promote and sustain recovery during incarceration and post-release. Such programs can facilitate a successful transition into stable and healthy lives post-release by recognizing that incarceration can be a unique time for women to identify various stressors impacting their lives and reflect on how they can address and overcome them. The findings of this study also suggest that incarcerated women may benefit from programs that attend to their unmet

needs. Our participants particularly advocated for education and job training to combat post-release incarceration stigma, housing assistance to help them stabilize their lives post-release, and mental health services to help them recover from prior trauma. These areas have been previously documented as not being adequately addressed in the justice system (Carlson et al., 2010; Teplin et al., 1997).

Longitudinal studies are needed to assess whether the development and implementation of risk-reduction prevention programs that capitalize on incarcerated women's motivation to change behavior can be tailored to address gender-specific stressors, reduce rates of recidivism, and enhance health outcomes by addressing HIV/STD risk, substance abuse, and mental health. Studies such as these can facilitate a better understanding of the lives of incarcerated women over time and inform the provision of the most effective prevention services for this vulnerable population.

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Catherine I Fogel obtained her Ph.D. in Sociology from the North Carolina State University in 1988. Dr Fogel has been employed by the University of North Carolina-CH since 1968 as nursing faculty where she has taught women's health nursing. Dr Fogel's clinical practice included caring for pregnant women and incarcerated women. Dr Fogel has conducted research studies to document the health problems of incarcerated women, identify women prisoners' STD/HIV risk factors and the problems of incarcerated women who are mothers. More recently Dr Fogel has conducted federally funded studies to test an intervention to improve parenting skills of women prisoners, and STD/HIV risk reduction interventions for incarcerated women.

Table 1

Demographic Characteristics of Women Prisoners, North Carolina, 2009

Characteristic	Women offering views on incarceration (n=17)	Women not offering views on incarceration (n=36)
Age (mean)	33.5 (Range: 19–43)	33.6 (Range: 18–54)
Education (years)	12.1 (2.02)	11.93 (2.21)
Race/Ethnicity (%) [*]		
Black	24%	47%
White	76%	53%
Incarceration Status (%)		
Current prisoner	47%	47%
Former prisoner	53%	53%
Reason for Incarceration (%)		
Felony	76%	77%
Misdemeanor	24%	23%
Work Status (% full time)	24%	23%

* A chi-square test revealed no racial/ethnic differences between groups: ($\chi^2(1, N=53) = 2.710, p = .10$).