

SYSTEMIC INEQUALITY, SUSTAINABILITY AND COVID-19 IN US PRISONS: A SOCIOLOGICAL EXPLORATION OF WOMEN'S PRISON GARDENS IN PANDEMIC TIMES

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ABSTRACT

Purpose: The purpose of this chapter is to discuss the impact of COVID-19 on the invisible incarcerated women population who are convicted of a crime and serving a sentence in a residential correctional facility in the United States (US). Even though correctional populations have been declining in the past years, the extent of mass incarceration has been a significant public health concern even before the pandemic. Moreover, the global spread of COVID-19 continues to have devastating effects in all the world's societies, and it has exacerbated existing social inequalities within the US carceral complex.

Methodology/Approach: We base our findings on data collection from two comparative clinical sociological garden interventions in a large Southeastern women's prison and a Midwestern residential community correctional facility for women. Both are residential correctional facilities for residents convicted of a crime. In contrast, in prison, women are serving longer-term sentences, and in the community corrections facility, women typically are housed for six months. We have developed and carried out educational garden programming and related research on both sites over the past two years and observe more

Systemic Inequality, Sustainability and COVID-19
Research in Political Sociology, Volume 29, 185–209
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Published under exclusive licence by Emerald Publishing Limited
ISSN: 0895-9935/doi:10.1108/S0895-99352022000029015

closely the impact of COVID-19 on incarcerated women and their communities, which has aggravated the invisibility and marginalization of incarcerated women who suffered a lack of programming and insufficient research attention already before the pandemic.

Findings: We argue that prison gardens' educational programming has provided some respite from the hardships of the pandemic and is a promising avenue of correctional rehabilitation and programming that fosters sustainability, healthier nutrition, and mental health among participants.

Originality of Chapter: Residential correctional facilities are distinctively sited to advance health equity and community health within a framework of sustainability, especially during a pandemic. We focus on two residential settings for convicted women serving a sentence in a prison or a residential community corrections facility that offers rehabilitation and educational programming. Women are an underserved population within the US carceral system, and it is thus essential to develop more programming and research for their benefit.

Keywords: Incarcerated convicted women; COVID-19; prison gardens; nature-based interventions; food security; carceral settings

INTRODUCTION

The global spread of COVID-19 continues to have devastating effects in all the world's societies, and it has exacerbated existing social inequalities. In this chapter, we draw attention to a population that is hidden from public view; women stuck behind bars in the US. As clinical sociologists who developed and carried out educational garden programming and related research in carceral settings over the past two years, we present a limited look at the impact of COVID-19 on incarcerated persons, who are considered a minority population in the US. In this chapter, we analyze three problem areas that contribute to the ongoing and COVID-19 related deterioration of conditions in US residential corrections facilities for convicted women. The suspension of social support, limited access to healthcare, and adequate protection from the pandemic, and the deterioration of access to food and nutrition. Based on our access and qualitative data, we also shed light on the meaning of prison gardens for women during the pandemic. We focus on two residential settings for convicted women serving a sentence in a prison or a residential community corrections facility that offers rehabilitation and educational programming. Preliminary analyses of our ongoing data collection on two field sites in the US. South and the Midwest show that educational garden programming has provided some respite from the hardships of the pandemic and are a promising avenue of correctional rehabilitation and programming that fosters sustainability, healthier nutrition, and mental health among participants. These programs have the potential to contribute to food security inside the facility positively and provide access to

“outside” sources, and foster reduction of inequality as it pertains to incarcerated women. Establishing programming especially for incarcerated women is a significant need in the US prison system, and prison gardens can fill this gap in a sustainable and meaningful way.

For ease of reading, we will in the following call these educational programs “prison gardens,” even though the two field sites are technically not both prisons. Our Southeastern site is a prison; the Midwestern site is a community corrections facility. Broadly, the US corrections system is divided into institutional and community based supervision. Institutional corrections facilities encompass prisons and jails. Prisons are state or federal housing facilities that confine people convicted of felonies with sentences typically longer than a year. Jails are administered by local law enforcement and hold individuals with shorter sentences (usually for one year or less) and those awaiting trial. Community supervision includes probation, parole, and residential community corrections programs. Residential community corrections are housing facilities that count as reentry or prison diversion programs. Residents are entirely confined for a certain period of time and then gradually gain access to the community based on their treatment progress. However, during the stay in a community corrections facility, residents technically count as “incarcerated” and lose state-sponsored health benefits such as Medicaid.

In this chapter, you will also notice that we will not refer to our participants as “inmates” or “offenders.” Instead, we choose to use person-first language, first established by people with disabilities, to avoid turning the conviction of a crime into an all-encompassing label. We do this in an effort to humanize language in the field of corrections research and to convey that we work with women who have been incarcerated. Still, they have many more social identities and talents, and skills we strive to capture with our research.

LITERATURE REVIEW

Race Inequality in the US Carceral System

With about 2.3 million individuals behind bars in 2020, the United States has the highest incarceration rate in the world (Wagner & Sawyer, 2020). That means that nearly more than 1% of the adult working-age US population is locked up. Maruschak and Minton (2020) similarly report that for any given day, there are more than 6.4 million individuals who are under some sort of correctional supervision such as community corrections programs, including probation and parole. This number represents 2.6% of the entire US adult population (Maruschak & Minton, 2020).

The characteristic of the prison state and its hyper incarceration in the United States is its entanglement with capitalist and racialized logic. Explicit and implicit racial bias, sentencing policies, and poverty contribute to racial disparities at every level of the criminal justice system (Nowotny, Bailey, & Brinkley-Rubinstein, 2021). One hundred eighty-two million Dollars are spent every year to maintain this massive correctional system for which Davis (2011) has coined the term

the Prison Industrial Complex (PIC) to denote the enormous extent and neoliberal profit orientation of all its tentacles (Wacquant, 2010). What is referred to in the literature as “mass incarceration” does not affect an equal mass evenly. Black and Brown populations are more affected by incarceration than Whites. Mass incarceration then is a manifestation of structural racism that perpetuates vast injustices, including health disparities (Macmadu et al., 2020). Alexander (2012) has named this dynamic “The New Jim Crow” as figures show that albeit slavery and segregation are officially abolished, the criminal justice system functions as a new filter to sort Black and Brown bodies into the prison system where they can be controlled and utilized as cheap workforce. Today, people of color constitute 37% of the US population but 67% of the prison population (Sentencing Project, 2021). Based on the Bureau of Justice Statistics, the lifetime likelihood of Imprisonment for US residents born in 2001 is 1 in 17 for White Men, 1 in 6 for Latino men, and 1 in 3 for Black men. This staggering systemic racial disparity is also mirrored in data for women; the lifetime likelihood of imprisonment is 1 in 111 white women, 1 in 45 Latina women, and 1 in 18 Black women (Sentencing Project, 2021). The outbreak of COVID-19 has violently demonstrated that incarcerated individuals in the United States are a highly vulnerable population and incarceration is a fundamental social cause of health inequalities (Novisky, Nowotny, Jackson, Testa, & Vaughn, 2021).

As of June 1, 2021, there have been 406,519 COVID-19 cases among people incarcerated in prisons in the United States, 2,514 deaths of incarcerated individuals due to COVID-19, 92,206 infections among staff in prisons, and 162 deaths of staff due to COVID-19 (COVID Prison Project, 2021). The first known COVID-19 death of a prisoner was in Georgia when Anthony Cheek died on March 26, 2020. During the year 2020, some American prisons had the highest COVID-19 infection rates for all prisons globally. The fact that Black people are disproportionately affected by mass incarceration signals that they are likely to be more proportionally exposed to COVID-19 behind bars. Besides prison communities, it has been suggested by some authors that the US minority and Black communities tend to report markedly higher burdens from COVID-19 cases as well as instances of mortality compared to the White populations (Liao & De Maio, 2021).

Hyper-Incarceration of Women and Girls

While Black and Brown men have traditionally been targeted by the Prison Industrial Complex, women and girls are a more recent target group for criminalization. Female imprisonment has been twice as high as that of men since 1980. There are 1.2 million women under the supervision of the criminal justice system in the US. In 2019, 107,955 women were counted in prisons and 114,500 in jails. The bulk of women and girls is under supervision in community based sanctions such as probation, parole, and residential community corrections facilities (Sentencing Project, 2021). Literature has highlighted the situation of women in jails; 80% of women are in jail for nonviolent offenses and struggle with mental health and substance use challenges (Swavola, Riley, & Subramanian,

2016). Local jails have also been documented as facilities where living conditions are usually worse than in prisons (Kajstura, 2019). Our work contributes a perspective from women in prisons but deliberately focuses on women in residential community corrections because this tends to be a hidden and more invisible population, even though more women can be found here.

The lives of incarcerated women and girls have been shaped by systemic gender inequality and gender violence. Many of these women have battled substance abuse, mental illness, and records of severe physical, sexual, and mental abuse leading up to their conviction. More than two-thirds of incarcerated women in America reported having a history of mental health problems, a far higher percentage than their male counterparts. In addition, a more significant portion of females in prison (20%) or jail (32%) than males in prison (14%) or jail (26%) met the threshold for severe psychological distress (Bronson & Berzofsky, 2017). Therefore, we must turn our attention to the needs of incarcerated women in ways that seek to empower them and holistically address their specific situations that are shaped by powerful patterns of gender inequality in the larger society.

Criminal justice-involved women face greater economic marginalization and poverty, and they are often financially responsible for dependents. Eighty percent of women in jails are mothers and frequently the primary caretakers of their children and families (Sawyer & Bertram, 2018). Fifty-eight percent of women in state and federal prisons reported having at least one minor child (Maruschak, Bronson, & Alper, 2021). Women in the penal system often come from long histories of trauma and gendered pathways to incarceration, and Black women are disproportionately affected by the carceral state (Michalsen, 2019; Richie, 2012). There is a need for gender-responsive treatment (Brennan, Breitenbach, Dieterich, Salisbury, & van Voorhis, 2012; Covington & Bloom, 2007) and empowerment of women in ways that do not erase their voices or insist on women fixing their damaged identities, (McCorkel, 2013) and that is not co-opted and absorbed by the logic of correctional treatment in the prison industrial complex (Pollack, 2020).

Mass Incarceration and Sustainability

Since the 1990s, prisons around the United States of America have witnessed the growth of so-called green prison programs, which has also been termed “eco-therapy for prisoners” (van der Linden, 2015). According to the National Institute of Corrections (2019), about a third of prisons are already integrating programs that entail sustainability education and job training programs for “green industries.” Prisons and jails have traditionally been places of ecological injustice and are (still) engaging in unsustainable practices of toxic construction, waste, and food policies (Davis, 2011; Fritz, n.d.).

Scholars like Jewkes and Moran (2015) have critically examined the “green-washing” of prison design and programming as material and symbolic structure that supports and justifies mass imprisonment. They argue that the green agenda serves the prison system and the numerous private companies behind it. It helps

to package discipline and control in the moral and ethical rhetoric of nurture and care. Green ideologies are embedded in the growth and reification of the carceral estate and project. It is “plausible that ‘greening justice’ may be misappropriated as a cost-effective way to incarcerate even more people, while at the same time providing a ‘feel good’ gloss in regard to what are mixed intentions or even regressive penal cultures” (Graham & White, 2015, p. 859).

With our projects, we build on efforts of ecological and gender justice within the carceral system. We turn our attention to sustainable programming for incarcerated women because women are a disenfranchised and underserved population. Their needs and voices have not been sufficiently centered in the emerging field of prison horticulture. Given the problematic current practice of labor exploitation of incarcerated people and the history of prison plantations in the US. (Chammah, 2015), we interchangeably use the terms *prison horticulture*, *prison gardens*, and *gardens in incarcerated or penal settings*. We follow Snyder’s (2017) differentiation of correctional agricultural industries, prison farms, and prison gardens. Snyder suggests that *correctional industries* exploit low-paid inmate labor to produce and sell foods through farming operations or by contracting with private companies. Departments of Corrections on state-level may run larger scale *prison farms* to alleviate incarceration costs by supplementing foods in prisons or selling to other departments within the state or local communities. Our research here focuses on *prison gardens*. These are typically organized by individual facilities and utilize small tracts of land to grow food within the facility or to be donated. These gardens often utilize outside volunteers and agencies and serve rehabilitative, educational, and therapeutic purposes while also contributing to food justice more generally.

METHODOLOGY

The authors use two case studies for their data presented. Using clinical sociological interventions, the authors work collaboratively on two distinct field sites. The information and data from these case studies constitute the basis for their analysis and findings. This section briefly describes the clinical sociological interventions and relates how COVID-19 has impacted our work at the field sites. The Southeastern site is a state prison, and the Midwestern site is a residential community corrections facility. As pointed out in the introduction, in contrast to local jails (which also serve as pre-trial holding facilities), these types of residential corrections settings both house women who have been convicted of a crime. We chose these two fieldsites because (1) we were successful in getting access to them, (2) neither of them had a garden program before our clinical sociological intervention, and (3) it proves useful for comparison and theory development to have two different types of residential correctional settings to consider.

Case 1: A Southeastern Prison (2018–2021)

The first case study is set in a women's maximum-security prison in the Southeastern US state. The women in the project have sentences ranging from a few months to multiple life sentences with approximately 650 residents. The Principal Investigator (PI) initiated the project in 2018 with the help of USDA funding. The goal was that the Department of Corrections in the state would adopt gardening programs for all their facilities. The project idea arose after the PI had learned that a sheriff was legally able to have used more than \$750,000 of funds meant to feed inmates to purchase a beach house (Blinder, 2018).

Additionally, the researchers were interested in ways to assist in enhancing the food security of incarcerated women. Using gardens, they believed that this was a possible intervention and prevention method to address the needs of incarcerated women. Available research suggests that Alabama has one of the highest levels of food insecurity in the US (14.0%) above the US average (USDA, 2021). The researchers' concern was that coming from severely food insecure communities, women in Alabama prison face significantly higher food insecurity in incarcerated settings. This interest, combined with publicity about that prison at the time and the need for more intervention and support, allowed us as sociologists to address this problem.

The intervention at the prison consists of a year-round garden program with weekly visits by the faculty and graduate student researchers. The program is guided by the PI, two Co-Principal Investigators, and two graduate research assistants. In addition, a liaison from the institution works closely with the outside team to help coordinate things and enhance and ensure continued communication between and among the research team and the women participants. Each week, the team works in the garden with the participants, which provides hands-on learning opportunities to teach them about seedlings, the life cycle of plants, companion planting, ways of identifying types of bugs, and irrigation and harvesting techniques. All participants in the project are housed in a particular block of the prison, which is an earned location within the prison hierarchy based on seniority and history of rule violations.

The sociological intervention served a total of 60 women, with a median age range of 30–34 years. In terms of race, the participants were 81.3% Caucasian American/White, 12.4% other races, and 6.3% African American/Black. Research ethics and restrictions did not require the researchers to collect data on crimes committed, the number of children, length of imprisonment, time spent, etc. These data were unnecessary for the project and hence were not collected.

The curriculum used is evaluated via a mixed-method longitudinal design that assesses participants' horticultural and nutritional knowledge. It entails the use of a pretest/posttest design with control and intervention groups. All participants are measured at time one before the intervention, and participants in the intervention group are measured again at time two after intervention exposure. A pretest/posttest design is also administered at the beginning and the end of all the gardening classes. Participants are asked about their plant and nutritional

knowledge, and they report what they are eating at the start and the end of classes. The goal is to see an increase in the number of fruits and vegetables a participant consumes by the end of the given 15-week garden class period. The research team also collects qualitative data through the teaching process that allows them to determine the effects the gardening classes have on the participants' lives in terms of knowledge and emotions.

Women were told of the project by the prison wardens and encouraged to participate. Women were recruited with the use of program flyers that were placed in public areas of the facility. They were allowed to remain or leave the program as they desired (voluntary participation). The main research questions were:

In what ways can an educational horticultural program in a female correction setting benefit female clients' food insecurity? What foods do the women who are incarcerated consume? How does their food consumption help with food insecurity? What crops can the garden produce to assist in lessening the incidents of food insecurity?

In 2019, the intervention produced over 2,000 lbs. of food used solely for prison consumption. In addition, all participants are eligible to sign up for one of two certificate-bearing courses, one for beginners and another for advanced gardening and nutrition. Finally, at the end of the 15 weeks cycle, a graduation ceremony is held for those who complete the garden curriculum.

Case 2: A Midwestern Correctional Facility (2019–2021)

The second garden intervention is in the US. Midwest. It was initiated in 2019 by the Midwest PI as an organic garden within a community-based correctional facility. A garden of approx. 400 sq. feet was established in May 2019 and doubled in fall 2019 to 800 sq. feet. A horticultural curriculum inspired by the Southeastern research partner in three seasonal phases was administered to clients weekly from May to November 2019. The garden has slightly different parameters from the one in the Southeastern US state since it is staged in a residential community correction setting with more transient participants referred to by the facility management as "clients," not "inmates." The idea to form the garden was born when the PI had served as an applied sociologist and full-time research specialist for a large community corrections agency from 2018–2019. The agency offered more than 25 community corrections and drug treatment programs in the region.

The goal of that residential facility for women was to divert clients from prison, reduce recidivism, and facilitate the reentry of female clients into the wider community. While for a minimum of 30 days the female clients are incarcerated on a full-time basis, they gradually receive access to the community through community service and treatment. The facility had an average of 215 intakes from 2015–2018 with an 80% completion rate. The length of stay generally averaged 4.5 months but was determined by the progress clients made toward treatment goals and compliance in the program. The clients' age ranged from 26 to 35 years. Forty percent of them did not have a high school degree.

The PI was in charge of analyzing the client exit evaluations. While doing this, two recurring themes emerged: Women stated that they had too much downtime between treatment and counseling sessions, and they consistently complained about the bad food supplied by the most prominent industrial prison food suppliers in the US. Based on these findings, a garden project was developed within a framework of feminist clinical sociology. The aim was to take women's voices seriously, empower them, and build self-esteem, self-awareness, confidence, and trust (Mancini Billson & Disch, 1990). A garden combined with an educational program seemed to be the ideal sociological intervention. It would respond to women's voices directly and center the needs they formulated, address the downtime, supplement the food in the facility, and equip women with reentry skills. These skills, it was envisioned, could help them address food insecurity in their communities by continuing to garden or engage in existing community garden initiatives. By offering a horticultural program and facilitating positive community interaction through (joint) gardening, we hoped to help women in recovery embrace the value of community and meaningful education as part of their treatment.

The outdoor growing season in the region is limited (May-October) in contrast to the US. South (year-round). Instead of external funding, the PI utilized existing urban gardening structures through local community partners who helped set up the garden and donated resources and their time through guest lectures and consulting throughout the project. The "inside" garden program was complemented by the opportunity to work in urban community gardens outside the facility. As part of their sentence, women might be obliged to serve an individually differing and set number of hours for community-oriented work within other agencies in the community. One community partner who helped set up the garden is an urban gardening and food justice initiative. Since 2013, outside volunteers from this agency have come in once a week during the summer season to pick up women to work in community gardens in the area to fulfill the community service hour requirement.

The research design for the evaluation of the program was developed in late 2019 when the PI gained access to IRB approval. A qualitative approach was used attempting to answer the research question "(How) Can an educational horticultural program in a community correction setting benefit female clients and their communities?" It is well suited to address institutional issues while protecting participants who cannot speak up on their behalf without jeopardizing their wellbeing in a carceral setting (Fine & Torre, 2006). The design included the analysis of written anonymous reflections written by participants after each gardening lesson ($n = 120$), a focus group with clients, a focus group designed as an implementation workshop with all stakeholders and facility management, participant observation of gardening lessons, and semi-structured interviews with community partners and clients upon reentry and conclusion of the garden program and after six months to one year as follow up study.

On the Midwest field site, 63 women participated in at least three gardening lessons in 2019. A total of 12 women participated in four gardening lessons in August 2020 when the garden was operating for four weeks.

Impacts of COVID-19 on Data Collection

With the onset of the COVID-19 pandemic in early Spring 2020, both garden programs were shut down, and both fieldsites were on complete lockdown. As stated above, the garden in the Midwest was operating for four weeks in August 2020 before shutting down again. Also, the Midwestern state governor mandated a full stop to in-person research that was communicated through the IRB of the Midwestern University in September 2020. As of September 2021, the PI is again communicating with the facility management about re-starting the garden program.

At the Southeastern field site, COVID-19 had temporarily stopped entry into the facility and the holding of classes for over a year; access was restored at the end of May 2021. While the garden itself in the South is flourishing, COVID-19 restrictions had halted all data collection beginning with the onset of COVID-19 in early 2020. With a return to the project in May 2021, the researchers have been able to collect all required qualitative and quantitative data. A total of 20 women completed the beginning class, and two women completed the advanced class. The garden classes have ended, and the participants have all been graduated. The graduates from the beginning class will enter the advanced class at the beginning of the spring semester. In the interim, the fall garden is being installed, and all focus is on this activity presently. To date, about 20 new participants have indicated their interest in beginning the elementary class in the spring of 2022.

We next discuss our observations in the context of the global pandemic that has turned American prisons into hotspots for the spread of the disease and exacerbated conditions of imprisonment.

FINDINGS

In this section, we first focus on three dimensions of incarceration that have been significantly affected throughout the pandemic: Access to social support, health care, and food have been severely limited. We next report on how the prison gardens have impacted the situation of incarcerated women at our field sites. Finally, we wish to emphasize that *all* aspects of incarceration are subpar. As humanist sociologists and clinical sociologists, we would like to contribute to the visioning of a society that has overcome the need to incarcerate and instead uses alternative accountability sanctioning methods that are based on research.

Hyper-incarceration neither deters individuals from crime (Harding, Morenoff, Nguyen, Bushway, & Binswanger, 2019) nor reduces recidivism (Cullen, Jonson, & Nagin, 2011). Higher levels of incarceration are associated with higher levels of both morbidity (percentage reporting fair or poor health) and mortality (life expectancy) in the general population, as examined at the US county level by (Weidner & Schultz, 2019). Incarceration is a fundamental cause of health inequality (Novisky et al., 2021). The main objective in any correctional system is rehabilitation, resocialization, and prevention of recidivism. Our garden programming contributed to the rehabilitation of women, as we show below, and continues to provide a space for recreation and peace after all correctional

facilities had been shut down with the onset of the COVID-19 pandemic in the United States in Spring 2020. We now turn our attention to the three areas where we have experienced the most impact of COVID-19 on the corrections system and where we saw systemic inequalities on incarcerated populations increasing.

Suspension of Social Support

External contractors and volunteers provide much of prison programming (work release, 12 step programs, faith groups, dog training programs, garden programs, educational classes, family, and friends' visits, etc.). Unfortunately, by March 2020, all these programs were put on hold due to the pandemic. That means a significant source of external social support and programming resources had been cut out of the lives of those who participated in our programs as well as in the other programs.

At the Southeastern prison, all of the programs were halted. As a result, the incarcerated participants found themselves confined to the prison. The abruptness of program suspensions and the cessation of movement in and out of the prison were met with mixed reactions from incarcerated women. Overall, most of them welcomed the move. However, several of them were worried about those from the outside and inmates from the other prison buildings bringing COVID-19 to their space. They shared in conversations that they felt they were "sitting ducks" just waiting for someone from the outside who would infect them and cause them to die. One correctional officer said, "The inmates were extremely worried. In fact, they were really scared" (Prison Employee, June 2021).

The lack of access to outside support services often has devastating effects on the mental health of incarcerated individuals. We know this from reports from our participants and research. Lack of programming may even adversely affect their reentry processes. A widely cited study by the RAND corporation (Davis, Bozick, Steele, Saunders, & Miles, 2013) embraced by the US Department of Justice shows that incarcerated people who participate in correctional education programs have 43% lower odds of returning to prison than those who do not. Further, every dollar spent on prison education saves four to five dollars on the costs of re-incarceration. More recent studies confirm statistically significant, if not large effects on desistance from crime and prison conduct through prison programming (Byrne, 2016; Duwe, 2017). At the time of writing this article, the work release program was back in force as of April 2021; the garden program was reinstated and running with the faculty and students on the program allowed back in the prison with strict limitations on what can and cannot be done.

While many incarcerated women in our programs welcomed the cessation of programs and the curtailing of persons who entered the prison for their safety, the same cannot be said for familial visits. The stopping of visitations is reportedly the single act that prison officials believe created the most mental stress and anxiety among the garden participants. Some participants said they were worried about the lack of access to family members (children, their parents, other family members, and friends). The importance of maintaining contact with family and loved ones throughout incarceration is well understood and accepted (Claire &

Dixon, 2017). In addition to improving chances of successful reentry, maintaining contact with family members during incarceration has been shown to significantly lower concerns about reentry (Baker, Mitchell, & Gordon, 2021).

At the Southeastern facility, all visits by family members and friends were shut off within the first 3–6 months of the pandemic, yet video visits have been added in response to the pandemic after some time. Up to the time of writing, visiting rooms remain closed, and in-person visits remain suspended. The suspension of all in-person visits caused real worry among the garden participants and other residents. Mostly, the garden participants expressed their primary concern was whether their relatives had contracted the virus, if they had, how they fared, and the likelihood that they may be unable to talk again to family members if they were to die from COVID-19. The fear of their relatives dying intensified when some of the prison workers themselves contracted COVID-19 and subsequently died. The situation was further exacerbated when some of their fellow inmates were tested positive, and some died. To address the increased restlessness and panic of inmates, the DOC enacted a few measures.

First, the duration of access to phone calls to relatives was extended to 8:00 a.m. to midnight daily. Second, the DOC accelerated the implementation of the Prison Education Devices (PED) program. This program involved the increased assignment and use of laptops and more recently tablets by prisoners. Though not directly related to our program, the ability of the women to communicate with relatives alleviated much of their stress. It allowed them to refocus their attention on the garden activities. Some said they were so depressed that they slept more and spent less time attending to the garden. Once this anxiety reduced, they were more likely to leave the dorm and work in the garden. While the researchers were interrupted from entering, they were psychologically and emotionally interrupted as well. The laptops and tablets inadvertently helped more women maintain their participation, supporting the program and keeping the garden alive and flourishing.

These laptops and tablets allow the residents more straightforward and timely access to family, relatives, and friends. It is accessible for those who can afford the \$5 plus tax for 29 days (one free day is given) monthly. The tablets allow them to see and talk to their loved ones, send emails, get pictures, and generally interact during the pandemic. They also get access to educational and recreational content (games, music, videos, and so on). For those who cannot pay to “own” a tablet or laptop, “community” tablets exist for free, though with limited access. The tablets seem to be extremely popular and appreciated by the residents even though they must adhere to compliance rules to retain the privilege.

As noted above, maintaining social contact with loved ones while incarcerated is an expensive endeavor in the US. Frequently, the resources a family has at hand determine the extent of social support. The \$1.4 billion prison telecom industry is dominated by three corporations, all owned by private equity firms, pushing new costly communication services (Worth Rises, 2020). One in three families goes into debt to maintain contact with an incarcerated loved one, thanks in large part to the exorbitant cost of prison and jail phone calls, which can run as high as \$1 per minute (DeVuono-powell, Schweidler, Walters, Zohrabi, & Support, 2015).

Momentum is building for federal, state, and local legislation to reduce the cost of calls made from prisons and jails. For instance, #Phonejustice and #ConnectFamiliesNow are hashtags and related campaigns dedicated to providing information on the high costs of prison and jail phone calls and fighting for state/federal reforms to prisoner communications services like video calling.

The COVID-19 outbreak has shaped social support opportunities. [Fenster \(2021\)](#) comments:

People in jails spent 8% more time on the phone over a three-month period of 2020 than in the same timeframe of 2019, according to data gathered from facilities around the country. This may come as a surprise, considering that there were fewer people behind bars to make these calls: Jail populations have fallen about 15% on average since March 2020, thanks to modest COVID-19 protection measures (n.p.).

Similarly, [Novisky, Narvey, and Semenza \(2020\)](#), in their review of COVID-19 policy implementation across the United States, found that more than half the states have, in fact, increased opportunities for phone or video calls available to prisoners during the suspension of visitation privileges. However, there remain stringent time restrictions or fees associated with these methods of communication. At the Southeastern prison in our sample, several garden participants, while welcoming access to the tablets and laptops, lament that there are fees to access most things. They frequently depend on relatives to top up their accounts. Others welcomed their access to the COVID-19 relief money and stated that they can use these funds to keep them connected with loved ones for the 25 minutes intervals allowed via the tablet permitted video visits.

In other prisons, incarcerated persons have been given tablets to maintain mental health and connectivity with the outside world once visitations were suspended. Despite these efforts, the COVID-19 social support accessibility varied considerably across the United States. As of June 2021, four Southern correctional systems (Arizona, Virginia, Alabama, New Mexico) have still suspended all forms of visitation ([The Marshall Project, 2021](#)).

Limited Access to Health Care and COVID-19 Protection

As stated above, as of June 1, 2021, there have been 406,519 COVID-19 cases among people incarcerated in prisons in the United States; 2,514 deaths of incarcerated individuals due to COVID-19; 92,206 infections among staff working in prisons; and 162 deaths of staff due to COVID-19 ([COVID Prison Project, 2021](#)). The negative and often deadly adverse effects of overcrowded prisons are noted during the present pandemic. This overcrowding significantly hampered prisons' ability to protect imprisoned people efficiently. The Center for Disease Control (CDC) requirement to social distance during the COVID-19 pandemic was almost impossible in most facilities. The Prison Policy Initiative (2021) reports that the prison system is challenged in sustaining the health of the incarcerated. Research based on a sample of 103 prisons in the state of Texas found that prisons that were most effective in reducing prison outbreaks and

deaths operated at 85% of their current capacity (Vest, Johnson, Nowotny, & Brinkley-Rubinstein, 2020).

While the prison at the Southeastern field site is within its capacity, the structure and layout of the dorms were not intended for quarantining of residents. Thus, the COVID-19 disease posed some challenges. To allow for quarantining, one dorm was cleared entirely. All residents of the dorm were assigned to empty beds in other dorms. The cleared dorm was used as the space for quarantining those who tested positive for COVID-19. Mealtime, outdoor time, shower time, and all other activities saw staggered access based on a dorm-by-dorm process.

In addition to the prison itself, commendably and quite wisely, the Department of Corrections (DOC) also took steps to curtail the spread of COVID-19. Though the block that houses the garden participants is not overpopulated, the DOC had the county hold many of the residents who were to be transported to the prison. This freed up some space at the prison for quarantining residents when necessary. In other instances, an off-campus intake infacility was set up to allow for a 14-days full medical evaluation before any new residents were transported to the prison.

The movement of residents was severely restricted. Unless there was a medical emergency, no one was transported anywhere. Those in the prison annex (where the garden is housed) were barred from going “up the hill” to the main prison building. One middle-rank officer shared that initially, the virus was treated lightly by the incarcerated women. They were hesitant to wear masks at first. However, as reports of deaths were broadcast, fear gripped the residents of the prison. Complacency gave way to general anxiety. The officer reported that the residents became increasingly paranoid about the correction officers transmitting the virus to them. Some residents described themselves as “sitting-ducks who were just waiting to die” (Prison Employee, June 2021). The fear of contracting COVID-19 and possibly dying, along with the CDC and state mandates, led to rigorous and continued deep cleaning sessions. It was reported that the residents and the correctional officers conducted intense, thorough cleaning nine times in 24 hours (Prison Employee, 2021).

Using data derived from the UCLA Law COVID-19 Behind Bars Data Project and the Marshall Project/AP, Herring and Widra (2021) concluded that though most prisons are COVID-19 epicenters, incarcerated people were not a priority for most states. Furthermore, though several significant criminal justice policy changes were enacted to depopulate crowded prisons and jails during the COVID-19 pandemic, most were late, resulting in numerous incarcerated people contracting COVID-19. As a result, some became sick, and in some instances, some died. This is borne out by Herring and Widra (2021), who further propose that just about half (55%) of all incarcerated people are vaccinated. They further report that the infection rate was four to five times higher than among the general US population.

Women at both field sites stated that they were sure they had contracted COVID-19. Some reported that they had lost either their sense of smell and taste or both. Others reported they had high fevers, and some said they were asymptomatic but concluded that since everyone else in their direct contact had the

virus, they surely had it too. In addition, women on both field sites reported that they were not tested, even though several of the residents housed in the same dorms had become very sick and tested positive.

In conclusion, in most states, incarcerated people were not treated with the importance and urgency required. This finding is supported by the reports of some residents that though some of their cellmates were tested positive for COVID-19, they were never tested. They complained about being “quarantined” but not really “quarantined” since too many bodies are crowded in small spaces. Some felt it was to show that the prison was “doing something” ([Residents from the Southeastern Prison, June 2021](#)). Another important political and public health concern area is the food and nutrition situation in incarcerated settings to which we now turn.

Deterioration of Food in Incarcerated Settings

One of the problems divulged by one prison personnel from the Southeastern prison was the change in inmates' reaction to food consumption during the pandemic. While before COVID-19, some of the residents were more likely to skip choosing fruits and vegetables when these were provided; the officer opined that during the COVID-19 pandemic, some inmates were so worried about getting sick and dying that they complained more about their inability to access fruits and vegetables to prison authorities. In some instances, when fruits were served, there developed a problem of the inmates trying to hoard these in their dorms. To address this issue, more vitamins were issued to residents, which were readily taken by the inmates whenever they were offered ([Prison Employee, June 2021](#)).

The realization of the importance of fruits and vegetables to their diet positively affected the garden project. Though faculty and students involved in the project could not access the prison over 14 months, the participants in the garden program and the DOC and prison administration felt it was essential to keep the garden intact. The plants that were dropped off along with the required garden supplied were greatly appreciated. The garden participants worked tirelessly to ensure the growth and survival of most of the plants. In addition to blueberries, the ground cherries and tomatoes that they were allowed to grow in the fruit family, the herbs (rosemary, basil, mint, dill, etc.), and vegetables such as squash, zucchini, and radishes all thrived. These produce they have enjoyed in their diet and appreciate as they strive to remain healthy during the pandemic.

The importance of prison food is underscored when prison food in America is described with two qualifiers: *too little* and *too bad*. Quality and quantity of prison food have been a cause for uprisings and hunger strikes throughout history. These are primarily determined by political and economic structures adhering to neoliberal ideology and punitive practices that seek to utilize food as a form of punishment. On average, barely over \$2 is spent on the food for an incarcerated person per day. In some states, laws permit administrators to personally pocket the money saved on prison food ([Blinder, 2018](#); [Worth Rises, 2020](#)). The prison food industry is characterized by three major corporations and

a handful of smaller competitors that share a 4.1 billion industry. Still, incarcerated people and their loved ones have to spend an additional 1.4 billion dollars a year to supplement the inadequate and often spoiled diet served (Camplin, 2017; Worth Rises, 2020).

In *Eating Behind Bars*, the most comprehensive report on prison food to date, are conceptualized as “out-of-sight food deserts” (Soble, Stroud, & Weinstein, 2020, p. 5), perpetuating patterns of ill health among marginalized populations that already experience profound inequalities and food insecurity in their home communities to which they return. For example, Soble et al. (2020) found that 94% of survey respondents reported never being full in prison, and 93% were hungry between meals.

Our research also shows the dire food experiences in correctional facilities. “You would not feed this to your dog,” says a participant of a client focus group in the Midwest. Another client had written on their exit evaluation after a residential stay, “This food is not for human consumption” (Fieldnotes Midwest, April 2020). In addition, women have shared with us that they will not eat entire meals or “eat only one-third” of what is served on the food tray.

Skipping meals in incarcerated settings might be a wise decision, as incarcerated people are almost 6.5 times more likely to get food poisoning than the general population (Soble et al., 2020). Prisons serve carb-heavy meals high in salt and sugar primarily, with few or no fresh fruits and vegetables and a scarcity of quality protein. This is a diet that the general population outside of prison has been advised to avoid for decades. With an average length of three years of prison time, this diet impacts mental and physical health profoundly and negatively. The impact extends to those individuals who need special diets (e.g., diabetics) that are unattainable in most incarcerated environments (Soble et al., 2020) as well as for others. Seventy-five percent of respondents in Soble et al.’s (2020) study recalled receiving spoiled food, including moldy bread, sour milk, rotten meat, and slimy salad. Yet many incarcerated individuals and their families cannot afford to buy an extra commissary to supplement their food intake.

For some, COVID-19 has exacerbated food scarcity and undernourishment. Many facilities reduced meals from three meals a day to two meals a day. In several instances, “lockdown meals” or “emergency menus” were served, and these tended to leave residents hungry and without a warm meal in weeks. Under the title “Ewwwww, What Is That?” The Marshall Project published pictures of “food” served in American jails and prisons since the onset of the pandemic in early Spring 2020. The pictures show dry milk powder as a meal, dried sliced industrial bread with a soggy middle and mushy brown toppings, a green-grey hamburger patty on a blackened dry bun, or a dried-out soy sausage (vegetarian diet has proven more cost-effective in many facilities). Vivid green-blue mold can be spotted on yet another bun. A handwritten food diary from an incarcerated man at Fort Stockton Transfer Facility (Texas), covering two weeks in April 2020, revealed that many meals were skipped altogether, no lunches were served on weekends, and no condiments or drinks were offered (Blakinger, 2020). In February 2021, Blakinger (2021) detailed that “prisoners said the food had become largely inedible and sometimes unidentifiable” (n.p.).

Access to food is an issue that extends beyond prison walls pre- and post-incarceration. Twenty percent of formerly incarcerated people report suffering from food insecurity – double that of the general population – with even higher rates among formerly incarcerated women and Black individuals (Testa & Jackson, 2019). The stigma of incarceration exacerbates food insecurity post-release as many states prohibit returning citizens from welfare benefits such as the SNAP program. The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 banned people with felony drug convictions from receiving food stamps or Supplemental Nutrition Assistance Program (SNAP) benefits. Food insecurity, recidivism, and poor mental and physical health outcomes are associated with such bans. Several states have overturned SNAP benefit bans, yet individuals with criminal convictions are still denied benefits due to eligibility criteria modifications (Golembeski, Irfan, & Dong, 2020). The COVID-19 pandemic has impaired lower-income and food insecure communities, which disproportionately absorb people released from prison and jail. Reentry support is sorely lacking (Landon & Jones, 2021). Urban gardening post-release can contribute to food justice (Sbicca, 2016; Tryba, 2015), and gardens inside prisons can help to address the out-of-sight food deserts behind bars.

WOMEN'S PRISON GARDENS IN PANDEMIC TIMES

We find that prison gardens' educational programming has provided some respite from the hardships of the pandemic. They are a promising avenue of correctional rehabilitation and programming. They foster sustainability, healthier nutrition, and mental health among participants. These gardens tend to positively contribute to food security while simultaneously affording access to "outside" sources of support. Moreover, these gardens foster the reduction of inequality of incarcerated persons. Establishing programs especially for incarcerated women is a significant need in the US prison system. Prison gardens can fill this gap in a sustainable and meaningful way. One of the first consequences of the onset of COVID-19 in early spring was that immediately all programs were shut down, and respectively, both garden programs were put on hold. While access to both gardens had been impossible from March 2020 to May 2021, the Southeastern Garden has resumed "almost normal" gardening activities.

The Southeastern Garden went into lockdown in March 2020 by the directive of the Governor. Noting the mood at the time and the potential for such a lockdown, the researchers had communicated with the garden participants the hardships a lockdown could pose and had discussed some solutions and a way forward for the project. This discussion was undertaken to suggest some workable solutions to ensure the survival and continuance of the project, the garden, and interest in the project. During the lockdown period, the women continued the gardening activities, and the garden continued to flourish and produce crops.

Emails were initially used to keep participants' interest in the project alive. Unfortunately, this avenue dried up quickly as some of the workers who helped

with the project were themselves infected and/or exposed to the virus and had to be quarantined. Other measures included the PI occasionally and/or other team members dropping off needed garden supplies, seeds, and plants to sustain the garden. At times, various team members would visit just so the participants would see sustained interest and a face from the “outside.” Essentially, these visits between the team members and the participants took place through the prison’s fence. During the period of lockdown, though the garden continued to flourish under the guidance of the participators, the researchers were unable to effectively and accurately gauge the harvest cycles completed. Thankfully, access to the garden project was reinstated at the end of May 2021. As a result, the team could resume their data collection, garden expansion, recruitment of new members, and teaching the garden curriculum via classes.

The Midwest site went on complete lockdown in March 2020 and reopened for four weeks of gardening lessons in August 2020 before going back into complete lockdown again. All clients were prohibited from leaving the facility, and outside contact ceased. In October, the PI was able to help with the garden clean-up. However, no clients were present at that time. For this site, all in-person research activities ceased on September 4, 2020, due to state mandates. This restriction has not been lifted at the time of writing this draft (June 2021). It is unclear if and how the Midwest Garden program will be reinvigorated in the year 2021.

During the four weeks in August 2021, the program was briefly reopened, and we were able to deliver four garden classes to a total of 16 women. Eleven of these women signed approved consent forms and were contacted for follow-up interviews, but none of these interviews have taken place yet due to in-person research restrictions. However, detailed field notes have been taken for each class. During this brief research and gardening program season in August 2020, women on the Midwest field site reported no access to COVID-19 testing. In a field note, the PI recorded:

Five out of six women today had some sort of mask, four of them wore surgical masks, and the other one had a cloth mask. Two out of six women consistently shift the mask to their chin throughout the lesson. I brought liquid disinfection, surgical masks, and surgical gloves for everyone to take. I offer all of these things at the beginning of class, and the woman without a mask hesitantly takes a mask. Only one woman took the gloves; several say they do not want gloves; they “want to play in the dirt.” One woman says they have not seen sunlight in weeks; they were not allowed to go outside at all. Everyone seemed so happy to be outside; there was a lot of laughter as we inspected three tomato volunteers that had come up despite the pandemic and the fact that we had not been out here in almost a year. A Black woman around 25 years of age says that brown water has been coming out of all faucets for days. “Everybody is sick, but we are not getting any COVID tests!” said another, and two other women chime in. When the staff member saw that we were standing as a group of four (me and three women), she came closer, and the conversation ceased. After class, she told me that she does not want the garden lesson to be a “bitchfest,” the “gardening is supposed to be calming and therapeutic”. (Fieldnote August 3, 2020, Midwest Site)

The garden in the Midwest had become a space of social support and space where women could feel empowered to share. This safe space of interaction, venting, and mutual aid was also encouraged, as the PI said at the beginning of every lesson that the “Vegas Rule” applies (“What is being said in the garden,

stays in the garden”). However, as the field note shows, there were limitations on what could be talked about. The women in the garden reported several COVID-19 outbreaks in other facilities of the community corrections agency. The PI of the Midwest garden project was unable to obtain concrete numbers, and there is a lack of official data for COVID-19 cases in community corrections and transitional housing facilities. Nevertheless, the garden provided a space for sharing and care and a reprieve from the harsh routines the lack of spaces to share without surveillance of staff on total lockdown.

Before and after every gardening lesson, we asked the women to spontaneously share “one emotion word.” These words were recorded, and a comparative word cloud served as an exploratory evaluative data tool to help develop an effective follow-up interview schedule. Word clouds have become a popular tool of linguistic analysis in teaching, evaluation, and qualitative research (DePaolo & Wilkinson, 2014; Douma, Steverink, Hutter, & Meijering, 2017; Henderson & Segal, 2013). The more frequently a word appears, the larger the word is displayed in a visual graph. We have used a simplified form of parallel tag cloud (Collins, Viegas, & Wattenberg, 2009) to represent the women’s sentiments in the Midwest site before and after each gardening lesson (See Fig. 1, Comparative Word Cloud of Gardening in Corrections, Midwest, August 2020).

The comparative word cloud shows that not only did the perception of emotions among participants generally change from emotions that are connoted more unpleasant (tired, hungry, angry, etc.) to emotions that are usually perceived as positive (happy, relaxed, excited, etc.) but also did the shared gardening broaden the spectrum of emotions that were experienced and shared. Even though data analysis is stunted at this time due to COVID-19, these first analytic pointers show that gardening in women’s carceral systems may be an essential contribution to improve their mental health and self-perception. It is also notable that some women came to gardening hungry, which corroborates the data on the deterioration of access to food discussed above. Thus, access to food emerged as a theme also beyond the barbed wire fences of the Midwest field site. Similar findings are reported for the Southeastern Garden as well.

The Midwest PI was also able to conduct in-depth interviews with community partners, staff, and a former client who had completed the community service in

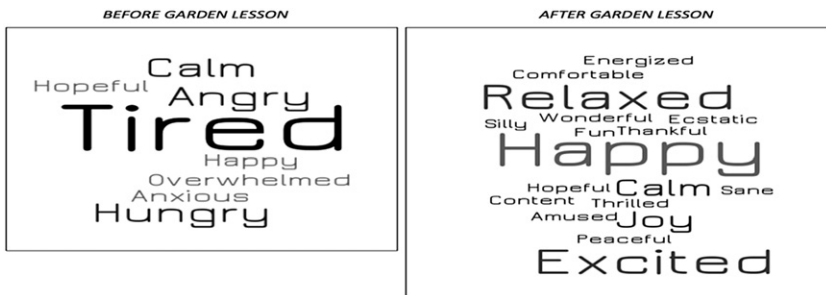


Fig. 1. Comparative Word Cloud of Gardening in Corrections, Midwest, August 2020.

urban gardens during her stay in the community corrections facility via phone and online during the time of the COVID-19 induced lockdown of the facility. Data show that relationships built during a prison garden program may translate into sustainable social and livelihood support, as in the case of MG.¹ MG is a white woman in her 50s who had spent six months in the community corrections facility a few years back when there was no garden inside the facility yet, but the community service was offered. In a follow-up interview conducted in May 2021, she shared that she had enjoyed the horticultural community service so much that she continued to volunteer for several seasons after her release and formed authentic connections and friendships. She is full of gratitude that she was able to utilize these relationships during the pandemic:

For those two seasons, I volunteered, they were like family. OK, when the pandemic hit, and we couldn't get to the grocery store, L. and J. brought us food from their pantry. Yeah. We were, we were hard-pressed to get food, and I knew that they had a small pantry. I just took a chance [contacting them]. And not only did they bring us food from the pantry, but they went shopping and bought food for us too. So yeah, they are family. They always will be home. (Interview Midwest, May 28, 2021)

The quote clearly shows how MG was able to build a sustainable social support network through the gardening community service that could be re-activated even though she has not been actively involved in volunteering for several years. She also shared that she has used the gardening community service director as a reference and tried to find a job in the green industry in another state, which did not pan out for other reasons. “Only” a gardening program, the gardening lessons in women’s correctional facilities can provide a launchpad for more successful reentry, social support, and access to a broader range of (green) employment opportunities after release.

CONCLUSION AND RECOMMENDATIONS

This chapter shows that COVID-19 has exacerbated the health inequalities incarcerated individuals in the United States are facing, particularly in terms of access to social support, access to health care, and access to nutritious and sufficient food in incarcerated settings. Our findings support that incarceration is a fundamental social cause of disease. In addition, currently and formerly incarcerated populations are likely to face heightened vulnerabilities to pandemics, including COVID-19. This fact further exacerbates health disparities among incarceration-exposed groups. The urgent move to encourage decarceration cannot be overemphasized (Macmadu et al., 2020). More social movements to address prison reform are needed to spotlight this as an urgent socio-political and economic issue (See for instance the campaign around Free Them All For [Public Health](#), 2021).

We argue that prison gardens educational garden programming have provided some respite from the hardships of the pandemic in two US field sites (South-eastern and Midwestern). Prison gardens are a promising avenue of correctional

rehabilitation and programming that fosters participants' sustainability, healthier nutrition, and mental health. They can positively contribute to food security and provide access to "outside" sources, and foster reduction of inequality as it pertains to incarcerated persons. Establishing programming especially for incarcerated women is a significant need in the US prison system, and prison gardens can fill this gap in a sustainable and meaningful way.

Food and nutrition are of particular interest to us as our sociological interventions were partly created to address the dire food situation in carceral settings (Camplin, 2017). Soble et al. (2020) propose that food in prison can be a powerful tool for restoring health, cultivating self-esteem, and nurturing people's potential. They suggest reforming correctional culture and agency and facility policy to support foods that foster wellness and rehabilitation. US Prison food is sickening and poses a long-term health risk. The quality of food affects physical health and mental health (e.g., depression levels, decision-making capabilities), coping skills, and long-term substance use behavior.

Particularly in times of a pandemic, individuals need access to nutritional food to strengthen their immune systems and recovering bodies. Subpar food paired with social isolation and missing access to healthcare and COVID-19 prevention is a devastating setup for those most marginalized in our society. We thus argue that prison reform must include the sustaining of practices to improve the service offered to incarcerated populations. Like Soble et al. (2020) and Worth Rises (2020), they also endorse the encouragement, installation, preservation, and expansion of gardens within prisons as one positive step in addressing food quality and insecurity in carceral settings.

Access to healthy food extends beyond the prison walls. In the United States, we need a stronger social safety net for those affected by incarceration by expanding social safety and food assistance programs (Golembeski et al., 2020; Testa & Jackson, 2019, 2020; Wolkomir, 2018; Wright & Merritt, 2020). In addition, gardening programs that start in prisons similar to the two programs we discuss here can help provide sustainable foundations and skillsets for successful reentry.

ORIGINALITY AND VALUE OF THE ARTICLE

Residential correctional facilities are uniquely positioned to advance health equity and community health within a framework of sustainability, especially during a pandemic if we consider the high percentage of Black and Brown populations held within its confines. Drawing on sociological theory and motivated by an awareness of the staggering inequalities mirrored in the correctional system, we are working at the intersections of mental and physical health and wellbeing and sustainability.

NOTE

1. The participant chose to use the pseudonym “The Mystical Goddess” pointing to her Pagan background and spiritual approach to gardening. We abbreviate it here to not distract the flow of the narrative.

ACKNOWLEDGEMENTS

The authors are grateful to all women who participated in the garden program who brought an open mind and so much motivation to the shared growing space. We also warmly thank Dr Mautz, the anonymous reviewers, and the editorial team for their feedback on previous drafts. UA IRB Number: 20191102. Troy IRB Number: 202002011.

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