ABSTRACT

Title of Thesis: SILENT STRUGGLES: EXAMINING RACIAL DISPARITIES IN MENTAL HEALTH TREATMENT FOR JUSTICE-INVOLVED INDIVIDUALS

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There is a solid consensus in criminology that mental health issues are present in individuals who've had any form of justice involvement (Baker, 2023). The relationship between mental health issues and justice involvement can occur prior, during, or after justice involvement (Baker, 2023). Mental health issues are characterized as any psychological or emotional disorder such as Obsessive-Compulsive Disorder (OCD), Conduct Disorders, Attention Deficit Hyperactivity Disorder (ADHD), Anxiety, Depression, etc. (Gottfried, 2017). When looking at mental health issues in youth, approximately 7 out of 10 youth in the juvenile justice system have a diagnosed mental illness, compared to a staggering 2 in 10 youth in the general

population (Seiter, 2017). When comparing the presence of mental health issues, specifically depression, for the most part racial and ethnic groups are consistent in their reporting of mental illness symptoms (Moore, 2016; Moore, 2018; Ward, 2013). In addition to this, black and Hispanic groups were treated less for mental health issues than white individuals in numerous studies (Alang, 2019; Sclar, 2008). The goal of this study was to understand disparities in self-reported mental health and treatment by race and ethnicity among justice-involved youth to detect possible differences in perceptions of mental health in justice-involved populations. In this study, I found no difference between black and white youth in reported depressive symptoms, but Hispanic youth reported significantly higher depressive symptoms than black and white youth. I also found that white youth were treated for mental health issues at a higher rate than both black and Hispanic populations in the study. Concluding that, despite reporting slightly lower depressive symptoms, white individuals are still treated for mental health issues more than black and Hispanic groups. My findings imply that justice-involved youth are not treated for mental health enough and this disparity grows when accounting for race.

Criminology & Criminal Justice Honors Program

University of Maryland, College Park

SILENT STRUGGLES: EXAMINING RACIAL DISPARITIES IN MENTAL HEALTH TREATMENT FOR JUSTICE INVOLVED INDIVIDUALS

by

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Thesis submitted to Department of Criminology and Criminal Justice at the University of Maryland, College Park, in partial fulfillment
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Introduction

Understanding patterns of mental health and mental health treatment among criminal justice involved populations is crucial to understanding and explaining outcomes and indicators of justice involvement. About one-third of prison populations and a half of jail populations have a mental health diagnosis in the United States (Bark, 2014; Fovet, 2020; Reingle Gonzalez, 2014; Mental Health and Reentry, 2022). When looking at the Juvenile Justice System, about 7 out of 10 youth in the system have a diagnosed mental illness, compared to 2 in 10 youth in the general population (Seiter, 2017). Psychiatric morbidity, which refers to a clear presence of mental health disorders in a group or population, are reported in several regions (Fovet, 2020). These psychiatric diagnoses range from depression, to psychosis, to personality disorders, and others. Over the past 50 years, there has been little to no change or variability between the number of people with reported mental health struggles in correctional facilities. However, one quarter of that population were in mental hospitals, compared to a staggering 95% today of mental health affected individuals in correctional facilities rather than mental health facilities (Bark, 2014).

There is a consensus in research that mental health issues in adolescence are associated with arrest, a form of justice involvement (Baker, 2023; Constantine, 2023; Ghiasi, 2023). Mental health is an umbrella term for emotional, psychological, social, and health related well-being. Mental health deals with how we feel, how we think, and how we behave (Glenn, 2018). Mental health disorders range from obsessive-compulsive disorder, conduct disorder, attention deficit hyperactivity disorder, impulse control, disruptive behaviors, poor academic behaviors, anxiety, depression, and mood disorders, (Gottfried, 2017; Weitzman, 2015). Poor academic

behaviors are characterized by defiance, disruptiveness, aggressiveness, impulsivity, antisocial behaviors, anxiety, and others (Kremer, 2016). Parents or guardians typically notice mental health issues in late childhood and it's important to treat them in those early stages because they become more severe and pressing issues. Mental health issues are in no way perfect predictors of arrest for adolescent populations, instead, they are behaviors that may impact or prolong offending (Gottfried, 2017). Mental health problems are correlated with arrest but do not explain involvement in the criminal justice system for every case. More specifically, an individual experiencing a mental health issue is not always going to engage in delinquency. Mental health issues could be causal in some cases but generally are associated with arrest and offending (Ghiasi, 2023). Studying mental health problems in adolescence is important to understand where these mental health issues stem from and the best forms of treatment to deal with them early.

Mental health treatment is another critical area to study. Mental health treatment is classified as the intervention or program at hand to alleviate mental health stressors, issues, and concerns (Coombs, 2021; Yom-Tov, 2023). This could be talk therapy such as Cognitive Behavioral Therapy, medications such as antidepressants, alternative treatments such as electroconvulsive therapy, or as broad as in-patient or residential treatment programs that have a far more in depth and hands on approach than typical therapy (National Institute of Mental Health). Mental health treatment is not always easily accessible. Issues with accessibility such as access to insurance, affordability, parental approval of mental health treatment, and whether these resources are available to different populations and their communities can significantly hinder access to mental health treatment (Coombs, 2021; Yom-Tov, 2023).

Research on race and crime has come to a solid consensus that black adolescents have disproportionate contact with the system whether this is an arrest, incarceration, or run-ins with the police (Crutchfield, 2009; Huizinga, 1987; Padgaonkar, 2021; Voisin, 2017). Racial disparities in the criminal legal system have been researched numerous times to explain the possible mechanisms and reasoning for the relationship between race and offending. Juveniles are an important and unique group to study because typically offending begins in adolescence and eventually subsides in adulthood (Shulman, 2013). Studying the different explanations for delinquency and offending begins with researching and understanding the individual during adolescence. It's no surprise that when race is added into the equation for criminal justice research, disparities begin to show. Youth of color are more likely to have contact with the juvenile justice system. Black youth are 4.7 times as likely to be placed in juvenile justice facilities than their white peers (Puzzanchera, 2025). The Juvenile Justice system contains multiple types of facilities and services to reduce offending and delinquency in adolescents (Underwood, 2016). These services could be probation, correctional facilities, detention centers, residential treatment, and others (Lambie, 2011; Underwood, 2016; Young 2017). However, because of the striking differences in policy across the nation, mental health treatment is not going to be the same or equally effective across every type of facility. A National study on the patterns of juvenile justice, found that despite juvenile arrests dropping by 59% since 1999, approximately 800,000 adolescents are arrested annually, with 44,000 adolescents currently being held at correctional facilities (National Academies of Sciences, 2022). Arrest occurs when a police officer or criminal justice system figure suspects an individual committed a criminal or delinquent offense, leading to the criminalization of mental health and possible negative

behaviors that may result from untreated mental illness often led to arrest (Mckinnon, 2016; Morabito, 2007).

When assessing the relationship between race and mental health treatment, it's very common for adolescents of color to avoid from mental health treatment. Among both black adolescents and black justice-involved adolescents, the ones with the higher rates of depression also held the highest levels of stigma and resentment towards treatment. 77% of these adolescents were characterized as needing mental health treatment despite the low number of individuals using it. Mental health stigma is clearly affecting black adolescents and causing them to stray from these services. This creates a relationship between perceived need for treatment, mental health status, and service use (Rose, 2011).

This research aims to assess if justice involved individuals reported depressive symptoms, received mental health treatment, and the differences in both depression scores and mental health treatment when assessing for racial differences. The primary research questions are what is the association between race and depressive symptoms among justice-involved adolescents? Are justice-involved adolescents with depression symptoms receiving equal mental health treatment across all racial groups?

Background & Literature Review

Mental health issues are a pressing factor that could have a serious impact on the trajectory of someone's life. Mental health issues should be treated in professional environments where providers are properly educated and trained (Constantine, 2013; Reingle Gonzalez, 2014). Environments associated with the criminal justice system such as jails, prisons, and detention centers, are typically not the most effective locations for receiving mental health treatment. The "criminalization hypothesis" is an idea that came to light in the 1970s and 1980s to explain the influx of individuals suffering from mental illness ending up in the criminal justice system. During this period, mental health interventions were not prioritized or invested in. As a result of this, individuals with mental health struggles who displayed deviant traits and behaviors ended up in the hands of the criminal justice system rather than in the institutions made to treat these problems (Morabito, 2007). To complicate this even more, there is significant variation in resources, policy, and facilities in jails and prisons and these facilities do not always have the most effective or developed services (Ghiasi, 2023; Gottfried, 2017). When mental health issues aren't treated adequately, these struggles may present themselves as conduct problems leading to criminalization, which is especially common among marginalized populations in the system. As mentioned previously, 70% of the juvenile justice population has a diagnosed mental illness, compared to 20% in the general population (Seiter, 2017). This is a striking statistic that only begins to capture the disparities between mental health treatment within and outside of the criminal justice system.

Mental Health & Races

Among justice-involved populations, there may be differences in mental health by race. Generally, the criminal justice system has displayed bias and mistreatment of individuals based on their race or ethnicity time and time again. Research in criminal justice has concluded that black and Hispanic people are more likely to be targeted by the police and criminal justice system than their white counterparts. Harmful stereotypes and biases result in harsher conditions and treatments for marginalized populations. More specifically, black youth are far more likely to be targeted by police or the criminal justice system than their white peers (Crutchfield, 2009; Padgaonkar, 2020; Voisin, 2017). The idea of differential treatment and offending fits into this research when assessing mental health treatment and race. Differential treatment is the idea that racial groups are treated differently by the system (Lantz, 2023). This manifests in contact with police, sentencing, arrest, etc. (Lantz, 2023). Differential offending is the idea that racial groups offend at different rates which explains the disparity in punishment and treatment in the system (Lantz, 2023; Piquero, 2008). One of the main arguments in differential offending is that marginalized groups, especially when structural damage is present, live different lives than the normal white majority leading to more offending (Lantz, 2023; Piquero, 2008). For example, selling drugs in some communities is normalized because the means of education and job options are slim (Martinez, 2008; Saxe, 2001).

The reasoning for differential treatment in the mental health field is typically cultural stigma, lack of representation, and biases in treatment and diagnosis. Tying differential treatment and offending to this research introduces the idea that white individuals often are treated more for their mental health or behavioral issues than black individuals are (Mansion, 2016; Olfson, 2023; Thomeer, 2023). A study on adults' experiences with mental health treatment found that minority groups are more likely to have difficulty finding a provider who understands their

backgrounds, experiences, stigmas, and feelings towards mental health care. They also reported an increase in negative experiences from providers leading them to believe mental health services aren't productive (Panchal, 2024). Cost, scheduling, and barriers due to accessibility were also cited as a reason for a lack of mental health care (Panchal, 2024). A study on adults' experiences with mental health treatment found that minority groups are more likely to have difficulty finding a provider who understands their backgrounds, experiences, stigmas, and feelings towards mental health care. They also reported an increase in negative experiences from providers leading them to believe mental health services aren't productive.

Accessibility plays a huge role in this research because it could display a lack of availability in treatment options for black individuals in comparison to white individuals in the study. Accounting for accessibility provides a new framework for this research by explaining how mental health issues go unseen and could contribute to differential offending. White individuals are treated for mental health issues at a higher rate than minority individuals. By looking into who is reporting mental health issues and receiving treatment for it across racial groups, this research could provide a new framework by explaining variability in treatment across demographics.

Current Study

Hypotheses

There may be variation between reported depression scores among justice involved populations across racial and ethnic groups. This relationship may be even more dramatic when looking at the mental health treatment variable. To test this, there are a series of hypotheses geared towards researching these topics. I hypothesize that among justice-involved adolescents, minorities will experience more depressive symptoms than white adolescents. Additionally, I

hypothesize that among justice-involved adolescents with depressive symptoms, fewer minorities than white individuals will receive mental health treatment. More specifically, white individuals will have more instances of treatment, and non-white individuals in the survey will have less reported treatment. This study is important because it addresses critical disparities in mental health outcomes and treatment among a justice-involved adolescent population. This population is at high risk for mental health challenges which are established in prior research. However, there isn't much prior research on how these vary across racial and ethnic groups. This research seeks to fill a gap in understanding how racial and ethnic disparities can manifest in mental health and treatment outcomes. Looking at the combined effects of justice involvement and racial identity can take steps toward making policy changes and allocating proper resources to marginalized groups.

Upon completion of the research, I expect to see a slight variation in the depression index scores across different racial and ethnic groups. This display would just explain whether different ethnic groups are experiencing depression in the same ways or the same amount if they've been arrested prior. I expect to find that white individuals in the study have experienced more mental health treatment than other ethnic and racial groups in the study.

Data & Methods

This study utilizes data from the National Longitudinal Study of Adolescent to Adult Health (Add Health). Add Health is a longitudinal study derived from a national sample of over 20,000 adolescents between the seventh and twelfth grades in the 1994 to 1995 school year. Add Health encompasses several variables such as demographics, physical and mental health, economic standings, social relationships, and plenty of other factors. Due to the wide range of topics and items in Add Health, this dataset provides a solid basis for research on health, behavior, life outcomes and so much more across different stages of life. Add Health began with an in-school questionnaire provided in schools across the United States to 90,000 students. From there, 27,000 adolescents across the country were selected to complete in-home interviews. 20,745 of these adolescents completed the interviews in Wave I. From there, four follow-up waves of Add Health were conducted to expand the scope of the dataset. There are currently five waves of Add Health data, the most recent one taking place from 2016 to 2018 (Harris, 2019). Wave I and II focus on adolescence; Wave III marks the shift from adolescence to adulthood (Harris, 2019). Wave IV and Wave V encompass early into mid-adulthood (Harris, 2019). This being a nationally representative dataset allows for this research to encapsulate several populations across the United States increasing its validity. This research aims to teach about the importance of treating mental health issues in adolescence to ensure better outcomes in adulthood.

As mentioned above, the Add Health data began in the 1994 to 1995 school year by interviewing adolescents between seventh and twelfth grade. Race is measured in Wave I. This is because typically race does not change in datasets, so it only needs to be measured in the initial wave of the survey. Depressive symptoms are measured in Wave I to ensure the participants

were juveniles when they reported their mental health scores. As mentioned, the participants are between seventh and twelfth grade in Wave I, so at this point, everyone in the sample is an adolescent. Arrest is measured in Wave III. Add Health does not have a common arrest measure in Wave I or II. Mental health treatment is measured in Wave III.

Analytic Sample

The analytic sample includes respondents who participated in the survey rounds in Wave I and Wave III. These two waves provided the necessary variables to conduct an analysis of the relationship between adolescent mental health problems and future arrest outcomes. After matching participants on their identified key, participants who reported that they had never been arrested were excluded from the study. Initially, the study had 20,773 cases in total. Participants who had missing data or did not respond to the CES-D depression scale in Wave I and mental health treatment in Wave III were also excluded from the study, leaving the sample at 15,123. After limiting those who did not record being arrested and reported being over the age of 18, the sample was left with 958 cases. To assess for mental health treatment, I created a subsample where I limited the cases to respondents who reported a 16 or higher on the CES-D scale, the clinical threshold for depression. After limiting this, the final subsample had 251 cases. The final analytic sample for this research captures a solid representative sample of Add Health data when looking at the demographic characteristics such as race, where there is still a good spread meaning the race control variable will still capture variability across mental health and arrest outcomes.

Measures

Outcome Variable: Depression

Add Health provided a strong foundation for the topics of interest. For this research, variables for mental health in the survey were derived from the CES-D Scale. The CES-D Scale is a self-report scale that measures numerous symptoms of depression; however, they may accompany additional mental health disorders (Radloff, 1977). The CES-D was designed to be used in population surveys. Items were selected from existing depression scales and composed into one (Radloff, 1977). The scale includes depressed mood, guilt, worthlessness, helplessness, hopelessness, and others (Radloff, 1977). Therefore, this research is measuring depression as a mental health variable. Mental health issues are also coded as a binary measure (yes/no) and will be coded 1 = yes, 0 = no. From there, a depression scale is created to see where respondents fall on this scale. The CES-D Scale items are as follows

1) I was bothered by things that don't usually bother me.

2) I did not feel like eating; my appetite was poor.

3) I felt that I could not shake off the blues even with help from my family and friends.

4) I felt that I was just as good as other people.

5) I had trouble keeping my mind on what I was doing.

6) I felt depressed.

7) I felt that everything I did was an effort.

8) I felt hopeful about the future.

9) I thought my life had been a failure.

10) I felt fearful.

11) My sleep was restless.

12) I was happy.

13) I talked less than usual.

14) I felt lonely.

15) People were unfriendly.

16) I enjoyed life.

17) I had crying spells.

18) I felt sad.

19) I felt that people disliked me. 2

0) I could not get "going".

Questions 4, 12, and 16 were reverse coded. To construct the final variable, I added up each of these items in STATA to create a variety score which displays the sum of each reported depressive symptom varying from 0 to 48.

Outcome Variable: Mental Health Treatment

Mental health treatment will help explain the relationship between mental health problems and treatment among justice-involved youth. This will look at whether these youth received treatment for their mental health issues. Mental health treatment is measured through the two questions 1) In the past five years, have you spent a day or more in a facility where you were treated for a mental illness? 2) When did you last have counseling, psychological testing, or any mental health or therapy service? For both questions, 0 = no treatment, 1 = treatment. Despite the second question appearing to be temporal, these variables were coded binary and combined into one Wave III mental health treatment variable.

Race/Ethnicity

Race is measured using a question that states 1) Which one category best describes your racial background? Add Health divided this into white, black, Asian, Native American, and other categories. Add Health has a separate variable for ethnicity which is where Hispanic falls into which asks 1) Are you of Hispanic or Spanish/Latino origin? These questions were combined to create dummy race variables. After creating the variables, I created a combined race variable, 1 = white, 2 = black, 3 = Hispanic, 4 = other. For this study, examining the outcome variables across racial groups is crucial. Tying this back into the differential treatment and offending argument, the race measure provides a deeper understanding of this idea. Accounting for race will also lead to more precise outcomes and explanations for the racial disparities in mental health, arrest, and treatment.

Sample Selection Variable:

Arrest is measured using the following questionnaires 1) Have you ever been arrested or taken into custody by the police? The question is a binary measure. All answers coded as 1 = Yes and 0 = No. This is the variable I used to limit the sample to justice-involved youth. Prior to this measure, ADDHealth asks a question 1) How many times have you been stopped or detained by the police for questioning about your activities? Don't count minor traffic violations. This question behaves as a precursor to the arrest question. Therefore the 12,129 individuals who responded never to this question were excluded from the arrest question used in this study.

Analytic Strategy

To test my hypothesis, I conducted a t-test to observe depression scores across different racial groups compared to white individuals. Depression scores are the outcome variable, whereas race is in the explanatory variable. I plan to examine these differences and disparities among racial groups to understand how self-reported depression appears across different groups.

Next, I will run a Chi-Square test to compare mental health treatment across races with white as a reference category. Same as mentioned previously, mental health treatment is an outcome and race is explanatory. I plan to examine disparities between mental health treatment across races to see if it coordinates with whoever is displaying the most depressive symptoms, or if it does not correlate to explain where this variation could occur from. I intend to calculate the means, standard deviations, and frequencies of these measures to get a general overview of the data and the descriptives. From there, the analysis will be run in Stata to assess for correlation between the variables. Results will be interpreted by assessing the significance of the analyses and where the p-value lies.

Results

Descriptive Statistics

Figure 1 presents the descriptive statistics for my sample, which combines a number of demographic variables relating to justice involvement, depression, mental health treatment, demographics, and behavioral issues. In terms of demographics, 54% of the study identifies as white, 22% as black, 18% as Hispanic, and 6% as other. 83% of the sample.

Table 1 displays the CES-D scale, treatment, arrest age, and sex of respondents in this sample. The CES-D scale mean was 12.03 meaning on average respondents received a 12 on the depression scale. On the CES-D Scale, a score of 12 means an individual is displaying elevated depressive symptoms but they are not severe enough for a proper diagnosis. On average, individuals in the sample have elevated depression symptoms. The subsample had CES-D mean of 21.96, meaning on average respondents received a 22 on the scale. Roughly 10% of the main sample and 19% of the subsample received mental health treatment of any sort. The average age at first arrest for youth in both samples was 16 ranging from 10 to 18. Lastly, 83% of the sample and 73% of the subsample are males.

Main Analysis Results

Depression Scale T-Test Analysis

Figure 2 displays results relating to the CES-D Scale to understand the differences in depression scores across racial groups. I conducted an independent sample T-test to compare the mean depression scores of each racial or ethnic group to the white reference category. In this model, the differences in the mean for the CES-D scale were only statistically significant when comparing the Hispanic population with whites. Hispanic individuals reported the highest levels

of depressive symptoms, averaging 13 symptoms each. The difference in depressive symptoms between each other racial group and the white reference category was not statistically significant. Black people did average higher reported depression scores than white individuals, but it was not statistically significant.

Treatment Chi-Square Analysis

Figure 3 displays the results of the Chi-Squared analysis. This model uses counseling/mental health treatment to understand the differences in treatment across racial groups. In this examination, white people received treatment at higher rates than any other group despite reporting lower depressive symptoms than other groups. Black and Hispanic youth received treatment at a statistically significant lower rate than white individuals despite reporting similar or higher levels of depression. Therefore, despite reporting the lowest scores on the depression scale, white people received the most treatment, even more than the Hispanic group that had statistically significant depression scores. Race is a statistically significant predictor of mental health treatment.

Discussion

The results of this study expressed differences in the reporting of depressive symptoms and receiving mental health treatment between racial groups. Hispanic youth were the only statistically significant group when compared to white people, the reference category. However, black and other races did display higher scores than white people despite it not being statistically significant. The average person in the sample reported scoring about a 12 on the scale, white and the other category were the only two that fell below this 12. According to the CES-D scale, 16 is the baseline suggesting potential clinical depression (Radloff, 1977). Therefore, the average person in this study does not meet the criteria for clinical depression, but the CES-D scale scores ranged from 0 to 48 expressing high variability in the depression scores across the sample. These findings are like that of Baker and colleagues (2023), who did a five-year long study on participants after their first arrest to monitor their anxiety, depression, and reoffending, detecting a positive relationship between mental health issues and criminalization. Despite the depression scores not differing significantly across groups, the small presence of depression scores still displays a mild to moderate risk for depression. It's also important to note that populations of color, specifically black people, do not always acknowledge their psychological issues due to stigmas surrounding how they perceive mental health and related services (Gary, 2009). A study examining coping, attitudes, and recognizing mental health issues in black populations found that both black women and men reported stigmas and poor quality of care as reasons they don't seek mental health treatment (Ward, 2013). Looking at the perceptions of mental health related stigmas on justice-involved populations found that the stigmas associated with the criminal justice system can lead to poor mental health which may lead to negative coping mechanisms and not seeking proper types of treatment (Moore, 2016). Justice-involved people also typically

feel like they must act tough or refuse to talk about their problems and feelings (Moore, 2018). Looking at how these findings compare to the current research, it's possible that the individuals in this study who belong to marginalized groups feel stigmatized by their mental health issues and may not feel comfortable reporting them, especially not in a survey setting. It's also possible that being a justice-involved individual, makes the fear of stigmatization and being vulnerable harder for these individuals to endure.

The results of this study displayed differences in the likelihood of different races and ethnic groups to receive treatment for mental health issues. When looking at which group received the most mental health treatment on average, despite, white individuals having the lowest depression scores, they received the highest amount of mental health treatment. When comparing black and Hispanic populations to the white reference category, black and Hispanic people received less treatment, so much so that it was statistically significant. The other race group was not statistically significant when compared to white. Research on topics consistent with mental health treatment across races have found similar results when analyzing differences. A study on reasons for the lack of mental health care in the black community cited disparities in treatment and racism in the healthcare systems as reasons for steering clear of mental health treatment (Alang, 2019). A study examining differences in diagnosis and use of antidepressant medication between white, black, and Hispanic populations discovered that white individuals had double as much documentation of depression treatment than black and Hispanic individuals (Sclar, 2008). This is consistent with the findings in this study except that the difference in treatment was not as drastic between groups. When examining how my findings compare to prior research, there seems to be a consensus that white individuals are more likely to be treated for a depression diagnosis than other racial or ethnic groups. This appears to stand true when applying

justice-involvement into the relationship, but the relationship is weaker. Regardless, this sample is being undertreated for mental health issues, which is a problem within the criminal justice system.

LIMITATIONS

One of the main limitations in this study is the sample size. To make this study more applicable at a nationwide level, a larger sample would be more productive. In addition to the sample issue, over half of the individuals in the sample were white. It's possible if there were a larger distribution of races, the results could have been different or more impactful. Increasing the sample size could potentially alter the results and make the study more generalizable for a larger scale. This dataset is not focused on justice involved individuals. By using a larger dataset with all justice-involved individuals, it would be interesting to look at those results and see if there are differences between the results from this sample and that sample. Tying back into the sample size limitation, although 956 is not necessarily a low number, having an entire population that is justice-involved would increase the possibility of variability across groups. In this study, the other race category had about 55 cases because it's such a small group. However, looking at a larger justice-involved population may allow for a larger other category or being able to split up the races that typically fall into the other category into their own.

Another addition to this study would be adding control variables to account for elements of identities and backgrounds both cultural and social. This could help us understand if these relationships are occurring only because of race, or if cultural, social, personal, economic factors play a stronger role in this relationship than race. The sample is 83% male, and the subsample is 73% male. Although this is consistent with the numbers in the criminal justice system, looking into how the strength of this relationship stands when only looking at males or females could

cause more variation in the relationships. This study only focuses on race, age, depression scores, and treatment. By adding in controls and different demographic characteristics, it would provide a more rigorous set of analyses. It would also deepen our understanding of how factors may affect our perceptions of mental health.

This study has an emphasis on mental health but only focuses on depression. This is because ADDHealth does not have any other mental health measurement scale in Wave I. Other than the CES-D scale, there are measures that ask about mental health but for the purpose of this study, using this scale was the best option because of its reliability. Using a dataset with more mental health scales that are highly researched to add in more mental health issues could affect the results from this study.

Lastly, the sample overall averaged about a 12 on the CES-D scale, meaning that the sample does not meet the criteria for a probable depression diagnosis, but only mild to moderate symptoms of depression. Accounting for whether they experienced depression prior to justice-involvement, during, or after would be very interesting as well. As these people are justice-involved, there could be the possibility of mandatory treatment which may affect these findings and be interesting to investigate.

IMPLICATIONS AND FUTURE STEPS

This research helps us understand if there are differences between depression rates and mental health treatment in justice-involved populations across races. More research needs to be done to dive deeper into understanding how mental health issues and treatment are perceived across races, sexes, ages, and how this could have been influenced by societal and sociocultural standards. Once more research is done to understand the effects of justice involvement on mental health, it will be even easier to accommodate for cultural and social explanations that may

explain racial differences. This study gives insight into the possible different ways mental health and its services can be perceived across different racial groups. This research could also have an impact on the way mental health services are presented. If therapists and mental health workers understand the apprehensiveness that may come from populations of color to discuss or receive treatment, they can make treatment plans that are better in tune for the goals of different individuals.

In the future, researching this topic while accommodating the limitations of the study will be most beneficial. Using a dataset that is a completely justice-involved population will increase the sample size. By drawing from a larger sample of criminal justice involved youth, we'd have a better understanding of each demographic and how they respond and relate to each other. Looking into more identities and control factors than just race would give us a better understanding of how identities may influence change in this study, for example (looking at sexual identity, education levels, neighborhood composition, etc). Lastly, using a qualitative study with survey questions would improve this study because we'd have real accounts of how people feel about mental health treatment and how they feel mentally which could discuss other forms of mental health. Doing an interview style analysis allows for more personal answers from participants which strengthen the study even further.

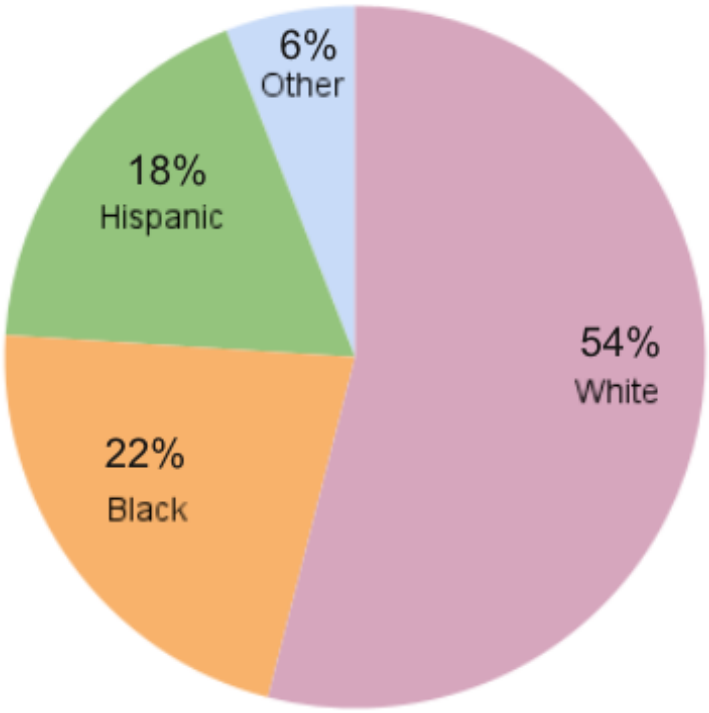
Conclusion

To conclude, this study examines disparities in mental health reporting and mental health treatment across races to understand perceptions of mental health. By discussing racial disparities in both reporting and receiving treatment, this study emphasizes the need for adequate mental health services across populations, especially those who are justice-involved because of their high likelihood of mental health issues. By limiting the study to justice-involved participants, it truly examines perceptions and differences across races when impacted by the criminal justice system. Seeing that despite reporting less depression scores, white individuals are more likely to receive treatment raises several issues relating to accessibility within the criminal justice system and outside as well. To continue understanding and researching this topic, increasing the sample size to increase generalizability across the population is crucial to understanding which policy changes may be productive in this issue. Adding more context about upbringing, socialization, and other identity-related factors will make this research even more conclusive and productive in understanding how influences may affect our perceptions of mental health issues and treatment. Lastly, a qualitative analysis using verbal interviews rather than survey data will make understanding each individual and their perceptions much easier. This could further our knowledge as researchers to influence policy. Understanding how justice-involved populations perceive their own mental health, mental health treatment, and the need for mental health interventions will increase insight and understanding of this topic, leading to policy changes and restructuring the way mental health treatment is offered in the criminal justice system, along with how mental health professionals handle clients who may hold resentment towards mental health interventions. This research can positively impact the ways in which justice-involved people across different racial groups are treated and seek treatment.

Moving forward, ensuring that equal accessibility and treatment is available to all racial and ethnic groups is a crucial change that could benefit generations to come.

Appendices

gure 1. Sample Descriptives by Race/Ethnicity



Wave I

Figure 2: T-Test Reported CES-D (Depressive Symptoms) Scores by Race

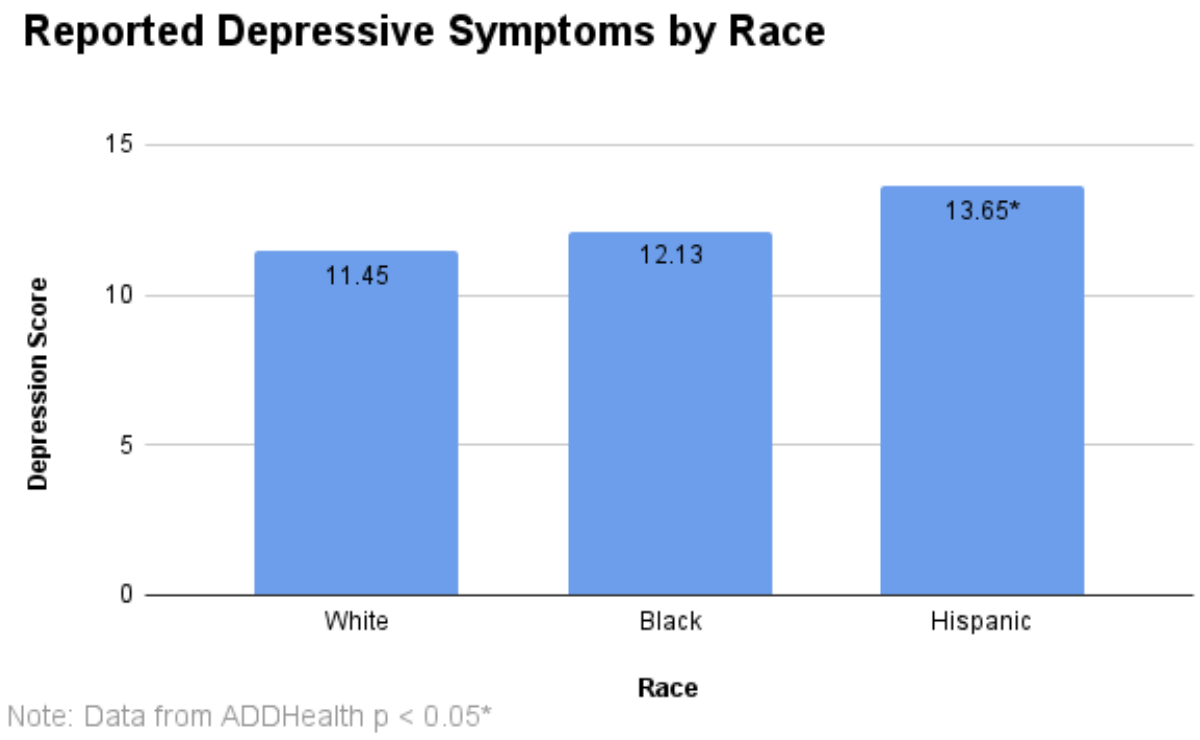
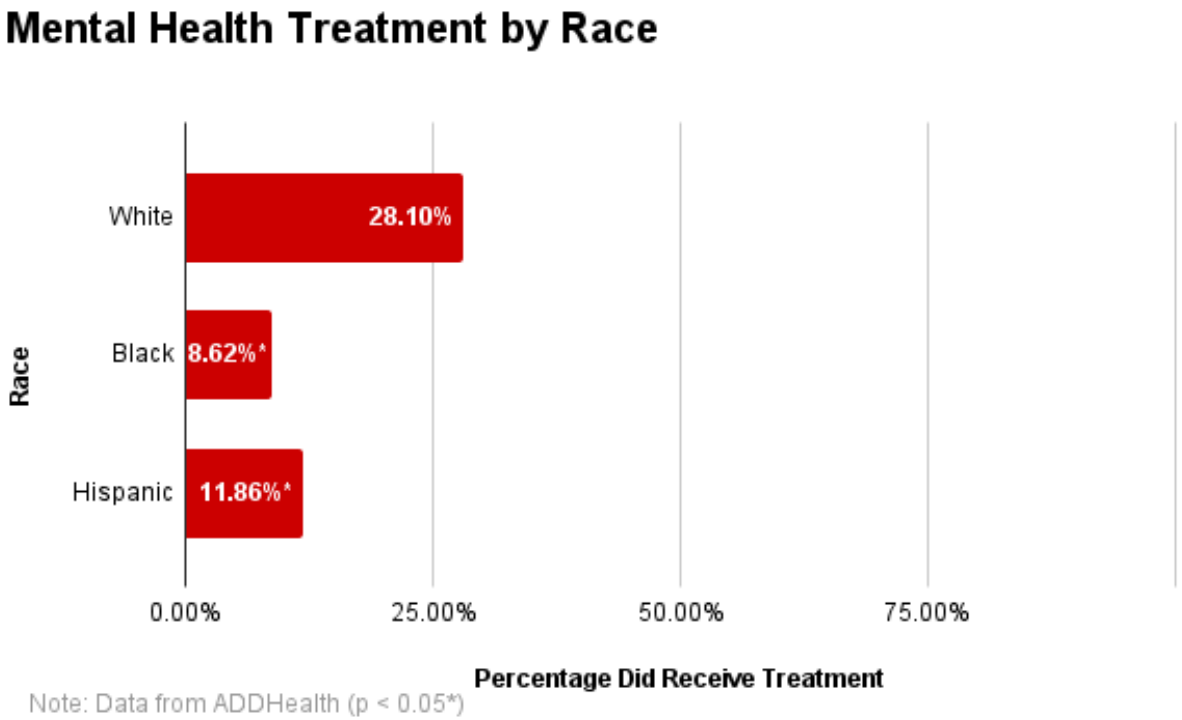


Figure 3: Chi-Squared Reported Mental Health Treatment Percentages by Race



Tables

Table 1. Mean and Standard Deviations on Demographic Characteristics, Justice Involvement, and Mental Health Measures

Variable	Justice-Involved Sample n = 958		Depressive Symptoms Clinical Threshold Subsample n = 251		Range
	Mean	SD	Mean	SD	
Depression Scale	12.03	7.47	21.96	5.84	[0,48]
Mental Health Treatment	.10	.303	.19	.397	(0,1)
Age at First Arrest	16.24	1.79	16.01	1.91	(10,18)
Sex	.83	.379	.73	.447	(0,1)

Note: Data from ADDHealth

Bibliography

Agnew, R. 1992. "Foundation for a General Strain Theory of Crime and Delinquency." Criminology 30: 47-87.

Alang S. M. (2019). Mental health care among blacks in America: Confronting racism and constructing solutions. *Health services research*, *54*(2), 346–355. https://doi.org/10.1111/1475-6773.13115

Baker, A. E., Padgaonkar, N. T., Galván, A., Frick, P. J., Steinberg, L., & Cauffman, E. (2023). Characterizing trajectories of anxiety, depression, and criminal offending in male adolescents over the 5 years following their first arrest. *Development and psychopathology*, *35*(2), 570–586. https://doi.org/10.1017/S0954579421001723

Bark N. (2014). Prisoner mental health in the USA. *International psychiatry : bulletin of the Board of International Affairs of the Royal College of Psychiatrists*, *11*(3), 53–55.

Constantine, R. J., Andel, R., Robst, J., & Givens, E. M. (2013). The impact of emotional disturbances on the arrest trajectories of youth as they transition into young adulthood. *Journal of youth and adolescence*, *42*(8), 1286–1298. https://doi.org/10.1007/s10964-013-9974-9

Coombs, N. C., Meriwether, W. E., Caringi, J., & Newcomer, S. R. (2021). Barriers to healthcare access among U.S. adults with mental health challenges: A population-based study. *SSM - population health*, *15*, 100847. https://doi.org/10.1016/j.ssmph.2021.100847

Crutchfield, R. D., Skinner, M. L., Haggerty, K. P., McGlynn, A., & Catalano, R. F. (2009). Racial Disparities in Early Criminal Justice Involvement. *Race and social problems*, *1*(4), 218–230. https://doi.org/10.1007/s12552-009-9018-y

Fields-Oriogun, D., Foley-Nicpon, M., & Thornburg-Suresh, M. (2024). Mental health stigma

and service use among Black American youth: A systematic review. *The American journal of orthopsychiatry*, *94*(6), 655–667. https://doi.org/10.1037/ort0000749

Fovet, T., Plancke, L., Amariei, A., Benradia, I., Carton, F., Sy, A., Kyheng, M., Tasniere, G., Amad, A., Danel, T., Thomas, P., & Roelandt, J. L. (2020). Mental disorders on admission to jail: A study of prevalence and a comparison with a community sample in the north of France. *European psychiatry : the journal of the Association of European Psychiatrists*, *63*(1), e43. https://doi.org/10.1192/j.eurpsy.2020.38

Gary, F. A. (2005). STIGMA: BARRIER TO MENTAL HEALTH CARE AMONG ETHNIC MINORITIES. *Issues in Mental Health Nursing*, *26*(10), 979–999. https://doi.org/10.1080/01612840500280638

Gottfried, E. D., & Christopher, S. C. (2017). Mental Disorders Among Criminal Offenders: A Review of the Literature. *Journal of correctional health care : the official journal of the National Commission on Correctional Health Care*, *23*(3), 336–346. https://doi.org/10.1177/1078345817716180

Ghiasi, N., Azhar, Y., & Singh, J. (2023). Psychiatric Illness and Criminality. In *StatPearls*. StatPearls Publishing.

Glenn, B. A., Crespi, C. M., Rodriguez, H. P., Nonzee, N. J., Phillips, S. M., Sheinfeld Gorin, S. N., Johnson, S. B., Fernandez, M. E., Estabrooks, P., Kessler, R., Roby, D. H., Heurtin-Roberts, S., Rohweder, C. L., Ory, M. G., Krist, A. H., & MOHR Study Group (2018). Behavioral and mental health risk factor profiles among diverse primary care patients. *Preventive medicine*, *111*, 21–27. https://doi.org/10.1016/j.ypmed.2017.12.009

Hall, D., Lee, L. W., Manseau, M. W., Pope, L., Watson, A. C., & Compton, M. T. (2019). Major

Mental Illness as a Risk Factor for Incarceration. *Psychiatric services (Washington, D.C.)*, *70*(12), 1088–1093. https://doi.org/10.1176/appi.ps.201800425

Harris, K.M., C.T. Halpern, E.A. Whitsel, J.M. Hussey, L. Killeya-Jones, J. Tabor, and S.C. Dean. 2019. Cohort Profile: The National Longitudinal Study of Adolescent to Adult Health (Add Health). *International Journal of Epidemiology* 48(5):1415-1425 https://doi.org/10.1093/ije/dyz115.

Huizinga, D., & Elliott, D. S. (1987). Juvenile Offenders: Prevalence, Offender Incidence, and Arrest Rates by Race. Crime & Delinquency, 33(2), 206-223. https://doi.org/10.1177/0011128787033002O2

Kremer, K. P., Flower, A., Huang, J., & Vaughn, M. G. (2016). Behavior problems and children's academic achievement: A test of growth-curve models with gender and racial differences. *Children and youth services review*, *67*, 95–104. https://doi.org/10.1016/j.childyouth.2016.06.003

Lambie, I., & Randell, I. (2013). The impact of incarceration on juvenile offenders. *Clinical psychology review*, *33*(3), 448–459. https://doi.org/10.1016/j.cpr.2013.01.007

Lantz, B., Wenger, M. R., & Craig, C. J. (2023). What If They Were White? The Differential Arrest Consequences of Victim Characteristics for Black and White Co-offenders. *Social problems, 70*(2), 297–320. https://doi.org/10.1093/socpro/spab043

Mansion, A. D., & Chassin, L. (2016). The Effect of Race/Ethnicity on the Relation between Substance Use Disorder Diagnosis and Substance Use Treatment Receipt among Male Serious Adolescent Offenders. *Children and youth services review*, *61*, 237–244. https://doi.org/10.1016/j.childyouth.2015.12.023

Martínez, R., Rosenfeld, R., & Mares, D. (2008). Social Disorganization, Drug Market Activity,

and Neighborhood Violent Crime. *Urban affairs review (Thousand Oaks, Calif.)*, *43*(6), 846–874. https://doi.org/10.1177/1078087408314774

McKinnon, I. G., Thomas, S. D., Noga, H. L., & Senior, J. (2016). Police custody health care: a review of health morbidity, models of care and innovations within police custody in the UK, with international comparisons. *Risk management and healthcare policy*, *9*, 213–226. https://doi.org/10.2147/RMHP.S61536

Mental health and Reentry: How court services meet the challenge of mental health community supervision. (n.d.). https://cops.usdoj.gov/html/dispatch/05-2022/mental_health_reentry.html

Moore, K. E., Stuewig, J. B., & Tangney, J. P. (2016). THE EFFECT OF STIGMA ON CRIMINAL OFFENDERS' FUNCTIONING: A LONGITUDINAL MEDIATIONAL MODEL. *Deviant behavior*, *37*(2), 196–218. https://doi.org/10.1080/01639625.2014.1004035

Moore, K. E., Milam, K. C., Folk, J. B., & Tangney, J. P. (2018). Self-stigma among Criminal Offenders: Risk and Protective Factors. *Stigma and health*, *3*(3), 241–252. https://doi.org/10.1037/sah0000092

Morabito M. S. (2007). Horizons of context: understanding the police decision to arrest people with mental illness. *Psychiatric services (Washington, D.C.)*, *58*(12), 1582–1587. https://doi.org/10.1176/ps.2007.58.12.1582

National Academies of Sciences, Engineering, and Medicine, Health and Medicine Division, Board on Population Health and Public Health Practice, & Roundtable on the Promotion of Health Equity. (2022). *The impact of juvenile justice system involvement on the health and well-being of youth, families, and communities of color: Proceedings of a workshop*

(K.M. Anderson & S. Olson, Eds.). National Academies Press. https://www.ncbi.nlm.nih.gov/books/NBK586434/

National Institute of Mental Health. (n.d.). *Psychotherapies*. U.S. Department of Health and Human Services. https://www.nimh.nih.gov/health/topics/psychotherapies

Oglesby-Neal, A., & Peterson, B. (2020). Influence of Race in the Deep End of the Juvenile Justice System. *Youth Violence and Juvenile Justice*, *19*(2), 186-205. https://doi.org/10.1177/1541204020958465

Olfson, M., Zuvekas, S. H., McClellan, C., Wall, M. M., Hankerson, S. H., & Blanco, C. (2023). Racial-Ethnic Disparities in Outpatient Mental Health Care in the United States. *Psychiatric services (Washington, D.C.)*, *74*(7), 674–683. https://doi.org/10.1176/appi.ps.20220365

Padgaonkar, N. T., Baker, A. E., Dapretto, M., Galván, A., Frick, P. J., Steinberg, L., & Cauffman, E. (2021). Exploring Disproportionate Minority Contact in the Juvenile Justice System Over the Year Following First Arrest. *Journal of research on adolescence : the official journal of the Society for Research on Adolescence*, *31*(2), 317–334. https://doi.org/10.1111/jora.12599

Pamplin, J. R., 2nd, Kelsall, N. C., Keyes, K. M., Bates, L. M., & Prins, S. J. (2023). Race, criminalization and urban mental health in the United States. *Current opinion in psychiatry*, *36*(3), 219–236. https://doi.org/10.1097/YCO.0000000000000857

Piquero, A. R., & Brame, R. W. (2008). Assessing the Race-Crime and Ethnicity-Crime Relationship in a Sample of Serious Adolescent Delinquents. *Crime and delinquency*, *54*(3), 390–422. https://doi.org/10.1177/0011128707307219

Radloff, L.S. (1977). The CES-D Scale: a self-report depression scale for research in the general population. Applied Psychological Measurement, 1:385-401.

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. https://doi.org/10.2105/AJPH.2014.302043

Rose, T., Joe, S., & Lindsey, M. (2011). Perceived Stigma and Depression among Black Adolescents in Outpatient Treatment. *Children and youth services review*, *33*(1), 161–166. https://doi.org/10.1016/j.childyouth.2010.08.029

Saxe, L., Kadushin, C., Beveridge, A., Livert, D., Tighe, E., Rindskopf, D., Ford, J., & Brodsky, A. (2001). The visibility of illicit drugs: implications for community-based drug control strategies. *American journal of public health*, *91*(12), 1987–1994. https://doi.org/10.2105/ajph.91.12.1987

Sclar, D. A., Robison, L. M., & Skaer, T. L. (2008). Ethnicity/race and the diagnosis of depression and use of antidepressants by adults in the United States. *International clinical psychopharmacology*, *23*(2), 106–109. https://doi.org/10.1097/YIC.0b013e3282f2b3dd

Seiter, L. (2017). Mental health and juvenile justice: A review of prevalence, promising practices, and areas for improvement. Washington, DC: National Technical Assistance Center for the Education of Neglected or Delinquent Children and Youth.

Shulman, E. P., Steinberg, L. D., & Piquero, A. R. (2013). The age-crime curve in adolescence and early adulthood is not due to age differences in economic status. *Journal of youth and adolescence*, *42*(6), 848–860. https://doi.org/10.1007/s10964-013-9950-4

Thomeer, M. B., Moody, M. D., & Yahirun, J. (2023). Racial and Ethnic Disparities in Mental Health and Mental Health Care During The COVID-19 Pandemic. *Journal of racial and ethnic health disparities*, *10*(2), 961–976. https://doi.org/10.1007/s40615-022-01284-9

Underwood, L. A., & Washington, A. (2016). Mental Illness and Juvenile Offenders. *International journal of environmental research and public health*, *13*(2), 228. https://doi.org/10.3390/ijerph13020228

Voisin, D. R., Kim, D., Takahashi, L., Morotta, P., & Bocanegra, K. (2017). Involvement in the Juvenile Justice System for African American Adolescents: Examining Associations with Behavioral Health Problems. *Journal of social service research*, *43*(1), 129–140. https://doi.org/10.1080/01488376.2016.1239596

Ward, E. C., Wiltshire, J. C., Detry, M. A., & Brown, R. L. (2013). African American men and women's attitude toward mental illness, perceptions of stigma, and preferred coping behaviors. *Nursing research*, *62*(3), 185–194. https://doi.org/10.1097/NNR.0b013e31827bf533

Weitzman, C., Wegner, L., Section on Developmental and Behavioral Pediatrics, Committee on Psychosocial Aspects of Child and Family Health, Council on Early Childhood, Society for Developmental and Behavioral Pediatrics, & American Academy of Pediatrics (2015). Promoting optimal development: screening for behavioral and emotional problems. *Pediatrics*, *135*(2), 384–395. https://doi.org/10.1542/peds.2014-3716

Wood, J. D., Watson, A. C., Pope, L., Warnock, A., Nelson, V., Gesser, N., Zern, A., Stagoff-Belfort, A., de Bibiana, J. T., & Compton, M. T. (2023). Contexts shaping misdemeanor system interventions among people with mental illnesses: qualitative findings from a multi-site system mapping exercise. *Health & justice*, *11*(1), 20. https://doi.org/10.1186/s40352-023-00219-8

Yom-Tov, E., Lekkas, D., Heinz, M. V., Nguyen, T., Barr, P. J., & Jacobson, N. C. (2023). Digitally filling the access gap in mental health care: An investigation of the association

between rurality and online engagement with validated self-report screens across the United States. *Journal of psychiatric research*, *157*, 112–118. https://doi.org/10.1016/j.jpsychires.2022.11.024

Young, S., Greer, B., & Church, R. (2017). Juvenile delinquency, welfare, justice and therapeutic interventions: a global perspective. *BJPsych bulletin*, *41*(1), 21–29. https://doi.org/10.1192/pb.bp.115.052274