Mental Health Courts in North Carolina: A Model to Improve the Experience of Individuals with Mental Illness who Enter the Justice System

By

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Abstract

Local jurisdictions are increasingly implementing mental health courts to more appropriately determine the disposition of individuals with mental illness who are accused of minor crimes. To date, North Carolina has 6 such courts in 5 counties. I interviewed eight key stakeholders in the legal and health care systems to determine what barriers exist for these courts and what elements are important for their success. The results of these interviews suggest broad support for the expansion of mental health courts, but identify lack of community mental health resources as a major limitation on their potential effect. Until improvements can be made to the mental health system in North Carolina, existing mental health courts should collaboratively collect data to facilitate new court development, quality improvement, future research, and political advocacy.

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Introduction

The interface between the law and mental illness presents a problem for both fields and continues to grow. Current estimates suggest that ten percent of all police calls involve someone who is dealing with a mental illness.[1] This in turn has led to a growing prison population of persons with mental illness. According to a study conducted by the Bureau of Justice Statistics in 2006, 44.8% of inmates in federal prison and more than 50% of inmates in state prisons had mental health problems.[2] The same study found that approximately 34% and 24% of state and federal prisoners with mental illness, respectively, received treatment while incarcerated.[2] In extreme cases improper management of mental illness in prisons has even led to death as in the case of Michael Anthony Kerr, a man with schizophrenia who died of dehydration after spending 35 days in isolation in Alexander Correctional Institution in Taylorsville, North Carolina.[3]

Understanding the history of mental illness in the United States provides some explanation of why this unfortunate intersection of mental health and the justice system has developed. In 1843, reformer Dorothea Dix wrote a letter to the Massachusetts legislature telling of the "suffering humanity" she had found among those with mental illness in the prisons and almshouses.[4(p622)] Dix then spent her life traveling the United States, visiting prisons and advocating for improved treatment of those living with mental illness.[5] By 1955 the efforts of Dix and others could be observed as more than 550,000 individuals with mental illness were institutionalized in public mental hospitals in the United States.[6,7] However, things began to change in the 1960s when people began to question whether mental illness even existed.[8] Influenced by the writings of Thomas Szasz and R.D. Laing, advocates in this antipsychiatry movement communicated their message so successfully that by 1986 a poll published in *Science* reported that 55% of people did not believe mental illness was real.[8,9] This ideological shift, in addition to improved management of many mental illnesses with the introduction of chlorpromazine in 1955, gave advocates the necessary tools to convince Congress to legislate for moving individuals

diagnosed with mental illnesses out of psychiatric institutions and into community treatment.[10] However, deinstitutionalization ultimately failed as the funds previously designated for inpatient treatment did not successfully translate into an effective community mental health management system.[10] By 2012 the number of individuals with mental illness in state mental hospitals had dropped to approximately 35,000, but this in no way meant that the hundreds of thousands of people who had left mental hospitals were now in adequate alternative programs of treatment.[11] The effect was one of creating new mental illness burdens for communities.

Another important dynamic of the history of mental health care delivery, particularly in North Carolina, has been privatization. In October 2001, the North Carolina General Assembly passed a statewide mental health reform bill which functionally separated the management of mental health care dollars from the provision of mental health care.[12,13] In practice, this meant a shift from direct care provided by clinicians who were government employees to a model in which care was provided by private clinicians who were contracted and overseen by local management entities or managed care organizations.[14] Although this effort may have been successful in saving money and reducing improper hospitalization for some patients, this shift from inpatient care to greater reliance on community management encountered many problems in the course of its implementation.[15] As described by Swartz and Morrissey, obstacles included maintaining the mental health trust fund during the economic downturn, getting timely federal approval for Medicaid services, and high residual demand for state mental hospitals.[16] In 2008 the News and Observer further reported that the new system had led to extensive waste and fraud – by their estimates at a cost of more than $400 million – with some private mental health workers making up to $61 per hour for non-therapeutic tasks like taking patients shopping or to the movies.[17]

While these problems have been unfortunate for the state government, they have imposed much greater harms on patients. The post-reform waste and fraud not only led to provision of services

that were not helpful, but also incurred high political and medical opportunity costs. Reform also led to closing of county health centers that previously acted as easily accessible "one-stop shops" where patients could obtain services.[13] The county health center model was particularly effective given the nature of psychiatric symptomatology and the resultant need for easy and consistent access.[18] However, the closing of these centers eliminated this resource for a population that is highly dependent on consistency and trust in their care.

In response to this growing burden of mental illness, some local judicial systems have embraced specialized "mental health courts" (MHCs) to better handle criminal cases involving persons with mental illness. The original idea for MHCs came from specialized drug courts developed in Dade County, Florida, to help process the growing quantity of drug-related cases by recognizing the unique needs of defendants who were mentally ill.[19(p457)] In June 1997, Broward County, Florida, established the nation's first mental health court as the result of a grand jury investigation and subsequent task force that investigated a number of mental illness-related criminal incidents in their community and found what they described as "a revolving door for mentally ill petty offenders."[20] MHCs have the objective of reducing the frequency of contact between individuals with mental illness and the justice system using "resources to improve clients' social functioning and link them to employment, housing, treatment, and support services."[21] In attempting to define these entities more specifically, Goldkamp and Irons-Guynn considered four early MHCs and highlighted the following important overlapping characteristics: voluntary participation, a general goal of preventing jail time, a focus on public safety, various attempts to expedite defendant processing, and strong relationships between justice teams and health care providers.[22] Since that time, the Council of State Governments has further elucidated the key attributes of these courts in their 2002 Consensus Project Report.[23]

According to the Administrative Office of the Courts, North Carolina currently has six MHCs in five counties including Orange, Brunswick, Forsyth, Mecklenburg, and two in Guilford.[24] The purpose of

this study is to review the evidence about MHC performance in the peer reviewed literature and to synthesize that evidence with the results of interviews with key stakeholders about what does and does not work well in MHC implementation. This study aims to create evidence-based recommendations for North Carolina MHCs' future.

Theoretical Perspective

The Sequential Intercept Model

Mental health courts are best understood as an intervention targeting one of many potential interaction points between those suffering from mental illness and the justice system. In 2006 Munetz and Griffin explained the spectrum of interventions along this series of interactions, describing what they called the "sequential intercept model."[25] As these authors describe it, this model "provides a conceptual framework for communities to use when considering the interface between the criminal justice and mental health systems."[25(p544)] Along this spectrum Munetz and Griffin identify five points including the point of arrest, the time of booking, trial in court, time immediately after leaving prison or jail, and then ongoing community support.[25] Mental health courts fit in to the model's third intercept after individuals have been arrested, charged, and processed."[25]

Mental health courts, despite their potential importance, should be understood as only one of a range of diversion programs. For example, the first intercept is increasingly being targeted by expansion of crisis intervention teams (CIT). The Crisis Intervention Team model was first developed in 1988 after a police officer shot a man with severe mental illness in Memphis, Tennessee.[26] The model consists of a training curriculum for police officers in recognizing and engaging someone "in crisis" as well as a collaborative system between law enforcement and local health providers to facilitate expeditious transfers to appropriate treatment.[26(p1)] Unlike Mental Health Courts which deal with individuals after they have committed a crime and enter the justice system, CIT programs are designed to exert their effect pre-booking, to expedite police calls dealing with the mentally ill, and to address legal problems before they warrant processing.[21,26] Both of these programs reflect a growing recognition of the complex relationship between mental illness, health care provision, and the legal system. According to the last annual report by the North Carolina Department of Health and Human Services on CIT, more than 26% of active law enforcement officers had completed certification by January 1, 2014.[27]

Therapeutic Jurisprudence

Another important component of the context in which mental health courts function is the concept of therapeutic jurisprudence. Originally introduced by David Wexler in 1990, this concept of "law as therapy" considers how the law may be applied therapeutically.[28,29,30] In doing so, this perspective incorporates current knowledge of best treatment practices and considers how they may be used when applying the law.[28] This concept has frequently been used to justify mental health courts and is reflected in their design: MHCs incorporate voluntary participation and respect for autonomy, both of which are hoped to make these courts more ethical and conducive to behavioral change.[31,32,33] The legitimacy of this theoretical framework has been supported by subsequent research. In 2014 Redlich and Han found that fidelity to this concept, as measured by perceived voluntariness, perceived MHC-relevant knowledge, and perceived procedural justice by participants, correlated with better outcomes in terms of recidivism and MHC graduation rates.[31] This last concept, procedural justice, is related to therapeutic jurisprudence and is defined as the fairness of the legal decision-making process as perceived by the defendant.[34] Some evidence has suggested that procedural justice legitimates the decisions of the court, which may in turn have positive effects on subsequent outcomes.[35,36]

Other Concerns

Several theoretical concerns exist regarding mental health courts including the validity of their claims of voluntariness, threats to due process rights, the risk of fueling stigma, and their potential to inappropriately divert limited mental health resources to individuals involved with the justice system thus incentivizing crime.[37] Many of these claims, especially those about due process, could be equally made against traditional courts when considering defendants of variable mental capacity. Additionally, the team-based nature of MHCs offers more resources and potential advocates for people with mental illness than traditional courts. Regarding concerns of MHCs increasing the stigma of mental illness, processes designed to help mentally ill defendants receive treatment seem more likely to also help them

achieve a normal lifestyle and social interactions than a prison sentence through the traditional court system.

The question of voluntariness is difficult to reconcile for MHCs considering their coercive design. The decision to transfer one's case to a mental health court should be voluntary for the individual in accordance with the 6th amendment and the Americans with Disabilities Act.[38] In their critique of mental health courts, Bernstein and Seltzer of the Bazelon Center argue that compelling individuals to participate in a system of treatment that has already failed them may offer no benefit.[38] This concern, weighed against those associated with the traditional court system, should be communicated to defendants before they can make an informed decision about participation.[38] Voluntary participation is further ensured by allowing participants to return to the traditional court system at any time.[38] However, because these individuals are already involved with the court system, their participation cannot be considered completely voluntary: the choice not to participate results in a traditional court hearing, which is generally less favorable given its punitive intent. Mental health courts, therefore, are only voluntary insofar as participation is not automatically assumed for all individuals with mental illness who enter the justice system. Ultimately, these courts are coercive because they entice individuals to participate in treatment by offering them a favorable alternative to court sentencing.

Literature Review Findings

My own search of the literature substantiates the potential utility of mental health courts. A full discussion of the findings of my systematic literature review can be found in Appendix A. In brief, I conducted a limited systematic review exploring whether participation in mental health courts leads to better outcomes than are produced by the traditional justice system. My full text review of the resultant 16 articles produced moderate evidence that participation in a mental health court reduces recidivism as indicated by fewer arrests and fewer days in prison. A smaller body of evidence also suggests that MHC participation leads to improved access to treatment.

Methods

In this study, I triangulated multiple methods to develop a better understanding of how mental health courts could improve the experience of people with mental illness who enter the court system in North Carolina. As I described above, I began with a systematic review of the peer-reviewed literature to see how well mental health courts have been found to improve outcomes for individuals with mental illness. The methods for this review and a full description of its results can be found in Appendix A. I also conducted in-depth stakeholder interviews with eight individuals whose professional positions gave them insight into the current mental health care system in North Carolina, the interface of mental illness and the law, and the potential role of mental health courts to improve this interface.

After receiving an exemption from the Institutional Review Board at UNC, I contacted all potential interview respondents with an introductory email explaining who I am, providing general information about my research project, and requesting an interview. I initially selected potential stakeholders based on the results of internet searches of current the mental health system and current mental health courts in North Carolina. Given the highly interconnected nature of the mental health court community in North Carolina, selection of later respondents was guided by the recommendations of other experts.

I interviewed all eight respondents in person after completing a verbal consent process. Interviews took place between April 30, 2015 and June 11, 2015. During the interviews I followed the interview guide provided in Appendix B using standard interview strategies. I audio recorded all interviews with a digital recorder to ensure accurate representation of responses. Interviews were then transcribed verbatim and analyzed using ATLAS.ti 7 (Berlin, Germany).

Results

I interviewed a total of eight people with varying perspectives on the issue of mental health courts including two mental health clinicians, two administrators from the justice system, one active policymaker, two mental health researchers, and one person who was both a clinician and a researcher. All stakeholders agreed to my request that they be identified by name. The participants, their positions, the fields they represent, and the order in which they were interviewed can be found in table 1. Although I made every effort to ensure responses were not influenced by my interviewing, the interconnected nature of the mental health court community in North Carolina may have led to similar bodies of knowledge and perspectives among the stakeholders, particularly among the researchers and the Orange County mental health court administrator. A shared perspective may also characterize my interviews with the two physicians from Cherry Hospital, although their areas of expertise differed in that one was an administrator with broader insights about the mental health system and the other had more specific experience with forensic patients and knowledge of the mental health court phenomenon.

Commentary on Current System

Interview participants provided a variety of opinions of the current system and how its structure contributes to the need for diversion programs like mental health courts. All but two informants talked about the current burden of mental illness in the justice system, with three discussing problems with the way that people with mental illness are treated in jails and prisons and another three focusing on the number of individuals with mental illness who are involved in the justice system. While larger jails may have some mental health resources for people who are incarcerated, respondents noted that smaller jails "*just don't have the resources to provide what these people needed*." (JM) Two of the clinicians also specifically noted that individuals with mental illness who enter the justice system often lose their

insurance coverage and continuity in their clinical care, further complicating the course of their psychopathology.

Two clinicians talked about the notion of "benevolent charges," one pointing out that the justice system often represents the "path of least resistance" for law enforcement officers who are "*just trying to get this guy some help*." (SP) As described by Dr. Peters, in many cases individuals with mental illness receive criminal charges reflecting not corrective intent but rather the goal of getting these individuals medical attention. These charges, which he called "benevolent charges," reflect the difficult situation that law enforcement officers face when they respond to calls complaining about individuals with mental illness. Two other participants talked about the broader social issues that are often coincident with severe mental illness. "*For folks with severe mental illness who are in jail, the lack of services might be a small part of that. If you think about the larger picture, there's housing, supported employment, substance abuse, generations of family dysfunction, lack of social support – there's a whole host of reasons other than mental illness that folks with severe mental illness might be in the justice system*." (GC) Respondents pointed out other tools and models that had historically been successful in maintaining continuity of treatment, including county health centers (mentioned by 3), outpatient commitment (2), and the role of other diversion programs such as CIT training (3).

Impressions of Mental Health Courts

Stakeholders identified a variety of strengths of the MHC model. The most common of these was the ability of the court to leverage their moral authority to help maintain continuity of treatment among court participants. As described by Dr. Jim Mayo, *"I think it's worked well in outpatient settings where there's been supervision or where mental health treatment has been part of the court supervision and requirements as part of their sentencing."* This strength was acknowledged by five of the eight respondents, including all three clinicians. Two of the researchers speculated on the ability of mental

health courts to address broader social issues faced by individuals with mental illness entering prisons, though both recognized that this function of the court is limited by court design and availability of resources. These two also specifically mentioned the problem of housing after leaving prison.

Respondents saw many potential benefits in expanding mental health courts. The biggest value noted by seven of the eight respondents was that of diversion, in recognition of prison's tendency to exacerbate mental illness and the benefits of redirecting these individuals to treatment. Respondents also noted other benefits including reduced recidivism (4), more appropriate cooperation between the legal and medical systems (3), and earlier access to treatment (1).

A potential harm discussed by two respondents was that of abuse of mental health courts by individuals who did not suffer from mental illness in an attempt to avoid harsher punishments in the traditional court system. "*I guess there's a potential for people choosing to go into that drug treatment court and falsely participating because they know it would keep them out of prison or out of jail."* (VI) In addition to taking limited resources from individuals who are truly affected by mental illness, participation in mental health courts by individuals who do not have mental illness also threatens to negatively affect outcome data and judicial support of such programs. Such abuses thus reduce the potential effect of MHCs and their ability to advocate for resources. Two others mentioned the need to protect the rights of court participants, particularly the right to due process and respect for autonomy. As described by Marie Lamoureaux, *"at the end of the day if they don't think they did what they did they have a right to a trial and due process."*

The question of cost effectiveness was noted by six of the eight respondents when asked about potential harms and costs. Two respondents discussed this question of cost effectiveness as important when considering MHCs compared to other interventions or models, while others tangentially addressed this topic via the difficulty of evaluating the cost effectiveness (1) or comments on MHCs'

startup resource needs (2). Two respondents communicated their belief that the model can be cost effective.

Implementing Mental Health Courts

Respondents identified a variety of historically important elements for the success of mental health courts in North Carolina. One popular example was strong leadership, with five respondents highlighting the value of a supportive judge or "champion" and four adding the need for support of public defenders, District Attorneys, and probation officers. Another important element for mental health court success identified by respondents was the need for mental health courts to function as part of a range of diversion programs, with four stakeholders highlighting CIT training as another example. As explained by Dr. Gary Cuddeback:

> *In the large urban areas they make quite a bit of sense as part of a menu of both mental health and criminal justice services, to address the needs of this population. Other parts of that would be crisis intervention training for police officers, jail diversion, assertive community treatment, community support teams, mental health courts – but then once folks, you know if you can't keep them out of jail, then having in-jail services and good discharge planning so that when folks do get out of jail they can quickly get reconnected to services. So I think mental health courts can be an important part of a well-functioning mental health/criminal justice system.*

Two participants discussed this idea of creating a system of intervention programs, one of whom explicitly mentioned the sequential intercept model. Other necessary elements mentioned by participants include the need for consistent funding (5), fidelity to the MHC model (3), and political support (2) for these entities.

Respondents also identified a number of potential barriers to the expansion of mental health courts in North Carolina. The most commonly discussed barrier was the current mental health care system in North Carolina itself, an issue that was brought up by seven of the eight participants. *"Your court is only as good as your treatment. And, you know, in North Carolina we've gone through quite a bit of upheaval over the last fifteen years in regard to our mental health system – the divestiture into more of a private system – I think we're still struggling."* (ML) Only Representative Insko did not discuss this, although she did mention the problems in the mental health system that resulted from the 2001 reform effort. Two of the clinicians in particular noted the limited mental health treatment capacity in rural communities in North Carolina. One respondent also cited stigma as a potential barrier to gaining the political and monetary support necessary for expanding mental health courts.

Respondents could not identify many stakeholders either actively advocating for or resisting the expansion of mental health courts in North Carolina. Three respondents identified the National Alliance on Mental Illness (NAMI) as a group advocating for diversion programs in general, specifically in Orange and Wake county efforts to implement these courts. Some interview participants identified specific individuals, such as Chief District Judge Joe Buckner (4) and Chief Supreme Court Justice Mark Martin (2). More generally, one respondent suggested that advocates would likely fall into one of two categories: pragmatists concerned about improving the costly current system, or those interested in making the system more humane. Other supportive stakeholders identified by respondents included patients and their families (1), medical professionals (3), the Department of Health and Human Services (2), local law enforcement (1), and legal professionals such as judges and attorneys (3). Regarding opposition, participants identified potential criticisms of this model that may stimulate resistance: that these courts make unfair assumptions about the causal relationship between mental illness and criminal activity (1); that these courts are inappropriately paternalistic or coercive (2); and that these courts are not worth their monetary costs (3).

Every respondent thought that mental health courts should be monitored or regularly evaluated.

> *There should be a level of accountability for it, so that people can say 'ok here's the model, this is how the court is really working in terms of what's supposed to happen with these folks, and if it's drifting from that model – I'm not getting the outcomes that you expect – they can feed that back and try to make corrections. (MS)*

Candidate measures for monitoring fell into two general categories: process measures and outcome measures. Stakeholders' examples of process measures included things like appropriateness of recommended treatment plans (2), appropriate use of money (1), and safeguards against abuse both by and of participants through the selection process (3). These could also include any measures used to compare mental health courts to a standard model. Three individuals discussed monitoring of elements that fall into this category; Dr. Virginia Aldige specifically noted the importance of incorporating the "10 Essential Elements of a Mental Health Court" published by the Council of State Governments in their Consensus Project.[23]

Examples of outcome measures can further be divided into legal and clinical outcomes. The most common legal outcome identified was recidivism, which was mentioned by every respondent, though one other also included public safety. Respondents noted the importance of monitoring long-term recidivism, not just once the person left the program. *"Most studies have looked at recidivism only while they're in the court or shortly thereafter – I think we need to look after they've left the court, what's that impact." (VA)*

Suggestions for clinical outcomes were more varied. Two physicians suggested that each MHC participant should have a targeted checklist of goals developed specifically for them, and then have the outcome be the percentage of people meeting those goals.

You would set the goals and they could be different for each person as they're coming out of the court. And your outcome then would be 'did they meet those goals.' So for this person it might be medication compliance, for that patient it might be 'establish a stable job' or 'establish a supported job.' And…it would be a yes/no kind of thing at the end – did they meet the goals, did they not. (JM)

Yolanda Woodhouse also suggested illness specific outcomes as well as accounting of successes, failures, and reasons for failures. Other examples of clinical outcomes included mental health functioning (3), quality of life (2), behavioral changes (1), hospitalizations (1), and engagement in services (1). Notably, Dr. Cuddeback suggested a different taxonomy, separating outcomes into either societal or personal categories.

Regarding who should be in charge of overseeing mental health courts, answers varied greatly by perspective. Verla Insko, policymaker and vice-chair of the House Health and Human Services Committee, suggested that monitoring would best fall to the Department of Health and Human Services. Yolanda Woodhouse, who works with the Administrative Office of the Courts, suggested that monitoring would need to be overseen by the judiciary with input from public health experts. Dr. Jim Mayo and Dr. Steven Peters, from the perspective of the public mental hospital system, both suggested that monitoring should be led by a team with representatives from each of the involved systems. Other respondents said they did not know or had no opinion (3). Dr. Gary Cuddeback offered a slightly different response, suggesting that existing mental health courts should collaborate – possibly through the Community Outcomes Research and Evaluation Center at UNC – to collect uniform data and use it meaningfully.

Ultimately, every person I interviewed thought that the use of mental health courts should be expanded in North Carolina. Dr. Cuddeback suggested that expansion would be particularly useful in the urban areas. Dr. Swartz qualified his response:

I think they're good things, but I think if they are expanded –and there is more need – they ought to be expanded according to an implementation plan and fidelity…you know, that they should be implemented as something that has fidelity to a tested model. I don't think it would be particularly helpful to continue to have judges wing it.

Yolanda Woodhouse similarly thought that expansion should occur in areas with *"the right amount of resources for people to be able to get the help they need."*

Discussion

Diversion Programs are Needed

These interviews reveal many themes with implications for legal and medical professionals who serve individuals with mental illness who enter the justice system. For one, it is important to understand that specific behaviors incentivized by the current system explain why management of mental illness has shifted from the medical to the legal system. Hiday and Wales propose that there are five categories of crimes committed by individuals with mental illness who come in contact with the criminal justice system.[39] These include nuisance crimes like loitering or vagrancy, as by virtue of homelessness; survival crimes like leaving a restaurant without paying; crimes related to substance abuse like DUIs or drug possession; crimes driven by inaccurate perceptions of reality, as by psychosis or delusions; and crimes driven by anti-social or other character disorders with coincident mental illness.[39]

Given this framework, it is understandable that the justice system may serve as the "path of least resistance" for law enforcement officers or others called upon to deal with situations driven by underlying mental illness.[18] In developing a response to this problem, it is important to incorporate interventions addressing multiple points throughout the Sequential Intercept Model (SIM) to redirect individuals away from inappropriate involvement with the justice system and toward more appropriate and timely interventions addressing their underlying health problems. As previously mentioned, North Carolina already uses Crisis Intervention Teams, which act at the first intercept of the SIM. According to the last annual report by the North Carolina Department of Health and Human Services on CIT, more than 26% of active law enforcement officers had completed certification by January 1, 2014.[27] However, this report also found that the spread of CIT across the state had been "uneven" and that fifteen counties had no CIT-trained officers.[27(p11)] It further found that not all regions possessed adequate systems to ensure that calls warranting a CIT response received one.[27] Given this inconsistent application of the model and suboptimal use where it does exist, there is still work to be done to

improve our CIT network. Further, in recognition of the full scope of the sequential intercept model, coordination between different types of diversion programs such as CIT programs and MHCs may help to improve their overall effectiveness as well as lead to a more efficient use of limited DPS resources. As described by Dr. Swartz, *"wherever they are on the sequential intercept the idea that you have some kind of intervention that addresses how far the person got into the criminal justice system."*

Treatment Capacity is Critical but Lacking

Another important theme that came out of interviews is that the success of any mental health court is dependent on the access to high quality treatment and services. As described by Dr. Cuddeback, *"mental health courts are only as good, or are largely impacted by the service environments in which they're embedded."* This includes not only treatment for mental illness but also other supplemental services such as aid with obtaining transportation and housing, job training, and treatment for co-occurring substance abuse or chronic medical illness. However, many communities in North Carolina lack sufficient access to mental health services. In 2011, 27 counties had no psychiatrists while 15 more had fewer than 0.33 per 10,000 residents.[40,41] In 2012 Thomas and colleagues found evidence of unmet need and maldistribution of mental health services with 95 counties lacking a sufficient number of prescribers and seven having unmet non-prescriber demand.[42] They further found that some counties had excess capacity, the most being in Orange County which met 184% and 801% of need for prescribers and non-prescribers, respectively.[42]

In 2013, the McCrory administration announced a new initiative to improve services for adults with mental illness or substance abuse problems who are in crisis.[43] This initiative established the Crisis Solutions Coalition which brings together health, law enforcement, and government professionals to "to find better ways to help people in a mental health or substance abuse crisis."[44] However, this should be supplemented with an effort to improve the ability of the mental health system to provide long term

management of these conditions, both in the community and in inpatient facilities as appropriate. This will require in some way addressing the mental health needs of the more rural areas of the state. In 2014, the North Carolina Institute of Medicine Task Force on Rural Health published their report on how to address the health needs of rural North Carolinians.[40] In this report, the Task Force identified recruitment and retention of health providers to rural areas as one of its key priorities.[40] To address the general issue of rural physician shortages, they called on community colleges to increase training opportunities for 2- and 4-year health professionals, medical school admissions programs to target students who want to work in rural areas, and the state to fund rural residency and expand loan repayment programs.[40(p21)] Additionally they recommended efforts to facilitate integration of community mental health treatment into the primary care setting, including evidence-based technical assistance and payment policy changes among both public and private payers.[40(p18)]

Interview participants touched on some of these ideas and also introduced some of their own. Many recommended employing resources that already exist in rural communities such as community colleges, probation officers, telemedicine, and even churches. The potential of community colleges and churches is interesting to consider, but will likely be dependent on the ability of local actors to develop these programs and adapt them to local needs. Telepsychiatry, part of a growing movement embracing telemedicine, has been implemented in eastern North Carolina through the efforts of ECU's Telemedicine Center and has reportedly been successful in reducing length of stay and re-hospitalizations while maintaining patient satisfaction.[45] However, concerns about the physician capacity and long term efficacy of these virtual tools persist.[46] They may not be enough to solve the problem of rural physician capacity.

Four respondents discussed probation officers as a potentially valuable resource in helping individuals with mental illness; two noted that probation officers may be able to provide additional capacity in rural areas. Dr. Cuddeback is currently researching this issue and has trained a group of

"specialty mental health probation officers" with a smaller caseload exclusively comprising individuals with mental illnesses. These officers are trained to have a better understanding of mental illness, including how to serve afflicted individuals and manage expectations for their success. While Dr. Cuddeback proposes that the value of this training may be optimized by a system that includes diversion programs like mental health courts, he suggests that this training may also be valuable in systems with traditional court systems. Specialty training of probation officers may provide a partial solution in areas that don't have the community support, resources, or treatment capacity to support a full mental health court.

Three interview participants commented on some of the benefits that were lost with the transition away from county mental health centers, including continuity of care for people with mental illness already caught in the justice system and maintenance of treatment capacity through salaried psychiatric positions in rural areas. However, these county health centers had their own problems and are unlikely to be reinstituted in the current political climate. Fortunately, current changes in the broader health care provision system in North Carolina may provide an opportunity to incorporate some of these lessons. Integration of behavioral health into primary care settings, especially in the setting of Accountable Care Organizations, may incentivize better continuity of care even among patients who become involved with the justice system. Further, expansion of larger health systems through acquisition of rural hospitals and physician groups may bring more interest to the mental health needs of populations in these areas and concomitant efforts to improve service quality and access.

Mental Health Court Monitoring

Although everyone agreed that mental health courts should be monitored, differing opinions over who should oversee this monitoring revealed an important theme. While respondents from within state government thought this function fit better within the Department of Health and Human Services

or the Administrative Office of the Court, informants with more direct clinical experience wanted oversight managed by a multidisciplinary group comprising medical, legal, social work, and even consumer perspectives. Given the diverse nature of mental health court functions, it would seem that both medical and legal oversight would be necessary, at least in parallel but preferably in a cooperative manner. Since any state funding for these courts would likely come through one or the other government entity, special measures would need to be taken to make sure that both medical and legal components are monitored by people with appropriate professional experience and training. However, the provision of state funds for expansion of mental health courts is uncertain despite requests by the Chief Justice of the North Carolina Supreme Court.[47,48]

In the current landscape of mental health courts in North Carolina, the approach advocated by Dr. Cuddeback seems both appropriate and feasible. As he describes:

> *one of my goals with that is to do technical assistance for the courts, create a web interface where they could enter their data, and it could be given back to them in the form of reports, help them analyze their data, be kind of an information clearinghouse for the courts across the state. And this would be important particularly if the state decides to expand the state courts.*

In this approach, the courts would collaborate to develop and maintain an evaluation system and learn from each other about best practices. The benefits of this approach would be myriad. The resulting group could provide guidance to any local community seeking to start a mental health court. Data on their results could be used for quality improvement as well as to advocate for private and public funding. It could also be used more broadly for research on best practices among these entities.

The question of what should be monitored is complex. The notion that there are both procedural and outcome concerns came up in two interviews and can serve as a helpful framework. As described above, procedural concerns include elements of ensuring basic rights like due process,

maintaining fidelity to the mental health court model through voluntariness, best practices such as therapeutic jurisprudence or procedural justice, and making sure that funding is being used appropriately. These procedural components could be operationalized to variables discussed in the Ten Essential Elements (Table 2) such as timely and appropriate participant selection, informed choice, clear communication of terms of participation, and maintenance of confidentiality. Outcome concerns include the primary goals of these courts from legal and medical perspectives. Historically the primary outcome of concern has been recidivism, which is both a direct concern of the justice system and a possible proxy for health outcomes like mental functioning and quality of life. However, as the courts become more integrated with mental health services, direct monitoring of their health outcomes may grow in importance to justify funding and inform quality improvement.

Currently, mental health courts in North Carolina vary greatly. As described by two interview respondents, "*if you've seen one mental health court, you've seen one mental health court*." *(MS, GC)* However, calls for standardization should also be carefully weighed against the diverse levels of mental health treatment capacity possessed by communities across North Carolina. Dr. Aldigé, discussing the important structural elements of any mental health court, referred to the Ten Essential Elements described by the Consensus Project. This list described in Table 2 offers a good starting place for development of a standard against which to measure North Carolina mental health courts. Monitoring should note whether these elements are present or absent in any mental health court, for both research and quality improvement purposes; however, in recognition of the fact that some localities may be unable to realize some of these elements – especially resources for supportive services such as housing, transportation, or employment assistance – monitoring should also consider whether these pieces are feasible in the unique setting of each court.

Policy Implications

My interviews revealed broad support for mental health courts in North Carolina as one tool to improve the lives of individuals with mental illness across our state: all respondents agreed that these should at least be expanded in the urban areas with access to mental health services. As stated by Dr. Cuddeback, elements of this model could be beneficial even in communities where a full mental health court is not feasible: "If you couldn't do a mental health court you could at least educate the criminal justice system in that rural setting to identify these folks, maybe do things a little differently in the absence of services. So I would start with educating judges and other components of the criminal justice system as a first step."

The state government as well as mental health providers, prison administrators, and even local governments have important roles to play in this effort. State policymakers are a key player, as improving the mental health care system in our state is critical for the success of mental health courts. As Representative Insko described, improving this system is in our interest: untreated mental illness is a public safety concern, both real and perceived, and better management of mental illness has the potential to improve our workforce. A perhaps more compelling reason is that improperly managed mental illness is expensive: the medical system faces the cost of treating psychiatric crises and emergency room delays due to unmet demand for inpatient mental health beds; the legal system bears the cost of providing mental health services in the prison system; society feels these effects through increased government expenditures and loss of productivity in the workforce; and individuals living with mental illness directly lose income as well as earning capacity. While we do not have a good understanding of how much money could be saved with earlier initiation and consistent application of appropriate treatment, many believe it would lead to savings. As such, the General Assembly should carefully consider how to address the problems in the current system.

With respect to mental health courts, both the North Carolina Department of Public Safety (DPS) and Department of Health and Human Services (DHHS) have a vested interest in their success. However, until state funding is secured their role is limited to support. Current mental health courts should consult representatives from these two groups when formulating an evaluation rubric so that the resulting assessment tool may be useful for state agency purposes in the future. If funding does become available, both DPS and DHHS should make a concerted effort to ensure that both legal and medical measures are monitored by the appropriate government entity.

Mental health providers and prison administrators should work with researchers to better characterize the population with mental illness currently residing in prisons and jails. This information, in turn, should be used in a broader assessment of the cost-effectiveness of mental health courts. Doing so will help advocates who seek funding for these diversion programs as well as help optimize their effectiveness.

Finally, extant mental health courts should work together as described above to learn from each other, establish and use a monitoring system, and act as a statewide resource for other communities hoping to establish their own mental health courts. This process could be facilitated by an organization with mental health interest and expertise, such as NAMI or the UNC Center for Excellence in Community Mental Health, which can serve as a dependable and capable guide. In doing so, collaborators should clearly define their goals, expectations for participants, and be willing and open to modifying their approach if improvements are possible. The results of this collaboration should be made accessible to stakeholders across North Carolina.

Conclusion

Historically, mental health programs and reforms have struggled to achieve their desired ends without unfortunate unintended consequences. Dorothea Dix was successful in getting these patients out of prison and into inpatient psychiatric care; however, lack of oversight of patient health and the civil commitment process stimulated the deinstitutionalization movement. The deinstitutionalization and privatization movements in turn attempted to improve care by making it less restrictive on patients and shifting its focus to the community setting, but difficulties in establishing the necessary outpatient treatment infrastructure led to the criminalization of mental illness and a trans-institutionalization of these individuals.[39]

Expansion of mental health courts without addressing the broader problems of the mental health system threatens to waste valuable health and legal resources. More importantly, failure of mental health courts to save money or improve patient lives in this scenario could be misinterpreted as a failure of diversion, wasting valuable political capital. Any consideration of expanding mental health courts should also involve a critical appraisal of the current state of mental health services. This would allow local court systems to create MHC programs appropriate for their needs and resources as well as develop appropriate expectations for their effects.

The results from these interviews should be interpreted in the context of this study's limitations. Although efforts were made to include a broad range of perspectives, ideally interviews would have also included judges with experience hearing cases involving mental illness as well as active law enforcement officers. Further, most interview participants were from the central part of the state potentially limiting the validity of results in the eastern and western regions. Concerns about professional repercussions may have also affected some responses, especially those of state employees.

Mental health courts can improve the experience of individuals with mental illness in North Carolina. However, appropriate expectations should be developed from the start. As described by Dr. Cuddeback:

> *a mental health court alone is not going to be able to address the larger systemic social issues. So it really takes a host of things that mental health court would be just one small part of. So when you say could they be successful, they can be successful probably in identifying and connecting folks to treatment, but are they going to be successful in addressing generations of unemployment, generations of family dysfunction, substance abuse, the lack of social support, the lack of stable housing? Probably the answer is no.*

Mental health courts cannot provide mental health care where no mental health treatment capacity exists. They also cannot improve the broader mental health system. However, when implemented with fidelity to the model and coordinated through a quality assurance and improvement initiative, they may be able to reduce the burden of mental illness in prisons, save money, and improve the lives of individuals with mental illness across the state.

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Tables and Figures

Table 1. List of informants in chronological order of interview.

Informant	Professional Position	Group
Dr. Steven Peters	Cherry Hospital Director of Psychology, Forensic Psychologist	Clinical
Dr. Jim Mayo	Cherry Hospital Clinical Director	Clinical
Verla Insko	NC House of Representatives (D) District 56	Policymaker
Dr. Marvin Swartz	Duke University Division Head, Social and Community Psychiatry	Clinical, Researcher
Marie Lamoureaux	Orange County District Court Mental Health Court Administrator	Administrator
Dr. Virginia Aldige-Hiday	North Carolina State University Distinguished Professor, Department of Sociology	Researcher
Dr. Gary Cuddeback	UNC School of Social Work Associate Professor	Researcher
Yolanda Woodhouse	NC Administrative Office of the Courts (AOC) Court Management Specialist	Administrator

Table 2. From "The Ten Essential Elements of Mental Health Courts," Bureau of Justice Assistance and Council of State Governments Mental Health Consensus Project.

Planning and Administration	Court should be designed and managed by a multidisciplinary group that sets specific goals, continuously monitors court effects, and modifies court policies as deemed necessary.
Target Population	Each court should articulate eligibility criteria reflecting the complex interplay of mental illness with offenses based on community treatment capacity and the range of other pretrial mental health interventions available.
Timely Participant Selection and Linkage to Services	Appropriate MHC participants should be quickly identified, redirected through the court, and linked to community-based services. The time for this process should not exceed the sentence that would have been received in a traditional court.
Terms of Participation	The expectations of the court, conditions of supervision, and legal effects of failure and successful completion should be clearly defined for each participant. The harms of criminal convictions should be clearly explained, especially if plea agreements are involved.
Informed Choice	Defendants should be legally competent[†] and fully understand the repercussions of participation, including court expectations and legal effects. Potential participants should have the opportunity to review this information with qualified legal counsel.
Treatment Supports and Services	MHCs should strive to link participants to a comprehensive array of services targeting the individualized treatment needs of each participant. This includes appropriate evidence-based medical treatments as well as supportive services ranging from case management to housing and employment assistance.
Confidentiality	Medical and legal information maintained by the court for each participant should be protected to ensure confidentiality in compliance with federal and state laws. Clinical and legal information should be kept separate to prevent medical information from harming the participant's legal case if it returns to a traditional court.
Court Team	MHC staff should comprise teams of medical, legal, administrative, and supervisory agents who work collaboratively and receive ongoing interdisciplinary training. This team should periodically review court performance and modify procedures as needed to improve court function.
Monitoring Adherence to Court Requirements	MHC staff should actively monitor participant adherence to court expectations and regularly communicated among the court team. The common nature of relapse should be recognized and addressed with a combination of incentives and punishments individualized for each participant.
Sustainability	Long-term sustainability should be considered early in court development. Data on MHC performance, including individual and population level outcomes, should be regularly collected and analyzed. This information should in turn be used to improve court processes, build community support, and ultimately cultivate long-term funding sources.

[†]In North Carolina, a person is incapable to proceed if their mental illness renders them unable to understand their charges, the legal proceedings, or assist council in their defense.

Appendix A – Systematic Review of the Literature

Introduction

My project comprises three parts: an assessment of current mental health court infrastructure in North Carolina, including where courts are located; a systematic review of the literature to see what research has been done and how well these courts work to achieve the goals of various stakeholders; and in-depth qualitative interviews of key stakeholders in North Carolina to determine what elements are important for these courts to be successful in the future. What follows are the methods used for the systematic review investigating the current state of evidence on the effectiveness of mental health courts.

Prior to this review, one previous meta-analysis has been published by Sarteschi et al. on the topic of mental health courts. While that study reflects a valuable contribution to this relatively nascent field, ultimately we decided to revisit much of that work rather than publish an update. Many factors contributed to this decision. For one, Sarteschi and colleagues included data from sources that were not peer-reviewed in their analysis, while we wanted to strictly consider the peer-reviewed literature. Also, the prior review included data from a concomitant surveys of mental health courts conducted by the authors.

Methods

Topic Refinement: For policymakers at every level considering the expansion of mental health courts (MHCs) in North Carolina, it is important to know how effective they have been when implemented. The diversity of stakeholders for the work of these entities is reflected in the variety of outcomes of interest: while representatives of the legal field may primarily be interested in recidivism, state policymakers may be more concerned about their costs or value and health professionals may desire improvements in the medical state or mental health function of MHC participants. For each stakeholder group mental health courts represent one of many diversion programs, which are in turn one of many types of programs to be considered to help individuals with mental illness who become legally involved. However, in each case the decision to pursue mental health courts or a different intervention largely depends upon the improvements in key outcomes one can expect from expanding mental health courts as compared to those from a different intervention. The information that is helpful for the broadest spectrum of stakeholders is how well mental health courts improve their outcomes of interest. Given this, my initial research question for the systematic review was as follows: among the mentally ill entering the justice system, does participation in mental health courts lead to improved outcomes as compared to the traditional justice system?

To further develop our search string, we conducted an initial search of "mental health courts" in PubMed in April 2015. We reviewed these initial results to look for articles pertinent to our research question and investigated the MeSH terms for relevant articles. After this review of these initial results, we composed the following search string:

("Mental health courts" OR "community resource courts" OR "mental health treatment courts") AND (quality of life[mesh] OR outcomes OR rehabilitation OR cost OR recidivism)

Literature Search: Because of the multidisciplinary nature of this research topic, we wanted to include databases representing each potential stakeholder group including law, health, and social work. After consultation with the information technologists of both the medical and graduate school libraries, we decided to include the following databases: PubMed, PsycInfo, Proquest Criminal Justice, JSTOR, and Sociological Abstracts. This search resulted in 416 articles (see Table 1).

(Table 1 Here)

Study Selection: We excluded all duplicates from the initial 416 results, leaving 346 articles for title and abstract review. Two independent reviewers considered the remaining titles and abstracts, excluding those that were not relevant to our study question, not published in English, conducted outside of the United States, not published in the peer-reviewed literature, or of improper design. Articles were considered to be of improper design if they were review articles or studies that lacked a non-mental health court control group. Conflicts were resolved through mutual agreement. After the initial round of exclusions, 28 articles remained for full text review.

Quality Assessment: Two reviewers independently appraised each study for inclusion in our review, internal validity, external validity, and overall quality. Inclusion criteria remained as described above. Of note, external validity was influenced by how well the authors described the fidelity with which the observed mental health court followed the model. The reviewers then gave each study an overall quality score of low, low-moderate, moderate, moderate-high, or high. Low quality studies contained elements that seriously threatened reviewer confidence in their results. The results of moderate quality studies were considered possibly valid, while those of high quality studies were considered likely to be valid. Of note, the MacArthur Foundation funded five of the fifteen papers included in this review;

however, there was no evidence that this funding source negatively affected the validity of related studies.

Data Extraction and Synthesis: Each independent reviewer extracted the following data from each of the studies included after our full text review: state in which the study was conducted, funding source, study design, sample size of study and comparison groups, study population, comparability of study and control groups, duration of the study, attrition, and relevant outcomes with their observed effect size and precision estimate. The two reviewers compared these extracted data and any conflicts were resolved through mutual agreement.

Many of the included studies provided two separate analyses: one comparing all individuals who entered a mental health court to a control from the traditional court system, in addition to one comparting only mental health court graduates to traditional court participants. These two analyses, respectively, reflecting the realized effectiveness of mental health courts among the population of all individuals who enter this system as compared to the potential efficacy of mental health courts only among individuals who fully completed their MHC requirements. Acknowledging the fact that in practice some percentage of participants will drop out and not fully realize the potential benefits, we did not include these graduate-only numbers and instead focused our attention on the effectiveness of these courts in practice. Although consideration of both may provide insight into how well mental health courts are performing relative to their potential, this separate analysis is beyond our present scope.

Results

After completing a full text review of 28 articles, 15 were included in the final analysis. We appraised each of these articles for their quality and extracted what data they found regarding the outcomes of mental health courts. Quality of individual studies was assessed using the criteria for observational studies adopted by the USPSTF and NHS Centre for Reviews and Dissemination. The data we extracted was categorized into legal and health outcomes, reflecting the division that exists in the literature. The strength of evidence was then assessed and synthesized qualitatively, giving more weight to higher quality studies that enrolled more individuals.

Recidivism: Ten studies considered the outcome of recidivism, including six nonrandomized controlled trials, three quasi-experimental studies, and one retrospective cohort study. Although each of these considered recidivism, they varied in their approach to operationalizing this concept. While some considered arrests, others limited it to charges or time in jail.

Of the five studies considering arrests, three found statistically significant reductions in the number after intervention with a mental health court while two found no significant difference. These five included three moderate-high quality studies and 2,822 subjects, reflecting the strongest body of evidence considered in this review. Other findings with respect to arrests included a reduction in arrest severity (1 study), a reduction in the percentage of participants with rearrests (1), and no change in time to re-arrest (2).

The single retrospective cohort study was the only one to look at legal charges as a marker of recidivism. This moderate quality study included a large number of patients (n=8,237) and found a significant reduction in the probability of having a charge for a new crime at 24 months after participation in a mental health court.

Five studies considered the number of days in prison, including one moderate-high quality and two moderate quality studies. All five found a reduction in the number of jail days among mental health court participants.

Medical Outcomes: Although no studies considered outcomes directly reflective of patient health or quality of life, three studies considered clinically-related outcomes including one moderate and two low quality studies. Of these, two found improvements in the number receiving treatment after MHC participation and one low quality study found no significant difference in symptoms.

Youth Courts: Two studies looked specifically at youth mental health courts. These studies were considered separately, given the fact that insurance mechanisms and treatment capacity is potentially different for this population. Both of these studies looked at re-arrests and found reductions in the number of rearrests.

Discussion

Our review found convincing evidence that participation in mental health courts reduces recidivism by individuals with mental illness, particularly as defined by fewer arrests. Although there were no high quality studies reflecting this result, the lack of conflicting evidence and the large number of subjects in these studies provide a reasonable level of confidence in this conclusion. We found considerably less evidence with respect to medical outcomes, though the higher quality study within this collection suggested a greater percentage of MHC participants received treatment and received treatment more quickly than those in traditional courts. These results are qualitatively consistent with those found in the meta-analysis by Sarteschi et al. in 2011 after including data from 11 additional studies.

The results of our review have potential limitations. The multi-disciplinary nature of this topic means that some evidence may exist in bodies of literature outside of the databases included in our search. Although many well-designed studies were included in our review, all were limited by nature of the topic being research. Because research subjects are both mentally ill and participating in the justice system, a randomized trial is not feasible. Further, randomizing individuals to a traditional court system when a mental health court is available may be considered unethical. These design limitations were reflected in our quality assessment, which found no high quality studies. Although mental health courts exist in other countries, we only included domestic courts in recognition of the unique health care system in the United State. As such, our results cannot be interpreted outside of that setting. The effectiveness of any mental health court is arguably dependent on its fidelity to the MHC model. However, this variable is difficult to assess and may affect outcomes among different courts. Finally, while our review was limited to considering the outcomes of mental health courts, policymakers should also consider what modifying variables influence their effectiveness.

Further research should better characterize the effects of mental health courts from a systemic perspective. Although recidivism is an important outcome from the legal perspective, it is also important to consider how it affects health outcomes as well as costs for the medical and legal systems. Further reviews should consider how to optimize mental health court function and future research should focus on clinical outcomes and cost effectiveness from the societal perspective.

In practice, this evidence supports establishment of mental health courts as a way for the justice system to deal with individuals with mental illness. Also, because we did not only include graduate-only effects in our review, our results reflect a baseline effectiveness that contains much room for improvement as each court finds ways to improve completion among participants. As such, communities that establish mental health courts may see improvements in their outcomes over time.

Conclusions

Our results reflect the current state of the peer-reviewed literature assessing outcomes from mental health courts as compared to traditional courts. Our findings suggest that mental health courts as currently implemented are effective at reducing recidivism; however, evidence for the link between this reduction and further clinical improvements is lacking. More research is needed to characterize the clinical outcomes resulting from participation in mental health courts as well as their cost effectiveness. Nevertheless, this model may provide one way to improve the experience of individuals with mental illness who enter the justice system.

Tables and Figures

Table 1. Results of initial search, by database

Pubmed	166
PyscInfo†	69
Proquest Criminal Justice†	76
JSTOR	97
Sociological Abstracts†	8

†Selected "peer-reviewed" search option

Figure 1. Disposition of Articles (PRISMA Figure)

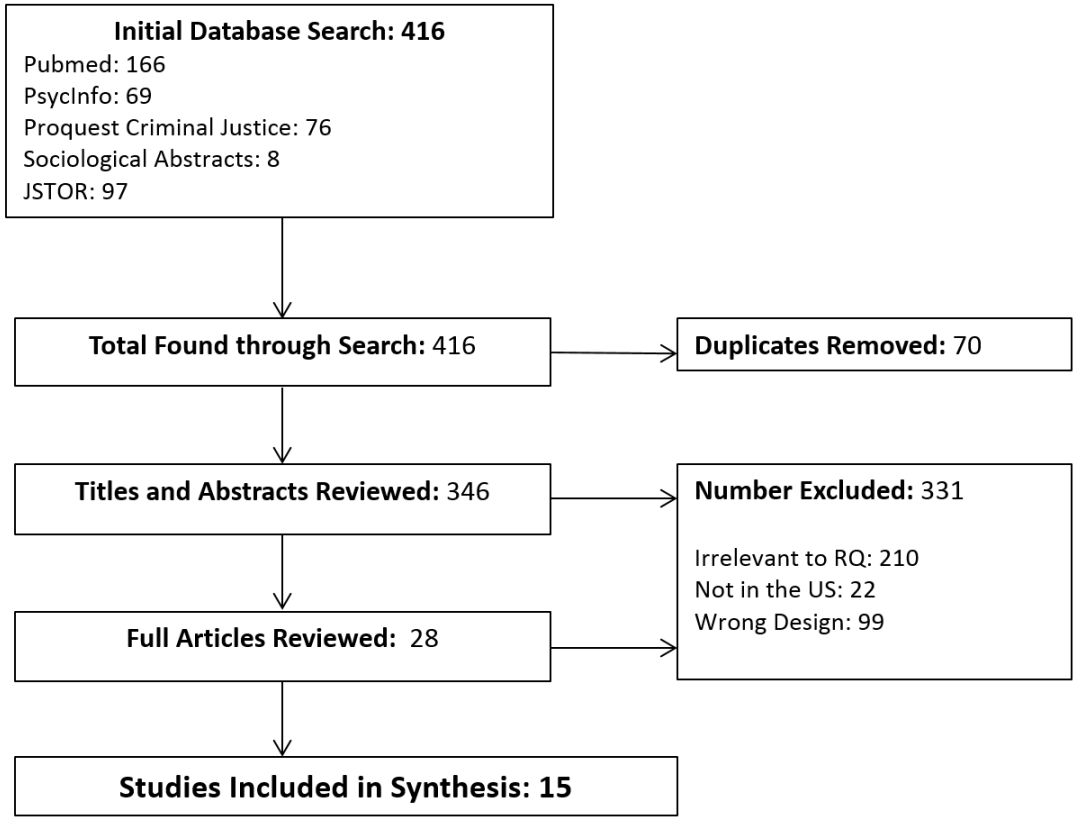

Table 2. Studies measuring recidivism.

Study	State	Funding	Design	Sample Size	Duration	Outcomes	Quality
Moore & Hiday, 2006	NR	NR	NRCT, Single MHC	MHC = 82 Control = 183	1 yr	# new arrests: 1.10 v. 2.36*** Re-arrest Severity: 3.90 v. 9.46***	Moderate-High
Hiday, Wales, & Ray, 2013	D.C.	NR	NRCT, Single MHC	MHC = 408 Control = 687	1 yr	% w/ any arrest: 27.5% v. 37.3%*** Δ# arrests before/after: -1.0 v. -1.5†	Moderate-High
Steadman et al., 2011	California Minnesota Indiana	MacArthur	NRCT, 4 MHCs	MHCs = 447 Control = 600	3 yrs	Δ# annual arrests/person: -0.8 v. -0.6*** # prison days: +9 vs +78***	Moderate-High
McNiel and Binder, 2007	California	UCSF; Senate; Mayor	Retrospective cohort study, Single MHC	MHC = 170 Control = 8,067	1-2yrs	Time to next charge: -0.63 (0.04) Probability new charge @ 24mos: ARR -0.25 (-0.24, -0.26)	Moderate
Hiday and Ray, 2010	North Carolina	NR	Pre-Post, Single MHC	MHC = 99	4 yrs	‡Mean diff # rearrests: -2.4*** per person	Moderate
Burns et al., 2013	Georgia	NR	Pre-Post, Single MHC	MHC = 99	4 yrs	# Jail Days: 75d v. 104d**	Moderate
Luskin, 2013	Indiana	MacArthur	NRCT, Single MHC	MHC = 82 Control = 89	1 yr	Δ# jail nights w/i 6 mos: +0.0 (-4.0, 4.3) v. +31.0 (17.4, 44.6)	Moderate
Frailing, 2010	Nevada	NR	NRCT, Single MHC	MHC = 146 Control = 238	1 yr	# jail days: 5.79 v. 134.61****	Low-Moderate
Christy et al., 2005	Florida	MacArthur, Fl Legislature	NRCT, Single MHC	MHC = 116 Control = 101	8 mos	Re-arrest: OR 1 .38 (0.81-2.37) Time to re-arrest: $\chi^2 = 1.63$†	Low
Palermo, 2010	Nevada	None Reported	Pre-Post, Two MHCs	Washoe = 347 Clark = 182	2 yrs	# Jail days: 5011 v. 230	Low

NR = Not Reported, MacArthur=MacArthur Foundation, NRCT = Nonrandomized Controlled Trial

*p<0.01, **p<0.05, ***p<0.001, ****p<0.000, †=not statistically significant

Δ = change, ‡ Mean difference in number of rearrests comparing the 2 year period before intervention and 2 year period after

Table 3. Studies looking at clinical outcomes.

Study	State	Funding	Design	Sample Size	Duration	Outcomes	Quality
Keator et al., 2013	California Minnesota Indiana	None Reported	NRCT, Three MHCs	MHC = 296 Control = 386	3 years (+/- 18mos)	% Receiving tx 12mos post: 84.2% vs 55.8%*** Time to first service: 7d vs 64d***	Moderate
Boothroyd et al., 2003	Florida	MacArthur, Legislative Grants	NRCT, Single MHC	MHC = 121 Control = 101	16 mos (+/- 8mos)	Receiving Treatment: OR = 0.52 Volume of Services: OR = 0.44	Low
Boothroyd et al., 2005	Florida	MacArthur, Legislative Grants	NRCT, Single MHC	MHC = 116 Control = 101	16 mos (+/- 8mos)	†Change in Symptoms by court type: MHC = 1.3 ± 11.6 TC = 0.05 ± 8.8	Low

NR = Not Reported, MacArthur=MacArthur Foundation, NRCT = Nonrandomized Controlled Trial; ***p<0.001

†Symptoms measured by the BPRS

Table 4. Studies considering youth mental health courts.

Study	State	Funding	Design	Sample Size	Duration	Outcomes	Quality
Cuellar et al. 2006	Texas	NIMH	NRCT, Single MHC	MHC = 148 Control = 151	12 Months	# of Re-arrests: -0.68 /person-year** Hazard of Re-arrest: 0.72 (0.50-1.03)	Moderate
Ramirez et al. 2015	D.C.	NR	Pre-Post, Single MHC	MHC = 54 Control = 54	12 Months	Mean number of re-arrests: 0.18 vs 0.42*	Low-Mod

NR = Not Reported; *p<0.05, **p<0.01

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Appendix B – Interview Materials

Hello,

My name is James Mayo and I am currently a master's student in the Gillings School of Public Health at UNC. The goal of my masters research is to develop a better understanding of what can make mental health courts most successful and effective. I also hope to use my research to develop recommendations for improving the mental health court system in North Carolina.

I have contacted you because I believe your professional position gives you important insight into the potential for mental health courts to improve our management of mental illness in North Carolina. Would you be willing to meet with me for an interview? It will consist of several open-ended questions that draw on your professional experience and unique understanding. It will last between 20 and 40 minutes, depending on how much you want to say and how much time you have to give me. With your permission, it will be recorded and transcribed to ensure fidelity; however, you may refuse to participate or retroactively withdraw from my research at any time. You are free to contact me, James Mayo, or my faculty advisor, Sue Tolleson-Rinehart, with any questions.

I look forward to hearing from you soon and thank you for your time either way!

Sincerely,

James Mayo
e: james_mayo@med.unc.edu
t: (919)210-0312

Sue Tolleson-Rinehart
e: suetr@unc.edu
t: (919) 843-9477

Hello,

My name is James Mayo. I am earning my Master of Public Health Degree between my third and fourth years of medical school at UNC. My faculty advisor is Sue Tolleson-Rinehart, faculty member in the UNC Department of Pediatrics in the school of medicine as well as in the School of Public Health. Thank you for taking your time to speak with me.

The goal of my masters research is to develop a better understanding of what can make mental health courts most successful and effective. I also hope to use my research to develop recommendations for improving the mental health court system in North Carolina.

I have contacted you because I believe your professional position gives you important insight into the potential for mental health courts to improve our management of mental illness in North Carolina.

[Mental Health Experts]: I hope to learn from your perspective as a mental health professional and your experience with individuals with mental illness and the law. I would particularly like to hear about what has and hasn't worked with mental health courts, and why you think that may be.

[Legal Experts]: I hope to learn from your perspective as a legal professional and your experience with individuals with mental illness and the law. I would particularly like to hear about what has and hasn't worked with mental health courts, and why you think that may be.

I hope to publish my research to contribute to the body of knowledge about mental illness at the interface of health, policy, and law. I plan to become a practicing psychiatrist, but I also want to incorporate health policymaking into my career.

This interview has several open-ended questions that draw on your professional experience and unique understanding. It will last between 20 and 40 minutes, depending on how much you want to say and how much time you have to give me. I will record the interview with a digital recorder to ensure accurate representation of your responses. I will tell you clearly when the recorder is on and off. You are free at any time to ask me to turn it off so you can speak off the record. You are also free to end the interview at any time, or to withdraw from the interview. After the interview is over I will transcribe it myself. Both the audio recording and the transcription will be stored on my password-protected, encrypted computer and backup copies will be stored on my advisor's encrypted, password-protected computer.

Your participation is completely voluntary and you may refuse to participate or retroactively withdraw from my research at any time. You are free to contact me, James Mayo, or my faculty advisor, Sue Tolleson-Rinehart, using the contact information I

provided in my email message to you or I can give you that information again at the end of the interview.

Because you are an expert, your opinion is extremely valuable, and giving your name and position increases the credibility of my research. If you choose to remain anonymous, you will only be identified by a general title such as “a mental health policy expert” or “a legal professional.”

This study has been found exempt by the Institutional Review Board at UNC (IRB number 15-0766). Their contact information is also provided below.

I will now ask for your permission to interview you and record your responses. Do you wish to participate in the interview?

__ Yes __No

Do you consent to having the audio recorded during the interview? I will inform you when the audio recording begins and ends, and you may request to have the recorder stopped at any time during the interview.

__Yes __No

May I have permission to use your name and position?

__Yes __No, I wish to remain anonymous

Do you consent to having direct quotes used along with your name?

__Yes __No

Name:_____ Date:_____

Thank you for your help with this project!

Sample Interview Guide:

1. What is your experience in working with people with mental illness? With mental health courts?

2. What have you observed during your experience that works well? That does not work well?

3. Do you think use of mental health courts in North Carolina should be expanded, reduced, or kept the same?

4. What potential benefits could be gained by expanding mental health courts in North Carolina? What potential costs or harms could be incurred?

5. Are there stakeholder groups actively working on this court? If yes, who are they and what are their positions?

6. Do you think mental health courts could be successful in North Carolina? If so, what elements are necessary to incorporate in new or existing programs? If not, what barriers do you see?

7. Do you think mental health courts should be monitored? If so, what outcomes should be considered? Who should be in charge of overseeing this monitoring process?

*Each question will involve further probing as necessary to develop a fuller understanding of the individual's perspective.