Quasi-Experimental Evaluation of Women’s Re-Entry in New Jersey - Through a Black Intersectional Lens

by

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in

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Abstract

Justice-impacted women are understudied and in the state of New Jersey, Black people are overrepresented in the justice system (Nellis, 2021). This outcome evaluation examined if Residential Community Release Programs (RCRPs) are effective at reducing returns to prison compared to women who were released directly from prison with race as a key study variable. A total of 885 women’s technical violation data using a three-year fixed follow-up period was retrieved from the New Jersey’s Department of Corrections. The RCRP released women were compared to the prison released women and were matched on several covariates using a coarsened exact matching (CEM) procedure. RCRPs reduced technical violation returns but only reached significance for White women, potentially due to the Black women sample being statistically underpowered. This study calls to invest more into gender responsive re-entry programs in New Jersey and to investigate further how Black women can be better served during re-entry.

Keywords: race, re-entry, residential community release programs, technical violations, coarsened exact matching
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Last but certainly not least, I cannot put into words how thankful I am for my family and friends. To my mother and father, I appreciate all of your prayers and constant commitment to supporting me and seeing me thrive. To my friends, thank you for just being there, brightening my days and replenishing me, knowingly or unknowingly, throughout my time outside of school.
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Quasi-Experimental Evaluation of Women’s Re-Entry in New Jersey - Through a Black Intersectional Lens

The United States Department of Justice sees millions of Americans go through their system each year (Kluckow, 2022). In the year 2020, 3,890,400 Americans were community supervised, making up 70% of the corrections population. In this same year, 866,877 women across the country were on probation or parole (Lane, 2020). In 2019, 13% of New Jersey’s population was Black, yet Black people make up 61% of their prison population (Nellis, 2021). It is evident that women and Black people have a complex history with the justice system in ways that may often be overlooked but at the same time, too important to ignore. Further, studies specifically examining experiences of Black women in the justice system are sparse.

Black Women and the Justice System

The number of justice-impacted women of colour illustrates their disproportionate representation in the prison system (Covington & Bloom, 2000; Lawson, 2020; Pate, 2018). Many argue that this population is so large because women of colour, who lack social supports, are being imprisoned for issues that stem from trauma, poverty, addiction, and mental illness (Boppre, 2019). Between 2000 and 2019, the number of Black people in New Jersey state prisons decreased by 39% (Nellis, 2021). This reduction was largely because the state committed to racial reforms that appeared to be working. For Black women, the decline in incarceration rates was 68% between 2000 and 2020, whereas the decline for Black men was smaller at 45% (The Sentencing Project, 2022). However, since then, New Jersey continues to face challenges between their Black and White populations. In 2021, New Jersey was the state with the greatest disparity between the incarceration rates of Black and White people (Nellis, 2021). The rate of incarceration among Black people remained 12.5 times higher than White people in New Jersey.
While the 20-year trend for Black people appears promising, they are still largely overrepresented, particularly in New Jersey’s justice system.

Justice-impacted Black women require attention as they intersect as a minority both racially and as women (Bran, 2012). Approaches that are gender neutral and deemed “colour-blind” are problematic as they create invisibility for Black women (De La Rue & Ortega, 2019). Though advocating for women is the ultimate goal, feminist approaches are typically focused on the experience of White women which differs from that of racialized women (Crenshaw, 1990). For instance, Stewart (2018) concluded that Black women more often than White women find themselves at a disadvantage through life factors such as poverty, educational opportunities, and discrimination. From a social and structural perspective, Black women’s social location is greatly impacted by their marginalization, isolation, and stigmatization in legal spaces (Stewart, 2018). Additionally, when mistreatment amongst justice-impacted Black people is discussed, the conversation tends to circulate around Black men (De La Rue & Ortega, 2019). The time to acknowledge how Black women experience the justice system as well as how they enter, and exit is long overdue. Reform cannot take place without addressing these overlooked women.

Theories of Crime

Feminist Pathways

One of the earliest feminist theories of offending came from Daly (1992). She qualitatively analyzed dialogue from the sentencing proceedings of 40 women and 40 men to determine the trends that women typically follow into the justice system. From this, she identified four pathways of offending that were categorized: the harmed and harming women, the street women, battered women, and drug-connected women. The harmed and harming women experienced adverse childhood experiences and later engaged in crime themselves, making up
37.5% of the sample. The next 25% were the street women who fled from abusive home environments and found themselves on the streets, surviving off criminalized acts such as sex work- at the time, theft, and substance use. The drug-connected women were users or dealers of drugs due to their relationship with their partner or a family member, totalling 15% of the sample. This was followed by the 12.5% deemed battered women who acted in self-defence from abuse inflicted by a violent significant other. The remaining 10% did not meet the criteria for the previous four pathways so they fell into the other category. These women were usually economically motivated, meaning that their drive for crime was financially motivated. This cornerstone theory has been essential in making sense of how women become justice-impacted. Daly’s work laid the foundation for many after her to value gender responsivity in corrections (Holtfreter et al., 2022).

Other researchers have acknowledged women-centered routes into the justice system specifically for Black women. Arnold (1990) explored how Black women and girls find themselves justice-impacted by doing a quantitative study from 60 women and girls who were incarcerated. Through observation, interviews and surveys, Arnold (1990) collected the experiences of 60 women and girls in a New York city jail and state prison. She found that being young, impoverished, Black, and a woman raised the chances of being both a survivor and stigmatized. Arnold argues that these Black girls of a lower socioeconomic status may engage in behaviours that are typically characterized as defiant such as truancy at school or running away from home. In actuality, these actions are responses to being a survivor. At this point in life, school and home are the most influential agents of socialization so when these are disrupted, the youth may find themselves drawn to the security that the streets may offer them (Arnold, 1990). These highly policed neighbourhoods then increase the likelihood of making contact law
enforcement (Boppre, 2019). Their marginalization continues to be relevant as they may receive disproportionate sentences due to the inability to access a good, affordable lawyer who could speak on the complexities of their upbringing and intersectionality (Boppre, 2019).

In all, justice-impacted women should be able to access gender responsive treatment that can target the nuances that being a woman often carries. This becomes even more integral as a Black woman who may experience both race and gender related challenges prior to and after incarceration.

**Victimization and Trauma Among Justice-Impacted Girls and Women**

One of the most common themes that scholars operating from a gendered pathways to crime lens underscore is that offending behaviours are often the aftermath of victimization. Victimization and trauma are inextricably connected as occurrences of victimization often embed trauma in the survivor and trauma responses amongst justice-impacted women are often a product of being victimized (Fritzon et al., 2021). Many studies illustrate that justice-impacted samples have high prevalence rates of victimization and trauma. For example, post-traumatic stress disorder (PTSD) diagnoses were found more commonly in forensic settings than in the community (Fritzon et al., 2021). Fritzon et al. (2021) found that when compared to justice-impacted persons without a PTSD diagnosis, those with PTSD had significantly more frequent arrests and carceral sentences (Fritzon et al., 2021). Strong links were also found between those with childhood trauma and criminal justice system contact in general (Fritzon et al., 2021).

Victimization often begins early, and its effects can be seen in juvenile offending. DeHart and Moran (2015) took a closer look at risk trajectories for victimized girls in the justice system and found some meaningful correlates. A sample of 100 girls were interviewed as well as scored using a self-report version of the Juvenile Victimization Questionnaire to understand what played
a part in their journeys into the justice system (DeHart & Moran, 2015). The girls reported using substances to cope with either witnessing or being the target of violence from a caregiver (DeHart & Moran, 2015). Childhood maltreatment places an immense amount of pressure on young women who are under the authority of their parental figures who they rely on to provide both necessities and emotional care. Therefore, as dependants, they are often left to cope with these challenges on their own. Aggressive behaviour was also found to be related to witnessing violence in the home or neighbourhood (DeHart & Moran, 2015). This represents the externalizing behaviours that may come about due to constant exposure to an unstable environment. Substance misuse and outwardly violent conduct as a youth could eventually lead to behaviours that have criminal level consequences like the ones that justice-impacted girls in the sample are facing.

The culmination of wrongdoings perpetrated by more than one source often leads to a more complex life history. Poly-victimization defines multiple abusive or exploitive experiences that a person may have endured that aides in providing a fuller picture of their trauma (Finkelhor et al., 2007). DeHart (2008) conducted a qualitative study with 60 women from a state prison who were interviewed about their life experiences prior to and within the justice system. A majority of women sampled experienced childhood abuse, intimate partner abuse or sexual abuse, with most having survived a culmination of multiple types of mistreatment; these acts were typically continuous and perpetrated by multiple different people. DeHart (2008) concluded that the culminative effects of these repeated and varied victimization experiences created many hurdles to leading a crime-free life, more than the typical person would have to overcome.

A meta-analysis by Wanamaker et al. (2022) looked at the prevalence of victimization across 62 studies with most of them consisting of adolescent girls and boys ($N = 37$) and the
remainder, women and men ($N = 25$). Data was obtained through a variety of methods such as interviews, standardized questionnaires, and archival files. Compared to boys and men, a higher proportion of girls and women survived emotional abuse, sexual abuse, physical abuse, neglect and vicarious victimization (see Table 1). As mentioned by Wanamaker et al. (2022), the prevalence rate for boys who have survived sexual abuse may be greater due to stigma and underreporting in boys. This study further reveals the complex history that many justice-impacted girls and women may have experienced in their formative years which may then negatively shape their lives indefinitely if left untreated. These prevalence rates cannot claim that victimization causes justice involvement in girls and women but instead calls attention to a pattern among justice-impacted women when entering, that will continue to be a problem if not addressed. Ethnic factors were not included due to variation in reporting across studies.

**Table 1**

*Prevalence of childhood victimization from a metanalysis by Wanamaker et al. (2022)*

<table>
<thead>
<tr>
<th>Type of Victimization</th>
<th>Girls and Women ($N = 74,608$)</th>
<th>Boys and Men ($N = 230,581$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional abuse</td>
<td>44.60%</td>
<td>29.00%</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td>35.44%</td>
<td>13.11%</td>
</tr>
<tr>
<td>Physical abuse</td>
<td>43.75%</td>
<td>34.27%</td>
</tr>
<tr>
<td>Neglect</td>
<td>35.25%</td>
<td>27.31%</td>
</tr>
<tr>
<td>Witnessed violence</td>
<td>47.56%</td>
<td>41.42%</td>
</tr>
<tr>
<td>Any victimization</td>
<td>59.92%</td>
<td>46.39%</td>
</tr>
</tbody>
</table>

This study distinguished between direct victimization, where the justice-impacted girl was the target of mistreatment and vicarious victimization (where they witnessed violence, aggression or abuse). It was found that compared to young White and Latina women, young Black women experienced more ‘vicarious victimization’ as they tend to reside in disorganized communities where there is higher exposure to such acts (Isom Scott, 2018). Additionally, the adolescents across the sample shared similar ‘direct victimization’ experiences but overall, the predictive link between experiences of victimization and offending was significant for racialized women with Black women having the largest effect (Isom Scott, 2018). In fact, binomial regressions found that for Black adolescents, a unit increase in direct victimization predicted a 60% increase in offending and a unit increase in vicarious victimization predicted a 21% increase in offending. The researchers concluded that this effect was present largely because direct victimization elicited feelings of anger and depression for the Black girls studied, with anger being the factor that most predicted motives behind their criminal offending.

Trauma is an issue that deeply affects many justice-impacted women. The prevalence of traumatic experiences, especially in childhood, only highlights the need for trauma informed treatment in carceral interventions. Addressing this could potentially break harmful cycles that these woman may go through internally.

**Iatrogenic Effects of Prison on Women**

**Carceral Experiences**

Prison itself can yield new traumatic experiences or create barriers to effective rehabilitation that may be compounded to make treatment even less effective, perhaps even criminogenic. Edna Mahan Correctional Facility for Women, New Jersey’s only women’s prison, is currently closing largely due to the repeated victimization of the incarcerated women
while in custody (State of New Jersey, 2021). Carceral experiences are important to consider as women carry these effects with them as they re-enter society. Pemberton et al. (2019) detailed ways in which the carceral experience may harm a woman. A prison facility is not conducive for treatment retention as the environment scrutinizes people and limits autonomy (Pemberton et al., 2019). Pemberton argues that women are most receptive to warm and caring treatment, but prison is limited in its ability to foster this kind of environment. In keeping with being scrutinized, the way that women are disciplined by correctional officers may trigger existing traumas (Pemberton et al., 2019). Williams et al. (2021) conducted nine, retrospective semi-structured interviews with Black women who were formerly justice-impacted in a Northeastern State to understand their lives and carceral experiences. They discovered that a great amount of carceral trauma came from witnessing or experiencing prison staff abusing their power to be violent or to sexually assault incarcerated women. Being in prison also temporarily severs relationships for the justice-impacted woman (Pemberton et al., 2019). In some cases, this may protect a woman from an abuser or antisocial associates but, it separates the woman from healthy fulfilling relationships as well.

**Complexity of Motherhood**

For mothers, separation from their children due to incarceration is very difficult, breeding feelings of depression, guilt, and anxiety (Williams et al., 2021). These emotions are especially hurtful in cases where their children’s fathers are not present, and their familial support is poor (Mitchell & Davis, 2019). In fact, most justice-impacted women are the only providers for their children (Grossano et al., 2022). In many cases, this forces their children into the foster care system which may develop new traumas for their children as a product of their displacement and mother’s absence. This is a complex issue in that children may also be traumatized through
witnessing their sole caretaker struggle with addiction, homelessness, or mental illness (Mitchell & Davis, 2019). It is then in the best interest of both the children and the mother for rehabilitation and re-entry to be effective and successful. Mitchell and Davis (2019) studied the experiences of Black mothers upon re-entry; their research further illustrated how challenging incarceration and reintegration is for them. These women often worry about health, safety without the aid of a strong support system, being heavily supervised by the state- putting them at risk of losing custody of their children should an issue of any kind arise, and financial insecurity, all while carrying the pre-existing weight of being a Black woman in America.

**Contributors to Re-entry**

A recidivism report on the New Jersey Department of Corrections stated that for women released in 2015, 40% were re-arrested, 28% were reconvicted and 23% returned to prison within three years (Murphy et al., n.d.). If so many women are returning in some way, then there is a clear issue that requires attention whether it be refining what parole looks like or providing more re-entry support prior to and upon release. It is evident that starting over again after leaving prison is an overwhelming process that impacts these women. To state that a woman has recidivated because they have violated their parole or broken the law again may be a limited view to hold when discussing this population (Sered, 2021). Releasing a woman into the same environment and circumstances that preceded their incarceration can perpetuate a harmful cycle of incarceration, release and readmission for a woman who has limited supports, resource, and unrealistic expectations (Grossano et al., 2022). Having family support, acquiring stable housing, and securing a job are some of the primary concerns that greatly influence the success of a woman once released from prison.

**Family and Community**
For many women, their family plays a critical role in their reintegration. An earlier recidivism study by Beck and Shipley (1989) found that how the justice-impacted man or woman perceives family support best determined their success such that those who reported high family strength scores fared better than those who did not. These supported individuals typically had a more positive outlook on their new life, were better able to abstain from drug or alcohol use, find employment and make meaningful social connections. Those who relapsed upon re-entry typically cited family as a poor support for them. Likewise, a study by Serad (2021) also saw that more women who desist from crime have supportive families in comparison to those who were deemed ‘persisters’. In this study, racial differences in family acceptance were also explored. For White women, their family was more likely to cut ties with a family member who continues to recidivate in comparison to Black families (Sered, 2021). The leading theory for why this takes place is that Black communities are accustomed to being over-policed and tend to have less faith that the justice system will be fair towards their loved ones (Sered, 2021). As a result, readmission, especially for a minor violation is likely more accepted among Black families. Family also serves as somewhat of a protective factor and challenge for mothers upon re-entry. Women on parole who are mothers say that their children are their priority but if they struggle with finding housing or employment, then the likelihood of re-entering survival mode may unfortunately land them in prison again.

Deciding where to live is a complicated task for many women on parole. Returning to a likely triggering neighbourhood weighs heavily on newly released women. A majority of released women find themselves living in the same area they did prior to incarceration because that is where they have rooted themselves with family and friends within close proximity (National Research Council, 2007; Visher, 2005). As previously mentioned, strong family ties
are a protective factor for women so moving away from social support may not be advisable either.

**Employment and Housing**

Seeking employment and housing are often among the primary concerns for released women re-entering the community (Beck & Shipley, 1989; National Research Council, 2007). Many employers are not open to hiring a releasee due to their criminal history. The scarcity of jobs in the communities that women return to also exacerbates the existing difficulty of securing employment. The inability to find work locally then impacts housing through lack of a stable income (Visher, 2005). Many justice impacted women struggle with the prospect of homelessness upon leaving prison. Though on the surface, government subsidized housing may appear to be a reliable temporary solution in the transition, releasees may encounter biases in the process. Some of the biases are systemic in nature as the requirements to reside in these homes disqualify releasees from residency based on their criminal record and in other cases, Black people experience prejudice when applying (National Research Council, 2007). In fact, the Edna Mahan Correctional Facility for Women report saw Black women had the highest rates of experiencing homelessness and unemployment with 43% of them struggling as they re-enter (Grossano et al., 2022).

**Race and Re-Entry Outcomes**

A recidivism study by Zgoba and Salerno (2017) looked at recidivism in New Jersey using a sample of 10,000 people released in 2012. They found that within three years, Black people were re-arrested more often than White and Hispanic people with Black people accounting for 63% of rearrests. However, a majority of the sample consisted of Black people
(57.5%) and few women (6.5%) so the effects for Black women specifically are unknown particularly because these results did not specify what portion of women were Black.

McGovern et al. (2009) used recidivism data from across the United States including New Jersey, and discovered that Black people were more likely than White and Hispanic people to be rearrested, reconvicted and reincarcerated. However, this study is limited in its ability to draw conclusions for Black women specifically and women overall as the sample did not include women.

*Predictors of Recidivism*

Olver and Stockdale (2022) summarized meta-analyses to determine predictors of recidivism among youth and adult men and women pulled from the general personality and cognitive social learning model’s central eight factors (Bonta & Andrews, 2017). In girls and women, education/employment, antisocial peers, antisocial attitudes and antisocial personality demonstrated some meaningful results (see Table 2). Median correlations were used to represent the average effect size across the three meta-analyses included.

<table>
<thead>
<tr>
<th>Domains</th>
<th>Youth and adult women</th>
<th>Youth and adult men</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td></td>
</tr>
<tr>
<td>Education/employment</td>
<td>.25 (n = 12,534)</td>
<td>.25 (n = 46,149)</td>
</tr>
<tr>
<td>Antisocial peers</td>
<td>.23 (n = 17,065)</td>
<td>.22 (n = 56,148)</td>
</tr>
<tr>
<td>Antisocial attitudes</td>
<td>.20 (n = 20,409)</td>
<td>.19 (n = 63,169)</td>
</tr>
<tr>
<td>Antisocial personality</td>
<td>.21 (n = 6,458)</td>
<td>.22 (n = 29,828)</td>
</tr>
</tbody>
</table>

*Note.* Values represented are median correlations.
The education/employment domain best predicted recidivism for women and girls, supporting the idea that difficulty in school or lack of employment in adulthood could impact recidivism. The antisocial peers domain follows, suggesting that defiant influences may lead to negative community outcomes. What follows is antisocial personality signifying a more internal predictor of recidivism. Likewise, antisocial attitudes displayed some influence. From this, it can be seen that antisocial desires, ideas and behaviours may predict some negative outcomes for justice-impacted women and girls. It is important to note that these predictors are not unique to women and girls but are on par with boys and men. However, these predictors are not comprehensive with only three metanalyses studied.

A systematic review by Piquero et al. (2015) looked at how different demographics predict violent recidivism. When looking at gender, they found that men were more likely to recidivate violently than women ($r = .496, p = .039$). For race effects, they found that White people were less likely to violent recidivate than racialized people ($r = -.064, p < .001$). Despite this finding, Black people generally were not significantly more likely to violently recidivate overall ($r = .052, p = .243$). The comparison between White people and racialized people reveals a need to learn why White people are faring out better than others. Piquero et al. (2015) suggest that using the same interventions for everyone may not best suit racialized people.

**Case for Reintegration Support**

The gaps in re-entry must be acknowledged because they effect multiple facets of a justice-impacted person’s life. Reintegration will likely always be a difficult process, but the use of residential community release programs could help mediate this major life transition. A meta-analysis by Olver et al. (2014) looked at how risks and needs differ for women and racialized groups based on an assessment scale called the Level of Service Inventory (LSI). The meta-
analysis included 128 studies and 137,931 justice-impacted men and women largely across the United States of America and Canada. Among the ten domains studied, Olver and colleagues (2014) found that when pooled, racialized groups had higher total scores on the LSI than White justice-impacted men and women and in all but one domain pertaining to recidivism (see Table 3).

Table 3

*Level of Service Inventory Cohen’s d by Domain, Race and Gender (Olver et al., 2014)*

<table>
<thead>
<tr>
<th>Level of Service Inventory Domain</th>
<th>Women/ General recidivism</th>
<th>Racialized group/ General recidivism</th>
<th>White/ Violent recidivism</th>
<th>Racialized group/ Violent recidivism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal history</td>
<td>.30</td>
<td>.29</td>
<td>.23</td>
<td>.23</td>
</tr>
<tr>
<td>Education/Employment</td>
<td>.24</td>
<td>.22</td>
<td>.17</td>
<td>.21</td>
</tr>
<tr>
<td>Financial</td>
<td>.13</td>
<td>.12</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Family/Marital</td>
<td>.15</td>
<td>.14</td>
<td>.10</td>
<td>.08</td>
</tr>
<tr>
<td>Accommodations</td>
<td>.14</td>
<td>.12</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Leisure/Recreation</td>
<td>.16</td>
<td>.16</td>
<td>.14</td>
<td>.13</td>
</tr>
<tr>
<td>Companions</td>
<td>.23</td>
<td>.21</td>
<td>.17</td>
<td>.16</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>.25</td>
<td>.22</td>
<td>.17</td>
<td>.15</td>
</tr>
<tr>
<td>Emotional/Personal</td>
<td>.15</td>
<td>.12</td>
<td>.21</td>
<td>.15</td>
</tr>
<tr>
<td>Attitudes</td>
<td>.20</td>
<td>.19</td>
<td>.19</td>
<td>.13</td>
</tr>
<tr>
<td>Total Score</td>
<td>.31</td>
<td>.27</td>
<td>.26</td>
<td>.24</td>
</tr>
</tbody>
</table>

*Note.* The effect sizes reported are random effects.

N/A represents values that were not available.
These findings help to underline the importance of addressing housing, employment, family and socioeconomic factors among justice-impacted people of colour. While they may not explicitly predict criminal behaviour, they tend to present as a common issue prior to incarceration and may likely pose a problem upon release if not adequately supported.

Women displayed some differences from men in the Olver et al. (2014) meta-analysis as well. Justice-impacted women scored higher than men on financial ($d = .30$), personal/emotional ($d = .29$), family marital ($d = .21$), accommodations ($d = .14$) and education/employment ($d = .08$). This also supports some of the feminist pathways to crime and should be a point of intervention before release takes place. Results never specified what proportion of the racialized group consisted of Black people so it is difficult to distinguish within group variability on any given domain. Taking a look at commonalities between racialized groups and women could present some overlap and provide information about racialized women. Both racialized groups and women present with higher LSI scores on the financial, accommodations, family marital and education/employment domains. With this knowledge, residential community release programs have the ability to aid in meeting these need areas for racialized women through their services and programming like providing a place to live, supporting finding work and counselling. By tackling some common barriers to reintegration, residential community release programs have the potential to be a strong reintegration resource.

**Residential Community Release Programs – An Overview**

Re-entry is simply being released from a carceral setting into the community whereas reintegration is the more comprehensive process of effectively transitioning into a new normal within the community post-release (Stinnette, 2022). Residential community release programs, often synonymous with halfway houses, help to support the newly released person by providing
them with transitional aid (New Jersey Association on Correction, n.d.). The residential nature of these programs allows for people post-release to have somewhere to live while they engage in programming and offsite activities such as seeking employment. This new-found independence is conditional as residents are still expected to adhere to the rules set out by the residential community release program (such as curfews, finding job, etc.) as well as their parole stipulations with potential consequences of being returned to prison (Daniel & Sawyer, 2020).

The programming piece of a residential community release program refers to the targeted treatments that are offered in house. Typically, a risk/needs assessment will determine which treatment programs could greatly benefit the participant whether it be family related, drug related, mental health and/or more (New Jersey Association on Correction, n.d.).

**Existing Evaluations of Residential Community Release Programs**

Hamilton and Campbell (2014), performed a quasi-experimental evaluation of New Jersey’s residential community release programs, inclusive of women and men using propensity score matching. Their objective was to look at the recidivism outcomes of those who used a residential community release program in comparison to those who either were released at the end of their sentence or were released on parole. They acquired archival data from the New Jersey Department of Corrections and found that the individuals who used residential community release programs \( (N = 6,599) \) recidivated less often than those who did not \( (N = 6,599) \). Within just a year, residential community release program participants saw fewer reincarcerations, fewer parole revocations, and fewer returns for any reason than the comparison group (see Table 4). A similar pattern of reductions was seen at the second and third follow-up year with the exception of reincarcerations at 3 years post release.
Table 4\textsuperscript{1}

Percentage of Participants Who Recidivated Within 1-3 Years of Release (Hamilton &
Campbell, 2014)

<table>
<thead>
<tr>
<th>Return Type</th>
<th>Halfway House</th>
<th>Prison Released</th>
<th>Halfway House</th>
<th>Prison Released</th>
<th>Halfway House</th>
<th>Prison Released</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>1-year follow-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reincarcerations</td>
<td>1.7***</td>
<td>2.5</td>
<td>7.4</td>
<td>7.8</td>
<td>13.1</td>
<td>12.0</td>
</tr>
<tr>
<td>Parole revocations</td>
<td>9.5***</td>
<td>15.0</td>
<td>13.5***</td>
<td>21.0</td>
<td>14.6***</td>
<td>22.2</td>
</tr>
<tr>
<td>Any return</td>
<td>21.1***</td>
<td>19.4</td>
<td>22.6***</td>
<td>32.3</td>
<td>29.7***</td>
<td>38.0</td>
</tr>
<tr>
<td>2-year follow-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-year follow-up</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textit{Note}. Halfway house $N=6,599$; Prison released $N=6,599$.

\*\(p < .05\), **\(p < .01\), ***\(p < .001\)

However, rearrests, reconvictions and reincarcerations did not reach statistical
significance and remained the same between these two groups at each follow-up year. While
these reductions are a positive step, as a result of these findings, Hamilton and Campbell (2014)
called into question how we measure recidivism due to this disconnect. In future research, it
would be advantageous to re-classify recidivism in a more detailed way.

A limitation of Hamilton and Campbell’s (2014) study was that they did not disaggregate
their results by gender or race. Though the sample was large, it was made up of mainly men with
only 12\% of women being studied. This issue is often present in correctional research as fewer
women are incarcerated than men overall. Further, race also was not studied despite two thirds of

\textsuperscript{1}In the Hamilton and Campbell study (2014), reincarcerations represent a commitment for a new offence. Parole
revocations are prison returns due to a technical violation. Any returns include commitments for new offences,
parole revocations and Intensive Supervision Program returns as well.
the sample being Black. Though race and gender were not the focus of their study, it further exposes a need to intentionally look into gender and race differences going forward.

**Summary and Study Rationale**

The resources that residential community release programs provide to women *should* provide them with the tools they need for successful reintegration. The assumption is that residential community release programs provide a gradual approach to re-entry. The women therefore should have more of their needs met and their risk eventually lowered due to resources like counselling and employment services. Women who do not participate in these transitional services may be less equipped to tackle the challenges that re-entry may present. Hamilton and Campbell (2014) found that residential community release program participants showed fewer returns to prison than any other release type studied. This only emphasizes the need to bring attention to those who are released into the community directly from prison as they may struggle more with reintegration into society than those who are provided transitional services such as those provided by RCRPs.

**Current Study**

I will be focusing on women’s residential community release programs in New Jersey to determine the effectiveness of the residential community release programs in general, and more specifically how race impacts their effectiveness (i.e., reductions in recidivism). I will look at Black women in particular as they make up a large amount of the prison population (48%), compared to White women (43%), Hispanic women (7%) and Asian women (1%) despite being racial minorities in New Jersey (State of New Jersey, n.d.). The objective is for the experiences of these women to be made known so that reform can happen where necessary. My study has two general research questions and corresponding hypotheses.
**Research Question 1**

Do return to state custody rates vary as a function of release type (i.e., residential community release program released women versus women released from prison) and race (Black women versus White women). I hypothesize that women who attended a residential community release program (RCRP) upon release will have fewer returns than women released directly from prison on parole or at warrant expiry. This is informed by Hamilton and Campbell (2014) as the expectation is that these programs will offer effective treatment that will benefit the returning women in a way that is above and beyond what the parole released women and maxed out women have received. Regarding race, previous research suggests that residential community release programs work but the race effects are largely unknown. Nonetheless, I hypothesize that residential community release programs will be associated with less returns for White women (relative to parole and end-of-sentence releases). I hypothesize that residential community release programs will also be associated with less returns for Black women (relative to women released directly from prison on parole or at end-of-sentence) but the effects may not be as strong relative to the White women. This hypothesis is in part based on the studies by McGovern et al., (2009), Zgoba & Salerno (2017) and Wong et al. (2019) that suggest more positive outcomes for White people. This expectation is also informed by the over-incarceration and over-policing of Black populations in general (Boppre, 2019). Idealy, I would examine all racial breakdowns, but I have chosen to focus on Black versus White women given that together, they make up 91% of the New Jersey state prison population (State of New Jersey, n.d.).

**Research Question 2**

My final question examines what the primary reasons for returns to prison are. Specifically, I will compare three types of returns: technical violations, non-violent reconvictions
and violent reconvictions. There is value in differentiating between the types of returns because how recidivism is often measured does not accurately capture what a true failure is in the community post-incarceration (Stinnette, 2022). This classification flaw is further evidenced in a report by Renaud (2018) who looked at how to reduce the length of prison sentences. He reported that in New Jersey, only 7% of people were returned to custody from parole due to the commitment of a new offense whereas technical violations accounted for 93% of returns. These technical infractions are ones that non-justice involved people would not be penalized for like breaking curfew or failing to find a job (Renaud, 2018). I hypothesize that those who attended a residential community release program will experience fewer occurrences of each outcome than women released directly from prison. This hypothesis also aligns with the reduction in returns in Hamilton and Campbell’s (2014) outcome study on residential community release programs. The effects for Black women (across each of the different types of outcome measures) are difficult to isolate as prior research has looked at race effects and gender effects but seldom the interaction between the two.

Methods

Participants

The initial sampling frame included 2,622 women incarcerated in New Jersey’s all women’s prison, Edna Mahan Correctional Facility (EMCF) who were released either from EMCF (directly into the community) or were released from EMCF to one of two women-only Residential Community Release Programs (RCRPs) (Garrett House or Millicent Fenwick House) prior to being fully released into the community. Also, the women included in the initial sampling frame consisted of women who were released from EMCF between January 1, 2016 and the data extraction date, January 26, 2023. Further, the women had to have been released on
either parole or an Intensive Supervision Program (ISP) and meet the criteria for a fixed three-year follow-up (i.e., they either failed within three years of release, or they were at risk to fail for at least three years). As a result, 1,192 women who were not released from EMCF, Garrett House or Millicent Fenwick House on parole or ISP were lost. An additional 320 further reduced the sample as they were not at risk for at least 3 years. Given that the study is focused on Black and White women, women who were neither were excluded from the sample. This resulted in 150 women being excluded (8 Asian women and 142 women for whom race was missing). This brought the eligible sample down to 960 women. An additional 16 women were excluded for the following reasons: (1) women were identified as booking errors in the original archival data \((n = 12)\), (2) death \((n = 2)\), (3) transferring out of New Jersey’s jurisdiction \((n = 1)\). Thus, the final sample consisted of 945 women (see Table 5).

---

2 Originally, I had planned on including maxed out women in my sample, but it was discovered that during the pandemic women were not re-admitted to EMCF; thus maxed out women could not have been returned to custody during at least two full years (March 2020 to March 2022) during my follow-up period. As well, the archival data for the maxed out women contained a number of errors that may have been due to the pandemic.
Table 5

**Whole Sample Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Black (n = 333)</th>
<th>White (n = 612)</th>
<th>Total (n = 945)</th>
<th>t</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M(SD)</td>
<td>M(SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age at release</td>
<td>37.47 (10.32)</td>
<td>36.38 (9.98)</td>
<td>36.77 (10.11)</td>
<td>-1.59</td>
<td>-.11</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 (n = 45)</td>
<td>1.58 (.87)</td>
<td>1.64 (.85)</td>
<td>1.62 (.03)</td>
<td>1.12</td>
<td>.08</td>
</tr>
<tr>
<td>1 (n = 433)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (n = 332)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (n = 107)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 (n = 28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCRP release</td>
<td>28.5 (95)</td>
<td>14.1 (86)</td>
<td>19.2 (181)</td>
<td>29.19***</td>
<td>.18</td>
</tr>
<tr>
<td>EMCF release</td>
<td>71.5 (238)</td>
<td>85.9 (526)</td>
<td>80.8 (764)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education (n = 91)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>32.4 (108)</td>
<td>14.9 (91)</td>
<td>21.1 (199)</td>
<td>41.51***</td>
<td>.21</td>
</tr>
<tr>
<td>High school completed</td>
<td>54.7 (182)</td>
<td>72.1 (441)</td>
<td>65.9 (623)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than high school</td>
<td>9.3 (31)</td>
<td>9.5 (58)</td>
<td>9.4 (89)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status (n = 909)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>88 (293)</td>
<td>83.3 (510)</td>
<td>85.0 (803)</td>
<td>1.17</td>
<td>.04</td>
</tr>
<tr>
<td>Married</td>
<td>9.9 (33)</td>
<td>11.9 (73)</td>
<td>11.2 (106)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISP</td>
<td>34.2 (114)</td>
<td>42.2 (258)</td>
<td>39.4 (372)</td>
<td>6.36*</td>
<td>.09</td>
</tr>
<tr>
<td>Parole</td>
<td>65.8 (219)</td>
<td>57.8 (354)</td>
<td>60.6 (573)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on technical violation</td>
<td>32.1 (107)</td>
<td>39.2 (240)</td>
<td>36.7 (347)</td>
<td>4.66*</td>
<td>.07</td>
</tr>
</tbody>
</table>

---

3 Criminal versatility was used as a proxy for risk where risk increases as the score increases. ISP versus parole represents the difference between a parole release and the Intensive Supervision Program, which is a stricter type of release used in New Jersey.
Note. RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

Education had 34 missing values; Marital status had 36 missing values.

\[ *p < .05, **p < .01, ***p < .001 \]

Table 6 details 14 different index offence crime categories for this sample of women. Important to note is that some women were brought into EMCF on more than one offence. For example, a woman may have been convicted for assault and domestic violence simultaneously. Thus, the percentages exceed 100% cumulatively.

**Table 6**

*Criminal Versatility Variable Counts*

<table>
<thead>
<tr>
<th>Offence Category</th>
<th>( n = 945 ) (% of sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property-related</td>
<td>352 (37.2)</td>
</tr>
<tr>
<td>Drug Possession</td>
<td>335 (35.4)</td>
</tr>
<tr>
<td>Administration of Justice</td>
<td>309 (32.7)</td>
</tr>
<tr>
<td>Producing/Selling Illicit Substances</td>
<td>161 (17.0)</td>
</tr>
<tr>
<td>Burglary</td>
<td>103 (10.9)</td>
</tr>
<tr>
<td>Harassment/Assault</td>
<td>68 (7.2)</td>
</tr>
<tr>
<td>Weapons-related</td>
<td>68 (7.2)</td>
</tr>
<tr>
<td>Domestic-related</td>
<td>67 (7.1)</td>
</tr>
<tr>
<td>Robbery</td>
<td>24 (2.5)</td>
</tr>
<tr>
<td>Manslaughter/Homicide-related</td>
<td>17 (1.8)</td>
</tr>
<tr>
<td>Sex offences</td>
<td>11 (1.2)</td>
</tr>
<tr>
<td>Hate/Terror-related</td>
<td>10 (1.1)</td>
</tr>
<tr>
<td>Arson</td>
<td>8 (0.8)</td>
</tr>
<tr>
<td>Kidnapping</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>

Note. Some women may have been admitted on more than one admitting offence.
Residential Community Release Programs

Once a person has completed one third of their carceral sentence, they are typically eligible to be released on parole and serve the rest of their sentence in the community if approved by the parole board (New Jersey State Parole Board, 2022). In cases where parole is denied, the woman may have to serve the entirety of their sentence in prison, also known as maxing out or warrant expiry (New Jersey State Parole Board, 2013). As stated previously I was unable to include these maxed out women in the study due to pandemic-related limitations of the data. For those who are approved, they may re-enter the community on parole or choose to attend an RCRP in preparation of their parole hearing or eventful full release into the community. In the state of New Jersey, participating in an RCRP is optional (New Jersey Association on Correction. n.d.). Further, an Intensive Supervision Program (ISP) allows the releasee to return to the community if they can provide a clear plan for a stable future and under strict stipulations such as frequent drug testing, curfews and finding employment (New Jersey Courts, 2018).

There are two, all women residential community release programs of interest for this study: Garrett House and Millicent Fenwick House. Garrett House, located in Camden, New Jersey rooms up to 48 women who are within 24 months of being eligible for parole as they journey through re-entry and re-integration (Volunteers of America Delaware Valley, n.d.). They offer gender responsive and trauma-informed treatment, substance use treatment, employment support and more (Volunteers of America Delaware Valley, n.d.). Millicent Fenwick House is in Paterson, New Jersey and can room up to 50 women (National Institute of Corrections, n.d.). This RCRP is similar to Garrett House as it takes women on supervised release and provides them opportunities to get a job, receive counselling and reunify with their children (New Jersey Association on Correction, n.d). Both facilities are voluntary to attend and accept women by
referral from the New Jersey Department of Corrections. Lastly, attending a RCRP begins with a referral from the New Jersey Department of Corrections as parole eligibility arises (New Jersey Association on Correction., n.d.).

**Measures**

*Dependent variable.* Being reincarcerated for a technical violation during a fixed three-year follow-up was the outcome variable. Originally, I had intended on comparing technical violations, non-violent convictions and violent convictions but due pandemic related restrictions with the data I was advised to only examine returns for technical violations. A fixed follow up period of 3 years was chosen given this is standard method for reporting reincarceration rates in New Jersey. The exact reason for the technical violation was not available. However, research suggests that women have their supervision revoked for technical violations of their release conditions that would otherwise not be illegal such as: failure to abstain from alcohol/drug use, violating curfew, not reporting, and associating with others (Coady et al., 2023).

*Independent variable.* There are two independent (“treatment”) variables of interest in this study: release type (RCRP or prison release) and race (Black women or White women). As described below in the analytic section, analyses will be conducted separately for Black and White women.

*Covariates.* A total of five covariates were included to aid in controlling for the expected imbalance between women released directly from prison versus those released from an RCRP. Control variables included: criminal versatility, parole versus ISP release status, age at release, education level and marital status.

A criminal versatility scale was developed (Brown et al., 2023) as a proxy for risk as the New Jersey Department of Corrections does not use a standardized risk assessment tool for
women. Criminal versatility was measured by assigning a score of one each time any one of the following admitting index offences were present: administration of justice (e.g., fail to appear, breach bail), arson, burglary, domestic, drug possession, hate crime or terror related, harassment or assault, homicide-related or manslaughter, kidnapping, property-related, robbery, producing or selling illicit substance, or weapons-related. Thus, total scores could range from 0 to 14. A score of zero was possible for women who did not commit one of these 14 major admitting offence categories but were admitted to prison for minor offences such as vehicular offences.

Release type was scored dichotomously (parole = 0; intensive supervision program (ISP) = 1). This variable was important to include because parole and ISP have different levels of supervision. Someone on ISP release has stricter conditions (hence in theory should be more likely to violate the conditions of release) in comparison to someone on parole (New Jersey Courts, 2018). Marital status was a binary variable where the women were scored as single (single, divorced or widowed = 1) or married (scored 0). Education was a three-level variable where women did not finish high school (scored 1), completed high school (scored 2) or participated in some post-secondary education (scored 3).

**Procedure**

Ethics clearance was received from both Carleton University and the State of New Jersey Corrections to conduct the research (see Appendix). All data for the study was archival and obtained electronically from the New Jersey Department of Corrections. New Jersey provided us with de-identified data. The data was kept on Dr. Brown’s Gender and Crime Server, accessible only to Dr. Brown’s students.

This quasi-experimental evaluation used coarsened exact matching to determine the effectiveness of the RCRPs in reducing reincarceration due to technical violations. Coarsened
exact matching is useful as it creates balance between the treatment and comparison groups where it would otherwise be difficult without compromising validity (Iacus et al., 2012). Additionally, it is particularly beneficial when looking at race as it controls for confounds in a way that a regression would struggle to capture (Lehmann, 2022). It is also the preferred method over other popular statistical matching methods like propensity score matching (King & Nielsen, 2019).

Coarsened exact matching (CEM) works by starting with a sample that has a treatment and comparison group. It was recommended by Iarcus (2022) to do CEM with a dichotomous treatment variable so this study maintains this by comparing women released from prison with women released from an RCRP three separate times: total sample, Black women, and White women. It then organizes the data into smaller groups called strata where there is at least one treatment participant and at least one control participant in each stratum (Blackwell et al., 2009). In cases of group imbalance, one participant may be matched with multiple other participants (known as k-to-many matching) to increase accuracy. These strata are created based on the similarity on the covariates such that both the treatment and comparison participant(s) look alike on the covariates in order to better isolate the effect of the outcome variable. Covariate values can be adjusted to allow for more or less coarsening where a larger range per “bin” can allow for more matches. Weights are then applied to each stratum to account for the differing strata group sizes. Participants who do not find a match through this process will be dropped, resulting in a smaller sample size. Though the sample size may be reduced some, this may occur more often for cases that are outliers. Once that has taken place, the data is pruned and the covariates return to their original, uncoarsened values and are included in the main analyses of interest, albeit the
main analyses are conducted on the pruned data. I used R Studio to run the CEM and SPSS to run the logistic regression with the weights.

In my study, I first used the coarsened data to perform a logistic regression for the main analysis pertaining to my research question regarding the effectiveness of RCRPs on preventing technical returns to state prison for the whole sample of Black and White women combined. I then did logistic regressions on Black and White women separately to see how the outcome differed as a function of race (Black women versus White women). Please note originally, I had crafted two distinct research questions: (1) the first one was to examine return to state custody for any reason as a function of race and release type (RCRP versus direct prison release), and (2) the second one was to examine the results as a function of different types of returns (technical violations, general and violent crime-related reconviction). However, as stated previously, this was not possible to due pandemic related issues with the data. Thus as a result, I examined one main research question: do RCRP’s reduce returns to custody for technical violations among supervised women (on parole or on ISP) and does the effect of an RCRP differ for Black and White women?

Results

Data Cleaning and Descriptive Statistics

All variables were examined for accuracy, skewness, and missing data. The distribution of missing data was as follows: marital status (3.8% / n = 36) and education level (2.5% / n = 24). Ideally missing data would have been addressed using the multiple imputation package (Amelia package) in R but it was beyond the scope of this thesis. There was no a-priori reason to suspect that the pattern of missingness was anything but missing completely at random. Thus,
case wise deletion was used. And as discussed in the participant section, 60 women were dropped from all further analysis resulting in a final sample of 885 women for analysis.

The categorical variables were sufficiently distributed (i.e., each category option with at least 9% of cases) with the exception of the criminal versality variable. The plausible range for this variable was 0 to 14 but the observed range was only 0 to 5. Given that very few women received a score of 4 \((n = 25)\) or 5 \((n = 3)\) the variable was collapsed to 0, 1, 2, 3 and 4 plus.

Table 7 details the study descriptive statistics for the entire sample and for Black and White women separately (prior to coarsening). Notably, Black women and White women were fairly similar on most covariates except for education and ISP versus parole release. A higher percentage of White women completed high school (74.7%) compared to Black women (57%) and a larger proportion of Black women completed less than high school (33.2%) compared to White women (15.5%). Additionally, a greater percentage of White women were on ISP release (42.2%) than Black women (33.5%). Most notably, a higher proportion of Black women attended an RCRP (29.1%) compared to White women (13.7%).
Table 7

Uncoarsened and Cleaned Sample Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Black (n = 316)</th>
<th>White (n = 569)</th>
<th>Total (n = 885)</th>
<th>t</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at release</td>
<td>37.32 (10.09)</td>
<td>36.47 (9.87)</td>
<td>36.77 (9.95)</td>
<td>-1.21</td>
<td>-0.09</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 (n = 42)</td>
<td>1.58 (.87)</td>
<td>1.67 (.87)</td>
<td>1.64 (.87)</td>
<td>1.38</td>
<td>0.10</td>
</tr>
<tr>
<td>1 (n = 399)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (n = 311)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 (n = 105)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 (n = 28)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCRP release (n = 170)</td>
<td>29.1 (92)</td>
<td>13.7 (78)</td>
<td>19.2 (170)</td>
<td>31.07***</td>
<td>0.19</td>
</tr>
<tr>
<td>EMCF release (n = 715)</td>
<td>70.9 (224)</td>
<td>86.3 (491)</td>
<td>80.8 (715)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>33.2 (105)</td>
<td>15.5 (88)</td>
<td>21.8 (193)</td>
<td>38.74***</td>
<td>0.21</td>
</tr>
<tr>
<td>High school completed</td>
<td>57.0 (180)</td>
<td>74.7 (425)</td>
<td>68.4 (605)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than high school</td>
<td>9.8 (31)</td>
<td>9.8 (56)</td>
<td>9.8 (87)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>89.9 (284)</td>
<td>87.5 (498)</td>
<td>88.4 (782)</td>
<td>1.09</td>
<td>0.04</td>
</tr>
<tr>
<td>Married</td>
<td>10.1 (32)</td>
<td>12.5 (71)</td>
<td>11.6 (103)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISP</td>
<td>33.5 (106)</td>
<td>42.2 (240)</td>
<td>39.1 (346)</td>
<td>6.36*</td>
<td>0.09</td>
</tr>
<tr>
<td>Parole</td>
<td>66.5 (210)</td>
<td>57.8 (329)</td>
<td>60.9 (539)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returned on technical violation</td>
<td>32.9 (104)</td>
<td>40.6 (231)</td>
<td>37.9 (335)</td>
<td>5.10*</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Note. RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility
Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

*p < .05, **p < .01, ***p < .001

**Relationship Between Covariates and Technical Violations**

Five separate univariate logistic regressions were run for the whole sample prior to coarsening (i.e., using the unpruned data). Most covariates were significantly related to reincarceration (see Table 8). Criminal versatility presented with the most significant effect (*p < .001*), suggesting that the higher a woman scores on criminal versatility, the more likely they were to violate their release conditions. A unit increase in criminal versatility was linked to a woman being 2.19 times more likely to return on a technical violation. Release type was significantly related to returns (*p < .001*) such that a woman released on ISP was 1.62 times more likely to return. Age at release was also significantly related to the occurrence of technical violations (*p < .001*) as every unit increase was associated with .98 decrease in the likelihood or returning due to violating their release conditions. Marital status was predictive of technical violations (*p = .02*) as single women were 1.73 times more likely to return than married women. The relationship between technical violations and education was non-significant.
### Table 8

**Unpruned Covariate Relationship to Technical Violations (n = 885)**

<table>
<thead>
<tr>
<th>Covariate</th>
<th>B (SE)</th>
<th>Wald</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at release</td>
<td>-0.03 (.01)</td>
<td>12.44</td>
<td>&lt;.001</td>
<td>.98 [.96, .99]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>0.78 (.09)</td>
<td>77.04</td>
<td>&lt;.001</td>
<td>2.19 [1.84, 2.61]</td>
</tr>
<tr>
<td>Education</td>
<td>-0.30 (.13)</td>
<td>0.06</td>
<td>.81</td>
<td>.97 [.76, 1.24]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.55 (.23)</td>
<td>5.54</td>
<td>.02</td>
<td>1.73 [1.10, 2.74]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>0.48 (.14)</td>
<td>11.58</td>
<td>&lt;.001</td>
<td>1.62 [1.23, 2.14]</td>
</tr>
</tbody>
</table>

*Note. RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility*

Education scored as a three-level variable (Some high school = 1, Highs school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

#### Coarsened Exact Matching Results

Two statistical programs were used to carry out the analyses, R Studio and SPSS. First, an imbalance test was conducted to determine how unequal the treatment (RCRP releases) and comparison groups (prison releases) were on the covariates. The individual covariates were fairly imbalanced (see Table 9) but the multivariate imbalance measure, which ranges from 0 (no imbalance) to 1 (very imbalanced), was moderate ($L_1 = 0.42$; Iacus et al., 2022). Three covariates showed a large amount of imbalance: ISP versus Parole ($L_1 = 18.18$), education ($L_1 = 11.25$) and marital status ($L_1 = 5.28$).
As illustrated above in Table 7, almost two-thirds of the sample was on parole, nearly 90% of the women were single and most of the sample had only completed high school with very few pursing post-secondary education. The expectation is that CEM will help to balance these covariates such that an equal amount of women with similar profiles on each of the covariates will be spread equally between the treatment (RCRP release) and the comparison group (prison release) to minimize the extent to which the main results of the logistic regression analysis will be model dependent.

Coarsened exact matching (CEM) began on the cleaned sample of 885 released women. A k-to-many match was carried out. This meant that each resultant strata (in the final pruned or matched dataset) would minimally contain at least one woman in the treatment group and one woman in the comparison group who was matched on each of the covariates. This type of matching is the standard when dealing with a smaller sample size in order to retain as many baseline group- RCRP women in this instance, cases as possible (Iacus et al., 2022). Only one variable, age at release, was required to be coarsened prior to running the CEM analysis (it was

<table>
<thead>
<tr>
<th>Covariate</th>
<th>$L_1$ statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at release</td>
<td>-0.77</td>
</tr>
<tr>
<td>Marital status</td>
<td>5.28</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>0.12</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>18.18</td>
</tr>
<tr>
<td>Education</td>
<td>11.25</td>
</tr>
</tbody>
</table>
coarsened as follows: 18-30, 31-40, 41-50, 51-72). The remaining variables were used ‘as is’ in the CEM (i.e., criminal versatility: 0 to 4+, marital status: single or married, education: less than high school or at minimum high school completed, ISP versus parole: ISP release or parole release). The results of the CEM are presented in Table 10. A total of four Black women (4.3%) and four White women (5.1%) were lost from the final RCRP group and 60 Black women (26.8%) and 135 White women (27.5%) from the final prison group were lost after coarsening.

**Table 10**

*Coarsened Exact Matching Counts*

<table>
<thead>
<tr>
<th>Proportion retained from final sample</th>
<th>RCRP % (n = 162)</th>
<th>EMCF % (n = 520)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black women</td>
<td>54.3 (88)</td>
<td>31.5 (164)</td>
</tr>
<tr>
<td>White women</td>
<td>45.7 (74)</td>
<td>68.5 (356)</td>
</tr>
</tbody>
</table>

*Note.* RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Respective groups were created based upon similarities on covariates which had as few as two women to as many as 48 women in a single group, or *strata* per CEM’s labelling. Each strata consisted of one or more RCRP woman and one or more EMCF woman who were identical on the covariates. The treatment group was chosen as the baseline so the software attempted to retain as many RCRP women as possible through matching (Blackwell et al., 2009).

This new pruned dataset was similar to the uncoarsened dataset but most values shifted to be closer to one another (see Table 11). A total of 111 matches (stratum) were made through the CEM procedure. Notably, the CEM function generates an individual weight for each case based on strata placement. These weights were applied prior to running the logistic regression below in SPSS. Notably, the current coarsened exact matching R algorithm does not allow for balance.
checking after coarsening with weights included. However, Table 11 illustrates that values are generally closer to their means than in the unpruned sample (refer to Table 7).

**Table 11**

*Coarsened Sample’s Descriptive Statistics*

| Variable                      | Black  
|                               | M (SD) | White  
|                               | M (SD) | Total  
|                               | M (SD) | t     | Cohen’s d |
|-------------------------------|--------|-----------------------------------------------------|
| Age at release                | 37.67 (10.05) | 36.23 (9.82) | 36.76 (9.90) | -1.82* | .15 |
| Criminal versatility          | 1.57 (.82) | 1.66 (.76) | 1.63 (.78) | 1.50 | .12 |
| Treatment Group               | % (n) | % (n) | % (n) | X² | Cramer’s V |
| RCRP release (n = 162)        | 35 (88) | 17.2 (74) | 23.8 (162) | 27.52*** | .20 |
| EMCF release (n = 520)        | 65 (164) | 82.8 (356) | 76.2 (520) | | |
| Education                     | % (n) | % (n) | % (n) | X² | Cramer’s V |
| Some high school              | 33.3 (84) | 11.6 (50) | 19.6 (134) | 49.71*** | .27 |
| High school completed         | 60.3 (16) | 83.3 (358) | 74.8 (510) | | |
| More than high school         | 6.3 (16) | 5.1 (22) | 5.6 (38) | | |
| Marital status                | % (n) | % (n) | % (n) | X² | Cramer’s V |
| Single                        | 94.4 (238) | 94 (404) | 94.1 (642) | 0.07 | .01 |
| Married                       | 5.6 (14) | 6 (26) | 5.9 (40) | | |
| ISP versus Parole             | % (n) | % (n) | % (n) | X² | Cramer’s V |
| ISP                           | 23.4 (59) | 31.2 (134) | 28.3 (193) | 4.70* | .08 |
| Parole                        | 76.6 (193) | 68.8 (296) | 71.7 (489) | | |
| Reincarcerated on technical violation | % (n) | % (n) | % (n) | X² | Cramer’s V |
|                               | 32.5 (82) | 40.2 (173) | 37.4 (255) | 4.02* | .08 |

*Note.* RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility
Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

*p < .05, **p <.01, ***p <.001

The pruned dataset (n = 682) showed similar patterns in terms of the relationship between each covariate and outcome (see Table 12). This overall implies that the link between the covariates and outcome were largely unaffected by group imbalance for the larger sample. Notable is criminal versatility which indicates an even stronger link between a higher criminal versatility score and technical violations. In the pruned sample, a unit increase in criminal versatility was associated with women being 2.97 times more likely to violate their parole (p <.001) compared to 2.19 in the uncoarsened data. The precision of the coarsened data does suggest that CEM generally did an excellent job at finding matches and removing the remaining outliers that may have been present in the unpruned data.
### Table 12

**Pruned Covariate Relationship to Technical Violations (n = 682)**

<table>
<thead>
<tr>
<th>Covariate</th>
<th>B (SE)</th>
<th>Wald</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at release</td>
<td>-0.03 (.01)</td>
<td>12.55</td>
<td>&lt;.001</td>
<td>.97 [.96, .99]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>1.1 (.12)</td>
<td>78.77</td>
<td>&lt;.001</td>
<td>2.97 [2.34, 3.78]</td>
</tr>
<tr>
<td>Education</td>
<td>0.08 (.17)</td>
<td>0.23</td>
<td>.64</td>
<td>1.08 [.783, 1.49]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.62 (.37)</td>
<td>2.71</td>
<td>.10</td>
<td>1.85 [.89, 3.85]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>0.54 (.17)</td>
<td>9.73</td>
<td>.002</td>
<td>1.72 [1.22, 2.41]</td>
</tr>
</tbody>
</table>

*Note.* RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

**Do RCRPs Reduce Technical Violations? - Whole Sample**

Two sets of analyses were run to determine if RCRPs reduce technical violations: chi-square analysis and binary logistic regression analysis using returned to state prison for technical violations as the outcome variable. The weights were applied prior to running each analysis in SPSS. Cross tabs were conducted on both the unpruned and pruned sample. For the unpruned sample, women who were released from prison had more technical violations than women released from an RCRP (see Table 13). The effect was statistically significant ($\chi^2 = 11.59$, $p < .001$) but the Cramer’s V implied a small association between release RCRP use and success in the community 3-years post-release. Similar findings were presented in the pruned sample (Cramér's V, 2023; see Table 13). The relationship between release type and technical violations
was still significant with a marginally stronger association between the two ($\chi^2 = 13.25$, $p < .001$).

**Table 13**

*Technical Violation Outcomes Pre- and Post-Coarsening*

<table>
<thead>
<tr>
<th>Returned on technical violation</th>
<th>EMCF % ($n/N$)</th>
<th>RCRP % ($n/N$)</th>
<th>Chi-square</th>
<th>$p$-value</th>
<th>Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unpruned Sample</td>
<td>40.6 (290/715)</td>
<td>26.5 (45/170)</td>
<td>11.59</td>
<td>&lt;.001</td>
<td>.12</td>
</tr>
<tr>
<td>Pruned Sample</td>
<td>41.2 (214/520)</td>
<td>25.3 (41/162)</td>
<td>13.25</td>
<td>&lt;.001</td>
<td>.14</td>
</tr>
</tbody>
</table>

*Note.* RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

A logistic regression was performed on the uncoarsened dataset ($N = 885$) including all covariates in their original form and the treatment variable of interest (RCRP versus prison release) (Iacus et al., 2012). Overall, the results indicate that RCRPs are effective in reducing return to custody for technical violations even after all additional covariates are included (see Table 14). The odds ratio was .64 indicating that the odds of returning to custody were .64 less for women released from an RCRP versus women released from prison ($p < .05$). Importantly the confidence intervals did not contain one.
Table 14

Unpruned Logistic Regression Results for Whole Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>B (SE)</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCRP versus EMCF</td>
<td>-0.44 (.21)</td>
<td>.03</td>
<td>.64 [.43, .96]</td>
</tr>
<tr>
<td>Age at release</td>
<td>-0.02 (.01)</td>
<td>.05</td>
<td>.98 [.97, 1]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>0.86 (.10)</td>
<td>&lt;.001</td>
<td>2.37 [1.97, 2.87]</td>
</tr>
<tr>
<td>Education</td>
<td>-0.12 (.14)</td>
<td>.37</td>
<td>.88 [.67, 1.16]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.46 (.25)</td>
<td>.06</td>
<td>1.59 [.98, 2.62]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>0.70 (.16)</td>
<td>&lt;.001</td>
<td>2.00 [1.46, 2.77]</td>
</tr>
</tbody>
</table>

Note. RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility  
Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0. 

The coarsened dataset (n = 682) was analyzed including both the covariates and the CEM derived weights (See Table 15). Criminal versatility and release type (ISP versus parole) displayed a stronger association with technical failures in the community on the pruned sample. A one unit increase in criminal versatility resulted in a 3.44 increase in failure likelihood. The ISP women were 2.4 times more likely to fail in the community than the paroled women. Making the treatment and comparison groups more similar on the covariates in turn evidenced a stronger treatment effect for RCRPs with the treatment group being .57 times less likely to return than the prison releasees even after covariates are included.
Table 15

Pruned Logistic Regression Results For Whole Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>B (SE)</th>
<th>Wald</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCRP versus EMCF</td>
<td>-0.56 (0.72)</td>
<td>6.15</td>
<td>.01</td>
<td>.57 [.37 .89]</td>
</tr>
<tr>
<td>Age at release</td>
<td>-0.02 (0.01)</td>
<td>4.05</td>
<td>.04</td>
<td>.98 [.97, .999]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>1.23 (0.14)</td>
<td>84.24</td>
<td>&lt;.001</td>
<td>3.44 [2.64, 4.47]</td>
</tr>
<tr>
<td>Education</td>
<td>0.04 (0.19)</td>
<td>0.05</td>
<td>.83</td>
<td>1.04 [.72, 1.51]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.06 (0.40)</td>
<td>0.02</td>
<td>.89</td>
<td>.84 [.48, 2.32]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>0.93 (0.20)</td>
<td>20.82</td>
<td>&lt;.001</td>
<td>2.4 [1.47, 3.96]</td>
</tr>
</tbody>
</table>

Note. RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

Do RCRPs Reduce Technical Violations for Black Women?

Relationship Between Covariates and Technical Violations. Five separate univariate logistic regressions were run on the Black women only sample both before and after coarsening. The results for Black women evidence that criminal versatility and release type (i.e., ISP release versus parole) were strongly related to technical violations (see Table 16). For example, every unit increase on the criminal versatility measure was associated with a Black woman being 2.23 times more likely return to prison on a technical violation. ISP women were 2.42 times more likely to return. The rest of variables were not significant.
Table 16

Black Women’s Unpruned Covariate Relationship to Technical Violations (n = 316)

<table>
<thead>
<tr>
<th>Covariate</th>
<th>B (SE)</th>
<th>Wald</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at release</td>
<td>-0.01 (.01)</td>
<td>0.72</td>
<td>.40</td>
<td>.99 [.97, 1.01]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>0.80 (.15)</td>
<td>28.53</td>
<td>&lt;.001</td>
<td>2.23 [1.66, 2.99]</td>
</tr>
<tr>
<td>Education</td>
<td>-0.10 (.20)</td>
<td>0.27</td>
<td>.61</td>
<td>.90 [.62, 1.33]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.09 (.40)</td>
<td>0.04</td>
<td>.83</td>
<td>1.09 [.50, 2.40]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>0.89 (.25)</td>
<td>12.51</td>
<td>&lt;.001</td>
<td>2.42 [1.48, 3.96]</td>
</tr>
</tbody>
</table>

Note. RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

For the coarsened sample (see Table 17), the findings were similar to the coarsened sample, however the odds ratios were slightly higher in regard to criminal versatility and release type; in contrast the odds ratio for marital status in the pruned sample decreased in comparison to the unpruned data. A unit increase in criminal versatility was associated with Black women being 2.43 times more likely to return on a technical violation. Release supervision type also became more predictive as Black women released on ISP were 2.81 times more likely to return than women on parole.
Table 17

*Black Women’s Pruned Covariate Relationship to Technical Violations (n = 252)*

<table>
<thead>
<tr>
<th>Covariate</th>
<th>B (SE)</th>
<th>Wald</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at release</td>
<td>-0.01 (.01)</td>
<td>0.57</td>
<td>.45</td>
<td>.99 [.96, 1.02]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>0.87 (.19)</td>
<td>22.92</td>
<td>&lt;.001</td>
<td>2.43 [1.69, 3.49]</td>
</tr>
<tr>
<td>Education</td>
<td>0.01 (.24)</td>
<td>0.001</td>
<td>.98</td>
<td>1.01 [.63, 1.60]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.15 (.58)</td>
<td>0.07</td>
<td>.79</td>
<td>.86 [.28, 2.66]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>1.03 (.31)</td>
<td>11.30</td>
<td>&lt;.001</td>
<td>2.81 [1.54, 5.12]</td>
</tr>
</tbody>
</table>

*Note.* RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

**Main Results.** A chi-square test was used to compare outcomes on the unmatched and matched samples. The directionality remained the same for EMCF women and RCRP women such that RCRP women violated their release conditions less than EMCF women (see Table 18). However, coarsening the data brought the results from being on the borderline of significance (*p* = .05) into statistical significance (*p* = .03). In the pruned sample, 37.2% of the prison released women were returning and in the RCRP group far fewer women were returning (23.9%). The Cramer’s V still returns a weak effect for both the uncoarsened and coarsened Black sample as it did for the whole sample previously (Cramér's V, 2023).
Table 18

*Black Women’s Technical Violation Outcomes Pre- and Post-Coarsening*

<table>
<thead>
<tr>
<th>Returned on technical violation</th>
<th>EMCF % (n/N)</th>
<th>RCRP % (n/N)</th>
<th>Chi-square</th>
<th>p-value</th>
<th>Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unpruned Sample</td>
<td>36.2 (81/224)</td>
<td>25.0 (23/92)</td>
<td>3.68</td>
<td>.05</td>
<td>.11</td>
</tr>
<tr>
<td>Pruned Sample</td>
<td>37.2 (61/164)</td>
<td>23.9 (21/88)</td>
<td>4.64</td>
<td>.03</td>
<td>.14</td>
</tr>
</tbody>
</table>

*Note.* RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility.

Two logistic regressions with covariates were executed, one on the uncoarsened data and one on the coarsened data. In the unpruned dataset, Black ISP women were 1.99 times more likely to return than the Black paroled women (see Table 19). Additionally, criminal versatility remained predictive as each increase in a Black woman’s criminal versatility score increased their likelihood of returning by 2.57. Treatment group, age at release, education level and marital status remained unpredictive for the Black women sampled.
Table 19

*Black Women’s Unpruned Logistic Regression Results*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B (SE)</th>
<th>Wald</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCRP versus EMCF</td>
<td>-0.22 (0.31)</td>
<td>0.48</td>
<td>.49</td>
<td>.81 [0.44, 1.49]</td>
</tr>
<tr>
<td>Age at release</td>
<td>0.03 (.01)</td>
<td>0.05</td>
<td>.82</td>
<td>1.01 [.97, 1]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>0.94 (0.16)</td>
<td>33.62</td>
<td>&lt;.001</td>
<td>2.57 [3.18, 5.59]</td>
</tr>
<tr>
<td>Education</td>
<td>-0.28 (0.22)</td>
<td>1.57</td>
<td>.21</td>
<td>.76 [.67, 1.31]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.23 (0.43)</td>
<td>0.27</td>
<td>.60</td>
<td>.80 [.46, 1.58]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>1.28 (0.30)</td>
<td>18.16</td>
<td>&lt;.001</td>
<td>1.99[1.47, 3.96]</td>
</tr>
</tbody>
</table>

*Note.* RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

The pruned sample largely mirrored the results of the unpruned sample with greater odds of failing for Black women being associated with being on ISP and having higher criminal versatility scores. Black women on ISP were 5.08 times more likely to be returned to prison than paroled Black women (See Table 20). The criminal versatility covariate presented a similar pattern because for Black women, each increase in their criminal versatility score was linked to being them 3.04 times more likely to return to prison than paroled women. Similar to the unpruned results, release from an RCRP was not significantly related to reduced returns to prison for Black women. Although the odds ratio was less than one (.66), the confidence intervals contained 1.
Table 20

Black Women’s Pruned Logistic Regression Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>B (SE)</th>
<th>Wald</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCRP versus EMCF</td>
<td>-0.42 (0.33)</td>
<td>1.60</td>
<td>.21</td>
<td>.66 [0.34, 1.26]</td>
</tr>
<tr>
<td>Age at release</td>
<td>0.06 (0.02)</td>
<td>0.14</td>
<td>.70</td>
<td>1.01 [0.98, 1.03]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>1.11 (0.21)</td>
<td>28.51</td>
<td>&lt;.001</td>
<td>3.04 [2.02, 4.58]</td>
</tr>
<tr>
<td>Education</td>
<td>-0.19 (0.28)</td>
<td>0.46</td>
<td>.50</td>
<td>.83 [0.48, 1.43]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>-0.92 (0.63)</td>
<td>2.09</td>
<td>.15</td>
<td>.40 [0.12, 1.38]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>1.63 (0.30)</td>
<td>19.39</td>
<td>&lt;.001</td>
<td>5.08 [2.47, 10.48]</td>
</tr>
</tbody>
</table>

Note. RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

Do RCRPs Reduce Technical Violations for White Women?

Relationship Between Covariates and Technical Violations. Similar to the Black women, five individual univariate logistic regressions were run on the White women only sample prior to coarsening and after coarsening. The White women sample presented significance on more covariates than the Black sample. In the uncoarsened sample, age at release paralleled the effect the whole sample, though small, where the older a woman was, the less likely they were to return on a technical violation ($p < .001$; see Table 21). Criminal versatility was also significant ($p < .001$) as each unit increase in criminal versatility was associated with a White woman being 2.15 times more likely to fail in the community. Marital status was significant as well for White
women ($p < .05$) where it remained non-significant for Black women. Single White women were 2.20 times more likely than married women to return to prison for violating their parole.

Education, and release type (ISP versus parole) were not significant in the White sample.

**Table 21**

*White Women’s Unpruned Covariate Relationship to Technical Violations (n = 569)*

<table>
<thead>
<tr>
<th>Covariate</th>
<th>B (SE)</th>
<th>Wald</th>
<th>$p$-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at release</td>
<td>-0.03 (.01)</td>
<td>13.21</td>
<td>&lt;.001</td>
<td>.97 [.95, .99]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>0.77 (.11)</td>
<td>47.50</td>
<td>&lt;.001</td>
<td>2.15 [1.73, 2.67]</td>
</tr>
<tr>
<td>Education</td>
<td>-0.06 (.17)</td>
<td>0.12</td>
<td>.73</td>
<td>.94 [.68, 1.32]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.79 (.29)</td>
<td>7.53</td>
<td>.006</td>
<td>2.20 [1.25, 3.87]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>0.26 (.17)</td>
<td>2.19</td>
<td>.14</td>
<td>1.29 [.92, 1.81]</td>
</tr>
</tbody>
</table>

*Note.* RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

The coarsened White sample returned similar findings to the uncoarsened White sample (see Table 22). Age at release remained significant ($p < .001$) with a marginal decrease relative to the unpruned findings. Criminal versatility remained predictive as each unit increase in criminal versatility was linked to a White woman being 3.35 times more to return. These odds ratios moderately increased from the unpruned sample. Regarding marital status, single White women were 2.99 times more likely to fail in the community than married women. This is also an increase from the unpruned sample, albeit a small one.
Table 22

White Women’s Pruned Covariate Relationship to Technical Violations ($n = 430$)

<table>
<thead>
<tr>
<th>Covariate</th>
<th>B (SE)</th>
<th>Wald</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at release</td>
<td>-0.04 (.01)</td>
<td>13.59</td>
<td>&lt;.001</td>
<td>.96 [.94, .98]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>1.21 (.16)</td>
<td>55.93</td>
<td>&lt;.001</td>
<td>3.35 [2.44, 4.61]</td>
</tr>
<tr>
<td>Education</td>
<td>0.02 (.24)</td>
<td>0.004</td>
<td>.95</td>
<td>1.02 [.63, 1.64]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>1.10 (.51)</td>
<td>4.65</td>
<td>.03</td>
<td>2.99 [1.11, 8.09]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>0.27 (.21)</td>
<td>1.67</td>
<td>.20</td>
<td>1.31 [.87, 1.99]</td>
</tr>
</tbody>
</table>

Note. RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

Main results. A chi-square test was used to compare outcomes on both the uncoarsened and coarsened White samples (see Table 23). In both samples, the RCRP women returned less than the EMCF women at a statistically significant level ($p < .05$). The pruned sample demonstrated a marginally larger effect ($p = .01$) than the unpruned sample ($p = .02$). The Cramer’s V for both samples was quite small (Cramér's V, 2023). Despite this, for the pruned sample, there was still a large reduction in failure rates between the White EMCF women (43%) and the White RCRP women (27%).
Table 23

*White Women’s Technical Violation Outcomes Pre- and Post-Coarsening*

<table>
<thead>
<tr>
<th>Returned on technical violation</th>
<th>EMCF % (n/N)</th>
<th>RCRP % (n/N)</th>
<th>Chi-square</th>
<th>p-value</th>
<th>Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unpruned Sample</td>
<td>42.6 (209/491)</td>
<td>28.2 (22/78)</td>
<td>5.76</td>
<td>.02</td>
<td>.10</td>
</tr>
<tr>
<td>Pruned Sample</td>
<td>43.0 (153/356)</td>
<td>27.0 (20/74)</td>
<td>6.48</td>
<td>.01</td>
<td>.12</td>
</tr>
</tbody>
</table>

*Note.* RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility.

Two logistic regressions were run with covariates included on the uncoarsened (Table 24) and coarsened data (Table 25) respectively. For the uncoarsened sample, age at release, criminal versatility, marital status, and ISP versus parole status were all significantly related to return to custody. The younger a White woman was, the more likely they were to return. For each unit increase in age, a White woman became .98 times less likely to return to prison for violating their release. Regarding marital status, single White women were 2.09 times more likely to return on a technical violation than married women. White women on ISP were 1.58 times more likely than paroled women to violate their parole. For White women, being released from an RCRP versus EMCF was not significant nor was education level on this unpruned sample,
Table 24

*White Women’s Unpruned Logistic Regression Results*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B (SE)</th>
<th>Wald</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCRP versus EMCF</td>
<td>-0.54 (.29)</td>
<td>3.42</td>
<td>.06</td>
<td>.58 [.33, 1.03]</td>
</tr>
<tr>
<td>Age at release</td>
<td>-0.02 (.01)</td>
<td>5.23</td>
<td>.02</td>
<td>.98 [.96, .997]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>0.82 (.12)</td>
<td>47.70</td>
<td>&lt;.001</td>
<td>2.28 [1.80, 2.88]</td>
</tr>
<tr>
<td>Education</td>
<td>-0.11 (.19)</td>
<td>0.34</td>
<td>.56</td>
<td>.90 [.62, 1.29]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.74 (.31)</td>
<td>5.73</td>
<td>.02</td>
<td>2.09 [1.14, 3.82]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>0.46 (.65)</td>
<td>5.54</td>
<td>.02</td>
<td>1.58 [1.07, 2.33]</td>
</tr>
</tbody>
</table>

*Note.* RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

The coarsened White women sample produced results that differed slightly from the unpruned White women sample. Pruning the sample allowed for RCRPs to have a statistically significant treatment effect (*p* = .03; see Table 25). White women released from an RCRP were .51 times less likely to return on a technical violation than women released from prison. Age at release remained significant (*p* = .009) in the pruned sample where each unit increase in age meant a White woman was .97 times less likely to violate their release conditions. Criminal versatility remained relevant as each increase in criminal versatility score was associated with a woman being 3.81 times more likely to return to prison (*p* <.001). The pruned criminal versatility odds ratio (3.81) was a considerable increase from the unpruned odds ratio (2.28). Regarding
release type, White women released on ISP were 1.91 times more likely to fail in the community than paroled women in the pruned sample. This change for release type (ISP versus parole) is comparable to the unpruned sample. Education was not significant and marital status lost significance in this pruned sample.

Table 25

White Women’s Pruned Logistic Regression Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>B (SE)</th>
<th>Wald</th>
<th>p-value</th>
<th>Odds Ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>RCRP versus EMCF</td>
<td>-0.68 (.32)</td>
<td>4.49</td>
<td>.03</td>
<td>.51 [.27, .95]</td>
</tr>
<tr>
<td>Age at release</td>
<td>-0.03 (.01)</td>
<td>6.89</td>
<td>.009</td>
<td>.97 [.94, .99]</td>
</tr>
<tr>
<td>Criminal versatility</td>
<td>1.34 (.18)</td>
<td>57.08</td>
<td>&lt;.001</td>
<td>3.81 [2.70, 5.40]</td>
</tr>
<tr>
<td>Education</td>
<td>0.13 (.28)</td>
<td>0.21</td>
<td>.65</td>
<td>1.14 [.66, 1.96]</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.50 (.54)</td>
<td>0.87</td>
<td>.35</td>
<td>1.65 [.57, 4.75]</td>
</tr>
<tr>
<td>ISP versus Parole</td>
<td>0.65 (.25)</td>
<td>6.75</td>
<td>.009</td>
<td>1.91 [1.17, 3.12]</td>
</tr>
</tbody>
</table>

Note. RCRP = Residential Community Release Program; EMCF = Edna Mahan Correctional Facility

Education scored as a three-level variable (Some high school = 1, High school = 2, Some or post-secondary complete = 3); Marital Status: Single = 1, married = 0, ISP versus Parole: ISP = 1, parole = 0.

Discussion

Women are met with a myriad of challenges when they leave prison. They have to rekindle family relationships, find a safe place to live, and secure employment. This may become even more difficult for Black women who are both racialized and a minority as women in the criminal justice system. Amidst their journey to rebuild their lives post-incarceration, many
women are required to adhere to the conditions of their release to ensure that they do not return to prison. Residential Community Release Programs (RCRPs) then present as an excellent resource for women to transition back to the community with supports and programming that could make their re-entry more successful. The main objective of this study was to know if women who used RCRPs were less likely to return to prison due to technical violations compared to women who were released directly out of prison. There are several key findings that this study revealed pertaining to the effectiveness of RCRPs overall, the racial differences in effectiveness between Black women and White women and the covariates that significantly influenced the likelihood of success or failure.

As hypothesized, for the whole sample, women who were released from an RCRP returned less than prison released women. Logistic regressions revealed a similar effect. For the coarsened sample in particular, women who were released from an RCRP were .57 times less likely to violate their parole or Intensive Supervision Program (ISP) within three years post-release compared to women who were released directly from Edna Mahan Correctional Facility (EMCF). This suggests that these gender responsive RCRPs are working in New Jersey to prevent women from returning to prison up to 3 years after release. This outcome is consistent with what Hamilton and Campbell (2014) found in their mixed gender sample for any returns to custody. At 3-years post-release, EMCF released women in the coarsened sample had more returns (41.2%) than prison released men and women in Hamilton and Campbell’s (2014) study (38%) but the RCRP women in the current study had fewer returns (25.3%) than the men and women in their study (29.7%). This speaks to how ill-equipped women can be to re-enter from prison successfully and underscores how impactful gender responsive RCRPs can be for women.
Race presented some meaningful differences between the Black and White RCRP women sampled. First, a higher proportion of Black women attended an RCRP (29.1%) compared to White women (13.7%). This finding is promising as Stewart’s (2018) study on intersectionality and pathways to crime indicated that Black women often find themselves marginalized in the community and in turn have less access to resources and supports. This study serves as a hopeful example that Black women are able to access RCRPs and are using them. Overall, Black women violated their release conditions less often than White women, regardless of being released from an RCRP or EMCF. According to the matched samples' cross tabulation, Black women who attended an RCRP returned less (23.9%) than White women who attended an RCRP (27%) reaching statistical significance in both samples. However, the logistic regression on the pruned sample for Black RCRP women returning did not come back significant. In the White pruned sample, RCRP women were .51 times less likely to violate their parole/ISPs than EMCF released women and this reached statistical significance. From this, it can be said that RCRPs do help reduce returns to prison on technical violations for White women, but more work needs to be done for Black women, in order to display a robust and convincing effect.

The effects of race on RCRP success were rarely discussed prior to this study but my hypotheses were largely supported in predicting that RCRPs would work for both races but that Black women would show weaker effects than White women. Though CEM did a good job at creating matched pairs, Black RCRP women were still the smallest group of women in the sample. This also contributed to the low power for this group. A post hoc power analysis through G*Power (a power analysis tool) reinforced that the Black women sample was underpowered. Once pruned, the White women sample had a moderate power of 61.8% whereas the Black sample had weaker power of 48.6%. It is plausible that more Black RCRP women could have
helped develop a more decisive outcome. Residential community release programs help White women reduce their likelihood of recidivating but at this time, the results remain inconclusive for Black women.

Covariates played an integral role in predicting technical violation outcomes. Criminal versatility and ISP versus parole continued to demonstrate statistical significance through each model, regardless of coarsening or race. The univariate regression that was run on the White women in the pruned sample showed that a unit increase in criminal versatility was associated with a White woman being 3.35 times more likely to violate their release conditions. When replicated on the Black pruned sample, Black women were 2.43 times more likely to recidivate with each unit increase in criminal versatility. These findings lead to several possible conclusions. First, this confirms the usage of a criminal versatility score in lieu of a risk assessment tool as a proxy for risk as likelihood of recidivating increases considerably with each score increase on the criminal versatility scale. Second, this also serves as a predictive reference for Black women who were not displaying very strong links to recidivism in the logistic regression. Caution should however be exercised when interpreting this criminal versatility covariate so as to not stigmatize “higher risk women” as doomed to fail in the community. This association does not imply causation- that high risk women cannot re-enter the community successfully post-incarceration. Instead, this knowledge can be used to target treatment in accordance with the risk-needs-responsivity principle (Bonta & Andrews, 2007). Gender responsivity appears to help these RCRP women in a way that is above and beyond what the EMCF released women received. Risk is also linked to the likelihood of returns so in the future, programming that contains both gender responsivity and consideration of risk when providing treatment could be very beneficial for justice involved women in getting their needs met.
Women released on an Intensive Supervision Program (ISP) having worse outcomes than paroled women was a consistent finding throughout. Consistently, across race and release location (RCRP versus EMCF), it was found that women released on ISP were more likely to violate the conditions of their release than paroled women. This was expected as an ISP release is a stricter release type that has less room for error (New Jersey Courts, 2018). More importantly, in the pruned Black women sample’s logistic regression, women on ISP were 5.08 times more likely to return on a technical violation relative to women released on parole. In contrast, for the pruned White women sample, ISP women were only 1.91 times more likely to violate their conditions of release. This outcome largely aligns with my prediction and Boppre’s (2019) article which highlights that Black people are often over policed and as a product will find themselves in trouble more due to simply being watched more. Intensive supervision programs are already so stringent so it is then unsurprising that Black women who are closely supervised already would find themselves returning to prison for technical violations. The proportion of Black ISP women in the whole sample pre-pruning was fairly small (12% / \(n=106\)) and reduced considerably post-coarsening (8.7% / \(n = 59\)) so any inferences made should bear this in mind.

**Implications for Practice**

New Jersey’s Department of Corrections could learn a great amount from this study to improve how they currently practice. First, a standardized risk assessment tool that is used across correctional facilities and their supporting organizations is a necessity. This study serves as an example of the predictive value of quantifying a woman’s risk. Studies have illustrated that treatment can be criminogenic if applied in wrong context (i.e., a low risk woman receiving intense treatment or a high risk woman receiving minimal treatment; Bonta & Andrews 2007;
Fritzon et al., 2021). If risk is known, treatment can be better tailored to the identified risks and needs of the justice impacted woman.

In light of this study, New Jersey may also need to look into their intensive supervision program (ISP). If women are consistently performing poorly in that program, then they may need to consider its practicality as is. This issue is amplified when race is introduced as Black women appear to be returning at disproportionate rates. This discussion in New Jersey would be incomplete without acknowledging the reasons why Black women perform poorly on ISP release. Though beyond the scope of this study, identifying these reasons is integral to enacting change.

**Implications for Theory**

While this study cannot speak directly to the feminist theories of offending, it does speak to how their pathway out of the justice system is affected. Women with higher criminal versatility scores consistently had a greater chance of returning on account of release violation. As this study’s proxy for risk, criminal versatility scores may act better as an indicator for who needs more treatment than simply as a predictor of recidivism. This is closely in alignment with what the risk-need-responsivity principle advocates for. The risk portion of the risk-need-responsivity principle states that justice-impacted people who are of low risk to reoffend should receive low intensity treatment and those who are high risk to reoffend should partake in high intensity treatment (Bonta & Andrews, 2007). Correctly assessing risk is important because it informs treatment dosage. When high risk justice-impacted people receive treatment that is not intense enough they may recidivate due to insufficient intervention (Bonta & Andrews, 2007; Lowenkamp & Latessa, 2004). In the present sample, few women were deemed “high risk” by
the criminal versatility score but comparatively, some women needed to receive more care than others and it is possible that this may not be happening. Additionally, the responsivity principle works by delivering services in a way that can be best received by the intended recipient (Andrews et al., 1999; Bonta & Andrews, 2017). In order to best rehabilitate justice impacted people, factors such as gender, race, mental health, trauma history must be highlighted. In this context, the aim is to take a gender informed approach to treatment to best suit the background that many justice impacted women may share. In all, the risk-need-responsivity principles may need be the golden standard going forward as it captures what a woman needs based not on their perceived circumstance, like feminist pathways alone may imply, but on their actual measured circumstance. In future, some qualitative data through interviews could help supplement stronger arguments for whether feminist pathways are still a useful theoretical approach or if the risk-need-responsivity principle accounts for most variance in outcomes.

**Implications for Statistical Methods**

Coarsened Exact Matching (CEM) is a fairly new procedure that this study used for matching. This was selected as the matching procedure over propensity score matching in response to some of the critiques for propensity score matching such as model dependence and imbalance concerns (King & Nielsen, 2019). This newer procedure came with its benefits and drawbacks. One of the greatest benefits of CEM is that it is very customizable as it can coarsen values automatically or allows you to coarsen variables based on cut offs that are meaningful to you (Iacus et al., 2012). Though useful, a general critique of this is that coarsening by user’s choice could introduce researcher bias. In this study, bias was mitigated as coarsening was done only prior to analysis and bins were created based on what would better balance the sample so
that bins had as little skew as possible, otherwise too many outliers would result in dropped cases due to the difficulty of finding a match. This was seen in the creation of the criminal versatility covariate for instance, where too few women scored above four to continue separating bins beyond this score.

A final disadvantage of CEM is that it is a newer method with little support for issues that may arise in your unique data. In the present study, I struggled to obtain post pruning imbalance statistics and online resources failed to advise me towards a solution that worked. However, the knowledge-base for CEM is slowly growing and I foresee this method becoming very useful to many researchers as more studies employ this method.

Limitations

The archival data that I was provided with had missing information and was incomplete due to the pandemic. This resulted in a reduced final sample. The largest loss was the exclusion of maxed out women. I initially planned to include them in this study but ran into issues regarding whether they were being supervised or not (the archival data was unclear in this regard). Covid-19 also greatly affected my outcome measure. Originally, I was going to compare technical violations to admissions (violent and non-violent) but due to the shutdown, the New Jersey Department of Corrections informed me that there were no new admissions between March 2020 and March 2022. Due to my 3-year at risk follow-up period, too many cases would be dropped as women would not have the opportunity to fail and get readmitted within those two Covid-19 years.

Due to the limitations of using archival data, the current study could not determine why a violation took place. For example, it would have been valuable to know how family, employment, housing security (or lack thereof) influenced a woman’s ability to adhere to their
release conditions. A qualitative study could paint a fuller picture of what exactly is taking place when these women return. This would be especially beneficial to know for the Black women who so frequently return on ISP release.

A large limitation was also my inability able to match participants on an ‘intent-to-treat’ variable. It is possible that women who chose to attend an RCRP were more motivated to change than women who opted to return to the community directly from prison. The archival nature of this data did not allow for this to be controlled but future studies should consider including this information in some form for more accuracy variance-wise.

**Future Directions**

People are far more diverse than just Black or White. Next time, other racialized communities such as Asian women, Hispanic women and Indigenous women should be compared. In the current study there were two few Asian women to study, but their outcomes are just as valuable as any other woman’s. Historically, women have been overlooked in forensic studies as there were “too few” to effectively study. Thus, a good change moving forward would be to design a study that allows for Asian women to be meaningfully included. Additionally, my study was focused on race (Black or White) but there is a large Hispanic population in New Jersey that have their own relationship with incarceration, release outcomes and intersectionality as Black or White Hispanic women. A future study should aim to explore these women more closely. Though no Indigenous data was present in the New Jersey release data, this group of women should always be considered in studies were possible due to their complex history with the country whether it be the United States or Canada.

This study was very focused, causing it to have exclusionary criteria that should be explored in another research design. Maxed out women and their outcomes should be included in
further research. An earlier data extraction date and a survival analysis with multiple follow up points (6 months, 1 year, 2 years, 3 years) may allow researchers to capture some recidivism data for maxed out women despite the partial two-year shut down of the New Jersey Department of Corrections. Likewise, more RCRPs should be included in future studies. Looking at more RCRPs in different states may allow for a larger treatment sample and even open the opportunity to compare RCRP outcomes between the different organizations.

Conclusion

Women are often the forgotten group when researchers study justice impacted people as they make up a such small proportion of the prison population in comparison to their male counterparts. Studies such as mine, and those reviewed throughout this document serve as a glimmer of hope that these women are not forgotten or overlooked. Despite the imminent closing of New Jersey’s only all women state prison, it is evident that they are taking steps to making sure that women are being attended to. Overall, RCRPs seem to work at reducing returns on technical violations for most women attending both in previous studies (Hamilton and Campbell, 2014) and as illustrated by my study, though some more discussions must be held about racialized women (Black women in particular) and how RCRPs can be improved to better meet their needs. This study opens a door for hope that formerly incarcerated women can successfully desist from the doings of their past. This also opens the door for other states and provinces to evaluate their tools and resources so that justice involved women are getting what they need out of this rehabilitative journey.
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CERTIFICATION OF INSTITUTIONAL ETHICS CLEARANCE

The Carleton University Research Ethics Board-B (CUREB-B) at Carleton University has renewed ethics clearance for the research project detailed below. CUREB-B is constituted and operates in compliance with the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (TCPS2).

**Title:** Exploring the impact of Millicent Fenwick House, a residential re-entry program for formerly incarcerated women

**Protocol #:** 117599

**Principal Investigator:** Dr. Shelley Brown

**Department and Institution:** Faculty of Arts and Social Sciences\Psychology (Department of), Carleton University

**Project Team (and Roles):** Dr. Shelley Brown (Primary Investigator)
Marilyn Van Dieten (Co-Investigator (External))
Eva Huppe (Research Associate)
Mikaelia Miller (Student Research: Master's Student)
Ellen Coady (Research Assistant)
Emma Mcfarlane (Research Assistant)

**Funding Source** (If applicable):

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Effective: **May 17, 2023** expires: **May 31, 2024.**

Please ensure the study clearance number is prominently placed in all recruitment and consent materials: CUREB-B Clearance # 117599.
Restrictions:

This certification is subject to the following conditions:

1. Clearance is granted only for the research and purposes described in the application.

2. Any modification to the approved research must be submitted to CUREB-B via a Change to Protocol Form. All changes must be cleared prior to the continuance of the research.

3. An Annual Status Report for the renewal or closure of ethics clearance must be submitted and cleared by the renewal date listed above. Failure to submit the Annual Status Report will result in the closure of the file. If funding is associated, funds will be frozen.

4. During the course of the study, if you encounter an adverse event, material incidental finding, protocol deviation or other unanticipated problem, you must complete and submit a Report of Adverse Events and Unanticipated Problems Form.

5. It is the responsibility of the student to notify their supervisor of any adverse events, changes to their application, or requests to renew/close the protocol.

6. Failure to conduct the research in accordance with the principles of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans 2nd edition and the Carleton University Policies and Procedures for the Ethical Conduct of Research may result in the suspension or termination of the research project.

Upon reasonable request, it is the policy of CUREB, for cleared protocols, to release the name of the PI, the title of the project, and the date of clearance and any renewal(s).

Please email the Research Compliance Coordinators at ethics@carleton.ca if you have any questions.

CLEARED BY: (Signature)

Date: May 17, 2023

Natasha Artemeva, PhD, Chair, CUREB-B

Augustine Park, PhD, Vice-Chair, CUREB-B