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Zoe Milavetz, Kaitlyn Pritzl, Luke Muentner, and Julie Poehlmann-Tynan
*University of Wisconsin–Madison*

# Unmet Mental Health Needs of Jailed Parents With Young Children

***Objective:*** *Mental health symptoms in jailed parents with young children were examined in relation to gender, race, trauma, parenting stress, and supports.*
***Background:*** *Most U.S. incarceration occurs in jails, which are notorious for high rates of mental illness. Jail incarceration is a significant stressor for families because most incarcerated individuals are parents.*
***Method:*** *The sample included 165 jailed parents with children (aged 2–6 years) who completed an interview and questionnaires. Relative risk analyses determined symptom severity, and multivariate analysis of variance tested differences in White and non-White mothers and fathers. Ordinary least squares regression examined predictors of mental health symptoms.*
***Results:*** *Depression and thought problems (hallucinations, strange thoughts, self-harm) were the most common problems. Jailed mothers reported more depression, anxiety, attention-deficit/hyperactivity disorder, and drug abuse than fathers. Childhood physical abuse and parenting stress were associated with more symptoms, whereas family support related to fewer symptoms.*
***Conclusion:*** *Jailed parents experienced 3 to 5 times the odds of symptoms compared with norms, with a high rate of comorbidities relative to the low proportion of parents who received any mental health treatment.*
***Implications:*** *Mental health interventions for jailed parents are needed, especially gender-responsive, trauma-informed services that decrease parenting stress and foster positive family connections.*

The United States incarcerates more people than any other country in the world, with most incarceration occurring in jails; there are more than 10 million admissions to jails across the United States each year (e.g., Zeng, 2019). Jails house individuals who are detained, charged but awaiting sentencing, and those sentenced because of misdemeanor crimes, whereas prisons house those convicted of felonies. Because jails disproportionately house poor people, People of Color (Sawyer & Wagner, 2019), and people with mental illness (Torrey et al., 2010), jail incarceration has important consequences for inequality (Turney & Connor, 2019).

In addition, jail incarceration represents a significant stressor for individuals and their families because most incarcerated individuals are parents (Glaze & Marushak, 2008). National estimates indicate that 53% of men and 61% of women in federal or state prison have minor children (Maruschak et al., 2010), with most initial incarceration occurring before children turn 9 years of age (Murphey & Cooper, 2015). Several states have also estimated proportions of parents in their corrections systems, including

Human Development and Family Studies Department, University of Wisconsin, 1300 Linden Drive, Madison WI 53706 (julie.poehlmanntynan@wisc.edu).
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New York, Ohio, Tennessee, and Minnesota, with estimates ranging from 54% to 72% of men and 61% to 85% of women having minor children (e.g., Shlafer et al., 2019). Comparable statistics for parents in jail do not exist, although we know that approximately 5 million children have experienced the incarceration of a resident parent in jail or prison by age 14 years (Murphey & Cooper, 2015).

Previous research has found that separation from children during incarceration is highly stressful for incarcerated parents, especially when their children are young, which may exacerbate mental health symptoms in an already vulnerable population (e.g., Poehlmann, 2005). The present study examined a broad range of mental health symptoms in jailed parents with young children, including examination of gender, race, trauma, and parenting stress, in addition to supports and adaptive factors that might be associated with fewer mental health problems.

Prisons and jails have become among the largest mental health providers in the United States, although they are not equipped to treat people with mental illness (Torrey et al., 1995). Using data from a 2004–2005 survey, Torrey et al. (2010) exposed a dark reality: "In the United States there are now more than three times more seriously mentally ill persons in jails and prisons than in hospitals" (p. 1). Torrey et al. (2010) indicated that the number of mentally ill incarcerated persons continues to rise, and illness severity is also increasing. Indeed, James and Glaze (2006) found that more than half of persons incarcerated in jail reported having a diagnosis, treatment, or symptoms of a mental disorder within the past 12 months, with people in jail being more affected than people in prison. For example, 30% of jailed individuals reported symptoms of major depression, whereas 23% of imprisoned individuals reported such symptoms (James & Glaze, 2006). Similarly, a recent analysis of the Fragile Families and Child Well-Being data set found that jailed fathers had higher odds of experiencing depression, heavy drinking, and illicit drug use than imprisoned fathers, although they did not include mothers or examine a broad range of mental health symptoms (Yi et al., 2017).

In this article, we examine thought problems, depression, anxiety, attention-deficit/hyperactivity disorder (ADHD), aggression, somatic problems, and substance use. Although depression, anxiety, aggression, and substance abuse have been examined in incarcerated parents previously (e.g., Loper et al., 2009), the most serious types of mental illness (e.g., thought problems) have not. Moreover, although ADHD is a common neurodevelopmental disorder that has been linked to criminal behavior because of underlying impulsivity (Behnken et al., 2014), it has not been examined in incarcerated parents previously. In addition, previous research suggests that Black adults may show their depression with more somatic symptoms compared with White adults (e.g., Das et al., 2006), so it is important to include this aspect of mental health.

## Ecological Model

The contexts of being in jail, being a parent, and early traumatic experiences influence the development and well-being of incarcerated individuals (e.g., Poehlmann, 2005). Bronfenbrenner's bioecological systems model (Bronfenbrenner, 1979; Bronfenbrenner & Ceci, 1994) has been applied to incarcerated parents and their children by several scholars (e.g., Arditti, 2016; Poehlmann et al., 2010). In this study, the *microsystem* level is conceptualized as family relationships; relationships involve proximal processes, which are thought to be the driver of development (Bronfenbrenner & Ceci, 1994). At the *mesosystem* level, a relevant example is the relationship between extended family members and the child's caregiver, which often influences how frequently parent–child contact occurs during incarceration and support to parents (e.g., Poehlmann et al., 2010). An example of the *exosystem* is a factor that influences the individual indirectly by influencing other individuals in the microsystem. For example, policies and procedures set by local governments influence the well-being of jailed parents by determining the conditions of their confinement. The *macrosystem* includes factors of society and the community that influence the individual, such as stigma associated with being incarcerated, which can influence mental health reentry success. In addition to the present contexts, early experiences that comprised jailed parents' microsystem in the past may affect the their development, parenting, and future behavior and interactions with the world, including mental health. Parent gender and race are important considerations regarding

how these contexts play out when incarceration is involved.

## Gender and Race

Although recent estimates suggest that rates of imprisonment have declined somewhat since 2008 (Kaeble et al., 2016), the number of women in prisons and jails continues to increase. Indeed, in recent decades, women's incarceration has grown at twice the pace of men's incarceration, disproportionately occurring in local jails (Kajstura, 2018). The proportion of jailed women reached 14.7% in 2014 and increased by 18% alone between midyear 2001 and 2014 (Minton & Zeng, 2015), with 60% of women in jail being held before conviction or trial in part because of inability to pay bail (Kajstura, 2018). Incarcerated mothers are more likely than incarcerated fathers to struggle with mental health problems (Glaze & Maruschak, 2008), with 73% of mothers in prison and 55% of fathers in prison reporting such problems (Glaze & Maruschak, 2008). In a similar study in jails, 75% of women in jail and 63% of men reported mental health problems (James & Glaze, 2008). Given these factors, it is important to include incarcerated mothers in research examining mental health issues.

Many incarcerated individuals have experienced childhood trauma and adversity, including having a family member who was incarcerated or a parent who abused or used alcohol or drugs (Friestad et al., 2014; James & Glaze, 2006). In a nationally representative sample of prisoners, Glaze and Maruschak (2008) found that half of parents in a state prison had a family member who was incarcerated. In a survey conducted in jails, about 37% of jailed individuals who had a mental health problem said that they had childhood experiences of their parents using drugs or alcohol, whereas only 19% of jailed individuals without a mental illness reported that a parent use drugs or alcohol (James & Glaze, 2006). Incarcerated mothers often report experiencing the incarceration of family members as well as childhood trauma and domestic violence (e.g., Dallaire, 2007; Poehlmann, 2005), even more so than incarcerated fathers. However, few studies have examined links between early adversity and mental health symptoms in incarcerated mothers and fathers. In one exception, results from a survey of incarcerated women in a large Southern prison system found high rates of childhood and adult trauma, which influenced levels of depression and posttraumatic stress symptoms reported during incarceration (Cabeldue et al., 2019).

There is extreme racial and economic disproportionality at every level of the criminal justice system in the United States, from encounters with law enforcement and arrest to conviction and sentencing (Pettit & Sykes, 2015). Young Black men who have not graduated from high school are particularly vulnerable to being arrested and incarcerated, and many of these men are parents (e.g., Wildeman, 2009). Additionally, a recently growing body of research suggests that police brutality and the stress it carries are associated with negative mental health outcomes (McLeod et al., 2020). This is especially unfavorable for Black Americans who experience police brutality (including police use of force during arrest, stops, searches, interactions with police in the court system, and exposure to police killings) at a disproportionately high rate; Black American residents report the use of police brutality at 3.6 times the rate of White residents (Goff et al., 2016). Because of this, it is imperative to explore how race is associated with mental health in parents who are incarcerated.

## Parenting Stress

Incarcerated parents often report that the most stressful part about their confinement is separation from children, especially when children are young (Poehlmann, 2005). Incarcerated mothers report missing important milestones in their child's development, daily activities and routines, hugging and holding their children, and helping facilitate the child's well-being and academic success (Enos, 2001; Poehlmann, 2005). Moreover, many incarcerated fathers report an unwavering commitment to their children during and after incarceration (Charles et al., 2019). Studies have found that elevated parenting stress during incarceration is associated with more depression and anxiety for incarcerated mothers, more institutional misconduct for incarcerated mothers (based on review of prison records), and more self-reported in-prison aggression for both mothers and fathers (e.g., Houck & Loper, 2002; Loper et al., 2009). Given these issues, it is important to examine how parenting stress during the incarceration period relates to the mental health of incarcerated parents of young children.

## Resilience Processes

Even though the proportion of incarcerated individuals with mental health problems is rising, access to treatment is limited. For example, more than 83% of incarcerated individuals in jail with a mental illness do not have access to treatment (National Alliance on Mental Illness, 2018), and less than half of parents in prisons who reported substance abuse or dependence indicated that they received treatment since coming to prison (Glaze & Maruschak, 2008). In addition, few studies have examined processes associated with resilience, or competent functioning despite the experience of adversity, in studies of mental health in incarcerated individuals. Previous research has found that support from family members, partners, and friends during and after the incarceration period can make a difference for the well-being of incarcerated individuals and after their release into the community (Hairston, 2003). Previous resilience research (Masten & Obrodović, 2006) suggests that personal strengths, such as an optimistic attitude, can contribute to adaptation in the context of risk. Given the lack of research in this area, we also examined jailed parents' reports of their support and personal strengths in relation to mental health symptoms during incarceration.

## Research Questions

The current study is unique in that it tests previously established links among mental health problems, personal demographics, trauma histories, and parenting stress in a sample of incarcerated parents with young children. This work contributes significantly to the literature by filling a gap in documenting the extent to which parents may exhibit unmet mental health needs before and during jail incarceration, providing further evidence for strengths-based support services within correctional facilities for vulnerable individuals and families. Specifically, our study sets out to answer three questions:

1. What proportion of incarcerated parents with young children experience clinical levels of depression, anxiety, and other mental health problems while in jail compared with normative samples, and do their symptoms vary by parent gender, race, or both? Did they have mental health diagnoses or receive treatment before their jail stay?
2. On the basis of an ecological model, we know that in addition to current contexts of development (e.g., being a parent in jail), early experiences can affect a person's development and future behavior and interactions with the world. What is the proportion of jailed parents who have experienced trauma in childhood including having an incarcerated family member or maltreatment as a child, such as physical abuse, neglect, or sexual abuse, and do these adverse experiences differ by parent gender or race?
3. Are early traumatic experiences or current parenting stress associated with a history of alcohol and drug abuse and current mental health problems during incarceration in jail? Do supports and personal strengths relate to fewer symptoms of depression, anxiety, and substance abuse among incarcerated parents during the jail stay?

## Methods

### *Participants*

Participants in this study included 165 parents incarcerated in jails in three Midwestern counties. Of the 165 jailed parents who participated in the study, 140 (84.8%) identified as men and 25 (15.2%) identified as women (Table 1). Incarcerated parents ranged in age from 18 to 49 years, with a mean of 29 ($SD = 5.83$). The most commonly reported level of education for jailed parents was high school graduation or the equivalent ($n = 60$, 36.4%), with some parents ($n = 3$, 1.8%) reporting less than a seventh-grade education and others ($n = 3$, 1.8%) college graduation. More than half of parents (56.4%, $n = 93$) were employed before the current incarceration and 44.8% ($n = 74$) received public assistance, with family income averaging just over \$15,000 ($SD = \$18{,}533$). Jailed parents were incarcerated for drug-related charges (15%), probation violations (21%), battery/violence (13%), nonpayment of child support (15%), domestic dispute/domestic violence (17%), DUI or DWI (11%), and other crimes (theft, property damage; 8%). With regard to race/ethnicity, 44.8% of jailed parents identified themselves as Black, 33.3% White, 7.3% Latino, and 14.6% multiple or other races. Their children ranged in age from 2 to 6 years, with a mean age of 4 years. We chose to focus on parents of children in this age range because

Table 1. *Participant Demographics*

| Variable | |
|---|---|
| Jailed parent | |
| Age (years), range ($M \pm SD$) | 18–49 ($29.08 \pm 5.83$) |
| Father, *n* (%) | 140 (84.8) |
| Mother, *n* (%) | 25 (15.2) |
| Race, *n* (%) | |
| African American | 74 (44.8) |
| Caucasian | 55 (33.3) |
| Latino | 12 (7.3) |
| Native American | 3 (1.8) |
| Other/multiple | 18 (10.9) |
| Education, *n* (%) | |
| Junior high school | 3 (1.8) |
| Partial high school | 38 (23) |
| High school graduate | 60 (36.4) |
| Partial college | 58 (35.2) |
| College graduate | 3 (1.8) |
| Preincarceration employment, *n* (%) | 93 (56.4) |
| Receiving public assistance, *n* (%) | 74 (44.8) |
| Income, range ($M \pm SD$) | \$0–\$115,000 (\$15,377 ± \$18,533) |
| Primary caregiver pre-incarceration, *n* (%) | 79 (47.9) |
| Child | |
| Age (years), range ($M \pm SD$) | 2–6 ($4.05 \pm 1.31$) |
| Sex, *n* (%) | |
| Boy | 89 (54.9) |
| Girl | 73 (45.1) |

it is a common age range to have an incarcerated parent (Murphey & Cooper, 2015) and because of the importance of parent–child separation at this age (Burnson & Weymouth, 2019).

Of the data collected from the 165 jailed parents, less than 3% of the values were missing. To address missingness, we implemented a multiple imputation procedure (Raghunathan et al., 2001), generating 25 datasets in which missing values were randomly produced conditional upon other variables in the analysis. Pooled results are presented for ease of interpretation across variables and a consistent *n*.

### *Procedure*

Recruitment efforts began with the jailed parent. Weekly, jail administrative staff provided either the names of newly sentenced parents who had children between 2 and 6 years of age or access to a database with this information. We identified incarcerated individuals who then participated in a brief initial screening with a trained researcher to determine whether they met research criteria indicating that they (a) were at least 18 years old, (b) had a child who lived with kin within the county in which the incarcerated person was serving time (or an adjacent county), (c) had retained legal rights to the child and had not committed a crime against the child, (d) had cared for the child at least part of the time before incarceration, (e) could understand and read English, and (f) had already been sentenced to serve jail time or were charged with committing a misdemeanor crime that would result in jail (rather than prison) time. If the incarcerated parent had more than one child in the age range, one child was randomly selected for participation in the study (termed *focal child*). Incarcerated parents who met criteria were invited to participate in the study, and those who agreed signed informed consent forms and participated in an interview and self-administered questionnaires (85% of the participants screened). The study was approved by the institutional review board from our university (protocol #SE-2010-0812), and a National Institutes of Health (NIH) Certificate of Confidentiality was used.

Three jails participated in this research, all of which were run by county sheriff departments and had significant racial disparities in incarceration. The first jail in which we recruited participants ($n = 81$) is in a large urban community (823-bed capacity, 8,000 annual admissions, 788 daily population, 79% men). Other incarcerated parents ($n = 74$) were in a second jail in an urban community that holds a mix of individuals from urban and rural locations (876-bed capacity, 12,000 annual admissions, 800 daily population, 84% men). The final jail site in which we recruited participants ($n = 10$) is located in a rural county (458-bed capacity, 3,000 annual admissions, 166 daily population, 90% men). These characteristics are similar to other jails in the region.

### *Measures*

*Demographic characteristics.* Interviews were conducted with incarcerated parents about demographics, family life, criminal activity, mental health treatment, and previous trauma.

*Mental health symptoms.* The Adult Self Report (ASR; Rescorla & Achenbach, 2004) is part of an empirically based assessment system. It is a standardized self-report questionnaire for adults aged 18 to 59 years that asks about behavioral, social, and emotional problems and strengths, including mental health, substance use, and adaptive functioning. Each problem item is rated 0 (*not true*), 1 (*somewhat true*), or 2 (*very true*) based on the past 6 months. Scores in the clinical range are higher than scores than those reported by 97% of the national normative sample (Rescorla & Achenbach, 2004). In the present study, we focused on the *Diagnostic and Statistical Manual of Mental Disorders*–oriented depression and anxiety scales, as well as somatic symptoms, thought problems, aggression, and ADHD. We report T-scores to compare with norms; however, raw scores were used in analyses.

*Personal strengths.* We also used the adaptive and personal strengths scales of the ASR to examine resilience. The adaptive scale includes support systems (e.g., friends and family) and employment before incarceration. The personal strengths scale includes items focusing on work, honesty and fairness, meeting responsibilities, standing up for one's rights, enjoying others, happiness, willingness to try new things, and helping others (Rescorla & Achenbach, 2004).

*Alcohol and drug use and abuse.* The Michigan Alcoholism Screening Test (MAST; Watson, 1989) is a 25-item self-report questionnaire used to test for alcohol dependence or abuse including questions relating to personal opinions about drinking, the opinions of friends and family, problems coming from drinking, and symptoms of alcohol dependence (Watson, 1989). The person taking the MAST answers "Yes" or "No" to each question. A score between 0 and 3 means "no apparent problem," a score of 4 means "early or middle problem drinking," and a score of 5 or more means "problem drinker (alcoholic)."

The Drug Abuse Screening Test (DAST; Skinner, 1982) is a 28-item self-report scale that has items that parallel those of the MAST but looking at drugs rather than alcohol. Drug abuse refers to the excessive use of prescribed or "over-the-counter" drugs and the excessive use of nonmedical drugs. The total DAST score is a quantitative index of problems related to the individual's misuse of drugs. A score of "1" on this scale is given for a "yes" response except on Items 4, 5, and 7, where a "No" response is given for a score of "1." Scores over 12 indicate a substance abuse problem (Skinner, 1982).

*Parenting Stress.* We used a parenting stress measure revised by Houck and Loper (2002) for incarcerated parents, based on the Parenting Stress Index Short Form (Abidin, 1995). Items are rated on a 1 (*strongly agree*) to 5 (*strongly disagree*) scale, with higher numbers indicating more parenting stress (after reverse coding appropriate items). Sample items include "I miss watching my child grow up" and "It is hard for me to see my child, because it reminds me of all the things that I am missing out on while I am in jail or prison." In the present study, we summed the 16 items focusing on perceived parenting stress experienced as a result of parent–child separation and the parent's incarceration (Cronbach's alpha = .70).

## Results

### *Are incarcerated parents with young children more likely to experience clinical levels of depression, anxiety, and other mental health problems compared with normative samples?*

We examined the frequency of jailed parents scoring in the clinical range (at or above the 97th percentile) on the ASR and then calculated the relative risk (RR) of problems compared with the standardization sample. The RR represents the ratio of the probability of experiencing significant mental health concerns in the jailed parent group to the probability of that occurring in the ASR's standardization sample. Depression and thought problems were the most commonly reported mental health problems. Seventeen percent of jailed parents scored in the clinical range on the thought problems scale, RR = 5.76, 95% confidence interval (CI) = 1.80 to 18.46, $p = .003$, and 16% scored in the clinical range on the depression scale, RR = 5.35, 95% CI = 1.66 to 17.22, $p = .004$. ADHD, anxiety, and aggression were the next most common problems, with 11%, 9%, and 9% of jailed parents scoring in clinical ranges, RR = 3.70, 95% CI = 1.12 to 12.25, $p = .03$; RR = 3.09, 95% CI = 0.92 to 10.39, $p = .07$; and RR = 3.09, 95% CI = 0.92 to

10.39, $p = .07$, respectively. Clinically significant somatic problems were reported by 6.9% of jailed parents, RR = 2.26, 95% CI = 0.65 to 7.91, $p = .20$. Thus, on the ASR, jailed parents had significantly higher odds of mental health problems relative to the standardization sample for thought problems, depression, and ADHD, with 3.7 to 5.7 times the odds of normal rates of clinically significant symptoms. Anxiety and aggression were reported at marginally higher rates, but the odds of somatic problems did not differ significantly from the norming sample.

On the MAST, 54.6% of jailed parents reported past or recent alcohol abuse, and on the DAST, 62.7% reported past or recent drug abuse. Because the measures are not norm-referenced, the RR scores could not be calculated.

### *Do mental health symptoms of jailed parents vary by parent gender and/or race?*

We ran a 2 (mothers vs. fathers) × 2 (White vs. non-White) multivariate analysis of variance on ASR raw scores (thought problems, depression, anxiety, ADHD problems, aggression, and somatic symptoms) and MAST and DAST total scores, controlling for parent education, age, and days served in jail during this incarceration. Multivariate *F*s were statistically significant ($p < .05$) for gender and race but not the interaction (Table 2). Jailed parent age also was statistically significant, but parental education or days in jail were not. Univariate follow-up tests indicated that half of the mental health scales varied by parent gender, with incarcerated mothers reporting more depression, anxiety, ADHD, and drug abuse than fathers. Depression and DAST scores also varied based on parent race, with White parents reporting more depression and drug abuse than non-White parents. The MAST differed by parent age, with older jailed parents reporting more alcohol problems than younger parents.

### *Did jailed parents report receiving mental health diagnoses or treatment before jail?*

Approximately 53% of jailed parents (41% fathers, 92% mothers) self-reported prior mental health diagnoses, with depression and anxiety as the most common, followed by bipolar disorder, ADHD, and posttraumatic stress disorder.

Table 2. *MANOVA Results for Control Variables, Main Effects of Gender and Race, and the Interaction of Gender × Race (*N = *165)*

| Independent variable | Multivariate *F* (8,156) | *p* | Partial $\eta^2$ |
|---|---|---|---|
| Days of sentence served | 1.066 | .390 | .056 |
| Age of jailed parent | 3.306 | .002 | .154 |
| Education of jailed parent | .945 | .481 | .050 |
| Gender of jailed parent | 3.834 | .000 | .175 |
| Race of jailed parent | 2.566 | .012 | .124 |
| Gender × race | 1.510 | .158 | .077 |

*Note*. Dependent variables in the multivariate analysis of variance (MANOVA) were thought problems, depression, anxiety, attention-deficit/hyperactivity disorder, aggression, somatic problems, Michigan Alcoholism Screening Test total scores, and Drug Abuse Screening Test total scores.

Only three jailed parents reported a history of schizophrenia or borderline personality disorder. Of those reporting prior mental health diagnoses, 67.6% reported comorbid conditions. However, only 17.4% of the total sample indicated that they had received mental health treatment in the past. Of those reporting such treatment, 80% had taken psychotropic medication, 13% had participated in counseling or some type of talking therapy, and 3% experienced both medication and counseling. When asked about treatment for alcohol abuse and drug abuse, 60.8% and 65.8% reported prior treatment and 9.4% and 11.3% reported current treatment, respectively.

### *What is the proportion of jailed parents who have experienced childhood trauma, and do they differ by parent gender?*

In this sample of jailed parents, 38.2% reported experiencing trauma as a child, with 27.8% reporting a history of childhood physical abuse, 15.2% reporting neglect, and 11.4% reporting childhood sexual abuse. A higher proportion of jailed mothers than jailed fathers experienced trauma as a child, $\chi^2(df = 1) = 7.53$, $p = .006$, including neglect, $\chi^2(df = 1) = 6.52$, $p = .011$, and childhood sexual abuse, $\chi^2(df = 1) = 12.49$, $p = .006$, but not childhood physical abuse, $\chi^2(df = 1) = 2.18$, $p < .001$. In addition, 79.4% reported having an incarcerated family member, with no differences between jailed mothers and fathers, $\chi^2(df = 1) = 0.01$, $p = .90$.

*Are traumatic childhood experiences, parenting stress, or supports and personal strengths associated with mental health problems during incarceration or substance use before incarceration?*

Hierarchical multiple linear regression analyses were conducted to test the hypothesis that jailed parents who experienced childhood trauma, higher parenting stress, or the incarceration of a family member would be more likely to report mental health symptoms and substance abuse during the jail stay but that personal strengths and support would be associated with fewer mental health symptoms. One analysis was conducted for each outcome variable (depression, anxiety, ADHD, thought problems, aggression, and somatic problems; MAST and DAST total scores). Predictors entered in the first step of the model were jailed parent gender, education, race (coded White vs. non-White) and number of prior arrests. (Parent age was not used as a covariate because of its high correlation with education.) In the second step of the model, the predictors were any family members incarcerated, childhood physical abuse, sexual abuse, and neglect, and the total parenting stress score. In the final step of the model, the predictors were the ASR adaptive and personal strengths scores as well as prior mental health treatment. Table 3 shows Step 3 from each model.

In the depression analysis, each step was statistically significant, with an adjusted $R^2 = .417$ for the final step. Jailed mothers were more likely to report depression than jailed fathers, as were White parents compared with non-White parents. Parents who had experienced childhood abuse were more likely to report depression as well. In addition, experiencing more parenting stress while in jail was associated with more depression, yet jailed parents with more supports (i.e., higher adaptive scores) and more personal strengths were less likely to be depressed.

In the analysis focusing on anxiety, each step of the analysis was statistically significant, with an adjusted $R^2 = .258$ for the final step. Jailed mothers who had been physically abused as children, those who had an incarcerated family member, and those reporting more parenting stress while in jail also were more likely to report anxiety symptoms than other parents. However, jailed parents with more supports (i.e., higher adaptive scores) were less anxious. The effect of gender became nonsignificant in Step 3 of the model, and parental race was reduced to a trend.

In the ADHD analysis, the first and third steps were statistically significant and the second step was a trend, with an adjusted $R^2 = .385$ for the final step. Jailed mothers, White parents, and those who experienced more arrests were more likely to report ADHD symptoms than fathers, non-White parents, and those who were arrested fewer times previously. In the final step, not having an incarcerated family member and reporting more supports were associated with fewer symptoms. Again the effect of gender became nonsignificant in Step 3 of the model.

In the analysis focusing on thought problems (Table 3), each step was statistically significant, with an adjusted $R^2 = .225$ for the final step. Jailed parents who had more previous arrests reported more thought problems. Those who had more supports (i.e., higher ASR adaptive scores) but fewer personal strengths reported fewer thought problems. No other variables were statistically significant in this analysis.

In the analysis focusing on aggression, each step in the model was statistically significant, with an adjusted $R^2 = .322$ for the final step. White parents and parents with more arrests reported more aggression. Physical abuse during childhood was also associated with more aggression, whereas more supports were associated with less aggression. Race dropped to nonsignificance in Step 3.

In the analyses focusing on somatic problems, the second step of the model was statistically significant, with an adjusted $R^2 = .051$ for the final step. White parents were more likely to report somatic problems. Childhood physical abuse was also associated with more somatic problems, and there was a trend for more parenting stress to predict somatic concerns as well.

In the analyses focusing on alcohol abuse, the first and second steps were statistically significant, with an adjusted $R^2 = .153$ for the final step. White parents, mothers, and parents who experienced more arrests reported more alcohol abuse. Counterintuitively, parents who reported lower parenting stress while in jail also reported a history of more alcohol abuse. In the third step, more personal strengths were associated with less alcohol abuse. Gender dropped to a trend in Step 3. In the drug abuse analysis (Table 3), each step was statistically significant, with an adjusted $R^2 = .399$ for the final step. Jailed mothers, White parents, and parents with more previous arrests were more likely to report drug abuse than fathers, non-White

Table 3. *Multiple Regression Results, Step 3 of Each Model* (N = *165*)

| Outcome variables | Depression | | | Anxiety | | | ADHD | | | Thought problems | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Predictors | B | *SE* | *β* | B | *SE* | *β* | B | *SE* | *β* | B | *SE* | *β* |
| Gender | 2.034 | 1.115 | .145* | .098 | .725 | .001 | 1.166 | 1.130 | .081 | −.151 | .762 | −.007 |
| Education | −.484 | .362 | −.094 | −.393 | .237 | −.120 | −.191 | .371 | −.019 | −.425 | .247 | −.122 |
| No. of prior arrests | .028 | .031 | .064 | .008 | .020 | .029 | .070 | .032 | .147* | .034 | .022 | .154* |
| Race | 2.204 | .674 | .228** | .801 | .434 | .137+ | 2.222 | .681 | .249** | .631 | .457 | .079 |
| Childhood physical abuse | 2.479 | .880 | .222** | 1.124 | .566 | .203* | −.058 | .868 | −.010 | .832 | .599 | .105 |
| Childhood neglect | −1.390 | 1.033 | −.059 | −.332 | .658 | −.039 | −1.474 | 1.045 | −.067 | −.091 | .698 | .030 |
| Childhood sexual abuse | .166 | 1.102 | .022 | .408 | .700 | .041 | 1.104 | 1.117 | .087 | .903 | .754 | .104 |
| Family members incarcerated | .490 | .789 | .046 | 1.223 | .519 | .185* | 1.584 | .804 | .128* | .673 | .546 | .071 |
| Parenting stress | .106 | .047 | .143* | .074 | .031 | .166* | .002 | .048 | .010 | .037 | .032 | .085 |
| Prior mental health treatment | .164 | 1.010 | .004 | .939 | .662 | .108 | 1.281 | 1.032 | .113 | −.147 | .698 | .005 |
| Personal strengths | −.183 | .093 | −.128* | −.005 | .060 | −.027 | −.096 | .095 | −.057 | .202 | .063 | .245** |
| Adaptive (supports) | −.278 | .060 | −.322** | −.127 | .039 | −.238** | −.363 | .060 | −.404** | −.221 | .041 | −.390** |

| Outcome variables | Aggression | | | Somatic problems | | | MAST total | | | DAST total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Predictors | B | *SE* | ß | B | *SE* | ß | B | *SE* | ß | B | *SE* | ß |
| Gender | −1.155 | 1.312 | −.105 | −.323 | .745 | −.026 | −5.557 | −5.557 | −.178+ | 2.161 | 1.744 | .147 |
| Education | −.650 | .428 | −.102 | .082 | .244 | .032 | −.343 | −.343 | −.016 | .520 | .569 | .075 |
| No. of prior arrests | .097 | .037 | .202** | .007 | .021 | .013 | .271 | .271 | .258** | .150 | .049 | .236** |
| Race | .995 | .784 | .104 | .637 | .446 | .129 | 4.845 | 4.845 | .244* | 3.977 | 1.058 | .271** |
| Childhood physical abuse | 2.880 | .991 | .243** | 1.248 | .576 | .231* | −.100 | −.100 | .043 | 3.443 | 1.344 | .232* |
| Childhood neglect | −1.958 | 1.207 | −.092 | .159 | .681 | .020 | −2.067 | −2.067 | −.117 | −4.608 | 1.549 | −.277** |
| Childhood sexual abuse | 1.807 | 1.272 | .126 | −.235 | .730 | −.032 | 3.279 | 3.279 | .078 | −1.992 | 1.688 | −.093 |
| Family members incarcerated | .993 | .939 | .072 | .349 | .529 | .039 | −4.273 | −4.273 | −.154 | .925 | 1.272 | .019 |
| Parenting stress | .040 | .058 | .044 | .059 | .032 | .153+ | −.318 | −.318 | −.182* | −.050 | .077 | −.047 |
| Prior mental health treatment | 1.273 | 1.193 | .093 | −.158 | .686 | −.019 | .564 | .564 | .033 | 6.100 | 1.572 | .299** |
| Personal strengths | −.062 | .109 | −.063 | −.025 | .062 | −.004 | −.575 | −.575 | −.194∗ | .004 | .148 | .001 |
| Adaptive (supports) | −.320 | .070 | −.301** | −.014 | .040 | −.047 | −.015 | −.015 | .011 | −.084 | .095 | −.070 |

*Note*. ADHD = attention-deficit/hyperactivity disorder; DAST = Drug Abuse Screening Test; MAST = Michigan Alcoholism Screening Test.
*$p < .05$. **$p < .01$. +$p < .06$.

parents, and parents with fewer prior arrests. Although jailed parents who had been physically abused as children reported more drug abuse, they reported less drug abuse if they had been neglected as children. Jailed parent drug abuse was also associated with prior receipt of mental health treatment. Once again, the effect of gender became nonsignificant in Step 3 of the model.

## Discussion

In this study of jailed parents with young children, our findings confirmed high rates of mental health problems, including thought problems, depression, anxiety, ADHD, and aggression, with jailed parents experiencing 3 to 5 times the odds of reporting such symptoms compared with normative samples. Particularly noteworthy was the high rate of serious symptoms (e.g., thought problems) and comorbidities relative to the low proportion of jailed parents who had received any mental health treatment (17%), with the exception of substance abuse treatment (65%). We also found that childhood trauma, especially physical abuse, was a potent predictor of elevated mental health symptoms during incarceration, whereas supports from family and friends predicted fewer symptoms across a wide range of mental health problems. Although these findings are generally consistent with previous research conducted within the general population, this study provides empirical evidence of unmet mental health needs for incarcerated parents, with links to trauma histories, current parenting stress, and the need for further strengths-based support to facilitate resilience processes in vulnerable justice-involved families.

### *Unmet Mental Health Needs of Jailed Parents*

Slightly more than half of jailed parents self-reported prior diagnoses, the most common of which were depression, anxiety, and ADHD, with some reports of bipolar disorder and posttraumatic stress disorder, and most who had diagnoses also reported comorbidities. Similarly, the most commonly reported problems on the ASR were thought problems and depression. The ASR uses empirically defined syndrome scales and is part of the Achenbach System of Empirically Based Assessment, a widely used series of instruments for mental health assessment from early childhood to adulthood (Achenbach & Rescorla, 2003). The ASR thought problems scale measures symptoms that are commonly experienced in severe mental disorders including hallucinations, obsessive and strange thoughts, compulsive behaviors, strange behaviors, self-harm, and suicide attempts. Thought problems can be experienced across several major mental health problems, including bipolar disorder, depression, and trauma-related disorders. On the basis of our assessments, thought problems appear to be among the most concerning unmet mental health needs reported by jailed parents.

Less than one in five jailed parents reported receiving mental health treatment before incarceration, similar to prior research, whereas the majority reported receiving alcohol or drug abuse treatment in the past or currently (or both). Although it is encouraging that substance abuse treatment was so common, such treatment should not take the place of other types of mental health treatment. Of the jailed parents who reported prior mental health treatment, most relied on medication rather than participating in counseling or a combination thereof, even though combined treatment is generally considered the most effective. Consistent with other reports, the present study highlights the need for mental health screening and treatment for parents who enter jail (e.g., Turney et al., 2017), especially screening for serious symptoms such as hallucinations, obsessions, strange thoughts or behaviors, compulsive behaviors, or suicidality.

In a study examining the mental health of incarcerated individuals and identifying barriers to appropriate treatment, Reingle et al. (2014) explored how mental health screenings and medications help incarcerated individuals. Treatment decisions often depend on available resources, public support of correctional treatment, and correctional management decision-making. Moreover, incarceration affects the family (Reingle et al., 2014), which is particularly important because most incarcerated individuals are parents (Glaze & Maruschak, 2008). Absence of treatment and treatment discontinuity have the potential to affect both recidivism and health care upon release, which may have ripple effects in families where the parents return to care for their young children.

### *Parental Gender, Mental Health, and Childhood Trauma*

Nearly all of the jailed mothers in the study reported receipt of prior mental health diagnoses, whereas less than half of incarcerated fathers did so. Similarly, on the ASR, incarcerated mothers reported more symptoms of depression, ADHD, and anxiety, as well as more drug abuse than incarcerated fathers. These increased symptoms may indicate that women are less stigmatized than men in reporting mental health symptoms, which is consistent with the fact that they were also more likely to report mental health treatment than men. Yet in the multiple regression analyses, parental gender fell from significance in the final step of the model for every outcome except for depression. This indicates that other factors, such as supports, treatment, and trauma histories account for the majority of gender differences, except for depression.

Jailed mothers reported more childhood trauma than jailed fathers, including more neglect and sexual abuse, but not more childhood physical abuse. These findings are consistent with past research indicating that adverse childhood experiences are common in incarcerated individuals, and especially in incarcerated women (most of whom are mothers; e.g., Friestad et al., 2014; Messina & Grella, 2006). Incarcerated mothers should be viewed as an extremely vulnerable group. Our findings about childhood sexual abuse among incarcerated mothers are particularly concerning, although sexual abuse was not related to mental health diagnoses. Moreover, physical abuse was not only the most common type of childhood maltreatment experienced by jailed parents, it also predicted the widest range of mental health problems for parents during jail incarceration. Specifically, childhood physical abuse was linked with elevated symptoms of depression, anxiety, aggression, somatic problems, and drug abuse. Experiencing physical abuse as a child is a recognized risk factor not only in the development of health and mental health problems (Kalmakis & Chandler, 2015) but also for parenting and the experience of parenting stress (Steele et al., 2016), which has implications for the next generation. Parents who have experienced trauma may find normative parenting tasks as stressful, and certain child behaviors or parenting tasks may serve as triggers for their trauma-related symptoms, which can be serious. Parents who have experienced childhood trauma often benefit from support, interventions, and respite care designed to provide a break if needed. Many programs for incarcerated and reentering individuals, especially women, are sensitive to the fact that some of their participants have experienced trauma (e.g., Killian et al., 2018). Programs for incarcerated fathers should be sensitive to their history of child physical abuse as well.

Elevated parenting stress during the incarceration period is common among incarcerated parents with minor children (Loper et al., 2009). In this study, elevated parenting stress related to reports of more parental depression, anxiety, and somatic problems, but less alcohol abuse. It is possible that the alcohol abuse finding suggests that incarcerated parents who found parent–child separation because of incarceration particularly stressful were the ones who stayed sober before incarceration (Poehlmann, 2005). Some parenting programs offered in prisons can help incarcerated parents cope with these stressors and find ways of connecting positively with their children; for example, Parenting Inside Out is a rigorously evaluated program for incarcerated parents that addresses these issues (Eddy et al., 2013, 2019). Few parenting programs are offered in jails, in part because of the relatively short incarceration compared with prisons. However, offering parenting programs in jail and during reentry may be ways to support incarcerated parents and their families, decreasing stress and building parent–child and other family relationships, and even potentially decreasing recidivism in the process. In an analysis of Returning Home data, a longitudinal multistate project focusing on reentry from state prisons, Visher (2013) found that fathers who communicated more with their children during their last 3 months in prison were more engaged in their children's lives following release. In turn, fathers who were more engaged with their children 3 months into the reentry period reported less depression, worked more hours per week, and were less likely to recidivate (Visher, 2013).

One reason that incarcerated mothers may have reported more experience with treatment of mental health problems is that some incarcerated women may have access to gender-responsive parenting programs or health services, which sometimes include instruction about mental health issues (Moloney et al., 2009). However, disparity in mental health treatment is a

significant issue facing women in the criminal justice system because of its dominance by men. Incarcerated women have generally experienced more childhood trauma than incarcerated men, which may also lead to an increase in distress and mental health symptoms, thus leading to higher rates of seeking out treatment (Moloney et al., 2009).Women often become involved in the criminal justice system through a different pathway than men, with their own experiences of trauma, mental illness, substance abuse, often intensive parenting responsibilities, and lack of prior employment (Covington & Bloom, 2006). Not only do these differences require a specialized approach to programming, it also means different risk levels within the corrections environment and when women reenter into the community (Covington & Bloom, 2006). Mothers and fathers also engage with their children in sometimes dissimilar ways (Palkovitz et al., 2014). Societal expectations and stigma may contribute to these differences, and it may be helpful to adapt separate education and prevention programs to mothers and fathers to take these gendered differences into account. Offering a parenting or educational program for fathers and then adding on mothers is often not effective. In the National Institute of Corrections' report, Gender-Responsive Strategies: Research, Practice and Guiding Principles for Women Offenders (Bloom et al., 2003), differences between women and men offenders are recognized, leading to recommendations for gender-responsive policies and practices. Having both men and women in the same groups or programs is less helpful than having separate spaces for men and women that are sensitive to their unique experiences. Gender-responsive programming also includes attention to staff and their training and the context in which programs occur—with a recommendation for therapeutic environments—in addition to cultural sensitivity and humility. In addition to experiences with childhood trauma, we also found that incarcerated parents struggling with mental health problems frequently have comorbid disorders, consistent with prior research (Fazel & Seewald, 2012). Fazel and Seewald explored severe mental illnesses in 33,588 incarcerated individuals across the world. They found a higher prevalence of depression and psychosis among incarcerated individuals in low-income (Brazil, Dubai, India, Iran, Kuwait, Malaysia, Mexico, Nigeria) and middle- to higher income countries (United States, Canada, Australia, New Zealand, and countries in Europe). In their study, 10.2% of incarcerated men and 14.1% of incarcerated women were diagnosed with depression, and people with a comorbid diagnosis were more likely to abuse substances (Fazel & Seewald, 2012). They also found that people with comorbid disorders were more likely to reoffend, which could negatively affect families and public safety (Fazel & Seewald, 2012).

### *Resilience*

Although mental health problems are common in jailed parents, some incarcerated parents are able to adjust and do not develop significant mental health concerns. It is important to examine what facilitates resilience in these parents. In the present study, we found that higher adaptive scores on the ASR related to fewer symptoms of anxiety, thought problems, aggression, and ADHD in jailed parents. Higher adaptive scores reflect more supports from family members, spouses or partners, and friends in addition to past employment. It is important to keep these factors in mind, as interventions for incarcerated parents may be improved if they help parents connect to their families as well as attending to basic needs such as education and job skills. For example, Parenting Inside Out includes attention to multiple aspects of parental well-being, including communicating with family members (Eddy et al., 2013, 2019). Several studies have documented the importance of family of origin or partner connections for postrelease success of incarcerated parents (e.g., La Vigne et al., 2005, 2009).

We also examined parental race. Jailed parents of color were less likely to report mental health concerns than White jailed parents, including anxiety, ADHD, aggression, somatic complaints, and drug and alcohol problems, suggesting resilience. Racial and economic disparities in mass incarceration are well documented (e.g., Pettit & Sykes, 2015), including systemic racism as a contributor to such disparities (Brewer & Heitzeg, 2008). Because the United States overincarcerates individuals for poverty-related crimes, especially in jails, many young Black parents—especially fathers—are serving time for minor crimes, such as unpaid parking tickets or awaiting charges or sentencing in jail because of inability to post bail (Sawyer & Wagner, 2019). There

may be different pathways to jail incarceration for individuals with varying experiences and characteristics—for example, those who have experienced systemic racism or poverty and those who have experienced childhood trauma, with the latter showing more mental health problems. In both pathways, trauma-informed and gender-responsive approaches may be helpful, but decarceration efforts and implementing alternatives to incarceration may be more effective at ameliorating structural racism and inequality related to incarceration (Western & Pettit, 2010).

### *Need for Mental Health Innovation in Corrections*

As mental health problems are recognized in corrections contexts, it has become apparent that corrections officers, deputies in jails, administrators, and parole and probation officers need further training in how to handle the mental health concerns of incarcerated and recently released mothers and fathers (DeHart & Iachini, 2019). The largest jail in the nation, located in Cook County, Illinois, is the first corrections system in the United States to appoint mental health professionals (i.e., psychologists) as superintendent. Additional suggestions are to offer mental health screenings and gender-responsive assessment and treatment (Cabeldue et al., 2019) and to minimize the use of isolation or solitary confinement, which can exacerbate mental health symptoms (e.g., Kaba et al., 2014).

It is also necessary to create innovative mental health treatments given the high rates of incarcerated parents struggling with mental health challenges. Children and families are often affected by the jailed parent's mental health symptoms and parenting stress, so attention should be paid to all family members involved. This may be difficult to do, given the separation that occurs between incarcerated parents and their children. However, an alternative treatment, in the form of computer-based cognitive therapy, might be explored for families of incarcerated individuals. Kendrick and Yao (2017) explored the effectiveness of computer-based therapeutic tools in treating individuals with psychiatric disorders, such as depression. One benefit of computer-based cognitive therapy is that if there are computers with this software available, online treatment programs and therapy are more easily accessible and accessible at a distance.

### *Limitations*

When interpreting our findings, the study limitations should be considered. It is challenging to rely solely on the self-report data of incarcerated parents because some may not be ready to speak about sensitive subjects. For this reason, response bias may occur and sensitive material may be underreported, although an NIH Certificate of Confidentiality may help ease concerns about disclosures. Another limitation was the small sample size of incarcerated mothers. Overall, many more men are incarcerated than women, but it is imperative to include both mothers and fathers in research focusing on incarcerated parents because there may be differences in how they and their children experience each stage of criminal justice involvement (e.g., Siegel, 2011).

In addition, the study focused on jailed parents with young children, and the findings are not generalizable to imprisoned parents or incarcerated parents with older children. This study looked at a relatively small, cross-sectional sample of jailed parents, and it would be beneficial to conduct larger, longitudinal studies that followed incarcerated parents years after the release. This could provide a more accurate representation of how incarceration affects the mental health of incarcerated individuals, whether they receive treatment, and how this influences recidivism and family well-being.

Another limitation is that we did not assess positive outcomes (e.g., joy, good health) to examine resilience. However, in incarcerated individuals, experiencing few mental health symptoms may be one important aspect of adaptive functioning. Because of the small sample size from the rural jail, we were unable to examine rural versus urban differences in jailed parents' mental health needs; future research could examine this issue because rural areas may have fewer resources and appear to be hit particularly hard by the recent opioid epidemic.

A final limitation relates to an insufficient understanding of the association between supports and resilience. Although we found that more supportive connections contributing to resilience may be helpful, we do not know the direction of the association. People who have fewer mental health symptoms and are more

resilient may be more likely to have a support network made of friends, family, and coworkers. Certainly, connections with friends and family should be part of the intervention; however, previous family members or friends may not be supportive. Developing healthy relationships with family, friends, and coworkers is a process that could be learned through psychoeducational interventions while in jail and during reentry.

### *Conclusion and Implications*

The present study suggests that jailed parents' experience of childhood physical abuse, as well as their gender and race and current parenting stress, are related to mental health symptoms while in jail. Thus, intersectionality models may be particularly helpful in future research with jailed parents. In addition, mental health symptoms and parenting stress could influence how jailed parents interact with family members during visits, whether jailed parents wish to pursue contact with their children during incarceration, and reunification efforts. The findings also suggest that it may be helpful to explore support from family members and prosocial friends as ways to promote mental health resilience in incarcerated parents with young children in addition to accessing gender responsive mental health treatment and trauma-informed approaches. Although it is encouraging that most incarcerated individuals received substance abuse treatment, it is also imperative that their unmet mental health needs are addressed.

## References


Abidin, R. (1995). *Parenting stress index manual* (3rd ed.). Pediatric Psychology Press.

Arditti, J. A. (2016). A family stress-proximal process model for understanding the effects of parental incarceration on children and their families. *Couple and Family Psychology: Research and Practice*, *5*(2), 65.

Behnken, M. P., Abraham, W. T., Cutrona, C. E., Russell, D. W., Simons, R. L., & Gibbons, F. X. (2014). Linking early ADHD to adolescent and early adult outcomes among African Americans. *Journal of Criminal Justice*, *42*(2), 95–103.

Bloom, B., Owen, B. A., & Covington, S. S. (2003). *Gender-responsive strategies: Research, practice, and guiding principles for women offenders*. U.S. Department of Justice, National Institute of Corrections.

Brewer, R. M., & Heitzeg, N. A. (2008). The racialization of crime and punishment: Criminal justice, color-blind racism, and the political economy of the prison industrial complex. *American Behavioral Scientist*, *51*(5), 625–644. https://doi.org/10.1177/0002764207307745

Bronfenbrenner, U. (1979). *The ecology of human development*. Harvard University Press.

Bronfenbrenner, U., & Ceci, S. J. (1994). Nature–nurture reconceptualized in developmental perspective: A bioecological model. *Psychological Review*, *101*(4), 568–586. https://doi.org/10.1037/0033-295X.101.4.568

Burnson, C., & Weymouth, L. (2019). Infants and young children with incarcerated parents. In J. M. Eddy & J. Poehlmann-Tynan (Eds.), *Handbook on children with incarcerated parents* (pp. 85–99). Springer.

Cabeldue, M., Blackburn, A., & Mullings, J. L. (2019). Mental health among incarcerated women: An examination of factors impacting depression and PTSD symptomology. *Women & Criminal Justice*, *29*(1), 52–72.

Charles, P., Muentner, L., & Kjellstrand, J. (2019). Parenting and incarceration: Perspectives on father–child involvement during reentry from prison. *Social Service Review*, *93*(2), 218–261.

Covington, S. S., & Bloom, B. E. (2006). Gender response treatment and services on correctional settings. *Women & Therapy*, *29*(3–4), 9–33.

Dallaire, D. H. (2007). Incarcerated mothers and fathers: A comparison of risks for children and families. *Family Relations*, *56*(5), 440–453.

Das, A. K., Olfson, M., McCurtis, H. L., & Weissman, M. M. (2006). Depression in African Americans: Breaking barriers to detection and treatment. *Journal of Family Practice*, *55*(1), 30–40.

DeHart, D., & Iachini, A. L. (2019). Mental health and trauma among incarcerated persons: Development of a training curriculum for correctional officers. *American Journal of Criminal Justice*, *44*(3), 457–473.

Eddy, J. M., Kjellstrand, J. M., Martinez, C. R., Newton, R., Herrera, D., Wheeler, A., Shorrt, J. W., Schumer, J. E., Burraston, B. O., & Lorber, M. F. (2019). Theory-based multimodal parenting intervention for incarcerated parents and their children. In J. M. Eddy & J. Poehlmann-Tynan (Eds.), *Handbook on children with incarcerated parents* (pp. 219–235). Springer.

Eddy, J. M., Martinez, C. R., & Burraston, B. (2013). A randomized controlled trial of a parent management training program for incarcerated parents: Proximal impacts. *Monographs of the Society for Research in Child Development*, *78*(3), 75–93.

Enos, S. (2001). *Mothering from the inside: Parenting in a women's prison*. SUNY Press.

Fazel, S., & Seewald, K. (2012). Severe mental illness in 33 588 prisoners worldwide: Systematic review

and meta-regression analysis. *The British Journal of Psychiatry*, *200*(5), 364–373. https://doi.org/10.1192/bjp.bp.111.096370

Friestad, C., Åse-Bente, R., & Kjelsberg, E. (2014). Adverse childhood experiences among women prisoners: Relationships to suicide attempts and drug abuse. *International Journal of Social Psychiatry*, *60*(1), 40–46. https://doi.org/10.1177/0020764012461235

Glaze, L. E., & Maruschak, L. M. (2008). *Bureau of Justice Statistics special report: Parents in prison and their minor children* (NCJ 222984). https://www.bjs.gov/content/pub/pdf/pptmc.pdf

Goff, P. A., Lloyd, T., Geller, A., Raphael, S., & Glaser, J. (2016). *The science of justice: Race, arrests, and police use of force*. Center for Policing Equity.

Hairston, C. (2003). Prisoners and their families. In *Prisoners once removed: The impact of incarceration and reentry on children, families, and communities* (pp. 259–284). The Urban Institute Press.

Houck, K. D., & Loper, A. B. (2002). The relationship of parenting stress to adjustment among mothers in prison. *American Journal of Orthopsychiatry*, *72*(4), 548–558.

James, D. J., & Glaze, L. E. (2006). *Bureau of Justice Statistics special report: Mental health problems of prison and jail inmates* (NCJ 213600). https://www.bjs.gov/content/pub/pdf/mhppji.pdf

Kaba, F., Lewis, A., Glowa-Kollisch, S., Hadler, J., Lee, D., Alper, H., Selling, D., MacDonald, R., Solimo, A., Parsons, A., & Venters, H. (2014). Solitary confinement and risk of self-harm among jail inmates. *American Journal of Public Health*, *104*(3), 442–447.

Kaeble, D., Glaze, L., Tsoutis, A., & Minton, T. (2016). *Correctional populations in the United States, 2014* (NCJ 249513). Bureau of Justice Statistics. https://www.bjs.gov/content/pub/pdf/cpus14.pdf

Kajstura, A. (2018). *States of women's incarceration: The global context 2018. Prison Policy Initiative*. https://www.prisonpolicy.org/global/women/2018.html

Kalmakis, K. A., & Chandler, G. E. (2015). Health consequences of adverse childhood experiences: A systematic review. *Journal of the American Association of Nurse Practitioners*, *27*(8), 457–465. https://doi.org/10.1002/2327-6924.12215.

Kendrick, K. M., & Yao, D. (2017). Can computer-based cognitive therapy become a front-line option for prevention and treatment of mental disorders? *American Journal of Psychiatry*, *174*(4), 303–304. https://doi.org/10.1176/appi.ajp.2017.16121439

Killian, M., Cimino, A. N., Mendoza, N. S., Shively, R., & Kunz, K. (2018). Examining trauma and readiness to change among women in a community re-entry program. *Substance Use & Misuse*, *53*(4), 648–653.

La Vigne, N. G., Brooks, L. E., & Shollenberger, T. L. (2009). Women on the outside: Understanding the experiences of female prisoners returning to Houston, Texas (Research report). Urban Institute. http://webarchive.urban.org/publications/411902.html

La Vigne, N. G., Naser, R. L., Brooks, L. E., & Castro, J. L. (2005). Examining the effect of incarceration and in-prison family contact on prisoners' family relationships. *Journal of Contemporary Criminal Justice*, *21*(4), 314–335.

Loper, A. B., Carlson, L. W., Levitt, L., & Scheffel, K. (2009). Parenting stress, alliance, child contact, and adjustment of imprisoned mothers and fathers. *Journal of Offender Rehabilitation*, *48*(6), 483–503.

Maruschak, L. M., Glaze, L. E., & Mumola, C. J. (2010). Incarcerated parents and their children: Findings from the Bureau of Justice Statistics. In J. M. Eddy & J. Poehlmann (Eds.), *Children of incarcerated parents: A handbook for researchers and practitioners* (pp. 33–54). Urban Institute Press.

Masten, A. S., & Obradović, J. (2006). Competence and resilience in development. *Annals of the New York Academy of Sciences*, *1094*(1), 13–27. https://doi.org/10.1196/annals.1376.003

McLeod, M. N., Heller, D., Manze, M. G., & Echeverria, S. E. (2020). Police interactions and the mental health of Black Americans: A systematic review. *Journal of Racial and Ethnic Health Disparities*, *7*(1), 10–27. https://doi.org/10.1007/s40615-019-00629-1

Messina, N., & Grella, C. (2006). Childhood trauma and women's health outcomes in a California prison population. *American Journal of Public Health*, *96*(10), 1842–1848.

Minton, T. D., & Zeng, Z. (2015). *Jail inmates at midyear 2014* (NCJ 248629). Bureau of Justice Statistics. https://www.bjs.gov/content/pub/pdf/jim14.pdf

Moloney, K. P., van den Bergh, B. J., & Moller, L. F. (2009). Women in prison: The central issues of gender characteristics and trauma history. *Public Health*, *123*(6), 426–-430. https://doi.org/10.1016/j.puhe.2009.04.002

Murphey, D., & Cooper, P. M. (2015). *Parents behind bars: What happens to their children?* Child Trends. https://www.childtrends.org/wp-content/uploads/2015/10/2015-42ParentsBehindBars.pdf

National Alliance on Mental Illness. (2018). *Jailing people with mental illness*. https://www.nami.org/learn-more/public-policy/jailing-people-with-mental-illness

Pettit, B., & Sykes, B. L. (2015). Civil rights legislation and legalized exclusion: Mass incarceration and the masking of inequality. *Sociological*

*Forum*, *30*(1), 589–611. https://doi.org/10.1111/socf.12179

Poehlmann, J. (2005). Incarcerated mothers' contact with children, perceived family relationships, and depressive symptoms. *Journal of Family Psychology*, *19*(3), 350–357. https://doi.org/10.1037/0893-3200.19.3.350

Poehlmann, J., Dallaire, D., Loper, A. B., & Shear, L. D. (2010). Children's contact with their incarcerated parents: Research findings and recommendations. *American Psychologist*, *65*(6), 575–598. http://doi.org/10.1037/a0020279

Palkovitz, R., Trask, B. S., & Adamsons, K. (2014). Essential differences in the meaning and processes of mothering and fathering: Family systems, feminist and qualitative perspectives. *Journal of Family Theory & Review*, *6*(4), 406–420.

Raghunathan, T. E., Lepkowski, J. M., Van Hoewyk, J., & Solenberger, P. (2001). A multivariate technique for multiply imputing missing values using a sequence of regression models. *Survey Methodology*, *27*(1), 85–96.

Reingle Gonzalez, J. M., & Connell, N. M. (2014). Mental health of prisoners: Identifying barriers to mental health treatment and medication continuity. *American Journal of Public Health*, *104*(12), 2328–2333. http://doi.org/10.2105/AJPH.2014.302043

Rescorla, L. A., & Achenbach, T. M. (2004). *The Achenbach System of Empirically Based Assessment (ASEBA) for Ages 18 to 90 Years*. In M. E. Maruish (Ed.), The use of psychological testing for treatment planning and outcomes assessment: Instruments for adults (pp. 115–152). Lawrence Erlbaum Associates Publishers.

Sawyer, W., & Wagner, P. (2019). *Mass incarceration: The whole pie 2019*. The Prison Policy Initiative. https://www.prisonpolicy.org/reports/pie2019.html

Shlafer, R., Duwe, G., & Hindt, L. (2019). Parents in prison and their minor children: Comparisons between state and national estimates. *The Prison Journal*, *99*(3), 310–328.

Siegel, J. A. (2011). *Disrupted childhoods: Children of women in prison*. Rutgers University Press.

Skinner, H. A. (1982). The drug abuse screening test. *Addictive Behaviors*, *7*(4), 363–371. https://doi.org/10.1016/0306-4603(82)90005-3

Steele, H., Bate, J., Steele, M., Dube, S. R., Danskin, K., Knafo, H., Nikitiades, A., Bonuck, K., Meissner, P., & Murphy, A. (2016). Adverse childhood experiences, poverty, and parenting stress. *Canadian Journal of Behavioural Science*, *48*(1), 32–38. https://doi.org/10.1037/cbs0000034

Torrey, E. F. (1995). Jails and prisons—America's new mental hospitals. *American Journal of Public Health*, *85*(12), 1611–1613. https://doi.org/10.2105/AJPH.85.12.1611

Torrey, E. F., Kennard, A. D., Eslinger, D., Lamb, R., & Pavle, J. (2010). *More mentally ill persons are in jails and prisons than hospitals: A survey of the states*. Treatment Advocacy Center.

Turney, K., & Conner, E. (2019). Jail incarceration: A common and consequential form of criminal justice contact. *Annual Review of Criminology*, *2*, 265–290.

Visher, C. A. (2013). Incarcerated fathers: Pathways from prison to home. *Criminal Justice Policy Review*, *24*(1), 9–26.

Watson, R. R. (1989). *Diagnosis of alcohol abuse*. CRC Press.

Western, B., & Pettit, B. (2010). Incarceration & social inequality. *Daedalus*, *139*(3), 8–19.

Wildeman, C. (2009). Parental imprisonment, the prison boom, and the concentration of childhood disadvantage. *Demography*, *46*(2), 265–280.

Yi, Y., Turney, K., & Wildeman, C. (2017). Mental health among jail and prison inmates. *American Journal of Men's Health*, *11*(4), 900–909. https://doi.org/10.1177/1557988316681339

Zeng, Z. (2019). *Jail inmates in 2017* (NCJ 251774). Bureau of Justice Statistics. https://www.bjs.gov/content/pub/pdf/ji17.pdf