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A Gap Analysis of Reentry Services for Corrections-Involved Populations in Rural East
Tennessee

A dissertation
presented to
the faculty of the Department of Psychology
East Tennessee State University

In partial fulfillment
of the requirements for the degree
Doctor of Philosophy in Psychology, concentration in Clinical Psychology

by
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August 2021

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services, mental health providers, gap analysis

ABSTRACT

A Gap Analysis of Reentry Services for Corrections-Involved Populations in Rural East Tennessee

by

Alyssa P. Gretak Leal

Returning citizens face a host of barriers when attempting to reintegrate into society; thus, services for these concerns are imperative for successful reintegration. Unfortunately, services are often lacking, particularly in rural communities which tend to be overlooked in reentry research. In order to better determine service need for justice-involved populations in rural communities, the current study completed a gap analysis, both inspired and supplemented, by qualitative information collected from mental health providers (MHPs) in a rural Appalachian region of Tennessee. To complete the gap analysis, an estimation of need was collected via local crime statistics. Using this data, a two-sample t-test revealed that increased rurality was related to a significantly higher percentage of substance use related crimes, but not to crimes against persons or sexual crimes. Service availability data was then collected for local providers in the domains of general mental health, substance abuse, anger management (or anger management aligned), and sex offender treatment. It was found that nine of the ten counties in the identified region are considered mental health professional shortage areas (MHPSAs) for general mental health care. Using average caseload data from local MHPs, a calculation of provider shortfall was completed for specialty services for returning citizens. For the identified 10-county region, provider shortfalls were existent in all treatment domains. The largest gap identified was for anger management aligned services, while the smallest gap identified was for sex offender

treatment services. An increase in rurality did not ensure an increased provider shortfall across domains. Overall, MPHs in the area identified similar needs in treatment services via two major qualitative themes and five subthemes. The findings from the current study provide a specific example of what services are missing for rural returning citizens. It is hoped that the results of this study help inform policy and programming efforts in rural communities as they attempt to close the service gap and successfully reintegrate rural returning citizens.

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DEDICATION

This dissertation is dedicated to my family, both the one I was born into and the one I chose along the way, who have provided inspiration and support throughout my (once believed to be endless) academic career. I could write pages upon pages inspired by my appreciation for you, but instead I will leave it at this: without you all – my incredibly solid and supportive family, my ever-patient husband, our chosen family formed amidst the chaos – I would not have smiled as often, managed the breakdowns even half as well, been as inspired, or pushed myself as hard to succeed.

Thank you. I am forever grateful.

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Chapter 1. Introduction

Rehabilitation is cited as a central goal of the criminal justice system at both state and Federal levels (US Dept of Justice, 2017). While rehabilitation efforts during a period of incarceration are certainly important, attention is increasingly given to the concept of “reentry” (also referred to as reintegration). This typically denotes the process of transitioning from prison or jail back to the community and encapsulates the programs and services involved. This may include individuals released to community supervision after serving most of their sentence (parole), those released unconditionally, and those under other community supervision with specific, stringent conditions (e.g., probation). At the end of 2016, an estimated 6,613,500 people were under some form of supervision by the U.S. adult correctional system (Kaeble & Glaze, 2016), with 680,000 inmates released, and reentering society, annually (James, 2014). In fact, over 95% of the prison population will reintegrate, with 80% released to parole supervision and others released unconditionally (Hughes & Wilson, 2004).

Given the number of individuals who will reintegrate into society, understanding the efficacy of rehabilitation in reentry is important. Recidivism statistics are frequently used to examine rearrests, reconvictions, or reincarcerations of returning citizens (also commonly referred to as ex-offenders) within a given time frame post-release (James, 2015), and it is presumed that effective rehabilitation will reduce recidivism. Recidivism can be measured in multiple and varying ways, sometimes making it difficult to interpret and compare outcomes. For example, studies may use different time frames, report different types of data (e.g., arrests versus conviction data), or include non-offenses that result in incarceration (such as a violation of probation). Dursoe and colleagues (2014) note that approximately two-thirds of those released to the community had recidivated within three years. The Bureau of Justice Statistics report

indicated that 83% of state prisoners released across 30 states were arrested at least once during a nine-year follow-up period (Alper & Durose, 2018). Meanwhile, the Federal Bureau of Prisons (2016) identified a recidivism rate of 34% over a three-year period. Despite different methods of measurement, the question of how to reduce recidivism remains.

Factors that Impact Reentry

In an effort to lower recidivism rates, the U.S. Department of Justice's Roadmap to Reentry (DOJ; 2016) identifies several principles to guide the improvement of reentry practices and programming. These principles include: 1) individual reentry plans; 2) opportunities for education, employment, life skills training, mental health, and substance abuse treatment; 3) resources and opportunities to build and maintain family relationships; and 4) halfway houses and supervised release programs for continuity of care for those who were incarcerated. These principles identify factors at both individual and societal levels that may be associated with reintegration success for those involved with institutional and community corrections. These are also evidence-based, as research has demonstrated that individuals who attain full-time employment, have their basic living needs met, engage in substance use treatment/classes, and gain services immediately upon release are reintegrate more successfully than others (Bahr et al., 2010; Morani Wikoff et al., 2011; Nyamathi et al., 2016; Visher, 2007). Also, overlap exists between the differing factors that impact reentry, such that the experience of severe mental illness or substance abuse disorders may impact a person's ability to maintain stable employment and housing, or access job trainings and education services (Magura et al., 2007; Visher et al., 2008). Thus, it is even more important to assess service need in multiple domains.

As the Department of Justice's second principle emphasizes, targeting specific factors through services and treatment is crucial in reducing recidivism. However, ability to access and

attain said services may be a challenge for some. Specifically, the impact of community type on service availability is less often considered in the reentry literature (Wodahl, 2006). Much of the reentry and corrections-based research, services, and funding have been driven by population density. This often means that rural reentry needs are overlooked and underfunded in favor of the needs in urban communities (Zajac et al., 2014). Wodahl (2006) explains that research, funding, and policy neglect of rural reentry is a disservice to these communities, as they face unique challenges related to reentry, including more limited opportunities. These unique challenges also include factors related to education, employment, substance use, mental health, and treatment accessibility. To better understand potential difficulties in rural reentry, specific factors that impact overall reentry require further review. The purpose of this dissertation study is to examine the major factors associated with recidivism risk and that are targets of reentry programming (e.g., mental health needs, substance use, barriers for specific groups of people) in rural communities. This will include an examination of qualitative and quantitative data across multiple data sources and an analysis of gaps in service provision for justice-involved persons in rural Northeast Tennessee. Below, I will review each of these factors in turn. This discussion will occur both broadly, at the level of justice-involved persons, and more explicitly within a rural context. From this, the need for services that facilitate reentry in rural communities can be more fully appreciated.

Substance Use

Substance use is one of the most pronounced concerns in the field of corrections and reentry due to its prevalence and relevance to criminal offending. The prevalence of substance use disorders in the general population is estimated at approximately 8.5%; however, prevalence among those residing in prisons and jails ranges from 53-68% (SAMHSA,

2014). Substance use has been identified as one of the risk factors most strongly associated with general and violent recidivism (Andrews & Bonta, 2010; Dowden & Brown, 2002). Examining substance use trends and specific crime types, over 50% of jail inmates convicted of robbery, burglary, or drug offenses were under the influence of substances at the time of their offenses (Karberg & James, 2005). One study more comprehensively examined the relationship between substance abuse and a range of offense types (Mumola & Karberg, 2006). Here, 16% of jail inmates, 17% of convicted state prison inmates, and 18% of federal inmates reported committing crimes to obtain money for drugs. Approximately one-quarter of convicted property and drug offenders in local jails and 30% in state prisons have indicated that crimes were committed to secure money for drugs, as compared to 5% and 10% of violent offenders who reported the same, respectively. Finally, of those with drug offenses at the state level, 78% had a prior sentence leading to incarceration or probation, 46% had three or more prior sentences, 16% reported all prior sentences were for drug offenses, and 50% were on probation, parole, or had absconded at the time of their arrest. Of those with drug offenses at the federal level, 62% had a prior sentence, with 30% having had three or more, 15% reporting all prior sentences were drug offenses, and 24% having been on community supervision when arrested.

Mental Health

Both historically and today, jails and prisons have served as holding places for individuals with mental health concerns (Morrissey et al., 2007). These concerns may be more general (e.g., anxiety, depression, or attention deficit hyperactivity disorder) or represent more serious forms of mental illness (SMI; which includes diagnoses of psychotic-spectrum disorders, bipolar disorder, and severe major depression). While only 5% of the general

population are diagnosed with SMI, this is true of approximately 17% of those in prisons and jails (SAMHSA, 2014). Bales and colleagues (2017) found that while inmates with any mental illness were more likely to recidivate, those diagnosed with a serious mental illness were at significantly higher risk of recidivism. Further, when individuals with mental health diagnoses, particularly SMI, remain untreated, there is a significantly higher likelihood of recidivism (Abracen et al., 2014).

Parolees with SMI have demonstrated higher measured criminal risk levels than parolees without SMI, which was associated with subsequent recidivism (Matejkowski & Ostermann, 2015). Houser and colleagues (2019) found that having a mental health concern was predictive of re-incarceration for a new crime, though this was not true for a technical violation of probation or parole. While individuals with mental illness may be more likely to reoffend, it has been suggested that this likelihood is based on general criminogenic risk factors highly correlated with mental illness, such as pro-criminal associates or antisocial traits, rather than symptom-based offending, like that related to psychiatric decompensation (Skeem et al., 2014). Regardless of these conclusions, Skeem and colleagues cite treatment efforts to alleviate recidivism risk, in that treatment may target concerns linked to criminal offending, including poor problem solving, impulsive behaviors, and difficulties with emotion regulation.

Comorbidity

Comorbidity between substance use and mental health concerns is a well-documented and important consideration. Such comorbidity is relatively common in correctional populations, ranging from 33-60%, as compared to 14-25% in the general population (SAMHSA, 2014). Comorbidity in correctional and forensic mental health populations outside of the U.S. have revealed similar trends. For example, Mundt and Baranyi (2020) evaluated the prevalence of

comorbidities in Chile and found that a triad of SMI, personality disorders, and substance use disorders was present in 32.3% of their corrections sample. Upon further examination, they found that 30.2% had major depression, personality disorders, and substance use disorders, and that 12.6% had psychosis, personality disorder, and substance use disorder. In a Canadian sample, of those diagnosed with SMI, 61% met criteria for a co-occurring substance use disorder, and co-occurring substance use disorders were associated with longer hospitalization and higher risk of violent recidivism (Hilton et al., 2018).

Groups with Unique Reentry Challenges: Persons with Sexual Offense Histories

Some justice-involved persons face unique reentry challenges, meaning that due to the nature of their criminal charges or other behavioral factors, there may be more restrictions or barriers in the reentry process. One such group consists of individuals convicted of sexual offenses, who make up 11.2% of the U.S. Federal Bureau of Prisons population (FBOP, 2021). These returning citizens experience intensified barriers that include legislated housing, employment, and treatment placement restrictions, making it more difficult to comply with complex supervision and reentry guidelines (Grossi, 2017). Empirical findings demonstrate the impact of these restrictions. Although the sexual recidivism rate for persons previously convicted of a sexual crime over a three-year period is 5.3%, 38% of those individuals return to prison, with the majority (71%) returning for technical violations only, such as failing to register or not attending scheduled treatment sessions (Langan et al., 2003).

Reentry Factors within a Rural Context

Although research has shown that rates of mental illness and substance use are higher in justice-involved populations, overall rates of these in varying communities contributes to service need. In other words, the needs of returning citizens and other community members will drive

resource demand. While it is difficult to find an estimated prevalence of mental illness or SMI for citizens returning specifically to rural communities, rates of adult mental illness are similar in rural and urban general populations (Hogan, 2003). Additionally, though it was once believed that substance use was more problematic in urban communities, Leukefeld and colleagues (2002) found that there was little difference in drug use between rural and urban inmates, and that, when examining specific substances used, rural inmates report more alcohol and opiate use than urban inmates.

Unfortunately, from 2008 to 2018, the state of Tennessee's age-adjusted death rate due to opioid overdose increased from 7.7 per 100,000 to 19.9 per 100,000 (NIDA, 2020), which exceeds the national rate of 14.6 per 100,000. Over the past twenty years there has been an increase in substance use in rural Appalachia, with Central Appalachia evidencing some of the highest rates of use and overdoses across the US, particularly in the face of the opioid epidemic (Meyer et al., 2013). This increased use has also been connected to an overall increase in crime and an overloading of the justice system. Of note, these regions are characterized by high rurality, suggesting dramatic increases in substance use and overdose deaths in one particularly rural region of the U.S.

The impact of comorbidity has also been highlighted in rural populations. In an examination of the relationship between drug use and history of incarceration among rural Appalachian women, poorer mental health (e.g., symptoms of depression, anxiety, and post-traumatic stress disorder) was a significant positive correlate of incarceration history (Stanton et al., 2017). Among the rural Appalachian women in their sample, drug use alone could not explain incarceration patterns; rather, the association between substance use and justice system involvement was influenced by mental health needs. Thus, understanding and mitigating the

impact of comorbidity through treatment remains integral to successful reentry in rural communities.

While urban communities generally exhibit higher crime rates than their rural counterparts, this varies somewhat by crime type (Henneberg, 2000; Office of Justice Programs, 2018). Morgan and Kena (2019) report that the rate of rape in urban communities is 34.2 per 100,000, whereas a rate of 41.1 per 100,000 is found in rural communities. Similarly, rates of intimate partner rape or sexual assault in rural communities were one-and-a-half to three times higher than in suburban or urban communities (Rennison et al., 2012). Higher rates of childhood sexual abuse have also been found in rural counties, at nearly three per 1,000 children, twice the rate of one-and-a-half per 1,000 children in urban counties (Sedlak et al., 2010). Within rural communities, rates of some crimes are comparable to or exceed, those in urban communities. Per the Department of Justice, available services and treatment for returning citizens mitigates risks of recidivism; however, the context of rurality may impact availability of needed treatment resources.

Treatment Considerations for Rural Returning Citizens

As has been highlighted, factors including mental health needs, substance use disorders, or belonging to a group with additional reentry restrictions can deter successful reentry. If rural communities face these concerns at rates comparable to urban communities, one would expect similar rates of available services to mitigate their risks. Rural Healthy People 2020 suggests this may not be the case (Bolin et al., 2015). While mental health/mental health disorders and substance use are in the top 10 focus areas (numbers four and five, respectively, out of 30) of rural health priorities, the single number one issue identified in rural communities for the past two decades has been overall access to quality health services.

While there have been efforts to get more returning citizens into treatment, including the Second Chance Act of 2008 and the concept of mandated treatment (or treatment in lieu of incarceration), the desired impact falls short for rural communities for several reasons. After the Second Chance Act passed in 2008, treatment resources were set to expand into underserved rural areas. Although programs such as the Middle Tennessee Rural Reentry Program (MTRR) are evidence of this expansion, barriers continue to exist in the way of implementation, delivery, and evaluation of efficacy (Miller & Miller, 2017). The MTRR program focused on stepwise intervention planning in an effort to aid reintegration for those dually diagnosed with mental health and substance use concerns. Although treatment began while individuals were still incarcerated, post-release case management and supervision were coordinated through the MTRR program and included referrals to services such as halfway homes and treatment. While the program did result in a decrease in recidivism when compared to the state as a whole, the impact of resource shortages, service sustainability, and a lack of value placed on treatment continued to create barriers for effective implementation (Miller & Miller, 2017). For example, when there are more returning citizens entering a program than the community has referral resources for, individuals end up being waitlisted for sorely needed treatment, thus risking relapse and/or recidivism (Miller & Miller, 2017). Thus, while rapid referrals and direct linkage to appropriate care are being developed, as indicated by Rural Healthy People 2020 (Bolin et al., 2015), the availability of services to be referred or linked to lags behind in rural communities (Hastings & Cohn, 2013).

Illustrating this impact of treatment availability, while Stanton-Tindall and colleagues (2007) found similar rates of mental health and substance use concerns in incarcerated women from rural and urban communities, differences existed in service utilization

depending on community of origin. Even though engaging in behavioral health and substance use services prior to incarceration were beneficial to rural women's overall health, they utilized these services at a significantly lower rate than urban women. One reason cited for this decreased utilization in rural, incarcerated women was a lack of access to services. Problems with access in rural communities stem from the fact that rural communities tend to have fewer providers, fewer specialized resources, and increased stigma toward treatment (Wodahl, 2006). For these reasons, individuals residing in rural communities must travel, on average, seven times farther than urban residents to reach their closest treatment provider (SAMHSA, 2002).

When there are providers in rural counties, the patient-to-provider ratio is lower than that of urban counties for all professions, but particularly so for psychiatrists, psychologists, and social workers (Holzer et al., 1998). In fact, rural counties have an average of nine psychologists and three-and-a-half psychiatrists per 100,000 people, which stands in stark contrast to metropolitan counties that have, on average, 33.2 psychologists and 17.5 psychiatrists per 100,000 people (Kaiser Family Foundation, 2020). In addition, among 1,253 small rural counties, approximately three-fourths lack a psychiatrist entirely (Gamm et al., 2010). For perspective, the County Health Rankings and Roadmaps (2020) database suggests that the "top U.S. performers" are operating at a ratio of 270 patients for every one mental health provider (which includes psychology, psychiatry, counseling, marriage and family therapists, social work, substance use counselors). The state of Tennessee, which the 2010 census identified as 93% rural, ranges from 16,830 patients per provider to 270 patients per provider, with an overall standing of 630 patients per provider. It is important to highlight that these ratios are for general qualified mental health professionals but does not account for specialized services that may be

required by some returning citizens or for providers who do not work with justice-involved clients.

As noted previously, some returning citizens face additional difficulties accessing treatment, as they likely require specialized services. For example, although individuals who have committed a sexual offense are often referred or mandated to treatment, rural communities generally do not offer specialized services, as such services are concentrated in more urban areas (Daly, 2008; Zajac et al., 2013). Due to limited services, they may end up seeking generalized therapy instead of specialized care. Daly (2008) found that non-specialized services are less effective for this population's reintegration needs when compared to those that are specialized. Similarly, Losel and Schmucker (2005) conducted a meta-analysis to examine the efficacy of general treatment programs on sexual recidivism, finding no impact. This suggests that a lack of specialized or individualized treatment resources may result in treatment that is not effective in reducing recidivism and promoting reintegration.

Provider Perspectives on Service Availability and Implementation

Mental health providers and probation/parole officers provide important, on-the-ground, information regarding their own experiences with clientele reentry. Skeem and colleagues (2006) surveyed supervisors who work in a specialized framework for working with probationers who have mental illness (PMIs). There were five major distinctions between this model of supervision and more traditional models. These differences included caseloads that were exclusively composed of individuals with mental health needs; reduced caseload size; regular training related to mental health supervision; integration of internal and external resources to meet client needs; and problem-solving strategies to address noncompliance with treatment and supervision (as opposed to immediate violations or punishment-based tactics). Overall, supervisors agreed that

the specialty features of this framework were helpful and more effective than traditional probation models. While supervisors shared that close working relationships with treatment providers and case managers were essential to client success, they most frequently highlighted that the biggest challenge in supervising PMIs was accessing and coordinating social services that met their clients' complex needs. This is especially concerning given that specialty supervisors worked significantly more closely with agencies than supervisors in traditional models but still struggled to find resources. Although specialty models of supervision to guide reentry and incorporate treatment would be ideal, the ability of rural communities to adopt such a framework is uncertain given that having lower caseloads requires more staff and again, referral sources are required to make it effective.

Community supervision officers have also discussed the specific complexity of reentry success in rural communities. Ward and Merlo (2016) found that rural probation and parole officers identify untreated substance use as a primary concern and potential link to recidivism among their clients. Across both rural and urban settings, probation officers also identified that probationers with mental illness provided more challenges in supervision that were further exacerbated by a lack of mental health and substance abuse treatment resources, regardless of community type (Van Deirse et al., 2018).

To better understand reentry needs, Ward and Merlo (2015) interviewed treatment providers in rural Pennsylvania. Participants included jail-based counselors and those working for rehabilitative and reentry-based services in local counties. They found that many treatment providers identified a lack of mental health medication as a challenge, as it can be difficult to connect with psychiatric services upon release. The theme of substance use and its co-morbidity with mental illness also emerged. Providers, probation and parole officers, and incarcerated

individuals all recognized the use of illicit drugs as a disease and form of self-medicating that requires treatment; however, it was noted that treatment is not always immediately available. Per their accounts, when this is the case, the chance of relapse and reoffending or reincarceration is elevated. In a similar vein, Browne and colleagues (2015) talked to employees and board members from rural, Southern U.S. substance use treatment agencies. Barriers to treatment identified by participants included service shortages, cost, stigma toward treatment, and lack of access to updated technology. Regarding service shortages, providers highlighted that while there is an overall lack of services, an additional concern is availability of diverse providers. For example, in the rural South they noted how difficult it could be to find treatment that was not faith-based or care that was more specialized. Additional exploration into the experiences of rural providers has been recommended.

The Focus on Rurality: Reentry in Tennessee

As an emphasis on rurality is critical for criminal justice, treatment, and reentry research, Tennessee makes an ideal backdrop for examining the impact of rurality on the needs of individuals involved with the criminal justice system. Per the 2010 U.S. Census Report, 93% of the state is classified as rural, with 70-95 counties having at least 50% of their residents living in rural communities. The 2018/2019 fiscal year average of Tennessee's felony population (which includes individuals incarcerated, on probation, or on parole) was 22,022 persons (TDC, 2019).

Of all crimes reported in the state of Tennessee for 2018, 27.2% were crimes against persons (e.g., murder, rape, or assault), 53.2% were crimes against property (e.g., robbery, bribery, or burglary), and 19.6% were crimes against society (e.g., gambling, prostitution, or drug violations; TBI, 2018). While DUI arrests have slowly declined since 2016 (from 23,708 to 20,157), offenses involving methamphetamine (including clandestine laboratory and illegal

importation) have steadily risen in the state since 2016 (from 9,526 to 15,899), with an overall 0.4% rise in drug violations. The more serious crimes, called “group A offenses,” have declined overall by 3.6%, with the specific offenses of murder and rape having declined by approximately 8% and 4.7%, respectively (TBI, 2018). In 2016, Tennessee’s seven-year overall recidivism rate was approximately 47% (“Recidivism Rate,” 2018).

In October of 2004, the Tennessee Department of Corrections established the Tennessee Reentry Collaborative (TREC) to help promote reentry and public safety. This collaboration involves partners from Tennessee’s Board of Parole, Rehabilitative Services, Department of Children’s Services, Department of Mental Health and Substance Abuse Services, and Department of Education. Additionally, local representatives from police and sheriffs’ departments, the courts, city and county government, and public and private treatment and service providers are involved. There is an emphasis on identifying needs and developing treatment plans and programming based on the needs of justice-involved individuals. The Tennessee Department of Corrections has acknowledged the need for more attention to rural areas, as evidenced by a grant application submitted in January 2019 for county sheriffs’ or probation departments’ existing reentry programs or those attempting to establish residence in rural areas. The examination of reentry and associated services for justice-involved Tennesseans may reveal significant implications for reentry programming and services in rural communities. Though the current study will emphasize a specific region of one state, it is hoped that findings will generalize more broadly to other rural areas.

The current study aimed to identify and describe barriers to successful service attainment and reentry, using ten counties in rural Northeast Tennessee to guide a gap analysis. This gap analysis examined the justice-related treatment shortfalls for each of the represented counties and

overall region by comparing crimes (for which individuals are generally referred or mandated to treatment) to treatment service availability. Qualitative data in the form of perspectives from local treatment providers who serve justice-involved clients were also used. While the current study did not necessarily focus on the perspective of providers, the corroboration or contradiction of their report relative to the quantitative findings is discussed in an exploratory fashion.

Hypotheses

1. Crime trends in the rural communities examined will approximate those of larger urban areas, though higher rates or a greater percentage of substance abuse and sexual offenses are hypothesized given previous literature suggestive of greater alcohol and opioid use in rural communities, and rural Appalachia in particular.
2. Provider-to-client ratios in these rural communities for general community residents will significantly differ from what is recommended per empirical guidelines, as evidenced by the highlighting of mental health provider shortage areas.
3. Estimated caseloads for those who provide mental health, substance abuse, and other specialty services for justice-involved persons, in comparison with actual crime rates in rural communities, will identify service availability shortfalls for justice-involved clients in that service type, county, and region.
4. The higher percentage rurality of the given county, the greater the shortfall in specialty service provider availability for each specialty area, county, and overall region.
5. The specific forms of treatment or modalities identified by regional treatment providers will be consistent with those most lacking in those communities, per the gap analysis.

Chapter 2. Methods

Rural reentry is characterized by a host of unique barriers to successful reintegration, most often discussed in terms of access to necessary services, resources, and necessities of successful daily living. The current study aimed to examine service gaps for returning citizens in rural northeast Tennessee by utilizing a mixed-methods approach conducted in five phases. Phase A involved a targeted examination of crime, via the Tennessee Bureau of Investigation's online reporting of crime statistics, in the counties where the interviewed providers practice. This examination specified offense types occurring in said counties, which informs local area treatment needs for specific offenses. In the second phase, treatment services were identified in the same counties from which crime statistics were extracted. In the third phase, the gap analysis was conducted such that, based on the number of criminal offenses, a determination of provider need was calculated. This was then compared to the true availability of related service providers in the same counties. This difference will be the provider shortfall or surplus that indicates the potential gap between need and availability. In the fourth phase, treatment providers' qualitative accounts of barriers to reentry service needs were examined. Finally, the fifth phase was a comparison of treatment providers' qualitative accounts of service needs and quantitatively determined gaps in services for associated communities. By utilizing this mixed methods approach, the current study aimed to develop a more holistic view of rural reentry services and explore reported areas of greatest service need.

Study Setting

For the current study, ten counties in East Tennessee were examined. The ten counties (referred to as the "region") were selected from the catchment areas served by the mental health treatment agencies that participated in qualitative data collection efforts. These counties

encompassed approximately 9.58% of Tennessee's population and had a median household income of \$35,940. Approximately 16.76% of the area population is considered low income (US Department of Health and Human Services, 2018). Appendix A details additional information for these counties, including their percentage of rurality, which ranges from 21.9% to 100%. Five of these counties are composed of less than 50% rurality (Unicoi, Carter, Washington, Sullivan, and Hamblen), while the other five are composed of more than 50% rurality (Hawkins, Jefferson, Greene, Johnson, and Hancock). This divide was useful in the examination of crime trends across county types.

Quantitative Methods: Gap Analysis

Gap analyses can be used in any field but are often used in business, policy, and service sectors as a method of comparing the current state or performance of an organization to the desired or necessary performance. In a gap analysis it is important to identify and describe the gap and elements that comprise it. For some analyses, this may be a certain percentage productivity difference between current performance and desired performance. However, the currently proposed analysis is similar to that of Zajac and colleagues (2014) examination of rural prisoner reentry challenges in Pennsylvania. In their study, a gap analysis was used to compare the number of state and local inmates returning to Pennsylvania counties to programs available in each county across the state, thus assessing the gap between the number of returning citizens who may require services and service capacity per county. They then explored noted gaps in service capacity and types of services needed, concluding with policy considerations to help address identified gaps.

In order to complete the current gap analysis, the number of criminal offense types committed in each county in a given year (an estimation of the number of individuals who may

require services) and the total number of service providers available in the county (capacity) were utilized. Using data from MHPs in the qualitative study, an estimated criminal justice involved caseload per provider was calculated. Thus, the number of providers needed was calculated based on the number of offenses. This number was then compared to the true number of providers available to offer data on provider shortfall and the number of providers required to close the gap between need and availability. Although examining multiple factors (i.e., treatment groups, inpatient beds, overall facility counts, and so on) would be ideal, the current examination remained more limited in scope. Thus, focusing instead on areas most pertinent to results from available crime statistics given the impact that crime type has on potential treatment needs (discussed below).

Crime Statistics

The current study utilized data extracted from the Tennessee Bureau of Investigation (TBI) crime statistics database online. TBI maintains a public-access site that includes crime statistics for each of the 95 Tennessee counties. Offense types for specific counties in Tennessee in which the aforementioned treatment providers serve were extracted and evaluated. Taking clearance into consideration, the current study only utilized crime data reflective of cases that have been cleared. This means that the crime has been cleared by arrest or otherwise solved.

Per the TBI, offense types are categorized as crimes against people, property, and society and, altogether, include 47 specific offense types. For this study, 17 offense types were collapsed into three categories based on the anticipated treatment needs of each: 1) violent crimes against persons (simple assault, aggravated assault, intimidation, kidnapping/abduction, robbery, stalking); 2) sexual crimes against persons (forcible fondling, forcible rape, forcible sodomy, incest, pornography/obscene materials, purchasing prostitution, sexual assault with an object,

statutory rape); and 3) crimes related to addictive behaviors, specifically drugs (drug/narcotic equipment violation, drug/narcotic violation). While gambling is included in the TBI database, there was not a sufficient number of offenses, thus they were not included in the current study. Additional crime categories from the 47 offense types identified were not included, as there are not generally mandated or referred treatment services associated with them (i.e., counterfeiting, fraud, property damage). The percentage of crime accounted for by each of these three categories were calculated for each of the counties and for the region as a whole.

Service Availability

To examine services in the selected Tennessee counties, data from the Health Resources and Services Administration (HRSA) website was examined (data.HRSA.gov). This website provides data and reports to the public about general health care programs and services. Specific to the current study, names of health care facilities, information on provider shortage areas, and resident demographic information for state and county level were accessed through this resource. Then, to ensure the most updated account for providers, a systematic online search, utilizing the Tennessee State Government website (TN.gov), the Tennessee Department of Mental health and Substance Abuse Services listing and website (<https://www.tn.gov/behavioral-health/substance-abuse-services/criminal-justice-services/recovery-drug-court-programs-in-tn.html>), psychology today online portal (<https://www.psychologytoday.com/us/therapists>), the Yellow Pages online portal, and Google search hub was utilized to search for mental health services advertised in each of the 10 counties. Key words in this systematic search included service terms related to identified prominent crimes in the given counties such as “mental health providers,” “substance abuse,” “addiction,” “sex offender,” and “reentry,” among others. Findings were limited to the official websites of service providers in the specified counties that are currently in operation and

willing to work with returning citizens (as indicated by court referral sources or their website's information). Apart from examining overall mental health professional shortage areas, organizations not currently in operation, unwilling to serve returning citizens or justice-involved populations, or that do not operate within the identified counties were excluded from examination.

Qualitative Methods

Participants

Treatment providers regularly working with justice-involved clients are familiar with challenges that their clients face, offering a unique and important perspective. Therefore, the current study utilized information from a larger study entitled, "Barriers and facilitators to offender reentry in rural communities," which attained ETSU Campus IRB approval on April 3, 2015. This study involved quantitative survey data and qualitative interviews conducted with mental health providers (MHPs) from East Tennessee agencies who provide court-ordered treatment services via social work, counseling, clinical psychology, and marriage and family therapy. These providers, identified by the principal investigator and a graduate assistant, were recruited via email to participate in a survey as well as focus groups or individual interviews. Those who indicated an interest in participating were provided informed consent documentation and video authorization paperwork.

Two MHPs were interviewed individually, and 36 were interviewed in five focus groups. MHPs included both males ($n=15$; 39.5%) and females ($n=23$; 60.5%). Agencies for which these providers represented included community corrections and the courts, community counseling centers, residential treatment facilities, and university health settings. Appendix B details MHPs'

education and training demographics, professional demographics, and further information regarding the MHPs' caseloads and client characteristics.

Materials

Interview questions were developed based on prior research describing challenges of rural reentry (Wodahl, 2006; see Appendices C–E for materials relating to the interview). Using NVivo 10 software, interview footage was transcribed by trained research assistants. Qualitative data were subjected to a two-stage thematic analysis (Braun & Clark, 2006) in which initial themes were identified and then examined for overlap and commonality. Similar themes were then condensed into more distinct themes and subthemes, which were then coded from transcripts. Although a total of seven themes, including 30 subthemes, were identified via thematic analysis for the parent project, pertinent to the current study are two themes and five specific subthemes. The guiding themes include: (1) Individual and Systemic Barriers, subthemes: (a) Systematic Barriers; (b) Background Characteristics; and (c) Mental Health Concerns; and (2) Rural Needs, subthemes: (a) Accessibility Concerns and (b) Treatment Provider Concentration in more Urban Sections of the Region.

Analytic Plan

In phases one and two, a count of offenses and providers in each county was gathered from publicly available data bases and information hubs. Information collected in phases one and two was presented with regard to crime trends for each of the 10 counties. Within crime trends reported in phase A, an examination of the percentage of crimes that each of the three crime categories accounts for within and across counties were calculated. As the counties included five composed of 50% or more rurality (Hawkins, Jefferson, Greene, Johnson, and Hancock) and five composed of 50% or less rurality (Unicoi, Carter, Washington, Sullivan, and Hamblen) this

allowed two groups for comparison via independent samples t-tests. This facilitated the examination of, for one example, whether violent, non-sexual crimes against persons account for more crime in more rural or non-rural communities. Within phase B, an overall report of general mental health professional shortage areas was provided to determine if needs are being met at a population baseline, before yet considering justice-involved populations.

In phase three, a gap analysis was conducted. For the gap analysis, the number of individuals who require a specific service, based on crime statistics, and the number of specialty service providers available were extracted (e.g., the number of individuals arrested for a drug related crime and the number of available drug treatment providers). Utilizing data from participants in the qualitative study, approximate caseloads and percentage of justice-involved persons on providers' caseloads were used to calculate how many justice-involved individuals the providers could serve. The difference between how many individuals need care (based in crime statistics) and those that could be served based on provider availability were calculated to determine the potential provider shortfall. This allowed for a determination of the number of providers needed to close the gap (or, in other words, to decrease the shortfall). These findings were additionally discussed on a continuum of rurality to determine if counties' percentage of rurality was associated with increased provider shortfalls.

In qualitative phase D, two themes and five subthemes previously identified via thematic analysis from the larger mental health provider dataset were reported. The definitions were provided in greater detail within the context of the results section. Findings also included specific quotes pulled from the qualitative data to exemplify providers' experiences. The counties from which the providers operate were the focus of the gap analysis. Lastly, in phase E, results from

the current study were compared to quantitative findings as they relate to MHPs' reports of regional and county needs.

Chapter 3. Results

The current study addressed five aims/hypotheses via phases A- E, which included both quantitative and qualitative methods. The results are presented in phase order, beginning with quantitative findings.

Phase A: Offenses Per County

Table 1 (below) provides a thorough breakdown of offense type by county for each of the 10 Tennessee counties included in the current study. As indicated in previously reported crime trends, counties with higher population densities experienced higher rates of crime. For example, Sullivan is the largest county included in the present study with a population size of 158,348, and it had the highest number of crimes reported ($n = 8,325$), with an overall rate of 5,257.41 per 100,000. Hancock was the smallest county, with a population size of 6,620, and it had the lowest number of total crimes reported ($n = 78$), with a rate of 1,178.24 per 100,000. For each county, the percentage of total crime each category of crime accounted for was examined. As counties are split, with half being more than 50% rural (more rural) and half being less than 50% rural (less rural), comparisons were made between the groups.

Table 1*Crime Counts, Percentages, and Rates by County and Total Region*

County	Total crimes for County	Rate of crime	Crimes against persons (violent and threatening, <i>N</i>)	Percentage of total crimes that are crimes against persons	Rate of crimes against persons	Sexual crimes against persons (<i>N</i>)	Percentage of total crimes that are sexual crimes	Rate of sexual crimes	Substance use related crime (<i>N</i>)	Percentage of total substance use related crime	Rate of substance use related crime
Hancock	78	1178.25	16	20.51%	241.69	7	8.97%	105.74	42	53.84%	634.44
Johnson	435	2445.47	99	22.76%	556.55	9	2.07%	50.60	234	53.79%	1315.49
Greene	1,893	2740.74	536	28.31%	776.04	14	0.74%	20.27	801	42.31%	1159.71
Jefferson	1,337	2453.43	313	23.41%	574.36	22	1.64%	40.37	526	39.34%	965.23
Hawkins	654	1151.69	203	31.04%	357.48	7	1.07%	12.33	215	32.87%	378.61
Unicoi	538	3008.44	217	40.33%	1213.44	9	1.67%	50.33	182	33.82%	1017.73
Carter	1,079	1913.43	295	27.34%	523.13	8	0.74%	14.19	267	24.75%	473.48
Washington	5,580	4313.04	1,681	30.13%	1299.32	60	1.07%	46.38	1546	27.70%	1194.98
Sullivan	8,325	5257.41	2,484	29.83%	1568.70	148	1.78%	93.47	2,569	30.85%	1622.38
Hamblen	3,990	6144.70	1,122	28.12%	1727.91	45	1.13%	69.30	1,032	25.86%	1589.31
Total Region	23,909	3784.93	6,966	29.14%	1102.76	329	1.38%	52.08	7,414	31.01%	1173.68

Note. Counties are arranged in order from most rural (Hancock = 100%) to least rural (Hamblen = 29.1%).

Crimes Related to Substance Use

For counties more than 50% rural, crimes related to substance use contributed, on average, to 44.43% of overall crime (range: 32.87 - 53.84%). For counties less than 50% rural, crime related to addiction contributed, on average, to 28.60% of overall crime (range: 24.75% - 33.82%). Thus, the more rural counties in the sample evidenced a higher percentage of substance use related crime as compared to less rural counties. This difference was statistically significant, $t(8)=5.43$, $p<.001$, which supports hypothesis one of the current study.

Crimes Against Persons

For counties more than 50% rural, crimes against persons contributed, on average, to 25.21% of their overall crime (range: 20.51% - 31.04 %). For counties less than 50% rural, crime against persons contributed, on average, to 31.15% of overall crime (range: 27.34% - 40.33%). Thus, crimes in more rural counties were generally composed of fewer instances of violent crimes against persons than less rural counties. However, this difference was not significant, $t(8)=1.98$, $p=.08$. These data do not support hypothesis one, as it was hypothesized that crime trends within the current study sample would mimic broader crime trends, which hold that violent crimes against persons are significantly increased in more urban communities.

Sexual Crimes Against Persons

For counties more than 50% rural, sexual crimes against persons contributed, on average, to 2.90% of their reported crime (range: 0.74% to 8.97%). For counties less than 50% rural, sexual crime against persons contributed, on average, to 1.28% of overall crime (range: 0.74% - 1.78%). Thus, sexual crimes represented a greater proportion of overall crime in more rural counties than in less rural counties. However, this difference was not significant, $t(8)=-1.04$, $p=0.33$, and thus does not support my first hypothesis.

Phase B: Providers Per County

County Health Rankings and Roadmaps (2021) examines the ratio of population to provider, considering the top performers in the United States to be at a 310:1 ratio; however, to be designated as an official shortage area a certain population-to-provider ratio must be met. For mental health this ratio must be at least 30,000 to one, or 20,000 to one if there are “unusually high needs” in the community. Each of the counties included in this study, with exception of Washington County (which is considered a partial shortage area), is a full mental health professional shortage area. Thus, at the level of general population, there are deficits in care. These findings generally support the second hypothesis, in that ratios of care are less than necessary for ideal care and in fact meet criteria for mental health professional shortage areas for 9 of the 10 counties. However, further examination of services specific to justice-involved populations is needed to identify the areas of deficit are empirically linked to reentry success; thus, both a count and rate of providers specific to treatment for substance use, sexual offending, and anger management, as well as general mental health professionals, is included in Table 2 (see below).

Table 2*Mental Health Provider Counts and Rates by County and Total Region*

County	Overall population	Number of General Mental Health Providers	Mental Health Provider Ratio for MHPSA designation	Anger management aligned providers	Rate of anger management aligned providers	Sex offender treatment providers	Rate of SO treatment providers	Substance use treatment providers	Rate of SUD treatment providers
Hancock	6620	0	0*	0	0	0	0	2	30.21
Johnson	17788	16	1110:1*	0	0	0	0	5	28.11
Greene	69069	66	1050:1*	2	2.90	0	0	19	27.51
Jefferson	54495	19	2870:1*	0	0	0	0	13	23.86
Hawkins	56786	10	5680:1*	0	0	0	0	9	15.85
Unicoi	17883	3	5960:1*	0	0	0	0	2	11.18
Carter	56391	17	3320:1*	2	3.55	0	0	12	21.30
Washington	129375	423	310:1	15	11.59	1	0.77	74	57.20
Sullivan	158348	199	800:1*	12	7.58	6	3.80	68	42.94
Hamblen	64934	105	620:1*	4	6.16	2	3.08	23	35.42
Total Region	631,689	858		35	5.54	9	1.42	227	35.94

Note. * indicates designated mental health professional shortage areas. Rates are calculated per 100,000 people. Counties are arranged in order from most rural (Hancock = 100%) to least rural (Hamblen = 29.1%).

The results from phases A and B mirrored one another. For example, the highest rate of crime in the region was that related to substance abuse (1,173.68 per 100,000), and the most common specialty provider was for substance use related problems ($n = 227$), at a rate of 35.94 providers per 100,000 people. In fact, substance use treatment providers who work with justice-involved populations account for 26.46% of all MHPs identified in the region ($n = 858$). Crimes against persons was the second highest crime rate group (1,102.76 per 100,000), and anger management providers (including those specifying violence and domestic violence) represented the second most common specialty provider type ($n = 35$) at a rate of 5.54 providers per 100,000. Lastly, sexual crimes occurred at the lowest rate (52.08 per 100,000), and sex offender treatment providers were the least common specialty provider ($n = 9$), at a rate of 1.42 providers per 100,000 people.

Phase C: Gap Analysis

When completing the gap analyses, data collected from the mental health providers (MHPs) interviewed for phase D (who were also used to guide the regional selection in the current study) were utilized to provide the most accurate estimation of caseload size in the region. These MHPs from varying backgrounds reported an average caseload of 51.09 clients, and their caseloads were composed of 59.19% criminal justice involved persons. This allowed for the calculation of the average number of justice-referred clients per provider, resulting in approximately 30.24 clients per provider. Given that the literature suggests that rural residents typically use resources across county lines, the entire 10 county region will be consolidated for the primary gap analysis, though specific results from each county will be discussed.

Services for Substance Use Related Crimes

Accounting for all 10 counties included in the current analysis, there were a total of 227 substance use providers identified. Unlike other service need categories, there were identified specialty providers in this domain in all of the 10 counties. Unicoi ($n = 2$, 11.18 per 100,000) and Hancock ($n = 2$, 30.211 per 100,000) Counties accounted for the fewest providers, whereas Sullivan ($n = 68$, 42.94 per 100,000) and Washington ($n = 74$, 57.20 per 100,000) Counties accounted for the largest number of providers. Again, Sullivan and Washington Counties are included in the group of counties that are less than 50% rural, though interestingly, so is Unicoi County. Hancock County, however, is in the group of counties that are 50% or more rural. Of note, providers identified advertise a mix of treatment modalities, including medication assisted treatment (i.e., Suboxone). As not all court systems or judicial jurisdictions allow for this form of substance use treatment, this may be an overestimation of service availability, but was not eliminated as use of this modality remains dependent on the individual and the specific court.

Across the region, drug-related offenses account for the overall highest number of crimes ($n = 7,414$), at a rate of 1,173.68 per 100,000. While Washington County has the most providers ($n = 74$, 57.20 per 100,000), they also have one of the highest occurrences of drug-related crime ($n = 1,546$), at a rate of 1,194.98 per 100,000. In evaluating potential gaps, Washington County actually experiences a surplus in providers, such that their 74 providers could assist 2,237.76 individuals. This is 691.76 more clients than needed and translates into a surplus of 22.88 providers. Although a surplus is promising, this finding is important to put within the context of the broader region. Assuming each of the 227 providers in the 10 counties examined here carried a caseload of 30.24 people, services could be provided to 6,864.48 individuals. The shortfall would thus equal 549.52 and require 18.17 providers to be added to the region. Therefore, while

larger counties like Carter and Washington may be able to provide a surplus of services within themselves, when serving persons from the more rural areas of the region that do not have needed resources, shortfalls arise. Against hypothesis four, there was not a clear trend that emerged regarding a relationship between increased rurality and increased provider shortfall. For example, the most rural county had a surplus (+0.61, with a rate of 30.21 providers per 100,000), while the least rural county experienced a shortfall (-11.13, with a rate of 35.42 providers per 100,000). See Table 3 below for a summary of these results.

Table 3

Gap Analysis Data: Provider Shortfalls by County and Total Region for Substance Use Related Crimes

County	Number of Crimes	Number of substance use (SU) treatment providers needed	Number of SU providers available	Provider shortfall
Hancock	42	1.39	2	+0.61
Johnson	234	7.74	5	-2.74
Greene	801	26.49	19	-7.49
Jefferson	526	17.39	13	-4.39
Hawkins	215	7.11	9	+1.89
Unicoi	182	6.02	2	-4.02
Carter	267	8.83	12	+3.17
Washington	1546	51.12	74	+22.88
Sullivan	2,569	84.95	68	-16.95
Hamblen	1,032	34.13	23	-11.13
Total Region	7,414	245.17	227	-18.17

Note. Counties are arranged in order from most rural (Hancock = 100%) to least rural (Hamblen = 29.1%).

Services for Crimes against Persons

Across all 10 counties of the region, there were a total of 35 providers identified who offered services in the realm of anger management, violence, and domestic violence perpetration treatment. These providers were located across five counties: Washington ($n = 15$, 11.59 per 100,000); Sullivan ($n = 12$, 7.58 per 100,000); Hamblen ($n = 4$, 6.16 per 100,000); Carter ($n = 2$, 3.55 per 100,000); and Greene ($n = 2$, 2.90 per 100,000). Of note, each of these counties, with the exception of Greene County, is in the less than 50% rural group. The remaining counties (four of which are more than 50% rural) included zero specialized providers in this domain; however, shortfall results ranged and did not increase as rurality did. This is likely due to the lower number of crimes (or potential CJ clients) in these counties.

Estimating an average caseload of 30.24 clients per provider, this would allow providers to serve a total of 1,058.4 criminal justice involved clients. Violent crimes against persons ($n = 6,966$) are those most often referred to such treatment. Thus 5,907.6 incidents of crimes against persons are unaccounted for through services from mental health professionals. While this may be an overestimate, given that not every individual with such a charge may be mandated to or self-seek services, even if this number were divided in half, this results in nearly 3,000 individuals associated with these crimes without service options. To ensure that each of the 6,966 incidents had services available, the region would need to find an additional 195.4 providers of anger management, violence, and domestic violence treatment services whose caseloads were comprised of 59.19% justice-involved populations. Even if providers were to see only those referred by the courts (100% justice-involved caseload), there would still be a shortfall of 115.63 mental health specialists to provide anger management, violence, or domestic violence perpetration services to close this gap.

As indicated, only half of the counties in the region have providers in this specialty area. Despite the lack of any treatment providers, crimes against persons still exist in these locales. There was a range of provider shortfalls at the county level (-0.53 to -70.14). In the five counties with available providers, Sullivan accounts for the highest number of crimes against persons ($n = 2,484$, 1,568.70 per 100,000) and the second highest number of providers ($n = 12$). Given that 12 providers would, on average, be able to provide services to 363 clients (362.88), it would take the addition of 70.14 providers to close this gap. In opposition to hypothesis 4, the rurality of the county decreased, there was a trend toward increased provider shortfalls, such that the biggest shortfall for the counties that were more than 50% rural was -15.72 providers, while the counties that were less than 50% rural had their biggest shortfall at -70.14 providers. See Table 4 below for a summary of these results

Table 4

Gap Analysis data: Provider Shortfalls by County and Total Region for Crimes against Persons

County	Number of Crimes	Number of anger management related providers needed (based on crime)	Number of anger management related providers available	Provider shortfall
Hancock	16	0.53	0	-0.53
Johnson	99	3.27	0	-3.27
Greene	536	17.72	2	-15.72
Jefferson	313	10.35	0	-10.35
Hawkins	203	6.71	0	-6.71
Unicoi	217	7.18	0	-7.18
Carter	295	9.76	2	-7.76
Washington	1,681	55.59	15	-40.59
Sullivan	2,484	82.14	12	-70.14
Hamblen	1,122	37.10	4	-33.10
Total Region	6,966	230.36	35	-195.36

Note. Counties are arranged in order from most rural (Hancock = 100%) to least rural (Hamblen = 29.1%).

Services for Sexual Crimes

For all 10 counties of the selected region, there were a total of nine sex offender treatment providers identified, resulting in a rate of 1.42 providers per 100,000 people. These nine providers were located in three of the 10 counties, leaving seven counties entirely without a

specialized provider. The counties in which these providers are located included Sullivan ($n = 6$, 3.79 per 100,000); Hamblen ($n = 2$, 3.08 per 100,000); and Washington ($n = 1$, 0.77 per 100,000). These counties are all less than 50% rural.

Assuming an average caseload of 30.24 clients per provider, MHPs available in this region could serve a total of 272.16 clients. The total sex-offense related crimes across the identified region were 329, a rate of 52.08 per 100,000. Thus, a shortfall exists for approximately 56.84 crimes. To close this gap, an addition of two sex offender treatment providers would be required for the region. Sullivan County accounted for the highest number of sexual crimes ($n = 148$), at a rate of 93.47 per 100,000, it also has the highest number of providers ($n = 6$). These providers could impart services for 181.44 individuals (33.33 more than needed); thus, Sullivan County, on its own, would have a surplus of one provider for individuals who have committed sexual offenses. Similarly, Hamblen County reported 45 sexual crimes (69.30 per 100,000) and has two providers. Their two providers could serve, on average, 60.48 clients (15.48 more than needed). This would allow for a single provider surplus with a smaller caseload, for example, or simply having the number of providers needed. Conversely, while Jefferson County experiences a lower rate of sexual crime at 40.37 per 100,000 ($n = 22$), they do not have the single provider they would require to meet that need. The range of shortfalls for sex offender treatment providers was small (-0.23 to +1.11), thus there was not great distinction between shortfalls as rurality increased. However, as noted, the only providers in this domain were located in counties that were less than 50% rural. See Table 5 below for a summary of these results

Table 5*Gap Analysis data: Provider Shortfalls by County and Total Region for Sexual Crimes*

County	Number of Crimes	Number of sex offender (SO) treatment providers needed	Number of SO treatment providers available	Provider shortfall
Hancock	7	0.23	0	-0.23
Johnson	9	0.30	0	-0.30
Greene	14	0.46	0	-0.46
Jefferson	22	0.73	0	-0.73
Hawkins	7	0.23	0	-0.23
Unicoi	9	0.30	0	-0.30
Carter	8	0.26	0	-0.26
Washington	60	1.98	1	-0.98
Sullivan	148	4.89	6	+1.11
Hamblen	45	1.49	2	+0.51
Total Region	329	10.88	9	-1.88

Note. Counties are arranged in order from most rural (Hancock = 100%) to least rural (Hamblen = 29.1%).

Phases D: Qualitative Results

Thematic analysis identified two major themes (MT) presented by mental health providers (MHPs) associated with treatment for returning citizens in rural communities (Individual and Systematic Barriers and Rural Needs). Under these two themes are a total of five subthemes (ST) pertinent to the current study. Results will include the definition of each subtheme, as well as specific examples. Following results for phase D, the results for phase E will be included per theme or subtheme.

MT1: Individual and Systematic Barriers

Under this major theme there were 123 references, which makes up 10.5% of all references from the parent study and 53.48% of references from themes included in the current study. MHPs discussed the impact of personality/motivation, mental health concerns, background characteristics, and both social and systematic barriers on the reentry process. MHPs spoke specifically to the impact of rurality in the subthemes of systemic barriers and background characteristics; therefore, some overlap may exist between subthemes. Additionally, MHPs were quick to note how ineffective legislation negatively impacts their clients. For example, one MHP highlighted several of these areas of concern:

“Well, I think those things [rural barriers], along with laws that restrict where sex offenders can live...act as a constant force against reintegration. People are labeled, branded, marginalized, stigmatized, and all of that is portrayed as ‘in the services of public safety’ ... if your goal is to rehabilitate and reintegrate people, these are not helpful things.” [Participant 28]

ST1: Systematic Barriers. This subtheme involves the lack of structural resources in the community to support successful re-entry, as well as other factors within the criminal justice system that make it difficult for people to fulfill their requirements and avoid re-incarceration. This theme was noted in 100% of the references under MT1 and includes restrictive or punitive legislation (e.g., housing & employment restrictions for certain offenses), the “revolving door” of the criminal justice system, and the lack of external resources available to offenders. Put simply, one MHP said:

"Do we have the services in the area that we need to be effective? To give them another road to travel on? I don't know that we have that." [Participant 26]

This provider continued, directly referring to substance use treatment.

“I actually don’t think that we have the resources that we need to give clients what they need to be successful. Very often we see there’s an A&D [alcohol and drug] assessment completed, and they need a certain level of care ... there’s not levels of care out there.” [Participant 26]

Multiple MHP continued to note that substance use treatment was a specific resource lacking in their communities.

“Substance abuse treatment is available in the community – I don’t think it’s very widely available.” [Participant 36]

“I think there’s a lack of substance abuse ... recovery programs. I think some are actually getting shut down or they’re decreasing the numbers of people they take ... and I think that’s a big issue ... it’s just really limited across the board ...” [Participant 30]

Providing insight to what available resources may look like, providers shared:

“I’ve worked with clients where I’ve had to work with them on a waiting list ... and it could go six months to even a year.” [Participant 26]

“...the waiting time to get an appointment as an outpatient is horrible. People can wait months and months to get additional appointments...” [Participant 28]

ST2: Mental Health Concerns. Within MT1, mental health concerns comprised 22.76% of references. This theme identifies the role of untreated, mistreated, and/or undertreated mental health concerns that impede one’s ability to function effectively in the community and/or sufficiently fulfill the requirements of community supervision. As one provider noted:

“There are psychological reasons. Some people are too disorganized to follow the courts’ orders, and that wasn’t picked up on in treatment recommendations. Or treatment ... posed was unrealistic to begin with. A person needed a different level of treatment or a higher level of support ...” [Participant 28]

MHPs recognized the presence of mental health concerns for returning citizens.

“I’d say we need more mental health providers ... just for the level of (inaudible) mental health issues in that population, they need more access.” [Participant 29]

A provider from one group expanded, emphasizing that not all mental health presentations are the same, not all individuals require the same resources, and it’s hard to balance the needs of mental health with the requirements of the criminal justice system.

“I think just the level of significance of mental health issues is another big factor in terms of level of success ... some of the people I worked with were relatively mild ... whereas some individuals, it was a length history of mental illness and need for medication – sometimes need for crisis intervention. So, when you got to that level of intervention required, it became very difficult. A lot of individuals lack health insurance, so getting them access to the medications they need was very, very difficult ... I had people that need ... brief inpatient stay for crisis ... and we had to make sure the case officer was aware ... we had to get that conveyed to the judge that this person’s not failing to appear for court, they’re seeking treatment. So, I think when you get into severe persistent mental illness ... it makes treatment success very, very difficult for offenders.” [Participant 31]

One provider discussed the potential for overlapped needs when asked what they would include on a comprehensive treatment plan for their clients in sex offender treatment:

“Oh gosh. With our clients ... alcohol and drugs. We have a significant number that have mental health issues ... some we have to refer out if it’s significant. There’s all kinds of needs ... we try to address some of those ... some we have to refer out. It just depends.” [Participant 5]

Another provider shed light on the negative cycle created by comorbidity:

“I think they need to get their substance abuse issues paid attention to long enough so that when they get into mental health stuff, they don’t relapse – or they’re less likely to relapse.” [Participant 36]

Although there are frustrations associated with trying to get individuals into services, when asked what was most effective about their job, one provider shared their perspective on mental health care:

“... therapy ... working on their issues, improving their mental health – their functioning. And not just individually, but as a family ...” [Participant 17]

ST3: Background Characteristics. This theme refers to the demographic characteristics of justice-involved clients that limit success in the community due to lack of a resources or social barriers, including age, financial constraints, education level, absence of employment-related training or experience, continued substance use, and offense history (e.g., sex offenses, drug offenses). This may also involve ability to access health insurance and social services. This was a major subtheme considered by participants, as all references under MT1 were attributed to background characteristics. Providers discussed issues associated with funding services.

“There are logistical reasons people may fail. Some because they can’t afford treatment, and if I show up without the money, they won’t let me in. ... And then

there are external factors such as inability to pay the cost of court ordered treatment. That's a big one." [Participant 28]

"I will say, some of the things that are court ordered, or that we need to do, insurance won't cover ... like the difference between case management and outpatient therapy ... we're not supposed to do outpatient therapy in the home, so we do case management. But they don't need [case management]. They need the skills ... but insurance won't cover it. That's probably the biggest barrier that I've seen recently." [Participant 12]

MT2: Rural Needs

Under this theme there were 107 references, which comprised 9.14% of the total references from the parent study and 46.52% of references from major themes involved in the current study. This theme largely referred to a lack of services in rural areas, which may require long commutes that can be difficult for clients to manage. This was particularly the case with more specialized services (e.g., substance use treatment or sex offender treatment).

ST4: Accessibility Concerns. This theme refers to the person's lack of ability to reach services, lack of knowledge about services, lack of funding or support for various services, and the need to revise practices to make them more accessible to clients. This also encompasses the view that varied types of services or providers are less available in a rural region, including provider resistance to work with those involved with the justice system. A host of concerns related to accessibility of general and specific services were articulated by several providers. Providers identified substance use treatment, parenting education, prosocial recreational activities, case management, and more intensive outpatient or inpatient care as being largely missing from their communities. This subtheme comprised 87.85% of references under MT2,

which was the largest contributing subtheme. When asked about how accessible the services recommended by the courts are, one provider explained that the existence of services are:

“ ... slim to none ... we try to find resources, probation will try ... In this area, being a rural area, it is a lot harder. [Participant 5]

When treatment and resources are available, mental health providers identified barriers to access related to location and transportation needs, as well as a lack of providers willing to see mandated clients involved in the justice system.

“You said access, and ... it makes me think of if the services. Indeed [there] are locations to go to, but that doesn't always necessarily mean they are able to go or ... travel there. And I think a lot of times there's limitations on who will see you if you're mandated and so that can further limit access to getting the services you're supposed to go and get...” [Participant 30]

Another provider from this group continued:

“As someone with a car and no restrictions ... I can drive an hour to get to whatever appointments or resources I need. But somebody else that doesn't have any money, or doesn't have a car – an hour drive is climbing a mountain. It's a big deal for them.” [Participant 32]

MHPs also noted the use of neighboring counties, while illustrating the distinction between availability and accessibility for their clients.

“It's like, ‘Oh, well they're neighboring counties. It's not that far of a drive.’ But like [another provider] said, for some of these people finding a car, finding someone that can drive them, getting gas money, and driving sometimes a solid hour if not even more - depending on what end of the county you are residing - it

can be really, really difficult. So, are there services? Yes. But depending on where you live, just because they're available doesn't mean they're accessible.”

[Participant 31]

“... there's Smart Recovery in [city 1] that meets at the mall that's free ... I have encouraged clients to go there that are within the ... area because I know a client from [city 2 or city 3] is not gonna go all the way to [city 1], which is problematic. Even those in [city 1] - sometimes it is a matter of transportation and how am I going to get there in time and who's gonna watch my kids during that time ...” [Participant 26]

One MHP described a lack of transitioning resources in the community as a concern.

“...we're doing a group at the jail ... [client] was saying, ‘ya know, I'm scared to death when I get out. I need a place to go between jail and community because I don't know how to act in the community ... I know how to act in jail ... and I need an in-between place.’ And I totally agree... That's a big need ... in this area. Definitely sober living but also ... a place where they can transition into society successfully, because they just literally walk out.” [Participant 35]

ST5: Treatment Provider Concentration in more Urban Sections of the Region. This theme describes a general lack of services in rural areas, highlighting that when services do exist, or when they are duplicated, it is almost always in the more populated areas of the region that may be less accessible to rural clients. This may result in the overburdening of providers in those areas, as they are serving larger jurisdictions than intended. Having clients travel to the more populous areas for services may also reduce the providers' familiarity with the client's home area and culture. This subtheme made up 11.21% of all references under MT2. Within this theme a

nesting doll effect was noted, such that when talking to providers from more mountainous towns, Johnson City is viewed as having richer resources. However, as the quotes illustrate, those from Johnson City refer to larger cities in Tennessee, such as Knoxville, as having the necessary resources. This not only speaks to the impact of increasing rurality on perception of service accessibility, but also to the requirement for more resource heavy counties to stretch their services to meet needs of the larger region.

“In Johnson City there's a lot of resources. But you get into neighboring counties it's a very different story, and I think sometimes it's easy to underestimate the difficulty that these folks have in accessing resources in Johnson City. [Participant 31]

“...We try to find resources, probation will try to find resources. In this area, being a rural area, it is a lot harder. We also do work in Knoxville - it's a little easier. There's more resources there as far as job placement, assistance, and housing. Here, not so much because it is smaller. So it's very difficult. We have offenders that, right now are homeless, living in tents in the woods.” [Participant 5]

“The resources in Knoxville are a little bit better. Those probation officers there have resources where they've made connections with a lot of community employers and housing and things. Because there aren't more options here that hasn't been the case in this area.” [Participant 5]

While public access to mental health care was a common point of discussion, one MHP also highlighted that the private sector of mental health did not necessarily expand access to care for justice-involved clients.

“... It's a disfavored population; private practitioners often don't want to get involved, so I think there's an access problem. I've had attorneys tell me that in order to avoid dealing with a particular local group they would send their clients to Knoxville, a hundred miles away, if the court would permit it. That speaks to access and choice.” [Participant 28]

Phase E: Mixed Methods Comparison

Hypothesis five was supported by the current study, as quantitative and qualitative results were consistent with one another. Specifically, quantitative results bolster qualitative findings regarding systematic barriers faced by justice-involved persons in the regional area. Within this subtheme, MHPs referenced a lack of external mental health and other associated resources, with more than one highlighting substance abuse treatment as an area of need. As indicated by quantitative findings from phase three, this is true for both general mental health and population needs, but also for specialty services required for successful reintegration. It was found that nine out of ten counties are designated mental health provider shortage areas. Related to the needs that MHPs spoke of, the region experiences a shortfall of 195.4 anger management or violence-related providers; two sex offense treatment providers; and 18.17 substance use providers. This shortfall may be reflected in the extensive waitlists referenced by one MHP from the qualitative portion of the study.

Qualitative data from subthemes four and five (under the major theme of Rural Needs) were also supported by quantitative findings. MHPs highlighted the struggles that their clients face in accessing care when services are clustered in more urban areas. Quantitative results reflect this, such that counties that are less than 50% rural consistently evidenced a higher rate of sex offender treatment providers and providers of services for those with violent offenses, with

few exceptions. This information was more varied regarding substance use treatment providers, as all counties had providers; however, the counties with greater urbanicity did have higher rates in all but two case (Carter and Unicoi Counties). This subtheme also emphasized that providers in more urban areas may be overburdened, as they then serve larger jurisdictions than planned; although this subtheme made up a lower percentage of references under MT2 than accessibility concerns, for example. Quantitative results suggested that this is true, in that even when communities that were less than 50% rural have a surplus of providers (I.e., Washington County's surplus of 22.88 substance use providers), the overall region continues to experience a shortfall, as the surplus is not enough to make up the difference.

Chapter 4. Discussion

The aims of the present study were to examine barriers to successful reentry in the form of service availability in rural communities. To do so, a gap analysis based on quantitative data was used to identify provider shortfalls in a region of 10 Tennessee counties in southern Appalachia. Additionally, the perspectives of mental health providers (MHPs) who serve the region were evaluated qualitatively. These mixed method findings were then compared.

In phase A, the number of crimes were examined by county and for the region overall. This included crimes against persons, sexual crimes, and crimes related to substance use and considerations of crime in more versus less rural communities. The highest rate of crime in the current sample was that related to substance use. Counties that were more rural experienced a significantly higher percentage of substance use related crime than counties that are less rural. These findings were supportive of hypothesis one and consistent with findings that substance use is the one of the most common criminal justice concerns and a major barrier to reentry (Andrews & Bonta, 2010; SAMHSA, 2014). Further, the Rural Health Information Hub (2020) describes the long-standing prevalence of substance use in rural communities, emphasizing higher rates of methamphetamine use and the growing opioid epidemic. This, coupled with limited resources, funnels substance users in rural communities into the criminal justice system and may explain why a significantly higher percentage of crime in more rural communities is composed of substance use offenses.

While crimes against persons contributed to a higher percentage of crime in less rural counties than in more rural counties, this difference was not significant. This is inconsistent with research that has found that residents of urban communities experience higher rates of violent victimization (Office of Justice Programs, 2018) and that more urban communities have higher

crime rates in general (Henneberg, 2000; Office of Justice Programs, 2018). A possible explanation why the current study did not approximate this trend may be that these crimes were examined across a limited continuum of rurality within the same region. If more counties with increased urbanicity had been added to the analysis, it may have resulted in findings of significant differences, as has been found when looking across the country as a whole (Morgan & Kena, 2019).

In the current study, sexual crimes against persons contributed to a higher percentage of overall crime in more rural counties; however, in contradiction with hypothesis one, this difference was not significant. The empirical literature related to sexual crimes consistently emphasizes the difficulty with accurate measurement given concerns with underreporting such crimes. In fact, Morgan and Kena (2019) found that nearly 80% of rapes and sexual assault went underreported in 2016. Further, among both rural and urban communities, rape and sexual assault are often the least reported forms of violent victimization (Office of Justice Programs, 2018). In the current study, this underreporting may explain the relatively low number of sexual crimes, as compared to other crimes, thus potentially reducing statistical power and the ability to detect a significance.

As for MHP availability in the region, 90% of the counties qualified as mental health professional shortage areas (MHPSAs), with one county (Washington) qualifying as a partial shortage area. This is consistent with reports from rural research, highlighting lack of access to quality health services as the number one issue in rural communities (Bolin et al., 2015).

Regarding specialized provider availability within the selected region, substance use treatment providers were the most commonly identified, followed by service providers associated with violent offense treatment (i.e., anger management, violence, and domestic violence), and lastly

sex offender treatment providers. The correspondence between proportion of crime types (i.e., substance use as the most common crime) and number of providers (i.e., substance use treatment providers as the most common provider) suggests an attempt to match programming to the community's need, which follows recommendations for programming models per the Rural Health Information Hub (2020).

Aligned with hypothesis three, the gap analysis identified more specific shortfalls in each of the counties and overall region. As expected, the region experienced an overall shortfall of providers for each domain, such that a total of 217 MHPs would be needed to close the service availability gap. Regarding substance use treatment providers, the overall region experienced a shortfall of MHPs. More so than any other specialty service area, substance use MHPs were at a surplus at the individual county level. This surplus may suggest that the community recognizes a need for specialty MHPs given the increased impact of the opioid epidemic in rural communities as well as the increase in offenses involving methamphetamine in the state of Tennessee (NIDA, 2020; TBI, 2018). In addition, given the epidemic's impact, increased funding efforts devoted to addressing the surge of substance use may have resulted in the creation of more positions for MHPs (Canady, 2018; Haslam, 2017). Unfortunately, despite the surpluses highlighted, there was still a regional shortfall of these specialty providers. A higher concentration of MHPs in the more urban counties was also highlighted.

The greatest provider shortfall was found for MHPs who provide anger management, violence, and domestic violence treatment. MHPs in this specialty area were present in only half of the counties in the region, four of which were in the less rural group. Thus, services were more concentrated in more urban counties, despite the broader lack of availability overall. Crimes against persons were the second most common crime type (closely following substance

use related crime) and the second most common treatment service type; however, the distinct drop in numbers from substance use providers to anger-management providers is notable. It is possible, however, that those who commit crimes against persons face lengthier periods of incarceration time and thus attain treatment while incarcerated rather than being mandated to treatment in the community, which requires less in the way of available service providers (Kaeble, 2018).

The smallest provider shortfall was identified for sex offender treatment providers, for which the region was short just two providers. For this specialty service, there were two counties that experienced a “surplus” of providers, though these were in the least rural counties of our sample. Though, as we can see from the overall region, this surplus was not sufficient to make up for shortfalls in other counties. These results are consistent with prior findings in that sex offender treatment providers were the fewest specialty providers overall; however, in contrast with literature, this specialty area exhibited the smallest gap. Zajac and colleagues (2013) noted that the scarcest treatment type in the state of Pennsylvania was sex offender services, with 77% of counties lacking any programming. However, the current study indicated a higher rate of service availability than is true of other rural communities examined in the literature. This may be due to efforts by the state to increase treatment service availability in this domain. For example, the Tennessee Sex Offender Treatment Board was convened in 1995 and continues to work towards developing guidelines and standards for treatment of those on probation or parole for sexual crimes (Tennessee Code, 2010). Additionally, they provide specialized training in sex offender treatment through annual conferences and, given Tennessee’s level of rurality, acknowledge the impact of rurality and need for collaboration across communities. Thus, the smaller gap may be due to deliberate efforts to increase service availability at the state level.

In phases D and E, MHPs in the region shared their experiences providing treatment and guiding clients through reentry in these rural counties. Two major themes were identified and included (MT1) Individual and Systematic Barriers and (MT2) Rural Needs. Within these two themes, providers described a host of concerns related to rural reentry care, including references related to service access. Qualitative and quantitative results from the current study were consistent with one another, in that both suggested a lack of provider availability, particularly in the domain of substance abuse treatment services, as well as clients' need and ability to travel to and pay for recommended or required treatment. Additionally, the concentration of services in more urban communities was not only discussed by MHPs but was also evident from quantitative findings. Of note, providers spent more time (higher percentage of references under MT1 and MT2) discussing systematic barriers, background characteristics, and accessibility concerns when compared to mental health concerns. This may be reflective of previous findings that have suggested that recidivism for those with mental health concerns is more about criminological factors associated with mental health (antisocial associates/background characteristics), rather than mental health symptoms themselves (Skeem et al., 2014). The feedback provided by MHPs is important in that it allows for on-the-ground insight into the daily struggles of providers and their justice-involved clientele.

Implications

Findings of the current study showed that the identified region in Tennessee experiences gaps in mental health service availability for justice-involved clients in both general and specialty provider types. Individuals living in more rural counties with greater provider shortfalls may be required to drive to more urban counties in the state to receive mandated care or, alternatively, risk violation of their probation or parole. Further, they may face additional

financial costs associated with such travel and may experience difficulties with finding time to do so, while providers may have increased waitlists while working to accommodate these clients. These findings, consistent with previous research, raise questions related to how urban-adjacent communities are impacted when they must handle the influx of underserved rural clients, ways to increase treatment access for rural returning citizens, and the role of the courts in addressing these burdens. When considering implication for policy, there are two overarching suggestions that will be discussed and explored. One of these suggestions is intentionally concentrating providers in more urban regions while simultaneously building mechanisms for transportation and accessibility. The second suggestion involves increasing the number of providers per county according to specific recommendations, such as those suggested by the current study.

As both qualitative and quantitative results of the current study exhibited, there are not enough providers to deliver needed services to rural returning citizens. This shortfall is particularly concerning given the prominence of comorbidity in criminal justice populations (SAMHSA, 2014). As Wodahl (2006) explains, part of the issue may be attributed to the fact that qualified health providers are less likely to work in rural communities due to decreased salary and support. Despite attempts to bring health professionals into rural communities via incentives such as the National Health Services Corps loan repayment program, service availability gaps remain. Thus, one recommendation is for rural communities to seek funding through grants created for rural reentry (such as the Second Chance Act Community-Based Reentry Program; the U.S. Department of Agriculture; or the Department of Labor), and for agencies to make available funding opportunities to promote rural reentry services. Furthermore, based on the current study, agencies may more readily identify defined needs or targets for proposed grants,

such as funding for a certain number of providers, or examination of local resource needs through focus groups prior to funding allocations being made.

In alignment with what MHPs discussed in their interviews, individuals from rural communities often have to travel up to seven times further than urban residents to receive care, typically accessing services in more urban areas of their regions (SAMHSA, 2002). With regard to current findings, while there were instances in which counties experienced a surplus of providers, the overall regional shortfalls are likely the most accurate representation of service availability, or lack thereof. While seemingly effective to place major treatment hubs in more urban, population-dense locations, opportunities for funding and expansion should still consider the needs of rural communities and their residents, including travel limitations and other costs associated with creating opportunities primarily in hub locations. As Federal funding distribution is determined based on population, when a county is provided resources or funding based on their population size alone, the increased demand for services from those commuting from more rural counties is often left unaddressed (Hotchkiss & Phelan, 2017). Considerations of population, need, and other relevant factors must be included.

Given these travel needs, a factor that is less often accounted for but that many MHPs identified in the current study is the need for transportation. Rural communities often lack public transportation, and residents rely on private transport to get to mandated services (Wodahl, 2006). However, there are also policies in place that impact an individual's ability to maintain their driver's license or a private vehicle (i.e., mandatory suspensions of driver's license for certain charges, suspension of license as punishment for court debts, costs or fines that may prohibit payment for a vehicle or insurance). While working to change these policies may not

increase the number of providers available in the immediate county, it could increase a returning citizen's chance of accessing services outside of their county and should be considered.

Combined with the two overarching suggestions for policy, Wodahl (2006) highlights the increased role correctional institutions could play in treatment services, noting that many rural returning citizens have not yet sought or had available services prior to incarceration. The National Association for Rural Mental Health acknowledges that the criminal justice system is typically the first contact with treatment for rural, incarcerated individuals and is thus a critical place to focus on service expansion via Federal and state-level funding (Walsh, 2016). Therefore, another recommendation is for correctional services to connect with community resources across the justice continuum to ensure continuity of service availability and to build on treatment progress from corrections to community. Research on the partnerships between community-based behavioral health and the justice system (e.g., diversion programs, alternative sentencing programs) demonstrates promising reductions in recidivism and substance use, as well as improved psychosocial outcomes (Linguist-Grantz et al., 2021). While this does not immediately resolve concerns regarding treatment availability, it does underscore the need for establishing and supporting direct relationships between mental health services and corrections that may uniquely benefit rural counties, such as the ones included in the current study.

Given that substance-related crimes were determined to be the most prevalent type in the current study, and that substance use and mental health concerns are frequently comorbid, there are implications for increasing the availability and utilization of treatment modalities that address dual concerns. The Rural Health Information Hub (2020) highlights this as a need in rural communities, as such efforts can help treat comorbid conditions while simultaneously reducing the need to travel to multiple providers. One such example is the use of Integrated Dual Disorder

Treatment (IDDT; see Drake et al., 2006), an evidence-based approach that reduces relapse, service cost, arrest, and incarceration.

Although counties experience shortfalls, the courts continue to refer to, recommend, or mandate treatment across domains of treatment need. As MHPs noted in the qualitative portion of the study, when resources are limited, this results in waitlists for treatment that could compromise a returning citizen's legal status. Future studies would benefit from examining the communication between the courts and mental health professionals, as it was evidenced in the current study that these MHPs are aware of the shortfalls in service availability but do not feel as though they have a voice in judicial decision-making regarding treatment referral. However, it is uncertain if the same information is known to the judges who provide sentencing or if judges incorporate suggestions of MHPs in sentencing or court mandates.

Limitations and Future Directions

As the current study was conducted in phases, limitations that guide future directions will follow phase order. Within phase A, the availability of detailed data and the nature of using reported crime statistics reflects a limitation. Although the Tennessee Bureau of Investigation provides a host of information regarding crime in the state of Tennessee, the count of crime is not necessarily equal to the number of people who have committed the crime. For example, 329 counts of crime may actually be committed by 229 individuals, who may also have crimes in other domains or multiple charges associated with a single criminal incident. The current study proceeded in using the crime counts for multiple reasons. One of these reasons is that an overestimate of need is likely more useful than an underestimate. Further, while individuals may receive charges in multiple domains, comorbidity is high in criminal justice populations, both between mental health and substance use issues and between substance crimes and other crimes

(Karberg & James, 2015; Mumola & Karberg, 2006); thus, the current study would argue that a need remains for dual services to address these two separate concerns. Finally, many of the crimes examined here are underreported to law enforcement (e.g., do not result in formal charges or convictions) but may still represent community need for treatment and associated services. In the future, statistics derived from more personalized samples, such as collecting data from correctional institutions or larger-scale epidemiological examinations of crime trends in a given community, would allow for a more direct measure of need.

Limitations within phase B include the level of information collected for providers. Relatedly, some searches led to the identification of a treatment site without details regarding the number and type of providers who staff that particular agency. In an effort to account for some missing information, data attained from MHPs working in this region were used to better approximate caseload size; however, it is important to note that this may not represent all providers' experiences. Further, while this provided an approximated caseload, it does not suggest that this is an ideal caseload. Future research should examine specific provider types, as research suggests that professions such as psychiatry are sorely lacking in rural communities (Kaiser Family Foundation, 2020; Rural Healthy People, 2010), and should additionally examine trends in resource availability from singular providers versus agencies with multiple providers on staff. Further, examining more specific treatment factors, such as inpatient and residential bed space or intensive outpatient programs would be beneficial, as MHPs in the current study discussed a need for varying levels of care at differing intensity, as others have also indicated (Burdon et al., 2007).

Findings of the current study may overestimate shortfalls in some areas. One reason for this, specific to substance use treatment providers, is that no distinction was made between those

who do or do not offer medication assisted treatment (MAT). Research has indicated that MAT is severely underused in justice-involved populations, such that approximately 4.5% of these individuals are referred to MAT, compared to 40.9% of the general population referred by other sources (Krawczyk et al., 2017). The courts are the least likely to refer an individual to MAT, and thus the current study's estimation of available providers may actually be an overestimate. The infrequent use of MAT is unfortunate, and may be a limitation in and of itself, as it is an evidence-based strategy to treating opioid use disorder (NIDA, 2016). Research has suggested that MAT is received particularly poorly in rural communities (Richard et al., 2020). It was further found that an emphasis on abstinence for recovery, fear of medication diversion and abuse, and drug court policies that keep MAT out of the criminal justice system combine to create stigma against MAT in rural, Appalachian communities (Richard et al., 2020). This makes establishment of MAT centers more difficult and works against provider and criminal justice system willingness to refer individuals to these treatments.

Further regarding concerns with estimates, individuals in need of anger management services, including violence or batterer intervention treatment, may also be able to seek such services from general MHPs. There is greater self-reported provider competency in this area of clinical practice (Hastings & Cohn, 2013). However, not all general MHPs are comfortable providing court mandated or referred services for a variety of reasons, including the perceived impact on the therapeutic process (Hachtel et al., 2019), a lack of experience or training with this population (Rosenbaum & Warnken, 2003), and additional ethical considerations (Shearer, 2003). For these reasons, the current study chose to use a more conservative estimate of specialty providers and risk overestimation, rather than underestimation, of shortfall.

There are also limitations concerning qualitative findings from phase D. To begin, only providers who responded to recruitment solicitations were interviewed. While not an uncommon concern with data collection, it may provide a narrower view of the reentry process. Also, the collection of qualitative data occurred via interviews, which were done in a group for some and individually for others. In this, those that were interviewed individually may have felt more freedom expressing their views in comparison with those who were in a group with colleagues. While more time consuming, conducting all interviews individually, or at the least separating supervisors and supervisees, may be more ideal. Another consideration is the use of a guided interview format during data collection, which may have emphasized some content area over others. For example, some interviewers may choose to follow-up on different points than others or spend more time in one area of content than another.

Conclusion

In all, the current study highlighted the specific shortfalls in a region of Tennessee that, by all accounts, is not a frequently researched rural community. Despite its limitations, gaps between service need and availability were evident in all areas studied (substance use, anger management related, and sex offender treatment), with these gaps corroborated by MHPs in the region who have on-the-ground experience helping returning citizens successfully reintegrate. While the current study was able to provide specific information regarding the number of providers required to close these gaps, the ways in which to do so require the efforts of mental health advocates and providers, the criminal justice system, policy makers, and the community.

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APPENDICES

Appendix A: County Information

County	Population	% rural	Median Household Income	Low Income Population	PC Shortage Area	MH Shortage Area	Health Outcomes	Health Factors
Hancock	6,642	100.0	26,898	954	18	18	94	92
Johnson	18,017	85.20	30,763	1,972	12	13	85	49
Greene	68,567	65.20	35,196	6,919	--	18	50	42
Jefferson	52,490	59.50	42,417	4,503	9	14	19	16
Hawkins	56,595	57.90	36,927	6,255	9	18	57	39
Unicoi	18,069	44.70	33,210	1,984	9	13	67	54
Carter	56,941	41.00	33,213	6,618	9	13	48	70
Washington	125,317	26.40	42,817	9,901	9	13	17	4
Sullivan	156,752	25.60	40,346	14,117	9	13	25	13
Hamblen	62,999	21.90	37,617	7,011	9	14	46	65
TOTAL	622,389	33.6 %	Average: 35,940	60,234 16.76%				

Note. Counties are arranged in order from most rural (Hancock = 100%) to least rural (Hamblen = 29.1%). Health Provider Shortage Areas (HPSA) Scores, once designated, are scored on a scale of 0-25 for primary care (PC) and mental health (MH), with higher scores indicating greater need.

The overall rankings in Health Outcomes are based on how long people live and how healthy they feel while alive. Overall Health Factors are based on health behaviors, clinical care, social and economic factors, and the physical environment. Rankings for each range from 1-95, with the “healthiest county” in the state = 1.

Appendix B: Participant (Mental Health Provider) Demographics and Caseload Information

Education and Training Demographics

Highest Degree Attained

Bachelor's Degree	28.9%
Master's Degree	57.9%
Doctoral Degree	10.5%
Other	2.6%

Highest Degree Field of Study

Education	15.8%
Marriage and Family Therapy	10.5%
Psychology	47.4%
Social Work	15.8%
Other	10.5%

Specialized Training

Annual Agency Training	7.9%
Conference Attendance	5.3%
Formal Courses Related to Offenders	10.5%
Multiple	10.5%
Other	7.9%
None	57.9%

Certifications

ABPP Forensic Certification	2.6%
National Certified Counselor	2.6%
Sex Offender Treatment Board Approved Provider	13.2%
Multiple	18.4%
Other	13.2%
None	50.0%

Professional Experience Demographics

Mean Years of Professional Experience (SD) 10.91 (range 1-35 years)

State Licensure

Yes	26.3%
No	63.2%
Not Reported	10.5%

Member of a Professional Association

Yes	50.0%
No	47.4%
Not Reported	2.6%

Type of Agency	
Community Corrections	5.3%
Community Counseling Center	71.1%
Court System	2.6%
Residential Treatment Facility	13.2%
University	7.9%
Mean Monthly Caseload (SD)	51.09 (range: 0-200)
Reported Caseload Demographics	
Mean Percent Types of Convictions (SD)	
Misdemeanor	24.18%
Felony	29.39%
Non-Violent	37.47%
Violent	11.66%
Substance Abuse	23.93%
Parole Only	5.57%
Probation Only	30.31%
Client Data (Mean Reported Percent)	
Domestic Violence Offenders	15.16%
Sexual Abuse Offenders	23.32%
Substance Abuse Offenders	45.47%
First time offenders	33.17%
Repeat offenders	34.87%
Local Referral	73.60%
Court Ordered Offender	59.19%
Non-Offenders	29.41%

Appendix C: Pre-Interview Survey for Community Treatment Providers

1. Name: _____

2. Number of years in mental health: _____

3. Current agency: _____
 - Primarily state-funded
 - Primarily grant-funded
 - Primarily private/insurance funded
 - Other: _____

4. Educational background:
 - Bachelor's degree (major: _____)
 - Master's degree (field: _____)
 - Doctoral degree (field: _____)
 - Other educational attainment: _____
 - Special certifications/licensure: _____

5. Please describe any specialized training or certifications you have related to offender treatment.

6. Do you belong to any professional associations? Yes No If yes, please list:

7. Average caseload, by week _____, by month _____

8. What percentage of your clients are court-ordered? _____

9. What percentage of your clients are:
 - Misdemeanor convictions _____
 - Felony convictions _____
 - Multiple convictions _____
 - Violent convictions _____
 - Non-violent convictions _____
 - Substance abusers _____
 - Substance use convictions _____
 - Domestic or family violence offenders _____

Sex offenders _____
Regional offenders (i.e., they're from this area) _____
First-time offenders _____
Repeat offenders _____
Probation only _____
On parole _____
Non-offenders _____

10. What is the standard cost of your services for the offenders referred to you?
- a. Cost per group: _____
 - b. Cost per individual therapy session: _____
 - c. Are costs different for different offender types (e.g., substance abuse vs. sex offender treatment)? If so, please describe: _____

11. What is the standard frequency and length of treatment recommended and/or provided for:
- a. Substance abuse: _____
 - b. Domestic violence: _____
 - c. Anger management: _____
 - d. Sex offenders: _____
 - e. Other court-ordered counseling: _____

12. What other types of treatment or services do you provide for offenders? Please check all that apply.
- a. Couples counseling _____
 - b. Family counseling _____
 - c. Family reunification _____
 - d. Trauma therapy _____
 - e. Crisis services _____
 - f. Medication management _____
 - g. Resource referral _____
 - h. Case management _____
 - i. Risk assessment _____

13. Do you use waivers of confidentiality with court-mandated clients, or those under probation/parole supervision? Yes No If yes, are these: Required Requested

14. Do treatment services ever occur in probation or other supervision agency offices? If yes, please describe:

15. Do probation/parole officers ever visit or participate in treatment appointments/groups? How often? Are there any special rules or procedures in place for this?

16. Please briefly describe your role in the continuum of offender services, or your goals for offender clients.

Appendix D: Parent Study Interview Questions for Mental Health Providers

I. Expectations

- A. When you think about when you first started working with offenders in a rural area, what did you expect it to be like?
- B. Have your expectations changed? How so?

II. Role of the court

- A. What are the most common sanctions or sentences given to offenders from the courts you work with?
- B. Are there other expectations they have to meet (like travel, registration, residency, or other things)?
- C. What diversionary options are there in your community?
- D. When the court makes a recommendation, how much do your clients have access to what they need to make that happen?
- E. Do some offenders have a harder time meeting their requirements? How so?
- F. In your opinion, how fair are the sentences or sanctions from the court? Are some of them less or more fair? What makes the difference?

III. Treatment programming

- A. As far as treatment goes, what do people typically need when they come to you?
- B. Who decides how long the client will be in treatment? Is it you, or the court, or some other agency? Is it usually enough time to meet client goals? Why or why not?
- C. Do most of the offenders you work with have individual or group therapy? Which would you prefer that they have? Why?
- D. Are there services to help with clients with payment? In the end, who pays for treatment?
- E. How often is it the case that clients are in multiple forms of treatment at the same time?
- F. How is your clients' motivation? Does that make a difference in terms of their overall success in treatment? Do you do anything in particular to address motivational issues?
- G. Different types of clients – either different offenders, or people assigned to different kinds of treatment – what are things that you've noticed in terms of how they approach treatment, or how willing they are for treatment?

IV. Treatment success vs. failure

- A. What seems to work best for the offenders on your caseload?
- B. What do you think is most effective about what you do?
- C. Are there things you could do that would improve outcomes for the people you work with? Have you tried these? Why or why not?
- D. Why do you think people fail in terms of being back in the community?
- E. What issues do you see with availability of providers or services in your community?
- F. How do you know if someone has failed? How quickly do you find out?

- G. How many of your offenders end up back in jail or prison, or have new charges? Where do they end up?
- H. How much of that do you feel could be prevented?

V. Communication & service collaboration

- A. How important to you is communication with other providers or people who are supervising your clients?
- B. How often do you discuss specific offenders with other people? How often do you have to report anything? Does this make your work easier, or is it more complicated?
- C. What kinds of rules do you have to follow in contacting others about your clients?
- D. What kinds of things help you communicate with others about your clients?
- E. What kinds of things get in the way of communicating with others about your clients?
- F. What is your responsibility in comparison with other people or agencies who work with your clients? How well are roles and responsibilities between agencies clarified?
- G. Do you ever disagree with people in other agencies about the client? If so, how does that work out?

VI. Role of community

- A. Are there any other services that you provide on a more informal basis?
- B. How much do clients talk to you about the resources available to them, like housing, or employment?
- C. Are there options for family reunification? Trauma services? Crisis services?
- D. How well do you think services are coordinated in your area?
- E. What services do you think are missing in your community?

VII. Stigma

- A. How does your community feel about the people you work with, either in general, or compared to other types of offenders?
- B. How do your clients react to this? Have they had any specific kinds of things happen to them?
- C. What kinds of local initiatives or businesses affect your clients? For example, mugshots or arrest records, registration, or other public notifications? What are the pros & cons of these practices, in your view?
- D. How do people in the community react to you when they hear you work with offenders?

VITA

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Preliminary evidence for how the behavioral immune system predicts juror decision-making. *Evolutionary Psychological Science*, 3(4).

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Nadler, J. T., & Gretak, A. (2014). Consciousness. In T.R. Levine & J. G. Golson (Eds.), *The Encyclopedia of Lying and Deception*. Thousand Oaks, CA: Sage.

Honors and Awards:

Appalachian Student Research Forum (ASRF) 2nd place division winner: *Straight from clinicians' mouths: A qualitative exploration of barriers to rural reentry*, East Tennessee State University, 2019

Department Graduate Student Travel Awards, East Tennessee State University, 2018

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Graduate Student Summer Fellowship, *The relationship of primary and secondary psychopathy to empathetic deficits* University of Dayton (\$5350), 2014

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