

4-9-2015

An Evaluation of the Utah First District Mental Health Court: Gauging the Efficacy of Diverting Offenders Suffering With Serious Mental Illness

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**An Evaluation of the Utah First District Mental Health Court: Gauging the Efficacy of
Diverting Offenders Suffering With Serious Mental Illness**

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
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Date of Approval:
April 9, 2015

Keywords: specialty courts, problem-solving courts, recidivism, offender rehabilitation,
mandated treatment

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ACKNOWLEDGMENTS

First, I want to acknowledge the contributions of my major professor, Dr. Shayne Jones. He has been an excellent mentor and friend throughout this process, and I owe a lot to his patience and kindness. Second, I want to thank Dr. Leon Anderson for being a catalyst for progress at all points during this study. Not only did he introduce me to both the topic and the court members, but he also pushed me to write when I could not push myself. I also want to recognize the rest of my committee members: Dr. Boggess, Dr. Leiber, and Dr. Mitchell. Each of them helped me think about this study through a much more critical lens, which made me a better social scientist overall.

Next, I want to acknowledge each member of the First District mental health court workgroup, but especially Judge Kevin K. Allen for granting me access to his court and Dennis Kirkman for allowing me access to his treatment files. In addition, I want to recognize Scott Steinmetz at Bear River Mental Health Services for providing hospitalization histories and the deputies at Cache County Jail for providing incarceration histories. Lastly, I want to thank Traci Hillyard. As the court clerk, she went above and beyond when helping to compile criminal histories, and there is absolutely no way that this study could have been conducted without her.

Finally, I want to acknowledge my family. I want to recognize my parents, Jack and Florence Van Geem, for being fine role models and kind people. I want to acknowledge my brother, Kevin, and sister-in-law, Nora, for being awesome friends. And, most of all, I want to thank my wife, Lynne. Throughout this process she has proven that she is clearly the best thing for my own mental health.

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ABSTRACT

The decision to establish a mental health court in Utah’s First District was largely a political one prompted by the growing popularity of problem-solving courts throughout the country. Because this motivation was policy-driven and not needs-driven, the court was established without an ongoing data collection schedule. As a result, barring anecdotal evidence from program participants, the current impact of the court on two key goals— reducing recidivism and increasing community-based treatment contact—is entirely unknown. The current study aims to provide a summative program evaluation of the first sixty-eight months of specialty court operation by (1) estimating basic demographic and clinical information about program referrals, participants, and graduates; and (2) measuring program effectiveness by examining between-group differences in key outcome measures (e.g., new charges, use of therapeutic services, time to rearrest, etc.) for those referrals who are accepted into the program as participants versus those referrals who are rejected from the program and sentenced to treatment-as-usual. Ideally, the current study will not only provide an evidence-based assessment of local practices at the current study site but will also empirically inform the greater community of mental health practitioners, researchers, and policymakers who are operating in smaller, more rural districts.

CHAPTER ONE:

INTRODUCTION

Specialty Courts in the United States

In recent decades, the United States has seen a shift away from purely punitive prison practices toward a more specialty-based approach. Specialty courts in general began to appear in select jurisdictions in the 1980s and have come to encompass a wide range of specific criminal behaviors (i.e., domestic violence, driving while intoxicated, sex offenses, etc.) or specific populations that are at a greater risk of criminal involvement (i.e., veterans, teenagers, the mentally ill, etc.) (Porter, Rempel, and Mansky 2010). Although there is a wide range of courts that fall under the umbrella term “specialty,” some of the most popular have adopted a “problem-solving” approach that looks beyond just criminal culpability and focuses on therapeutic rehabilitation (Castellano and Anderson 2013). More specifically, these courts operate under the assumption that criminal activity is significantly affected by pathologies compromised by other risk factors like substance abuse or mental illness (or both). Problem-solving courts differ markedly from traditional criminal courts in that they move beyond the customary case processing and sentencing model to incorporate a multi-institutional partnership between judicial, legal, and treatment teams. This coordinated effort attempts to divert individuals away from the criminal justice system and

into community-based treatment programs in order address the issues that are causing the ongoing criminal behavior.

The first drug court opened in Miami-Dade County, Florida, in 1989 and, as it involved the first collaboration between justice and public health systems, it is widely regarded as the beginning of the “problem-solving” court movement in the United States (Goldkamp and Irons-Guynn 2000). The key goals of “problem-solving” drug courts are not only to reduce drug-fueled recidivism, but also to concentrate expertise about drug cases into a single courtroom, to address clinical needs and increase ongoing treatment contacts, and to free courtroom resources to adjudicate non-drug cases (Belenko 1998). In order to meet all of these goals, the drug court model usually entails timely identification of defendants in need of treatment, ongoing judicial supervision of structured community-based treatment, graduated sanctions or rewards in an attempt to increase defendant accountability, and mandatory periodic drug testing. Based upon the initial successes of the Dade County court¹, drug-themed specialty courts have increased significantly in popularity in the past twenty-five years and now exist in every state and Washington, D.C.².

The first dedicated judicial response to mental health began in Marion County, Indiana, in 1996 with the Psychiatric Assertive Identification Referral/Response (PAIR) program in Indianapolis (Feinblatt, Berman, and Sviridoff 1998). Considered by many to be the nation’s first mental health court, PAIR was a comprehensive initiative that included a pre-trial and post-booking diversion system expressly for mentally ill offenders (Feinblatt et al. 1998). Similar to the drug court model, the PAIR program relied heavily upon a court workgroup that was staffed

¹ The National Institute of Justice (1993) found that defendants in the Miami drug court had fewer arrests than a comparable control group.

² As of December 31, 2013 there are 2,907 drug courts operating in the United States and its Territories (National Drug Court Resource Center 2014).

by local legal and social service professionals who are experts on the target population and the related criminal justice issues, and the program was aimed at both reducing reoffending and increasing treatment contacts (Feinblatt et al. 1998). In addition, the court used ongoing judicial monitoring, case management, graduated rewards, and supportive services like housing and employment assistance to help integrate defendants back into the community (Bazelon Center for Mental Health Law 2004). A year later, another similarly specialized mental health court was opened in Broward County, Florida, which was then followed by three more in 1998—one in Anchorage, Alaska, and two in California. (Ferguson et al. 2008; Goldkamp and Irons-Guynn 2000; Poythress et al. 2002). Since that time, the popularity of mental health courts in the United States has grown significantly, as there are now 343 different mental health-themed adult courts spread out over forty-three different states³ (Adult Mental Health Treatment Courts Database 2013).

According to Redlich et al. (2006), there are six different characteristics that define mental health courts and make them distinct from other problem solving courts in the criminal justice system. First, mental health courts are exclusive to individuals with serious and persistent diagnosable mental illnesses. Second, mental health courts have a twofold goal of initially diverting citizens with mental illnesses away from the criminal justice system and toward community mental health treatment, and thus lessening future offending and recidivism as a result. Third, mental health courts mandate community health treatment in lieu of incarceration, typically in accordance with taking prescribed medications and adhering to other requirements such as consistent employment or community service. Fourth, mental health courts require ongoing

³ Every state in the United States has at least one mental health court save for Arkansas, Connecticut, Nebraska, New Jersey, Rhode Island, South Dakota, and Wyoming (Adult Mental Health Treatment Courts Database 2013).

judicial status review hearings conducted by the sentencing court in order to maintain a continued dialogue between the court, community supervisor, and defendant. Fifth, mental health courts operate under the model of “therapeutic jurisprudence” (Wexler and Winick 1996) where praise and encouragement is offered for compliance and sanctions (i.e., potential incarceration) are imposed for violations. Finally, mental health courts run on voluntary enrollments that are reliant upon administrative referrals and participant consent. In contrast to drug courts, mental health courts are typically more wary of using sanctions like incarceration in order to maintain program compliance, given the legal and ethical issues tied to legal coercion and defendant competency (O’Keefe 2006).

One of the issues that arise as a result of mental health courts being a coordinated effort between the criminal justice system and the public mental health services system is determining program efficacy. According to Redlich (2013), the ultimate goal is to “reduce the repeated cycling of offenders with mental illness through the criminal justice system” (p. 148). While it would appear natural to assume that, from a purely criminal justice perspective, the greatest measure of success would be a lack of (or severe reduction in) recidivism, focusing solely on rates of reoffending does not capture the total aim of the alternative sentencing program. More specifically, this process is unique as a rehabilitative mechanism because it stresses that the current charges will only be adjourned due to successful engagement with treatment services designed to decrease criminality and to improve health and psychosocial functioning (Edgely 2014). Given the factors that make mental health courts distinct from traditional criminal processing and even other specialty courts, any evaluation should be aimed at not only assessing the effects of current practices on traditional criminal justice-related goals but also mental health-specific goals. Because future incarceration is one of a range of potential outcomes, many evaluations have

attempted to not only gauge the impact that problem solving courts have had on future law enforcement contacts and jail-time, but also the amount of sustained contact participants maintain with the community-based mental health treatment facilities after having successfully completed the alternative sentence.

Prior research predicts that program participation will result in a series of positive, pro-social effects. Successful mental health court treatment completion is associated with fewer post-program bookings and greater post-program treatment episodes when compared with pre-program measures (Boothroyd et al. 2003; Christy et al. 2005; Eckberg et al. 2006; Herinckx et al. 2005; Morin 2004; O’Keefe 2006; Teller et al. 2004; Trupin et al. 2001; Trupin and Richards 2003), and with fewer post-program charges/arrests and longer intervals between charges when compared with control groups of equivalent mentally ill felons (Bess Associates 2004; Christy et al. 2005; Eckberg et al. 2006; McNeil and Binder 2007; Moore and Hiday 2006; Morin 2004; Neiswender 2005; Teller et al. 2004). In addition, when compared with a control group, program participants see significant increases in the frequency of post-program treatment services (Boothroyd et al. 2003; Boothroyd et al. 2005; Cosden et al. 2005; Trupin and Richards 2003) and a significant decrease in the number of post-program days in jail (Bess Associates 2004; Cosden et al. 2005; Teller et al. 2004; Trupin and Richards 2003). The average graduation rate in a cross-national sample of 447 participants in four different programs participants was over forty-seven percent, with one jurisdiction even going as high as nearly eighty-one percent (Redlich et al. 2010). Overall, the mental health court movement appears to be meeting the dual goals of reduced

criminal justice contact and increased engagement in community treatment⁴, meaning that these types of courts appear to be meeting their program goals.

Although some high profile specialty courts have been assessed for effectiveness, what we know about the majority of programs is rather limited (Castellano and Anderson 2012). Since the first courts opened in the late nineties, there have been a limited number of evaluations conducted and reported in journal articles, technical reports, doctoral dissertations, or master's theses (see Table 1). Within those fifty-two studies, only forty-five different sites have been sampled, with a strong overrepresentation of courts that were founded early in the mental health court movement and courts that have been established in larger cities with higher populations. This heightened focus on only a handful of key sites may lead to a potential issue of external validity, as many of the operational constraints or concerns that affect specialty courts in cities like Brooklyn, Miami, San Francisco, and Seattle may not be applicable to smaller or more rural jurisdictions (see Mateyoke-Scrivner et al. 2004 for a related discussion of how location affects drug courts effectiveness). In addition, some of these studies are limited to a one-year period of data collection (see Table 1) so the research may not be able testify to the long-term longitudinal successes of those jurisdictions.

Table 1. Prior Mental Health Court Evaluations

Author(s)	Type of Publication	Court Location	Collection Dates
Baranek (2008)	Thesis	7 sites	2003-2004
Behnken (2008)	Dissertation	Santa Clara County (Juvenile), CA	2001
Bell et al. (2010)	Technical Report	Baltimore, MD	Unknown
Bess Associates (2004)	Technical Report	Butte County, CA	2000
Boothroyd et al. (2003)	Journal Article	Broward County, FL	1999-2001
Boothroyd et al. (2005)	Journal Article	Broward County, FL	1999-2001
Boulden et al. (2011)	Technical Report	Jackson County, MO	2010

⁴ In order to qualify the statement that these courts are overwhelming successful, it must be noted that in two meta-analyses of prior mental health court research, the effect on criminal outcomes was small-to-moderate and the effect on mental health outcomes was non-significant (Cross 2011; Sarteschi 2009), although both studies suffered from a notable lack of research adequately measuring treatment results.

Table 1 (Continued). Prior Mental Health Court Evaluations

Author(s)	Type of Publication	Court Location	Collection Dates
Burke et al. (2012)	Journal Article	Davidson County, TN	Unknown
Burns et al. (2013)	Journal Article	Hall County, GA	2004-2010
Callahan et al. (2013)	Journal Article	4 sites	2005-2008
Camarena (2008)	Technical Report	Norfolk, VA	2006-2007
Canada and Watson (2013)	Journal Article	2 unspecified sites	Unknown
Case et al. (2009)	Journal Article	14 unspecified sites	2003-2007
Christy et al. (2005)	Journal Article	Broward County, FL	1999-2001
Cosden et al. (2003)	Journal Article	Santa Barbara County, CA	Unknown
Cosden, et al. (2005)	Journal Article	Santa Barbara County, CA	Unknown
Dirks-Linhorst/Linhorst (2012)	Journal Article	St. Louis County, MO	2001-2007
Eckberg et al. (2006)	Technical Report	Hennepin County, MN	2004-2005
Ferguson et al. (2008)	Technical Report	Anchorage, AK	2003-2006
Frailing (2010)	Journal Article	Washoe County, NV	2006-2009
Herinckx et al. (2005)	Journal Article	Clark County, OR	2000-2003
Hiday and Ray (2010)	Journal Article	Unspecified, NC	2005
Hiday et al. (2013)	Journal Article	Washington, DC	2007-2009
Hughes et al. (2012)	Journal Article	Travis County, TX	2006-2007
Keator et al. (2013)	Journal Article	3 sites	2005-2007
Kopelovich et al. (2013)	Journal Article	4 sites, NY	2009-2010
Kubiak et al. (2012)	Technical Report	8 sites, MI	2009-2011
Kubiak et al. (2014)	Technical Report	Wayne County, MI	2009-2013
Liedtke et al. (2011)	Technical Report	Jackson County, MO	2002-2011
Makany-Rivera et al. (2013)	Technical Report	4 sites (Juvenile), TX	2008
McNiel and Binder (2007)	Journal Article	San Francisco, CA	2003-2004
Moore and Hiday (2006)	Journal Article	Unspecified, NC	2001-2002
Morin (2004)	Dissertation	Hennepin County, MN	2002-2003
Neiswender (2005)	Dissertation	King County, WA	Unknown
O'Keefe (2006)	Technical Report	Brooklyn, NY	2002-2004
Palermo (2010)	Journal Article	2 sites, NV	2001-2009
Poythress et al. (2002)	Journal Article	Broward County, FL	1999-2001
Pratt et al. (2013)	Journal Article	4 sites, NY	2009-2010
Ray et al. (2011)	Journal Article	Unspecified, NC	2009-2010
Redlich et al. (2010)	Journal Article	4 sites	2005-2008
Redlich et al. (2012)	Journal Article	4 sites	2005-2008
Ridgely (2007)	Technical Report	Allegheny County, PA	2001-2004
Rossmann et al. (2012)	Technical Report	2 sites, NY	2002-2006
Sneed et al. (2006)	Journal Article	Unspecified	2003-2006
Steadman et al. (2011)	Journal Article	4 sites	2005-2008
Teller et al (2004)	Technical Report	Akron, OH	2001-2004
Trupin et al. (2000)	Technical Report	King County, WA	1999-2000
Trupin et al. (2001)	Technical Report	Seattle, WA	2000
Trupin and Richards (2003)	Journal Article	2 sites, WA	1999-2000
Van Vleet et al. (2008)	Technical Report	Salt Lake County, UT	2004-2008
Wicklund et al. (2013)	Technical Report	Chittenden County, VT	2003-2012

Finally, one of the largest issues that exists when attempting to compile all pre-existing evaluations into a definitive verdict on all mental health courts in the United States is that no two

courts are identical; a common perspective among those that evaluate mental health specialty courts is that, “If you’ve seen one mental health court, you’ve seen one mental health court” (Castellano and Anderson 2012). Because of this lack of program standardization⁵, there is a large amount of uncertainty about the effectiveness of any given problem-solving court. As a result, the efficacy of any single court demands an intensive, rigorous, longitudinal case study. In this spirit, this dissertation will evaluate the mental health court established in Utah’s First District.

The Current Site and Study

The beginning of the mental health court in Utah’s First Judicial District can be traced back to 2008 when attorney Kevin K. Allen was interviewed about becoming a First District judge (Utah Courts 2014). Policymakers had seen the popularity of the state’s first mental health specialty court founded in 2001 in Salt Lake County, Utah’s Third District, and wanted to establish a similar court in Cache County. This decision is noteworthy in that the seat of the First Judicial District in Logan, Utah, is city with only a quarter of the population of Salt Lake City and with only a fraction of the available mental health treatment facilities. After Judge Allen was appointed by Governor Jon M. Huntsman, Jr., and once the court found a treatment provider in Dennis Kirkman and Bear River Mental Health Treatment Center, the problem solving court began operating as the second mental health court in the state of Utah in December 2008 (Macavinta 2013b). As the establishment of the court was largely a political decision and not one that came as a result of a locally conducted needs-based assessment, there were no preexisting data about the role of mental

⁵ Courts tend to vary in a number of ways, from what mental health diagnoses will be screened out to what crimes are under consideration for alternative sentencing to the treatment benchmarks necessary for successful program completion. In the majority of cases, each court system tends to “reinvent the wheel” once state legislature requests that a mental health court be implemented in a given jurisdiction.

health in Cache Valley crime rates and the utility of the court is unknown. Based upon informal first person accounts of successful participants and graduates (Jensen 2010; Macavinta 2013a; Macavinta 2013c), the court seems to be anecdotally effective and appears to be making an impact with the intervention's target population, but it is difficult to quantify the court's local impact without substantial empirically guided assessment. This study will attempt to demonstrate how the specialty court program is an essential alternative to strictly punitive prosecution, one which provides participants with the necessary treatment service contacts that will initially provide court-mandated community supervision and then later provide post-program treatment support.

When evaluating the effectiveness of this court, the very first step will be to calculate descriptive statistics including the total number of referrals, the program acceptance rate, the program termination rate, and the program completion rate. In addition, the current study will estimate some very basic demographic characteristics for the referral, acceptance, termination, and completion groups including variables such as gender, race, ethnicity, age at time of acceptance or rejection, living conditions, relationship status, highest level of education, and employment status. Next, beginning with three years prior to the referral charges, this study will construct criminal histories and treatment histories for those that participated in the specialty court program and for those that were rejected in order to run a series of bivariate comparisons estimating whether or not there are any significant preexisting group differences; if there are significant group differences prior to acceptance into the program (i.e., if the participant group is already significantly less criminally-prone or is significantly more treatment-oriented) than this study will use a fixed-effects model in an attempt to neutralize such a threat to internal validity. Then, this study will employ a quasi-experimental pre-test/post-test design using participants as the treatment group and rejected referrals as the control group in order to estimate the long-term effects that program involvement

has both on reoffending and on continuing to use community-based therapeutic services. Recidivism will be examined by calculating the number of new charges and the number of jail days up to three years after leaving the program (whether due to rejection, termination, or graduation.) Continued treatment use will be estimated by calculating the number of services used in the thirty-six months post-involvement. Finally, the current study will examine whether there are significant differences between participants and non-participants in the post-program hazard rates of new charges, incarceration, and therapeutic service use.

While the current study is intended primarily to fulfill the requirements for a doctoral dissertation project, the process of gathering data and the potential applicability of the research results expands the current research objectives considerably. The overarching objective of the current study is fourfold and, while there may be some overlap, the first two goals would be classified as mostly institutional and the second two goals are assessment-based. The first institutional aim is to establish a data collection format that will not only aid the current project but also provide the First District mental health court with an electronic database that may be added to over time for purposes of periodic analyses. The second institutional goal is to validate these data collection techniques locally so that they can be adopted elsewhere in the state of Utah in an attempt to establish a statewide database across all mental health court jurisdictions. In an ideal situation, the results of the current study could be used to influence future research opportunities within the state, potentially allowing for evaluations of each specific mental health court as well as the overall system of mental health and justice collaboration in Utah. The first assessment-related objective is to conduct a much needed impact assessment of the local court's effectiveness at reducing recidivism and increasing community-based mental health treatment contact. The second assessment-related aim is to help empirically inform the greater community of mental

health practitioners, researchers, and policy makers who are ideally interested in evidence-based assessment outcomes tied to these specialty courts.

Beyond the local need for programmatic evaluation, there is a larger, more global utility to studying Utah's First District mental health court located in Cache County. None of the current mental health court research has ever looked at a metropolitan area that is so small. While most evaluations focus on large, urban areas with populations well over 1,000,000 residents (Behnken 2008; Boothroyd et al. 2003; Boothroyd et al. 2005; Christy et al. 2005; Eckberg et al. 2006; Herinckx et al. 2005; Hughes et al. 2012; Kopelovich et al. 2013; Morin 2004; Neiswender 2005; O'Keefe 2006; Poythress et al. 2002; Pratt et al. 2013; Ridgely et al. 2007; Rossman et al. 2012), examinations of areas with the smallest population during the time of study include: Butte County, California, with a year 2000 population of 203,171 residents (Bess Associates 2004); Akron, Ohio, with a population of 217,074 citizens in 2000 (Teller et al. 2004); and Anchorage, Alaska, with a 2000 population of 260,283 people (Ferguson, Hornby, and Zeller 2008). Given that mental health courts are starting to expand into decidedly non-urban, less populated jurisdictions, research examining the utility of this type of problem solving in regions with smaller populations is essential. While there is some precedent for examinations of the unique effects of rural settings on drug courts (see Mateyoke-Scriver et al. 2004), the research on mental health courts is not nearly as robust. In addition, many assessments have been conducted in large urban centers where mental health resources, while not abundant, are more available. Finally, there is a potential argument to be made that the stigma of mental illness may actually be greater in smaller areas; the social mistreatment and rejection of the mentally ill in a more socially limited area may be more threatening to their quality of life than the illness itself (Kaufman 1999). As the majority of the new problem-solving courts in the United States, and especially in Utah, are developing in more

rural districts and counties, an empirically guided assessment of attempts to integrate those struggling with mental illness into community-based services using preexisting rural district courts becomes more and more valuable.

CHAPTER TWO:

THE HISTORY OF MENTAL HEALTH COURTS IN THE UNITED STATES

Serious Mental Illness and Crime

There is currently a tremendous amount of overlap between the mental health and criminal justice systems in the United States, and as the social safety net for mental illness has shrunk, the criminal justice system is the institution that has filled the void (Torrey 1995). The correctional system has seen a significant rise in the mentally ill prisoner population in the past forty years. In 2006, the U.S. Department of Justice released a report estimating that 705,600 state prisoners (56.2 percent), 70,200 federal prisoners (44.8 percent), and 479,900 jail inmates (64.2 percent) could be classified as having a mentally health problem. In total, that is an expected population of over 1,250,000 mentally ill offenders that are incarcerated by the criminal justice institution. While those percentages are lowered to 49.2 percent of state prisoners, 39.8 percent of federal prisoners, and 60.5 percent of local jail inmates respectively when diagnoses are limited to just major depressive disorder, mania disorder, or psychotic disorder, these statistics still imply that the majority of offenders behind bars are subject to some form of serious mental illness. In many instances, the mentally ill will cycle through the courts and correctional systems repeatedly, thus “jails and prisons have become America’s mental hospitals. The country has reverted to a situation last seen in the early 19th century” (Torrey et al. 2010:9).

The largest issue with using the criminal justice system as the primary institution of addressing mental illness is in how dissimilarly society views mental illness and criminality. When analyzing what causes crime, there is some debate about human agency and the role of free will (see Akers and Sellers 2012). On one hand, a variety of theories that emphasize the role of biology or social influence believe that forces beyond an individual's control compromise choice, and so the role of biological or social determinism must be confronted. On the other side, rational choice allows for "bounded" rationality, but still posits that crime is a choice or sequence of choices that facilitates criminal behavior (Cornish and Clarke 1986). Either way, while actors in the criminal justice system consider the role of potential mitigating or aggravating factors when weighing how to punish a crime, the system itself is designed to punish behaviors that threaten individuals and the public good. For the most part, public sentiment is less inclined to see a convicted criminal as entirely sympathetic.

Mental illness is framed as a medical problem where any confinement "serves the goal of treatment because of an underlying societal value of compassion for a person who has an illness" (Erickson and Erickson 2008:7). Mental illness is often framed as a condition beyond an individual's control, perfectly in alignment with assumptions of biological determinism, and therefore that individual is viewed with a level of compassion. The response that must be taken is treatment-based in order to address those medical issues, and the result will benefit both the individual and the greater society. The last thing one would argue is that society must punish that person in order to get them to overcome his or her mental illness.

In contrast, crime is framed as a personal problem that results from any number of reasons, but the resulting imprisonment is justified because of "the underlying value of keeping the community safe from someone who has committed a crime" (Erickson and Erickson 2008:7).

Whether we see it as a purposeful choice or not, we can all agree that criminal behavior threatens public safety and therefore an individual who breaks the law is viewed as dangerous and a little contemptible. The response that must be taken is punitive-based in order to punish any social transgressions, and the result will mostly benefit the general public. As persons with mental illness become more and more embedded within the criminal justice system, the chronic mentally ill population runs a significant risk of not only never receiving adequate treatment, but also of public perceptions shifting from viewing a mentally ill individual as sympathetic toward being someone that should be scorned.

In an effort to restrain this growing tendency to address mental health issues with the punitive approach that criminal justice demands, there has been a recent shift toward embracing treatment-based approaches to criminal sanctioning (Council of State Governments 2005). This movement has seen a dramatic increase in specialty mental health courts, which are aimed at specifically targeting the mentally ill who engage in criminal behaviors and attempting to stabilize symptoms and reducing chemical dependence (Almquist and Dodd 2009). For proponents of this movement, the goal is now transitioning these defendants out of the correctional system and steering them toward community-based treatment services by increasing service accessibility and defendant integration at every stage in the process (Council of State Governments 2005). As conceptualized, the role of the criminal justice system actually ends up being advantageous for all, as this integrative procedure is technically housed within the sanctioning structure of the courts and is therefore mandatory.

The problem-solving design is one that was specifically derived from the drug court model (Almquist and Dodd 2009). Though mental health courts and drug courts focus on differing key criminogenic risk factors, both share a number of common principles including: (1) enhanced

information about program participants and treatment-related issues; (2) increased community engagement; (3) pointed collaboration between criminal justice institutions and community treatment organizations; (4) individualized justice using valid, evidence-based assessment tools; (5) participant accountability through regular compliance monitoring; and (6) outcome analysis (Wolf 2007). The problem-solving court model calls upon voluntary participation in community-based treatment that is continuously monitored by the court in an effort to reduce recidivism, reduce corrections costs, and improve the quality of life of offenders (Almquist and Dodd 2009). While the root cause of anti-social behavior may be different, the overarching approach of all specialty courts is one guided by therapeutic jurisprudence.

Therapeutic jurisprudence is the "study of the role of the law as a therapeutic agent" (Wexler 2000:125). This approach regards the use of law as a social force that produces behaviors and consequences that can either be therapeutic or anti-therapeutic (Wexler 2000). This is not to say that therapeutic goals should entirely supersede other legal values, such as justice and due process, but that this approach suggests that, when possible, therapeutic and anti-therapeutic outcomes should be factored into judicial decision-making (Wexler 2000). Many of the drug courts that first appeared in the mid-1980s as a response to the dramatic rise in drug offenses emphasized court-monitored treatment over straight incarceration because the later was decidedly anti-therapeutic (Winick 2003). The mental health court in Broward County, Florida, was specifically founded on therapeutic jurisprudence principles, as the specialty court judge described the program as "a therapeutic agent balancing treatment needs against those of Public Safety and of course the individual's constitutional rights" (Casey and Rottman 2000: 450). The court was designed to enhance therapeutic outcomes by facilitating timely access to individualized treatment,

followed by ongoing judicial monitoring that oversees treatment adherence (Casey and Rottman 2000).

When discussing the specific role of judicial behavior in therapeutic jurisprudence, Wexler (2000) stressed the need for an open dialog between the judge and the program participant. He cited judges that spoke directly to the defendant, saying things such as: "Okay, you realize this is the offense that you're pleading to. Please tell me in your own words what happened, when, and so on" (2000:132) as being particularly effective at fostering positive change. Because therapeutic jurisprudence emphasizes that the law in practice operate to promote pro-social cognitive restructuring, such judicial behavior takes the first step of confronting denial and minimization, and encouraging an offender to take responsibility (Wexler 2000). In fact, judges need to understand the psychology of procedural justice so that specialty court participants feel validated and experience greater program satisfaction, and are therefore more likely to willingly comply with court orders (Winick 2003).

Outside of how well a judge facilitates dialog during status hearings in order to encourage program compliance, the mechanisms that lead to positive change are tied primarily to the treatment services provided. Such services tend to be incredibly individualized as a given mental health court participant receives treatment services based primarily on that client's specific needs and the community services that are available (Almquist and Dodd 2009). Mental health courts do not operate nor fund treatment services, and have no direct control over the quality of the services themselves (Almquist and Dodd 2009). In short, the court leaves it up to local mental health experts to develop a treatment schedule that will work for a given defendant and the role of the mental health court is to provide the legal incentive to comply with that treatment schedule. In

this way, the court itself is a secondary agent of therapeutic change that is reliant upon the local community treatment provider or providers to act as the primary agent of rehabilitation.

While increasing the accessibility of mental health services does not guarantee a lack of recidivism, this approach appears to provide the best institutional response for yielding long-term positive results. To better understand how both the mental health and criminal justice systems have evolved over the years to become this integrated, the following section will detail how mid-Twentieth Century deinstitutionalization in the United States led to an increased reliance upon the criminal justice intervention.

Deinstitutionalization and Criminogenic Risk Factors

Deinstitutionalization is the term used to describe the nationwide closure of the majority of large state-run psychiatric hospitals in the 1970s (Torrey et al. 2010). While there were a number of reasons for this deinstitutionalization, the primary result was a severe drop-off in preexisting resources available to the mentally ill (Torrey 1988). In 1955, there was one psychiatric bed for every 300 American; in 2005, there was only one psychiatric bed for every 3,000 United States citizens (Torrey et al. 2010). The end result has been an increase of those suffering from mental illness in the general population and in the criminal justice system.

The relationship between mental illness and treatment is a storied one that involves debates over public safety, governmental intervention, federal versus state responsibilities, the loss of civil liberties, the right to proper treatment, and conflicting policy recommendations (Torrey 1988). Caring for the mentally ill in the United States became an institutionalized governmental responsibility in the mid-1800s as a part of the social welfare movement to care for “feeble” people

in society (Fakhoury and Priebe 2007). In the beginning, the focus was on “moral therapy” in the 1830s and 1840s, a movement spawned largely in Victorian Europe that argued for the treatment of mental illness through a combination of psychiatric care and moral reprogramming (Fakhoury and Priebe 2007; Torrey 1988).

Drawing upon the “moral therapy” movement, Dorothea Dix testified to the United States Congress in the early 1850s about how the then-current system of incarcerating the mentally ill in local jails with no concurrent treatment led to mentally ill citizens becoming more homicidal, suicidal, or destructive (Luchins 1988). Based upon this evidence, she called for a federal policy shift toward dedicated treatment facilities or asylums that would be subject to federal administrative supervision. Despite fears by then-President Franklin Pierce that federal involvement in the care of the mentally ill would set a dangerous precedent that the government should care for all impoverished Americans, the asylum movement gained popular support among state governments and eventually resulted in the construction of mental hospitals in every state in the pre-Civil War Union (Luchins 1988). President Pierce’s hesitancy⁶ did set precedent though for a lack of federal oversight over state-run mental institutions, which became problematic in the next century as state budgets shrank and asylum populations swelled. Due to a lack of federal regulation and growing neglect, the bureaucratic goals of institutions that initially symbolized the strong and compassionate arm of a responsible government aiding its most marginalized citizens in the mid-19th Century largely became one of containment, oppression, neglect, and abuse in the mid-20th Century (Earley 2006).

⁶ Pierce did veto the 1854 Congressional act granting 10 million acres of federal lands for construction, expansion, and improvement of state facilities for the “furiously insane”.

Critics of the institutional system began voicing discontent in the 1960s, and those critiques came from a myriad of sources (see Birnbaum 1960; Foucault 1965; Goffman 1961; Rothman 1971; Szasz 1961). Challenges were leveled from a variety of different perspectives on the political spectrum—liberal academics of the anti-psychiatry movement, civil rights lawyers, cash-strapped state legislatures, all three branches of the federal government, and private-sector third-party insurance companies. Although each party attacked the mental institution for different reasons, the common thread among all of them was an understanding that the system that existed at the time was wholly unacceptable.

The anti-psychiatry movement began in the 1960s with the release of psychiatrist Thomas Szasz's *The Myth of Mental Illness* and sociologist Erving Goffman's *Asylum*. Around the same time, philosopher Michel Foucault published *Madness and Civilization* and medical historian David J. Rothman wrote *The Discovery of the Asylum*. All four texts were critical of the current iteration of psychiatric institutionalization, but for slightly different reasons. While Szasz (1961) claimed that the very concept of mental illness was flawed and scientifically worthless, he argued that the administration of social labels like “mental illness” or “mental retardation” was especially socially harmful, as it became the basis for excusing personal failings and/or punishing alternative lifestyles. Foucault (1965) viewed mental illness in a similarly critical way, claiming that it was a sinister invention of the ruling class used as an excuse to punish and imprison the poor and marginalized. Rothman (1971) was also wary of the implementation of the asylum as less of a magnanimous tool of philanthropic treatment and more of an attempt to separate the poor and the infirm from the rest of society due to a fear of moral disintegration.

Goffman (1961) collected data while doing fieldwork as a hospital employee in order to illustrate the severe disconnect between the stated goals and actual outcomes in “total institutions”

like mental hospitals and prisons⁷. In his assessment, Goffman saw the mental hospital as a place of humiliation and dehumanization accentuated by the on-going acknowledgement of differences between the patients and the staff. While Goffman's analysis was rather nuanced, his critiques provided further justification for the anti-psychiatry movement, and this movement adopted five highly critical principles: 1) mental illness is a label with no medical foundation, 2) no mental illness warrants confinement for treatment or incapacitation, 3) the mental hospital is a corrupt institution of social control that should be abolished, 4) psychiatry is dominated by religion and superstition with no medical foundation, and 5) the mentally ill, not being ill, should not be punished for abnormal behavior, excused for criminal acts, or entitled to treatment (see also Shorter 1997). In short, the ideal of institutionalization as a compassionate, state-run response to mental illness was now viewed entirely with suspicion and contempt.

Within this climate of hostility toward institutionalization, Dr. Morton Birnbaum put forth a legal critique of the current system built upon arguments of "right to treatment" (Birnbaum 1960)—a view that was sympathetic to the compassionate motivations underpinning the asylum movement of the 1800s, but that was highly critical of the civil commitment process that was currently being used. At the time, patients who had been civilly committed could not be discharged and released back into the general public until hospital officials documented that the patient had demonstrated marked improvement. Unfortunately, due to state budget constraints, many hospitals had no treatment programs in place, and also had no formal system for patients to assert themselves as being improved (Earley 2006). As a result of this bureaucratic inability to treat and then discharge patients, state facilities ended up functioning as the anti-psychiatrist advocates

⁷ According to Goffman (1961), a total institution is a place of confinement and exclusion, where individuals do not have true freedom of movement and all needs are provided by (and therefore regulated by) a governing body of policy makers and staff.

claimed—warehouses for the ill and marginalized. According to Birnbaum, mental patients who were confined indefinitely while at the same time being denied the necessary treatment that would grant release (i.e., the “right to treatment”) were victims of civil rights violations. The Fifth Amendment guarantees that no citizens shall be “deprived of life, liberty, or property, without due process of law” (U.S. Const. amend. V), so mental patients committed to a total institution despite not having committed a specific crime, were being held unnecessarily and illegally. In the end, Birnbaum argued that the state had no choice but to either provide adequate treatment for mental illness or discharge all patients. Birnbaum’s argument eventually became legal precedent when a federal appeals judge sympathetic to civil rights ruled in *Rouse v. Cameron* (1966) that state mental hospitals were obligated to treat and not just confine their patients.

Five years later, the state of Alabama would set off a chain of events that would eventually lead to the mass systemic overhaul of the institutional response to mental health in the United States after firing more than one-hundred staff members from a state-run Tuscaloosa mental health facility as a cost-cutting measure. To combat these firings, civil attorney George Dean filed a class-action lawsuit on behalf of the former employees and utilized Birnbaum’s “right to treatment” thesis as a justification for employee reinstatement by highlighting the unconstitutional impact that inadequate staffing would have on patient recovery (*Wyatt v. Stickney* 1971). The judge ultimately sided with the plaintiffs using the language of Birnbaum’s “right to treatment” doctrine, and then demanded an overhaul of the entire Alabama mental health system. The decision was upheld in appeals and the Alabama legislature was charged with systematically upgrading their treatment facilities and programs in a way that was consistent with the “right to treatment” perspective. While this legal win appeared to be beneficial in that it would force the state to provide adequate treatment lest it commit civil rights violations, the truth is that Alabama

ended up adopting the only other alternative to systematic upgrade—wide-scale deinstitutionalization.

Ironically, Birnbaum’s legal call for decent conditions in mental health facilities actually ended up being the downfall of the entire system. Recall that “right to treatment” charged that if a state could not provide adequate treatment for mental illness, then patients must be free to leave; Birnbaum’s ultimatum was one of treatment or release. In the fallout of *Wyatt v. Stickney*, Alabama opted to abolish the state-run asylum system rather than upgrade it. Shortly after Alabama’s policy decision, a faction of lawyers associated with the case started the Mental Health Law Project with the express purpose of deinstitutionalizing state mental health facilities (Earley 2006). Using the “right to treatment” argument, the Mental Health Law Project sued multiple states, including Nebraska, Tennessee, Maine, Florida, South Carolina, North Carolina, and Virginia, in an attempt to prove that each state needed to pay exorbitant amounts of money to run their hospitals adequately or else shut them down. From a fiscally conservative perspective, the decision was easy to make—states with underfunded mental health programs would not be expected to come up with more money for system-wide upgrades if they simply cut programs altogether.

The “right to treatment” argument also fed into socially conservative justifications for deinstitutionalization as it inadvertently allowed states to sidestep the responsibility that President Pierce and the federal government had shrugged off in the 1850s. States found that intervention yielded a significantly diminished return when confronted with civil rights litigation that fed off of the concerns of Szasz, Foucault, and Goffman (*Donaldson v. O’Connor* 1974). According to the Supreme Court, a state cannot confine an individual who is “capable of surviving safely in

freedom by himself or with the help of willing and responsible family members or friends” (*O’Connor v. Donaldson* 1975:1).

During the same era, federal lawmakers had begun to rework the national policy as ideological shifts away from institutionalization also extended into the executive and legislative branches of the federal government. Emboldened by the youthful idealism of Kennedy and then the social activism of Johnson, legislative policymakers had begun to distance themselves from the traditional hospital model and embrace the ideal of “community psychiatry”. Just a few weeks before Kennedy’s assassination, the young President championed the presumption that community-based centers could usher in “a wholly new emphasis to care for the mentally ill” (Sharfstein 2000). This new approach would place the responsibility of early identification of symptoms and providing effective preventative treatment on the shoulders of local, community-based mental health service centers instead of larger, state-run institutions (Grob 1991).

By signing the Community Mental Health Centers Construction Act of 1963 (or CMHA) into law, Kennedy brought the federal government into the 109-year debate about the role that national policy should play in the treatment of mental health, representing a radical attempt to facilitate the transition away from custodial hospitals (Sharfstein 2000). Enacted before Johnson assumed the Presidency, the policy rested on the assumption that federal leadership and funding under the overview of the National Institute of Mental Health would combine with high levels of local activism and community integration to solve a longstanding and troublesome social problem (Grob 1991). Unfortunately, the CMHA immediately ran into complications on the federal and state levels that compromised this ideal.

One of the biggest issues the CMHA faced was the budget compromise that developed as a function of both the Vietnam War and President Johnson's aggressive social policies, which included his progressive Great Society and War on Poverty. By the end of 1967, only 200 of the proposed 2,000 community treatment facilities had been built, and most were only located in areas where the population was large enough to justify the need and staff the facility with professional personnel; this number increased minimally to only 786 centers by 1989, still well short of the early 1963 goal (Grob 1991). Congress, for its part, also undermined the CMHA by first failing to specify the linkages between the existing state hospital systems and the new centers, and then by passing a series of CMHA amendments between 1968 and 1974 that expanded the therapeutic responsibilities of the community health centers to include the prevention and treatment of alcoholism and drug addiction (Grob 1991).

The failure to specify the transition from state institutions to community treatment opened the door for significant pushback by local stakeholders interested in abandoning the state hospital system. Moreover, the expansion of treatment to include those not suffering from mental illness diluted the mission of the centers themselves. In a similarly ironic turn of events to Birnbaum's idealistic "Right to Treatment" campaign, the 1963 federal legislature's idealistic attempt to create a more integrated systemic response to mental illness actually served to incontrovertibly damage the entire system over time; by inadvertently giving states the freedom to dismantle the preexisting system without following through and effectively filling the void, there was now no robust federally mandated mental health treatment system in place, community-themed or otherwise (Earley 2006).

Another significant change in mental health care that influenced deinstitutionalization was the introduction of psychotropic medications. More specifically, chlorpromazine was clinically

introduced as thiorazine in the 1950s and met with a measure of therapeutic success as an antipsychotic drug (Lopez-Munoz et al. 2005). This sparked an even greater interest in the employment of more drugs that could be used to alter people's thoughts, emotions, and behaviors, causing psychiatry in the United States to experience a strong shift away from the psychoanalytic treatment tradition toward a "psychopharmacological revolution" (Lopez-Munoz et al. 2005). This increased use of antipsychotics became more prevalent in the treatment of schizophrenia and manic episodes of bipolar disorder, and encouraged treatment providers to see the potential for patient success outside of the asylum model.

The final factor complicating widespread deinstitutionalization was the lack of private funding. From the end of World War II until 1970, private sector third-party health insurance coverage expanded rapidly for many medical issues like hospitalization, surgical services, in-hospital visits, and home consultations, but not for other medical problems like mental disorders, alcoholism, drug addiction, and self-inflicted injuries (Grob 1991). While one could argue that behaviors like alcohol dependency, drug use, and self-harm could or should be excluded as they all result from private citizens making personal decisions to behave self-destructively, the additional exclusion of mental illness hastened the process of reframing psychological distress as an individualized problem that did not demand a "right to treatment."

In truth, private insurance companies excluded mental illness for a wide range of reasons, including fears about the excessive pressure on costs tied to the high incidence of psychiatric illnesses and long hospital stays; a skepticism about the precision of diagnostic categories and how best to differentiate between oddity and actual illness; and a dearth of reliable actuarial data (Grob 1991). But, within a political climate that saw a large lack of consensus about the nature of mental illness, lumping mental disorder in with alcoholism and the like for exclusion further recast mental

illness as a personal failing. As one Blue Cross official put it in 1954, “We are not going to use subscribers’ money to pay for rest cures, to buy sobering-up vacations for drunks, or to coddle a hypochondriac who wants nothing better than to be waited on in a hospital bed” (Grob 1991:265). Without the funding of state or federal agencies, and with a pronounced hesitancy among private third-party insurance agencies to fill the financial void, the support system available to the mentally ill grew weaker and weaker.

Because federal and state policy decisions caused deinstitutionalization in the 1970s, which resulted in the closure of the majority of state-run psychiatric hospitals, stewardship of the mentally ill has shifted to the local level. While this approach is consistent with the spirit of 1963 Community Mental Health Act, the institutional and cultural shift toward reframing mental illness as a personal failing has compromised the effectiveness of this approach (Erickson and Erickson 2008). According to this perspective, the need for treatment for mental illness is not a “right”, as much as it is a personal responsibility, and so the mentally ill could—and should—in large part take care of their own mental health issues. As community mental health systems are less restrictive and rely heavily on client treatment compliance, maintaining individuals with severe forms of psychosis or mood disorders is a highly challenging task. As a result, many mentally ill people manifest their disorders as problematic anti-social behaviors, and thus come to the attention of the criminal justice system. This is not to say that mental illness itself has been criminalized, just that the criminal justice system has become one of the dominant social institutions interacting with and affecting persons with mental illness.

At this point, the vision of deinstitutionalization has given way to “trans-institutionalization”, where custody responsibilities for many of those persons with the most severe mental illness has shifted from state-run psychiatric hospitals to county-run jails, state-run prisons,

or federal penitentiaries (Trupin et al. 2001). The anti-psychiatrist movement of Goffman, et al. opposed the mental hospital on principle and the critiques leveled at the asylum were that it served as a coercive and punishing “total institution” in the same vein as prisons but without the mandate of “due process.” As a result, free citizens could be incarcerated and controlled indefinitely despite never having been found guilty of committing a crime. Ironically, without a strong alternative means in place to address the mentally ill in the wake of deinstitutionalization, the criminal justice system actually ended up filling the void (Torrey 1998). Returning full circle to the pre-Dixian era, the mentally ill are still subject to a “total institution”, but now that institution is prison itself. The crucial difference between the asylum and the prison is a philosophical one—society views the asylum patient with compassion and the prisoner with contempt (Erickson and Erickson 2008). While those who killed the asylum may have hoped to free its patients, they ultimately transformed them into prisoners.

Deinstitutionalization and Criminal Behavior

While deinstitutionalization played a significant role in the increased criminal incarceration of the mentally ill, it would be disingenuous and simplistic to assume that it is the lone contributing factor. Deinstitutionalization did play a significant role, but not solely because it increased the number of mentally ill citizens free to roam the streets; according to that perspective, the assumption is that persons suffering from mental illness are more likely to engage in criminal behavior as a direct expression of their mental condition. The standard set for temporary civil commitment by *Foucha v. Louisiana* (1992) is justified by being mentally ill and a danger to one’s

self or to others, further feeding into this conceptual link between mental illness and potential harm that justifies incarceration.

The truth is that, based upon all of the available evidence, there is no empirically-validated model that predicts a clear causal relationship between mental illness and criminal behavior (2004). In the immediate wake of deinstitutionalization in the 1970s, the arrest rate for those suffering from chronic mental illness did increase, but that increase was limited to those with previous offense histories (Cocozza, Steadman, and Malick 1978). In a review of 200 studies on the relationship between crime and mental disorder, researchers found that major mental illness in and of itself presents little or no added risk of criminal involvement (Monahan and Steadman 1983). In fact, Monahan and Steadman concluded that any significant correlation between mental illness and crime:

“can be accounted for largely by demographic and historical characteristics that the two groups share. When appropriate statistical controls are applied for factors, such as age, gender, race, social class, and previous institutionalization, whatever relations between crime and mental disorder are reported, tend to disappear” (1983: 152).

According to these findings, the relationship between deinstitutionalization and increased criminal involvement is spurious—a secondary correlation that is moderated by other traditional criminogenic risk factors.

One of the most popular arguments used to justify the trend to criminalize the mentally ill is the potential role of mental illness in acts of violence. While there some overlap between a serious mental illness diagnosis and violent behavior, it is more complicated than it would superficially appear. According to the Department of Justice (2006), 61.0 percent of state prison inmates with a violent criminal record suffer and 47.4 percent of violent recidivists from mental illness. In spite of these findings, research has found that the prevalence of community violence

by psychiatric patients is strongly conditioned by the presence of and intensity of psychotic symptoms (Link, Andrews, and Cullen 1992), and varies considerably according to the type of mental illness and, especially, the presence of co-occurring substance dependency or abuse (Steadman et al. 1998).

Among mentally ill state prisoners, 62.8 percent used illicit drugs in the month prior to the current offense and 41.7 percent are substance dependent (U.S. Department of Justice 2006). According to Stuart and Arboleda-Florez (2001), while 61.0 percent of newly admitted inmates had a diagnosable mental health or substance use-related disorder, only 3 percent of violent offenses during data collection could be attributed to individuals with a serious mental illness. An additional 7 percent was attributable to inmates with a substance-only diagnosis (Stuart and Arboleda-Florez 2001). While rates of violence initiated by persons with mental illness are higher than in samples of average citizens, that violence is contingent upon more than just the mere presence of a mental disorder. Violence is not caused by mental illness alone.

When examining offender patterns among the mentally ill that have been incarcerated, Hiday and Wales (2011) developed a typology of persons with mental illness who have come into contact with the criminal justice system. Classifying by the immediate causes of criminal behavior, the typology consists of five distinct subgroups of mentally ill offenders. Group one consists of mentally ill persons who are arrested solely for nuisance behaviors (e.g., loitering or disturbing the peace due to lingering in commercial or recreational areas as a result of having nowhere to go) that would typically not escalate into arrest when involving non-disordered persons. Group two is comprised of mentally ill persons who commit offenses involving “survival behaviors” (e.g., shoplifting or failure to pay for restaurant meals) that arise as a result of not having access to basic needs like food, clothing, and shelter. Prior to deinstitutionalization,

members of neither of these groups would have been arrested, as state mental hospitals would have provided somewhere to be and something to do (group one), or would have meet their basic survival needs (group two). These first two groups commit only misdemeanor offenses and comprise the majority of persons in the mentally ill offender population.

The remaining three groups in Hiday and Wales's typology (2011) make up the minority of mentally ill offenders and include all individuals with the highest potential for violence. The third group is made up of those with severe mental illness who abuse alcohol and/or illegal drugs. In addition to engaging in nuisance and "survival" crimes, members of this group are also arrested for illegal drug use and possession, for disruptive behaviors tied to alcohol and drug intoxication, for property crimes and prostitution aimed at supporting their addiction, and for violence arising from substance dependence/abuse. The fourth group consists of persons with severe mental illness who are also suffering from a co-occurring character disorder, such as psychopathy or a diagnosis of anti-social personality disorder. Just like individuals in the non-disordered criminal population, the presence of this personality disorder increases the likelihood of substance abuse, aggression, abusiveness, and a history of violence. When considering all five groups within this typology, this fourth group appears to be the most at-risk of criminal involvement outside of the presence of a mental illness, implying that members of this group are not criminally prone because they have a mental illness but just happen to suffer from a mental illness while already being highly criminally prone. Finally, the fifth group is a much smaller subgroup of mentally ill offenders whose members fit the stereotypical image of a severely disordered person driven to criminally violent action by delusions tied to intense psychotic symptoms. In summary, only a slim portion of the violence associated with mental illness results directly from extreme psychosis and in the majority of cases the relationship between mental illness and violence is not causal.

With that in mind, the strongest relationship between mental health and violence actually goes in the opposite direction—people with major mental disorders are much more likely to be victims of crime and violence than any other group (Teplin et al. 2005). In fact, more than one quarter of persons with serious mental illness have been victims of a violent crime in the past year, a rate more than 11 times higher than the general population (Teplin et al. 2005). In addition, incarcerated males with mental illness were more than twice as likely as non-mentally ill inmates to have suffered physical or sexual abuse before entering prison, and nearly 8 out of every 10 female prisoners with mental illness reported physical or sexual abuse prior to incarceration (U.S. Department of Justice 1999). While suffering from severe mental illness does put one at a higher risk of committing violence, this occurs for only a minority of mentally ill persons and is heavily conditioned by substance dependence/abuse, co-occurring personality disorders, and/or the intensity of psychotic symptoms. In contrast, chronic mental illness increases the likelihood of violent victimization for all persons with mental illness.

In reality, deinstitutionalization increased the incarceration rate among persons with mental illness because it served to increase the presence of the mentally ill in already “high-risk”, impoverished populations (Hiday and Burns 2010). Without a meaningful replacement system to address the survival needs that were formerly provided by the mental health institution, the mentally ill were left without a safety net. When most of the state hospitals shut down or decreased their number of patients by anywhere from 45 to 96 percent, the mentally ill were released into the general population without any system of communal supports (Torrey 1988). As federal and state governments have continued to fail to provide the basic sustaining services and communal mental health treatment outlined in the 1963 Community Mental Health Act, each subsequent generation of persons with major mental illness have not fared any better. The result is that many of the

chronically mentally ill population typically reside in highly impoverished environments that exercise significant pressures on them to engage in criminal behaviors (Lurigio 2011). The risk factors that characterize these environments already exert a significant amount of criminogenic influence on non-disordered residents (i.e., economic inequality, cultural disorganization, family disruption, etc.), meaning that the environmental risk factors that predict crime are the same for those with and without mental illness.

While mental illness is by no means a prerequisite for living in a low socioeconomic environment, mental illness appears to increase the likelihood that one will live in poverty and that poverty, in turn, appears to intensify the negative social effects of mental disorder (Teplin et al. 2005). According to the U.S. Surgeon General (1999), people of lower socioeconomic status are more likely than wealthier comparison groups to be diagnosed with a serious mental disorder, although there is also counter-directional evidence that the ongoing strain of being poor can precipitate a dormant mental disorder (Eaton and Muntaner 1999). Whether one assumes that mental illness is the initial cause of the downward drift into poverty or that the unrelenting stress of being poor leads to the development of the illness itself, there is no denying the cyclical exogenous effects that either has on the other. Mental illness can cause problems when integrating into school or work and that poor integration can then act as a barrier toward future opportunities for financial security. In addition, those who are poor are less likely to have adequate health care coverage, which can preclude or limit access to mental health treatment (Lurigio 2011). Thus, symptoms go untreated and poor mental health exacerbates already problematic social situations. In this regard, mental illness and poverty actually work in tandem to worsen each other, meaning that the already significant negative effects of poverty may actually be more potent when coupled with the presence of mental illness.

The collaborative damaging effect of the overlap between poverty and mental illness can be seen in key areas such as unemployment and homelessness. When compared with other inmate populations, prisoners with mental illness housed in federal, state, and local facilities had higher rates of unemployment in the month prior to arrest, and were significantly less likely to list wages as a primary source of income⁸ (US Department of Justice 1999). In addition, mentally ill prisoners were also much more likely to be homeless at the time of arrest and in the year before arrest (US Department of Justice 1999); in fact, mentally ill state and local inmates were two to three times as likely as comparison groups to be homeless, and federal inmates were almost six times as likely to be homeless in the year prior to incarceration and thirteen times as likely to be homeless at the time of arrest. Prior to deinstitutionalization, basic needs such as food, clothing, and shelter would have been met by the state hospitals so these issues of economic viability and procuring private housing would have been moot. Now that this system has been disbanded, greater portions of the mentally ill population have been forced into deleterious social conditions rife with drugs, alcohol, violence, and stress that encourage a variety of criminal behaviors. In the absence of an adequate integration of the mental health and social welfare systems, the criminal justice system is now the primary point of institutional contact.

In summary, while the state hospital system was far from perfect, deinstitutionalization created a different set of problems. While there were pockets of success in various communities throughout the United States during the transition from the state institutional system to community-based services (see Rothbard and Kuno 2000; Stein and Test 1980), closing the state hospital system without ensuring that that appropriate treatment was in place in many areas had a large,

⁸ Mentally ill inmates were significantly more likely to list family/friends, welfare, and pensions (i.e., Supplemental Security Income, Social Security, or other pension) as a primary source of income.

negative effect on the mentally ill population. Those suffering from chronic mental illness began to fall through the cracks of the social safety net, as nearly half of the patients discharged during deinstitutionalization ended up homeless or incarcerated in prisons and jails (Torrey et al. 2010).

Currently, the failure of public systems to provide basic services and supports has led to a decrease in treatment contacts, which in turn has led to an increase in criminal justice contacts. While a significant portion of persons with mental illness who are charged with a crime are booked for only benign non-violent misdemeanor offenses (Hiday and Wales 2011), there has still been a larger trend toward “criminalization” of the mentally ill. Acknowledging that the criminal justice system now plays a prominent role in responding to persons with chronic mental illness, there is now a pressing need for a treatment-based approach within criminal processing that is sensitive to the role that mental illness may play in some offender populations. This pressing need has given rise to a type of specialty court that straddles the two worlds of criminal justice and mental health; a court that aims to not only reduce the incarceration and reoffending of the mentally ill but also to establish essential links between this at-risk population and local mental health services and supports. This need lead to the development of the mental health court.

Mental Health Courts

At its most general, a mental health court is a criminal court for offenders suffering from mental health problems. While this statement is simple, the differences between the traditional court and the mental health specialty court are anything but. Redlich (2013) argues that the key differences between mental health courts and traditional courts can be divided into three topic areas: (1) planning and sustainability, (2) pre-court enrollment considerations, and (3) in-court

considerations. These three areas account for all of the essential elements of mental health processing as listed by the Council of State Governments, which include:

- broad-based group planning and administration;
- periodical data collection and analysis measuring program sustainability;
- eligibility criteria that pertain only to the target population;
- timely participant identification;
- clear terms of participation that facilitate positive legal and treatment outcomes;
- informed consent that hinges on addressing issues of defendant competency whenever they arise;
- attempts to connect participants to comprehensive and individualized treatment supports and services;
- a heightened level of confidentiality when sharing health and legal information;
- a court team staffed with both criminal justice and mental health service providers;
- collaborative monitoring of defendants in order to insure adherence to court requirements (Almquist and Dodd 2009)

The motivations to start a mental health court can be varied, but the first fundamental step when planning such a specialty court hinges upon coordinating a broad-based group of stakeholders outside of the criminal justice system who will work with criminal justice officials to collectively guide the planning and administration of the court (Almquist and Dodd 2009). The criminal justice system, as it currently stands, is charged with prosecuting the accused and punishing the guilty; while some policyholders debate the role of punishment versus the role of rehabilitation, the end goal is almost universally to use punitive sanctions as an avenue to deter

future crime. The objective of mental health courts is similar in that it aims to lessen future offending, but is different as it aims to do so by diverting eligible persons from jail or prison into community-based mental health services and substance use treatment. Developing such a court depends upon the collaboration and involvement of multiple systems and this focused integration of these “core elements” creates a court workgroup that is significantly larger and much more varied than the traditional court workgroup (see Table 2). Not only does the uniqueness of the court factor into planning and administration, but it also affects sustainability. Theoretically, because these specialty courts are seen as a break from the established protocol of offender case management, the sustainability of such courts hinges upon periodic programmatic research and evaluation to assess performance and demonstrate an ongoing need (Redlich 2013). In application, while such periodic evaluation is recognized as an ongoing need and multiple examples of such applied research have emerged with greater frequency in recent years, this process is still in its infancy.

Table 2. Differences in Court Workgroups

Traditional Court Workgroup	Mental Health Court Workgroup
Judge	Judge
Prosecutor	Prosecutor
Defense Attorney	Defense Attorney
	Municipal LEO (Crisis Intervention Team Member)
	County LEO (County Jail)
	Adult Probation & Parole Officer
	Mental Health Treatment Service Provider
	Substance Abuse Treatment Service Provider
	Social Worker

Beyond issues of program design and implementation, another topic area that further separates mental health court from traditional court proceedings is the role of pre-court enrollment considerations. In the traditional trial process, the only element that differentiates defendant types is the level of offense—felony cases and higher-level misdemeanors are tried in district courts

which have general jurisdiction, while lower-level misdemeanors are heard in justice courts which have limited jurisdiction (Utah Courts 2014). In mental health courts, level of severity of criminal charges has been used to define eligibility in many jurisdictions, but the first and most critical criterion allowing for program participation is the presence of a clinical diagnosis. This is not to say that these courts accept all defendants with a diagnosable mental condition, but the nature of the court specifically asks that the relationship between mental illness and criminal offense be considered when weighing pretrial detention (Almquist and Dodd 2009). The traditional court system requires some coordination between the courts and police, but the role of mental health court eligibility complicates things further. Within the specialty court framework, all criminal justice actors, including the police, are asked to identify and refer potential participants in a timely manner in order to hasten their acceptance into a program that will facilitate linkages with community-based providers as quickly as possible (Almquist and Dodd 2009).

Another difference in pre-court proceedings can be seen in how the terms of participation must be clearly stated before a defendant agrees to join the program. In traditional proceedings, sentencing is either laid out beforehand as part of a plea bargain or is defined post-trial after a defendant has been found guilty. Setting aside state-level variations in parole eligibility or “truth-in-sentencing” mandates, the terms of the sentence are often well defined. In contrast, mental health courts adopt a treatment-based approach that comes with a more ambiguous timeline; best practice dictates that in order to make a fully informed decision about whether to enroll in the specialty court, defendants should know the length of program involvement, including notice of the potential factors that may extend or abbreviate participation, before agreeing to opt in (Redlich 2013).

Finally, the last pre-court consideration that helps differentiate traditional courts from mental health courts revolves around issues of defendant competency. In traditional courts, competency is only seen as an issue (1) if a defendant does not meet the Dusky standard and is incapable of understanding the court proceedings including the roles and responsibilities of each courtroom actor, and (2) if a defendant is not capable of aiding in his or her defense; in most instances, mental illness is the primary reason to question competence (Redlich 2013). It therefore stands to reason that in a specialty court where many clients have diagnosable mental conditions, competency is something that is treated in a more nuanced or responsive manner that monitors the phenomenon on an ongoing basis rather than as a one-time issue.

The final topic area that separates traditional court from mental health court involves in-court considerations. Mental health courts focus on community health treatment in lieu of incarceration, typically attempting to connect participants to comprehensive and individualized treatment services and then requiring strict adherence to that treatment regimen (Council of State Governments 2005). Traditional courts do not take such a holistic approach to sentencing; sentences are often dictated by mandatory guidelines and the role of treatment services is contingent upon what resources are available in the prisons or jails.

Another difference that is highlighted by the mental health court model is the heightened level of confidentiality necessary when sharing health and legal information. Adult criminal court proceedings are public record, but personal health information is not. Any mental health information gathered as part of a defendant's participation in mental health court should be safeguarded in order to ensure that his or her constitutional rights as a defendant are not violated in the event that he or she is returned to a traditional court for processing (Council of State Governments 2005).

Lastly, yet another difference that comes from in-court considerations is the intense level of ongoing judicial status review hearings conducted in order to insure adherence to court requirements. Traditional sentencing does not involve sustained contact between the court and an offender; after a defendant is found guilty, he or she is then taken into correctional custody and the judge does not see him or her again unless an appellate court remands the case back to the district court for a retrial. In contrast, mental health court sentencing stresses a continued collaborative dialogue between the court, community supervisor, and defendant in order to (1) ensure collaborative monitoring of defendant program obedience and (2) to operate under the model of “therapeutic jurisprudence” (Wexler and Winick 1996) where praise and encouragement is offered for compliance and sanctions (i.e., potential incarceration) are imposed for violations. The relationship between the participant and the judge is not meant to be adversarial, but cooperative, with the judge using affirming and complimentary language to encourage positive growth and development.

In conclusion, mental health courts operate within the same criminal justice system as traditional courts, but necessitate a dramatically different approach. Due to the nature of the target population, and due to the multi-system goal of incarceration diversion and community-based treatment, mental health courts come with unique issues tied to program planning, pre-court considerations, and in-court proceedings. When planning a mental health court, there must be a coordinated effort involving the criminal justice system and systems outside of criminal justice to plot out how intervention will be administered. Before a client agrees to participate, mental health courts require a concerted effort to make a timely connection between a mentally ill defendant and the court, and that his or her acceptance is both informed and voluntary (Redlich 2013). And once enrolled, a participant is subject to a series of ongoing judicial status hearings that act as both a

source of encouragement and a reminder of strict program adherence. Of course, all of these attributes have been identified post-hoc in the nearly twenty years since the first modern mental health court was established, but they serve as general guidelines linking all contemporary specialty courts that attempt to address the legal and extra-legal issues of mental illness. In reality, many of the pioneering mental health courts that began this shift toward systems integration arose simply out of need, without the advantage provided by such a well-identified and cogent list of ideals (Redlich et al. 2005).

History of Mental Health Courts

In the years after deinstitutionalization, grassroots attempts to address mental illness began to crop up in a number of different demographically and geographically diverse jurisdictions within the United States. Although it is typically not acknowledged alongside the present-day crop of mental health courts, the first specialty court targeting mentally ill offenders began in 1980 in Marion County, Indiana (Steadman, Davidson, and Brown 2001). The original court functioned until it was temporarily suspended in 1992 and was then reintroduced in Indianapolis in 1996 as the first modern mental health court, the Psychiatric Assertive Identification Referral/Response (PAIR) program. PAIR is widely cited as the first example of the contemporary mental health specialty court as it was the first court program launched as a comprehensive initiative that included a pre-trial and post-booking diversion system expressly for mentally ill misdemeanor offenders. Around the same time but totally independent of PAIR, individual judges in Florida, Alaska, and California also arrived at the conclusion that something needed to happen within their own jurisdictions to address the growing number of mentally ill misdemeanor offenders that kept

coming through the criminal justice system. Thus, PAIR was quickly joined in 1997 by the Broward County (Florida) Felony Mental Health Court, and in 1998 by the Anchorage (Alaska) Mental Health Court, Santa Clara (California) Mental Health Treatment Court, and San Bernardino (California) Superior Court (Goldkamp and Iron-Guyn 2000). By the end of the Twentieth Century, 15 specialty courts had been established in the United States in the aforementioned states as well as Ohio, Washington, North Carolina, and Tennessee (Adult Mental Health Treatment Courts Database 2013).

In the nearly 15 years since then, the number of mental health courts has swelled to almost 350 courts in 43 different states and the District of Columbia (Adult Mental Health Treatment Courts Database 2013). Due to the well-publicized successes of many of these earlier courts (Goldkamp and Irons-Guynn, 2000; Petrila et al. 2000), the federal government enacted two major policies to provide funding for promoting mental health courts in the United States—the initial Mental Health Court Program run through the Bureau of Justice Assistance beginning in 2002 and the much larger Mentally Ill Offender Treatment and Crime Reduction Act (MIOTCRA) passed by the United States Congress in 2004. The aim of both was to establish or expand existing:

- mental health courts or mental health-related court-based programs;
- community-based treatment programs that offer specialized training to criminal/juvenile justice officials and mental health personnel in identifying symptoms of mental illness in order to better respond;
- local programs that fostered collaboration between criminal justice and mental health agencies where public safety is ensured by providing rehabilitative mental health and substance abuse treatment services to offenders;

- intergovernmental programs that encourage cooperation between State and local governments when addressing issues tied to mentally ill offenders (U.S. Congress 2004).

From 2002 to 2003, the BJA provided funding to establish 37 new mental health courts, while, from 2004 on, MIOTCRA has authorized \$50 million in government grants, awarding an average of 25 grants per year for specialty court creation or expansion (Redlich et al. 2005). The funding afforded by MIOTCRA increased the popularity of the mental health court model and ushered in the “second generation” of such specialty courts. A mental health court is said to be a second generation court if it is much more inclusive (e.g., considering felony defendants for acceptance into the alternative sentencing program) and much more punitive (e.g., program acceptance is contingent upon a plea in abeyance; ongoing supervision and monitoring is much more reliant upon criminal justice staff than community treatment providers; jail is regularly used as a sanction for noncompliance with court orders) (Redlich et al. 2005).

The inclusion of felony defendants as a characteristic of later mental health court implementation highlights the first of two major inconsistencies that exist when comparing every criminal court that falls under the mental health court umbrella. A 2006 survey of 110 courts found that nearly all courts (98 percent) accept misdemeanor crimes, while only a quarter of the courts (27 percent) accept felony defendants, and an extreme minority (4 percent) actually allow for the inclusion of violent felonies (Erickson, Campbell, and Lamberti 2006). While the majority of courts attempt to steer clear of the controversy that comes with being seen as soft on or too accommodating of violent felons, there are still some critics that take issue with the solitary inclusion of misdemeanants. According to the Bazelon Center for Mental Health Law (2004), misdemeanor offenders should be diverted entirely from the criminal justice system via pre-booking diversion programs, meaning that diversion should take place at the point of initial contact

when law enforcement officers first interact with would-be offenders and screen potential mental illness. Either way, this debate hints at a lack of uniformity in specialty courts that leads to only 49 percent of courts allowing for the inclusion of both felony and misdemeanor offenders (Redlich et al. 2005).

The second major inconsistency that exists when discussing the implementation of mental health courts in the United States is the role of diagnostic criteria. As previously stated, a mental health court is a criminal court for offenders suffering from mental illness, with the primary assumption being that the mental illness itself is the primary cause of criminal behaviors. That said, defining mental illness, especially those diagnoses that most significantly affect criminal behavior, is problematic when one considers the substantial variation in symptoms, severity, and duration.

In an examination of 110 mental health courts operating in the United States, Erickson et al. (2006) found that 28 percent of courts just require a diagnosis of “mental illness,” another 38 percent specify that defendants must have an “Axis I” diagnosis⁹, and yet another 21 percent necessitate the presence of a mental condition be “severe and persistent.”¹⁰ Within offender populations, there is a significant spectrum of primary diagnoses, with the majority of both jail and state inmates suffering from either major depression or an anxiety disorder (see Table 3). Given this wide range, there is a noteworthy lack of uniformity when comparing admissions from one court to the next based upon diagnostic eligibility. While the admission standards of some courts are incredibly broad (see Bess Associates 2004; Ferguson et al. 2008) and others are exceedingly limited (see Eckberg 2006), most tend to focus the majority of efforts on disorders that have a

⁹ Axis I disorders include all psychological diagnostic categories except mental retardation and personality disorder (American Psychiatric Association 2000).

¹⁰ The remaining 18 percent did not provide any diagnostic eligibility criteria.

heightened risk of significantly compromising a given defendant's ability to make reasonable decisions, such as schizophrenia, major depression, bipolar disorder, and schizoaffective disorder (Redlich 2013).

Schizophrenia is a psychotic disorder characterized by major disturbances in thought, perception, emotion, and behavior (American Psychiatric Association 2000). As with any psychotic disorder, schizophrenia is problematic because its defining characteristic is disordered thought process. Schizophrenia can cause: grossly disorganized behaviors tied to impairments in information processing, reason, and judgment; disorganized speech characterized by frequent derailment or incoherence; intense emotional outbursts or severe affective flattening; the presence of hallucinations, or reacting to stimuli that are not present; and the presence of delusions, or strongly held beliefs that are contradicted by superior evidence (American Psychiatric Association 2000). In order to be diagnosed as schizophrenic, one must exhibit two or more of these behaviors within a one-month period, and it must be demonstrated that this condition has had a significant impact on social or occupational functioning for at least six months (American Psychiatric Association 2000). Given that this psychotic disorder is so heavily associated with the presence of hallucinations and delusions, it stands to reason that a specialty court targeting individuals engaging in criminal behavior as the result of psychological impairments in judgment would privilege defendants suffering from schizophrenia.

Table 3. Estimated Prevalence of Serious Mental Illness in Incarcerated Populations (1999)

Axis I Diagnosis	% of Jail Inmates	% of State Prison Inmates
Schizophrenia	1	2-4
Major Depression	8-15	13-19
Bipolar Disorder	1-3	2-5
Dysthymia	2-5	8-14
Anxiety Disorder	14-20	22-30
Post-traumatic Stress Disorder	4-9	6-12

Source: National Commission on Correctional Health Care, 2002

Major depression is a mood disorder associated with severe sadness that causes indecisiveness and even delusions (American Psychiatric Association 2000). The defining feature of any mood disorder is the presence of abnormal emotions and in the case of major depression those emotions are always negative ones of despair and worthlessness. An individual can be diagnosed with major depression if he or she displays an abrupt change in five or more of the following features during the same two-week period: depressed mood, diminished interest or pleasure, significant weight loss, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness or excessive guilt, difficulty concentrating or experiencing high levels of indecisiveness, and recurrent thoughts of death (American Psychiatric Association 2000). While a diminished level of energy and an inability to concentrate on tasks and make simple decisions is problematic, persons suffering from major depression are also at a heightened risk of despair and even suicide due to psychotic symptoms such as delusions. While major depression is still technically a mood disorder, because delusions tend to persist in the face of stronger contrary evidence, and because this persistence compromises defendant's standards of "reasonable" behavior, the inclusion of major depression in most mental health courts also makes a tremendous amount of sense.

Generally, bipolar disorder, or manic-depressive disorder, is a mood disorder characterized by major mood swings that alternate between mania and depression (American Psychiatric Association 2000). Typically, those with bipolar disorder experience intense episodes of mania characterized by positive feelings of elation, exuberance, confidence, and excitement, as well as similarly intense episodes of deep depression associated with negative feelings of sadness and insecurity (American Psychiatric Association 2000). In more exacting clinical settings, bipolar disorder includes a number of variations and subtypes that are differentiated by criteria such as:

whether an individual is more prone to mania or depression (or neither); if the individual is prone to ongoing, continuous mood swings or is only suffering from a one-time, episodic event; and whether the latest episode was one of mania or depression. As with major depression, those suffering from bipolar are also subject to psychotic features, such as delusions, which feed both the highest highs and the lowest lows; the extreme confidence and accompanying elation are fueled by the same disordered thought processes that catalyze the intense self-doubt and despondency.

Finally, schizoaffective disorder is a diagnosis that is characterized by both disordered thought and abnormal emotions, making it neither a purely psychotic disorder nor a mood disorder, but a combination of both (Malaspina et al. 2013). While established criteria for major depression and bipolar do allow for a mood disorder diagnosis “with psychotic features” when delusions are present, schizoaffective disorder is diagnosed when a patient has features of both schizophrenia and a mood disorder but does not meet the strict criteria for either alone (Malaspina et al. 2013). Technically classified alongside schizophrenia as a psychosis due to the potential presence of delusions, hallucinations, and disorganized speech, thinking, and behavior, schizoaffective disorder is also characterized by episodes of abnormal mood that may be manic, hypomanic, depressive, or mixed (Malaspina et al. 2013). As with the other priority diagnoses, the presence of psychotic features belies a compromising pathology and makes individuals with schizoaffective disorder an optimal target population for inclusion in mental health court.

An additional issue to consider when talking about the role of diagnostic eligibility is the high rate of overlap between mental illness and substance abuse. According to the Department of Justice (1999), when compared with other inmates, convicts suffering from mental illness in all correctional communities are between 53 and 57.5 percent more likely to have a history of alcohol dependence, and are between 22.71 and 43.65 percent more likely to have used drugs at the time

of offense. When examining 13 mental health court evaluations which included information about the rate of co-occurring disorders in target populations, the lowest rate of mental health participants suffering from both mental illness and substance abuse is 22.3 percent in an unspecified southwest United States court (Sneed et al. 2006) and the highest rate is 85 percent in Washoe County, Nevada (Palermo 2010); the mean rate of comorbidity is 61.275 percent and the median rate is 70.2 percent (see Table 4).

Table 4. Presence of Co-occurring Disorders (Serious Mental Illness and Substance Dependence or Abuse Diagnoses)

Court	Comorbidity Rate	Dates	Publication
Allegheny County, PA	51.6	2001-2004	Ridgely et al. (2007)
Anchorage, AK	73.1	2003-2006	Ferguson et al. (2008)
Bronx, NY	66.0	2002-2009	Rossman et al. (2012)
Brooklyn, NY	70.2	2002-2009	Rossman et al. (2012)
Broward County, FL	29.0	1999-2001	Poythress et al. (2002)
Butte County, CA	73.47	2000	Gary Bess Associates (2004)
Hall County, GA	82.8	2004-2010	Burns et al. (2013)
Hennepin County, MN	52.0	2004-2005	Eckberg et al. (2006)
Jackson County, MO	80.5	2011	Liedtke et al. (2012)
Salt Lake County, UT	57.4	2004-2008	Van Vleet et al. (2008)
Santa Barbara County, CA	83.21	NA	Cosden et al. (2003)
Washoe County, NV	85.0	2001-2009	Palermo (2010)
Wayne County, MI	82.67	2009-2013	Kubiak et al. (2014)
Unspecified Southwest USA	22.3	2003-2006	Sneed et al. (2006)
<i>Mean</i>	64.95		
<i>Median</i>	71.65		

Substance abuse requires at least one of the following maladaptive behaviors occur within a 12-month period: a failure to fulfill major role obligations at work, school, or home due to recurrent substance use; recurrent use in situations in which it is physically dangerous, such as operating an automobile or other machinery; recurrent substance-related legal problems; and continued substance use despite persistent or recurrent substance-related social or interpersonal problems, such as verbal and physical confrontations (American Psychiatric Association 2000). According to the APA (2000), substance dependence is a more intense form of substance abuse, as the diagnostic criteria are tied to dependency issues like tolerance (i.e., a need for markedly

increased amounts of the substance to achieve the desired effect or a markedly diminished effect when continuing to use the same amount over time), withdrawal (i.e., substance use undertaken in order to relieve or avoid unpleasant physical symptoms that result from past prolonged use), and compulsive use (i.e., a persistent desire or unsuccessful efforts to cut down or control substance use, or spending a great deal of time on activities necessary to obtain a substance and recover from its effects). While substance dependence has farther-reaching implications for the deterioration of physical health, both diagnoses demonstrate a high potential for problematic social behaviors with broad negative consequences.

While these diagnoses typically feature prominently in most mental health courts, there is still no guarantee that any two courts allow for the exact same diagnostic eligibility criteria and/or the exact same types of offenses. In fact, each court may be as unique as the presiding judge and, as previously mentioned, most attempts to quantify the positive effects of mental health courts are limited by the research reality that once you have seen one mental health court, you have seen one mental health court (Fader-Towe, Fisler, and Saffo 2011). While this lack of program standardization increases the difficulty of comparing one court to the next, there are still key areas to consider when attempting to evaluate the effectiveness of any given mental health court that, when measured effectively, can give a strong indication of how much of an impact said court has when addressing the role of mental illness in criminal involvement.

Effectiveness of Mental Health Courts

Based upon the previous evaluation research (see Table 1), when gauging the effectiveness of mental health courts, there are a number of areas to consider: successful program completion,

reductions in criminal justice outcomes, increased treatment linkages, and improved mental health functioning (Almquist and Dodd 2009). Program completion, or “graduation” as it is referred to in many mental health court settings, is the acknowledgement that all court-mandated requirements have been met and that the individual has paid his or her debt to society. In most jurisdictions, potential participants officially “opt in” to a mental health court by submitting a “plea in abeyance”, a signed agreement between the defendant and the prosecutor that acknowledges that the defendant has waived his or her constitutional right to trial and is entering a plea of guilty or *nolo contendere* (Almquist and Dodd 2009). As with traditional plea bargains, such an agreement can only be entered into if the prosecutor recommends it to the court, but in contrast to most pleas, a plea in abeyance allows the court to dismiss criminal violations upon program completion.

Once entered into, this plea is held for a specific amount of time during a period of probation that requires ongoing conferences with the court, community corrections, and any other specific treatment or training programs mandated by the court (Redlich et al 2005). If the defendant maintains program compliance and satisfies the ongoing court conditions, the probation ends and the case will be dismissed. If he or she fails to fulfill the court-ordered criteria, then the case will be remanded back to criminal court and the defendant will be sentenced based upon the guilty plea. In this regard, graduation is not only recognition of successful program completion, but also confirmation that all charges have been dropped.

It is important to begin any examination of the potentially positive effects of mental health courts with program graduation, as adherence to a structured series of required appointments demonstrates one’s ability to comply with the ongoing demands of pro-social integration. Acknowledging that the target population of mental health courts is comprised of individuals who are subject to the extreme stresses of both traditional criminogenic environmental risk factors, such

as poverty and substance abuse, as well as mental illnesses, such as psychosis and mood disorders, the ability to maintain program adherence is significant. As stated earlier, no two programs are identical and, while all are charged with the dual aim of decreasing contact with the criminal justice system and increasing connections with the community-based mental health treatment system, many are implemented in very different ways. As such, the graduation rates of mental health courts in the United States vary considerably, ranging from as low as 26.85 percent in Wayne County, Michigan, from 2009-2013 (Kubiak et al. 2014), to as high as 80.8 percent in Marion County, Indiana, from 2005-2008 (Redlich et al. 2010). Outside of those two extremes there is still a wide amount of variability, although, based upon twenty-four mental health court evaluations in which the graduation rate was expressly stated, the mean and median rate of successful program completion is 53.65 and 54.435 percent respectively (see Table 5). Considering that, on average, nearly eleven out of every twenty participants successfully adheres to the strict schedule of supervision and treatment, the growth of such courts appears to be a positive step in an attempt to decriminalize mental illness. The next question is whether or not mental health court graduation has a positive effect on decreasing criminal behaviors and increasing mental health treatment involvement.

When examining how such specialty courts affect criminal justice involvement or community treatment integration, most research has gauged effectiveness by looking at within-group changes, between-group differences, or a combination of both (see Tables 6, 7, 8, and 9). When assessing only within-group changes, evaluation studies will employ a pre-test/post-test design with no control group comparing behavioral measures at Time 1 with identical measures at a post-treatment Time 2. Within these experimental-group-only pre-test/post-test evaluations, most researchers will either designate Time 1 as entry into the program or at so many months prior

to enrollment, and will define Time 2 as a specific period either so many months post-enrollment or a given time period post-graduation/discharge (see Tables 6 and 7). Based upon this design, a mental health court will be deemed effective if (1) the levels of criminal behavior are higher prior to specialty court involvement and significantly lower after program participation or successful program completion, and (2) if involvement with community-based treatment providers is generally lower prior to participation and significantly higher post-intake.

Table 5. Mental Health Court Graduation Rates

Court	Graduation Rate	Publication
Anchorage, AK	41.35	Ferguson et al. (2008)
Akron, OH	45.5	Teller et al. (2004)
Austin, TX: Juvenile	69.1	Makany-Rivera et al. (2013)
Bronx, NY	52.0	Rossman et al. (2012)
Brooklyn, NY	74.01	Rossman et al. (2012)
Clark County, NV	32.97	Palermo (2010)
Chittenden County, VT	56.57	Wicklund et al. (2013)
El Paso, TX: Juvenile	76.25	Makany-Rivera et al. (2013)
Harris County, TX: Juvenile	79.41	Makany-Rivera et al. (2013)
Hennepin County, MN	41.2	Redlich et al. (2010)
Marion County, IN	80.8	Redlich et al. (2010)
Jackson County, MO	60.68	Liedtke et al. (2012)
Salt Lake County, UT	52.6	Van Vleet et al. (2008)
San Francisco, CA	64.8	McNeil and Binder, (2007)
San Francisco, CA	31.0	Redlich et al. (2010)
Santa Clara County, CA	38.8	Redlich et al. (2010)
Santa Clara County, CA: Juvenile	48.12	Behnken (2010)
St. Louis County, MO	60.83	Dirks-Linhorst and Linhorst (2012)
Washoe County, NV	30.86	Palermo (2010)
Wayne County, MI	26.85	Kubiak et al. (2014)
Washington, DC	58.33	Hiday, Wales, and Ray (2013)
Unspecified Southwest USA	41.49	Sneed et al. (2006)
Unspecified, NC	63.4	Moore and Hiday (2006)
Unspecified, NC	60.6	Hiday and Ray (2010)
<i>Mean</i>	<i>53.65</i>	
<i>Median</i>	<i>54.435</i>	

When examining between-group differences in outcomes, mental health court evaluations will employ a quasi-experimental post-test only design using a control group for comparison. Within this research, the majority of experimental groups are made up of only program graduates, with a minority of studies assessing all program participants. When defining the control group,

there is a much larger amount of variability. Some studies use a comparison group of mentally ill offenders who are sentenced through the traditional criminal courts and are subject to incarceration-based treatment-as-usual (or TAU). Other evaluations use a control group made up of terminates, or those that were once active participants in the specialty court but have been terminated non-compliant from the alternative sentencing program due to new charges or an inability to adhere to the prescribed course of action. And yet others examine comparisons between a treatment group and more than one control group, often assessing not only the outcome behaviors for the aforementioned terminate group, but also rejected referrals or opt-outs. A control group of rejected referrals is comprised of those that have been referred to the court but deemed ineligible for a specific reason and thus rejected from participating. Opt-outs are court referrals who have been screened and deemed eligible for the court, but who voluntarily elect not to participate for some reason. Research employing the control-group post-test only comparison will collect data at only one time point after a series of months either post-enrollment or post-graduation/discharge (see Tables 8 and 9). Any of the studies employing this research design view a specialty court as successful if participation in the treatment group yields a lower level of criminal involvement and a higher level of treatment integration than the comparison group (i.e., participants, and especially graduates, should have lower levels of criminal behavior and higher levels of treatment service usage than any of the control groups). Some of the more elaborate evaluations have combined both within-group measures and between-group comparisons into the same study, thus adopting a quasi-experimental pre-test/post-test control group design (see Tables 10, 11, and 12).

Table 6. Criminal Justice Outcomes: Pre-test/Post-test Evaluations with No Control Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Case et al. (2009)	14 sites, USA	Participants	NONE	12 pre-entry	12 post-entry	Ave. arrests Ave. jail days	52% decrease 33% decrease
Henrickx (2005)	Clark County, OR	Participants	NONE	12 pre-entry	12 post-entry	Ave. arrests	141% increase*
O'Keefe (2006)	Brooklyn, NY	Participants	NONE	12 pre-entry	12 post-entry	% Arrested	40% decrease
Palermo (2010)	Clark County, NV	Participants	NONE	24 pre-entry 24 post-entry	24 post-entry 24 post-discharge	Total # arrests Total # arrests	82% decrease 23% decrease
Palermo (2010)	Washoe Cty, NV	Participants	NONE	12 pre-entry	12 post-discharge	# Jail days (2007) # Jail days (2008)	95% decrease 76% decrease
Pratt et al. (2013)	4 sites, NY	Participants	NONE	At entry	12 post-entry	% Involved w/CJS	Decreased
Trupin et al. (2001)	Seattle, WA	Participants	NONE	11 pre-entry	11 post-entry	Ave. bookings % Booked	29% decrease* 57% decrease

p < .05 = *, *p* < .01 = **, *p* < .001 = ***

Table7. Criminal Justice Outcomes: Post-test Only Evaluations with a Control Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Dirk-Linhorst/ Linhorst (2012)	St. Louis, MO	Graduates	Terminates; Opt-outs	NONE	12 post-discharge	% Arrested Hazard rate rearrest Hazard ratio rearrest	23.5% lower***; 11% lower*** 15% smaller; 10% smaller 56% smaller; 43% smaller
Kubiak et al. (2014)	Wayne County, MI	Graduates	Terminates; Rejections	NONE	12 post-discharge	% Arrested	51-69% lower
Moore/Hiday (2006)	Unspecified, NC	Graduates	Terminates	NONE	12 post-entry	Ave. jail days Ave. arrests	88-143 fewer 74% fewer***
Moore/Hiday (2006)	Unspecified, NC	Participants	TAU	NONE	12 post-entry	Severity new offense Ave. arrests	71% lower*** 53% fewer***
Rossman (2012)	Bronx, NY	Graduates	TAU	NONE NONE	NONE NONE	Severity new offense Hazard ratio rearrest Hazard ratio rearrest	59% lower*** 36% smaller** 55% smaller**
Wickland (2013)	Chittnden Cty, VT	Graduates	Terminates + Opt-outs	NONE NONE NONE	12 post-discharge 24 post-discharge 36 post-discharge	% Arrested % Arrested % Arrested	10% lower 10% lower 10% lower

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

Table 8. Criminal Justice Outcomes: Pre-test/Post-test Evaluations with a Control Group using Program Graduates as the Treatment Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Burns et al. (2013)	Hall County, GA	Graduates	Terminates; Opt-outs	NONE	24 post-entry	% Arrested Ave. jail days	73% lower***; 68% lower*** 99% fewer***; 98% fewer***
Ferguson (2008)	Anchorage, AK	Graduates	NONE	24 pre-entry 12 pre-entry Participation 12 pre-entry	24 post-entry Participation 12 post-discharge 12 post-discharge	Ave. jail days # Police contacts # Arrests # Jail days # Police contacts # Arrests # Jail days # Police contacts # Arrests # Jail days	94% decrease*** 59% decrease 90% decrease 82.5% decrease 29.6% decrease 50% increase 79.5% decrease 71% decrease 85% decrease 69% decrease
		Graduates	Opt-outs; TAU	NONE	12 post-discharge	% Arrested % Charged	50% lower; 58% lower 43% lower;
Hiday/Ray (2010)	Unspecified, NC	Graduates Graduates	TAU Terminates; Opt-outs	NONE 24 pre-entry	NONE 24 post-discharge	Days to rearrest Ave. arrests	102% lower 10% longer 68% decrease*** 55% fewer***
Teller et al. (2004)	Akron, OH	Graduates Graduates	Terminates Terminates	NONE 2000 2001 2002	24 post-discharge 2001 2002 2003	% Arrested Ave. incarcerations Ave. incarcerations Ave. incarcerations	65% lower*** 13% increase; 45% fewer 77% decrease; 94% fewer 90% decrease; 99% fewer
Van Vleet (2008)	Salt Lake Cty, UT	Graduates	NONE	24 pre-entry 12 pre-entry 12 post-discharge 24 pre-entry 12 pre-entry 12 post-discharge	12 pre-entry 12 post-discharge 24 post-discharge 12 pre-entry 12 post-discharge 24 post-discharge	% Booked % Booked % Booked % Charged % Charged % Charged	5% decrease 69% decrease 64% increase 12% decrease 73% decrease 66% decrease

Table 8 (Continued). Criminal Justice Outcomes: Pre-test/Post-test Evaluations with a Control Group using Program Graduates as the Treatment Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Van Vleet (2008)	Salt Lake Cnty, UT	Graduates	Terminates	12 pre-entry	12 post-discharge	% Arrested	75% decrease***; 66% lower***
				12 post-discharge	24 post-discharge	% Arrested	125% increase*; 31% lower*
				24 post-discharge	36 post-discharge	% Arrested	27% increase; 18% decrease
				NONE	NONE	Days to new booking Days to rearrest	87.5% longer* 42% longer*

p<.05 = *, *p*<.01 = **, *p*<.001 = ***

Table 9. Criminal Justice Outcomes: Pre-test/Post-test Evaluations with a Control Group using Program Participants as the Treatment Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Bess Assoc. (2004)	Butte County, CA	Participants	TAU	36 pre-entry	24 pre-entry	% Booked	18% increase; 14% more
				24 pre-entry	12 pre-entry	% Booked	33% increase*; 5% more
Christy et al. (2005)	Broward Cnty, FL	Participants	TAU	6 pre-entry	6 post-discharge	Ave. bookings	52% fewer
				NONE	6 post-discharge	% Booked	44% decrease
Cosden et al. (2005)	Santa Barbara, CA	Participants	TAU	NONE	NONE	Average convictions	19% decrease
				24 pre-entry	24 post-entry	Average jail days	19% decrease
Eckberg et al. (2006)	Hennepin Cty, MN	Participants	Rejected	4 pre-entry	4 post-entry	% Charged	39% decrease; 28% lower
				4 pre-entry	4 post-entry	% Convicted	55% decrease; 27% lower
Frailing (2010)	Washoe Cnty, NV	Participants +Graduates	TAU	12 pre-entry	12 post-entry	Ave. jail days	79% decrease***; 91% fewer***
				12 pre-entry	12 post-discharge	Ave. jail days	90% decrease***; 96% fewer***
Hiday et al. (2013)	Washington, DC	Participants +Graduates	Terminates	12 pre-entry	12 post-entry	Ave. jail days	33% ** decrease; 86% fewer***
				12 pre-entry	12 post-discharge	Ave. jail days	90% decrease; 97% fewer***
Hiday et al. (2013)	Washington, DC	Participants	TAU	12- pre-entry	12- post-discharge	Ave. arrests	72% decrease***; 42% fewer
				NONE	12- post-discharge	% Arrested	26% lower***
						% Felony	17% lower

Table 9 (Continued). Criminal Justice Outcomes: Pre-test/Post-test Evaluations with a Control Group using Program Participants as the Treatment Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Hiday et al. (2013)	Washington, DC	Participants	TAU	NONE	12- post-discharge	% Violent felony % Zero arrests	47% lower 16% more***
		Graduates	Terminates	NONE 12- pre-entry	NONE 12- post-discharge	Hazard ratio rearrest Ave. arrests	19% smaller 84% decrease***; 56% fewer***
Morin (2004)	Hennepin Cty, MN	Participants	TAU	NONE NONE 12 pre-entry	12- post-discharge NONE 12 post-discharge	% Arrested Hazard ratio rearrest Ave. misdemeanors	57% fewer 45% smaller 79% decrease***; 74% fewer ***
						Ave. jail days	66% decrease; 3% more
Steadman et al (2011)	Hennepin Cty, MN	Participants	TAU	18 pre-entry	18 post-entry	Annual arrests	54% decrease; 50% lower
						Ave. jail days	95% increase; 146% fewer
Steadman et al (2011)	Marion County, IN	Participants	TAU	18 pre-entry	18 post-entry	Annual arrests	45% decrease; 150% lower
						Ave. jail days	30% decrease; 867% fewer
Steadman et al (2011)	San Francisco, CA	Participants	TAU	18 pre-entry	18 post-entry	Annual arrests	39% decrease; 32% lower
						Ave. jail days	Increased 16%; 26% fewer
Steadman et al (2011)	Santa Clara, CA	Participants	TAU	18 pre-entry	18 post-entry	Annual arrests	26% decrease; 45% lower
						Ave. jail days	Increased 3%; 62% fewer
Trupin/Richards (2003)	King City, WA	Participants	Opt-outs	At entry	9 post-entry	% Booked	Decreased***
Trupin/Richards (2003)	Seattle, WA	Participants	Opt-outs	At entry	9 post-entry	Severity nw offense	Increased (opt)*

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

Table 10. Mental Health Outcomes: Pre-test/Post-test Evaluations with No Control Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Eckberg et al. (2006)	Hennepin Cty, MN	Participants	NONE	4 pre-entry	4 post-entry	% Crisis episodes	15% decrease
Frailing (2010)	Washoe Cnty, NV	Participants + Graduates	NONE	12 pre-entry	12 post-discharge	Ave. crisis episodes Ave. inpatient days	100% increase 72.5% decrease
Henrickx (2005)	Clark County, OR	Participants	NONE	12 pre-entry	12 post-entry	Ave. case mgmt. hrs. Ave. med mgmt. hrs. Ave. ind. thrp hrs. Ave. group thrp hrs. Ave. crisis hours Ave. inpatient days Ave. outpatient days	83% decrease* 128% decrease* 58% decrease <i>ns</i> 102% increase <i>ns</i> 69% decrease* 74% decrease* 100% decrease*
O'Keefe (2006)	Brooklyn, NY	Participants	NONE	At entry	12 post-entry	% Hospitalized Ave. hospital days Ave. hospitalizations % Visited ER % Abstaining alcohol % Alcohol abuse % Alcohol dependent % Abstaining drugs % Drug abuse % Drug dependent	62% decrease** 8.7% decrease <i>ns</i> 53% decrease <i>ns</i> 43% decrease 115% increase*** 100% decrease** 86% decrease* 200% increase*** 86% decrease <i>ns</i> 93% decrease***
Trupin et al. (2001)	Seattle, WA	Participants	NONE	11 pre-entry	11 post-entry	Ave. treatments Ave. treatment hours	10% increase* 10% increase <i>ns</i>

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

Table 11. Mental Health Outcomes: Pre-test/Post-test Evaluations with a Control Group using Program Graduates as the Treatment Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Bess Assoc. (2004)	Butte County, CA	Graduates	TAU	At entry	At discharge	Ave. drug use	33% decrease*; 21% fewer <i>ns</i>
Ferguson (2008)	Anchorage, AK	Graduates	NONE	12 pre-entry	Participation	% Using alcohol/drug Ave inpatient days % In treatment	68% decrease 17% decrease 118% increase
				Participation	12 post-discharge	% Using alcohol/drug Ave inpatient days % In treatment	83% increase 53% decrease 17% decrease
				12 pre-entry	12 post-discharge	% Using alcohol/drug Ave inpatient days % In treatment	42% decrease 61.5% decrease 82% increase
				12 pre-entry	12 post-discharge	Ave inpatient days	17% decrease; 15% more (opt); 26% fewer (tau)
Van Vleet (2008)	Salt Lake Cnty, UT	Graduates	Opt-outs; TAU	12 pre-entry	12 post-discharge	Ave inpatient stays	12% decrease; 149% fewer (o); 45% fewer (t)
						# Inpatient stays	8% decrease; 298% fewer (o); 277% fewer (t)
						% In treatment	5% decrease
						Ave. days b/t trtmnts	19% decrease
Van Vleet (2008)	Salt Lake Cnty, UT	Graduates	NONE	36 pre-entry	18 pre-entry	% In treatment	69% decrease
				18 pre-entry	6 pre-entry	Ave. days b/t trtmnts	No change
				6 pre-entry	Participation	% In treatment	64% increase
				Participation	6 post-discharge	Ave. days b/t trtmnts % In treatment	46% decrease 12% decrease
Van Vleet (2008)	Salt Lake Cnty, UT	Graduates	NONE	6 post-discharge	18 post-discharge	Ave. days b/t trtmnts % In treatment	15% increase 73% decrease
				18 post-discharge	36 post-discharge	Ave. days b/t trtmnts % In treatment	35% increase 66% increase
				36 pre-entry	36 post-discharge	Ave. days b/t trtmnts % In treatment	42% decrease 28% increase
				18 pre-entry	18 post-discharge	Ave. days b/t trtmnts % In treatment	61% decrease 9% increase
						Ave. days b/t trtmnts	16% decrease

Table 11 (Continued). Mental Health Outcomes: Pre-test/Post-test Evaluations with a Control Group using Program Graduates as the Treatment Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Van Vleet (2008)	Salt Lake Cnty, UT	Graduates	NONE	6 pre-entry	6 post-discharge	% In treatment Ave. days b/t trtmnts	17% increase 38% decrease
Van Vleet (2008)	Salt Lake Cnty, UT	Graduates	Terminates	NONE	6 post-discharge	% In treatment	22% more*

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

Table 12. Mental Health Outcomes: Pre-test/Post-test Evaluations with a Control Group using Program Participants as the Treatment Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Boothroyd (2003)	Broward Cnty, FL	Participants	TAU	8 pre-entry	8 post-entry	% In treatment Ave. treatments	32% increase; 47% more* 62% increase; 47% more*
Cosden et al. (2003)	Santa Barbara, CA	Participants	TAU	At entry	6 post-entry	Ave. alcohol severity Ave. drug severity	39% decrease; 29% lower* 33% decrease; 88% lower*
				6 post-entry	12 post-entry	Ave. alcohol severity Ave. drug severity	7% increase; 7% more* No change; No difference*
Cosden et al. (2005)	Santa Barbara, CA	Participants	TAU	6 pre-entry	6 post-entry	% In treatment Ave. treatment hours	100% increase; 25% more*** 1200% increase; 77% more***
				6 post-entry	12 post-entry	% In treatment Ave. treatment hours	10% decrease; 22% lower*** 31 decrease; 67% more***
				12 post-entry	18 post-entry	% In treatment Ave. treatment hours	22% decrease; 21% more** 11% decrease; 88% more***
				18 post-entry	24 post-entry	% In treatment Ave. treatment hours	No change; 21% lower** 63% decrease; 33% more***
Keator et al. (2013)	3 sites, USA	Participants	TAU	18 pre-entry	18 post-entry	Ave. int. treatments Ave. crisis episodes % In treatment	35% decrease <i>ns</i> ; 129% more*** 120% decrease*** 62% more <i>ns</i> 33% decrease; 51% more***

Table 12 (Continued). Mental Health Outcomes: Pre-test/Post-test Evaluations with a Control Group using Program Participants as the Treatment Group

Publication	Court	Treatment	Control	Pre-Test (Months)	Post-Test (Months)	Measure	MHC Effect
Keator et al. (2013)	3 sites, USA	Participants	TAU	18 pre-entry	18 post-entry	Ave. treatments	357% increase*** 243% more***
		Participants	Graduate; Terminates	NONE	12 post-entry	Ave. treatment hours	28% increase <i>ns</i> ; 12% more <i>ns</i>
						Ave. int. treatments	97% more (grad); 266% more (t)***
						Ave. crisis episodes	98% more (g); 1.52% more (t) <i>ns</i>
						Ave. treatments	10% more (g); 111% more (t)*
						Ave. treatment hours	26% more (g); 176% more (t) <i>ns</i>
Trupin/Richards (03)	King City, WA	Participants	Opt-outs	At entry	9 post-entry	% In treatment Ave. treatment hours	55% more** increase***; between, <i>ns</i>
Trupin/Richards (03)	Seattle, WA	Participants	Opt-outs	At entry	9 post-entry	Ave. treatment hours	increase, <i>ns</i> ; more (opt)*

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

One issue to consider is that not every study that evaluates a mental health court should be considered equally rigorous. For the most part, the strongest experimental design is the classic pre-test/post-test study with random assignment that compares a treatment group against a control group. As most examinations of existing mental health courts cannot employ true random assignment when placing specialty court referrals into either a participant group or a comparison group, much of the mental health evaluation research cannot maintain the methodological rigor of the true experiment. In this regard, most specialty court evaluations are said to be quasi-experimental, because while “they lack random assignments of units to conditions, [they] otherwise have similar purposes and structural attributes to randomized experiments” (Shadish, Cook, and Campbell 2002:104).

In social science, proving causation requires (1) the independent variable (or cause) precedes the dependent variable (or effect) in time, (2) the cause correlates significantly with the effect, and (3) the study has controlled for any alternative explanations that may be plausibly affecting the causal relationship. In theory, random assignment into an experimental group and a control group should account for such alternative explanations due to the principle of the Equal Probability of Selection Method, or EPSEM (Healey 2010). According to EPSEM, if every case in the population of interest has the same chance of being selected for the sample, then the sample is likely to be representative and any perceived differences between groups will be due to random chance and not due to something systematic. Because specialty courts tend to have selection criteria resulting in samples that are non-random, there is a very real fear of systematic bias and a high risk of violating the causal requirement of controlling for all potentially explanatory variables.

Campbell defined internal validity as the question, “did in fact the experimental stimulus make some significant difference in this specific instance?” (Shadish et al. 2002). Over time,

threats to internal validity have been identified in nine different arenas: (1) ambiguous temporal precedence, or a lack of clarity about which variable occurred first; (2) selection, or the presence of preexisting systematic differences between experimental and control conditions; (3) history, or the manifestation of some change in the experimental condition due to a concurrent event other than *X* that has an effect on *Y*; (4) maturation, or a continuation of naturally occurring trends; (5) statistical regression to the mean; (6) attrition, or the systematic loss of respondents due to treatment or measurement; (7) testing or priming effects; (8) instrumentation, or issues with measurement that change overtime and may be confused with the treatment effect; and (9) additive or interactive effects that result from the presence of more than one threat to internal validity. While each threat to internal validity does pose a serious risk toward establishing causal relationships in social science research, a strong research design can compensate for many of these threats.

While the true experiment is the strongest method for addressing threats to internal validity, Shadish et al. (2002) argue that quasi-experiments can also address these threats by embracing additional principles aimed at demonstrating that other potential causal explanations are likely implausible. The first principle is the explicit identification of and study of plausible threats to internal validity, whereby researchers acknowledge any such potential threats and build in an analysis of such threats in order to control them while highlighting the treatment-outcome correlation. The second principle involves instilling a primacy of control by design, which requires adding design elements that either prevent the confounding of the validity of treatment effects by plausible threats or provide evidence about the plausibility of those threats (e.g., adding more pre-test time points or an additional control group). The final principle is coherent pattern matching, or constructing a complex prediction about a given causal hypothesis that few alternative

explanations can match. In sum, due to the lack of statistical control that is provided by simple random sampling, researchers attempting to make causal inferences in quasi-experimental evaluations must employ research designs guided by complex predictions that both identify and analyze alternative causal explanations.

When examining studies specifically exploring criminal outcomes, Farrington et al. (2002) propose employing the Maryland Scientific Methods Scale, a 5-point scale assessing methodological rigor, in order to assess the quality of the research design. A study is said to be more rigorous if the design addresses as many of the aforementioned threats to validity as possible. In this way, Level 5 is the score assigned to the most methodologically sound research and is reserved for true experiments with random assignment. In contrast, Level 1 indicates the weakest studies, which are typically cross-sectional one-group post-test only designs. In between the two poles are three levels of quasi-experimentation that vary in ability to rule out threats to internal validity. Level 2 is reserved for one-group pre-test/post-test designs where measures of crime before and after the program are not compared to a control condition. This design is stronger than Level 1 because it establishes causal order, but is the weakest type of pre-test/post-test study because it fails to rule out any of the other threats to internal validity. Level 3 builds upon this design by adding a single control group and is cited as the minimum design that is adequate for drawing conclusions about what criminal justice practices work. If done correctly with an adequate comparison group, this quasi-experimental design can be used to rule out internal validity threats such as history, maturation, attrition, testing, and instrumentation. Level 4 is the most rigorous of the non-random experiments as it includes measures of crime before and after the intervention in multiple experimental and control units, thus controlling for other factors that may influence outcomes. This design allows for better statistical control of extraneous influences, thus

addressing threats of selection and regression to the mean. Farrington et al. (2002) argue that in order to establish that a program prevents crime adequately, the program evaluation must have demonstrated desirable results that are statistically significant and employ a research design at Level 3 or higher.

It therefore makes perfect sense that the most common of all quasi-experiments is the Level 3 nonequivalent comparison group design with dependent pre-test and post-test samples because the joint use of a pre-test and a comparison group allows researchers to examine the majority of threats to internal validity (Shadish, Cook, and Campbell 2002). Given that the groups are nonequivalent, the assumption is that selection bias is present by definition and the use of a pre-test allows researchers to examine both the size and direction of that bias. When pre-test differences are present, there is the possibility that selection bias will add to or interact with other threats to validity. According to Shadish et al. (2002:61), such threats might include selection-maturation (i.e., if respondents in the treatment group are growing more experienced, tired, or bored than the control group due to preexisting differences), selection-instrumentation (i.e., if both groups start at dramatically different points on outcome measures during the pre-test such that a small change during the post-test becomes overstated), selection-regression (i.e., if both groups start at different ends of a distribution and then regress to the mean the result is disingenuous differential regression), and selection-history (i.e., the possibility that an event occurred between pre-test and post-test that affected only one group or both groups differentially). Shadish et al. (2002) do warn that if there appears to be no pre-test differences (i.e., there is no significant difference between both groups prior to the administration of the independent variable) that is not irrefutable proof that selection bias is absent. Bias may still be inherent due to the potential role

of any unmeasured variables that influence selection and are correlated with the outcome, but using both a control group with a dependent pre-test still makes this a rigorous design.

Much of the mental health court evaluation research examining program outcomes operationalizes criminal justice involvement by focusing on rates of reoffending after program participation. A successful program should see a decrease in reoffending when comparing changes within-groups over time and/or should see a lower rate of re-offense for participant populations when compared with control groups. For the most part, reoffending is estimated by focusing on a combination of areas: jail stays, hazard rates of “failure” or re-arrest, and measures of either arrests, charges, bookings, or convictions. Jail stays are often operationalized by the length of stay, and can either be estimated by measuring the total number of jail days for all subjects during a given period of time or can be assessed by calculating the average number of jail days per sample. Hazard rates estimate the amount of time that it will take two different groups to reach a “failure event” (e.g., re-arrest), and can be used either to estimate the hazard ratio of “failure” of group one versus group two or to predict the likely percentage of “failures” within each population at a given time. The variability of use between measures of arrests, charges, bookings, and convictions appears to be dictated by what information a given researcher is able to access. An arrest involves law enforcement officers taking a criminal suspect into custody, while a charge is filed by law enforcement officers when they suspect that a crime has been committed and that a given suspect has committed it. Bookings often happen at the local jail and involve the processing of personal information, such as mug shots and fingerprints, for purposes of criminal investigation; a booking can either be initiated by a law enforcement officer dropping off an arrested suspect or by a suspect him or herself reporting to the jail because he or she has been notified of pending charges by an officer of the court and has been requested to visit the jail for processing. Finally, a conviction is

the end result of the trial process indicating that there is sufficient evidence to prove beyond a reasonable doubt that a defendant committed a crime. Because there is such a high amount of measurement variation among mental health court evaluations, no two studies answer the exact same research questions, although an examination of the entire body of evaluation literature can point to some key generalizable effects.

On the whole, the evaluation literature examining a diverse group of mental health courts in the United States provides a large amount of evidence that such specialty courts have the intended diminishing effect on criminal behaviors. Although assessments gauging only within-group participant change find significant differences from Time 1 to Time 2 (see Table 6 for the results of pre-test/post-test evaluations with no control group) and evaluations examining only between-group differences find significant disparities between the treatment and control groups (see Table 7 for post-test only evaluations with a control group), both quasi-experimental designs fail to meet the rigorous criteria for Level 3 on the Maryland Scientific Methods Scale. As such, both sets of results should be viewed with a certain amount of skepticism. The majority of compelling evidence for the effect such specialty courts have on recidivism comes from pre-test/post-test evaluations that use a control group, although one could further argue that there may be a disparity in outcomes based upon the selection of the treatment group. In short, choosing to only use program graduates (see Table 8) and not all participants (see Table 9) may pose an unintended threat to internal validity.

In quasi-experiments, selection threatens internal validity due to the endogeneity problem. Endogenous variables are defined as variables that develop or originate from within, whereas exogenous variables are those that develop or originate from without (McClendon 1994). When modeling a relationship between a predictor and an outcome, the cause of the exogenous variable

is not specified within the model and so the exogenous variable is positioned as the independent variable; it marks the start of the theoretical causal chain and it seen as external to the outcome. In a simple bivariate cause-and-effect relationship, the cause of the endogenous variable is specified (i.e., changes are due to measured and unmeasured causes), thus dependent variables are said to be endogenous. Identifying variables as either exogenous or endogenous in causal modeling becomes problematic when there is a potential intervening variable that is both affected by the independent exogenous predictor and affects the dependent endogenous outcome. McClendon (1994) identifies an intervening variable as another type of endogenous variable because causes are known, in part, and measured (i.e., the influence of the exogenous predictor), but it is different than the exogenous dependent variable because it is also affecting the outcome in measured and unmeasured ways. Whereas the exogenous independent variable is external to the outcome and causes a change, an endogenous intervening variable is internal to the outcome and also causes a change.

The endogeneity problem is a term used by econometricians to describe complications in developmental studies that have been, at least in part, determined or influenced by the actions of the individuals under study (Duncan, Magnuson, and Ludwig 2004). Developmental models that use external contextual influences as exogenous explanatory variables (i.e., studies measuring the effects of peers, parents, programs, etc.) must allow for some change in the endogenous dependent variable due to internal endogenous effects tied to the actions of the individuals under study. Any significant correlations that are measured between the outcomes of interest and the external exogenous predictors may in fact be the product of unmeasured internal variables; in other words, the effects are not due to “exogenous change” but due to “endogenous change”.

According to Duncan, Magnuson, and Ludwig (2004), in the absence of experimental design with random assignment, the best defense against the endogeneity problem is to incorporate a longitudinal component to estimate change models. They recommend using individual fixed-effects models because the equation incorporates unmeasured individual variables that are both constant over time and that vary over time. Individual fixed-effects models employ a technique known as first-differencing the data, a procedure in which each individual's observation at Time $t - 1$ is subtracted from his or her observation at Time t (Duncan et al. 2004). With sufficiently long panels, more elaborate methods using first-differencing can be used to control for unmeasured variables whose values change over time in specific ways. For example, looking at how changes in the rate at which contextual variables change affect the rate at which individual outcomes change (obtained by twice-differencing the data) can help control for unmeasured individual-level variables that change over time at a constant rate (Duncan et al. 2004).

According to Duncan et al. (2004), another set of methods that might reduce selection bias exploits within-group variation. When using group fixed-effects models each individual's score on the dependent and independent variables is subtracted from the average scores of all individuals in his or her group, and the deviation-from-group-means model becomes a participant-difference model (Duncan et al. 2004). When estimating a group fixed-effect model, individual differences in the endogenous dependent variable are regressed onto individual differences in observed group characteristics. Once observed and unobserved group factors are differenced out, any omitted-variable bias caused by the potential presence unmeasured endogenous variables is eliminated.

When placed within the context of specialty court evaluation research, there is a very real fear that the efficacy of the exogenous independent variable—mental health court participation—on the endogenous dependent variable—decreased criminal activity and increased use of

therapeutic treatment services—may be compromised by an unmeasured endogenous variable. Changes in behavioral outcomes may be due to internal, endogenous variables and any evidence supporting an external cause is therefore spurious. In theory, the criminal behavior that results in a referral to a mental health court may be due to an unmeasured, internal variable—a temporary period of “bad functioning” and antisocial behavior that is relatively atypical for a given person—that would have resolved itself with or without treatment-based intervention. Using one of the aforementioned fixed-effects models may be able to better estimate whether outcome behaviors were influenced by exogenous or endogenous change.

Treating graduates as the only representative of the experimental group may have a biasing effect as graduate-only treatment groups run a heightened risk of capturing “endogenous change.” Common sense would argue that graduates not only bias the results because they have demonstrated greater levels of program compliance than participants that fail to complete the alternative terms of sentencing, but also because they would appear to have a higher implicit willingness to complete the program itself. In this regard, any analysis that uses a graduate-only group as the lone experimental sample runs a risk tantamount to statistical tautology—successful program completion is predicted by successfully participating in the program, while participant success leads to program completion. In some evaluations, it is clear that graduates and terminates start at significantly different levels of criminality in the 24 months prior to program involvement, as measured by average arrests (Hiday and Ray 2010) and average jail days (Burns et al. 2013; Frailing 2010). In other instances, graduates and terminates appear to respond to the program differently as graduates see a significant reduction in criminal justice measures while the terminated actually see an increase in the same activities either during program participation (Burns, et al. 2013) or post-graduation/discharge (Hiday and Ray 2010, Van Vleet, et al. 2008).

Either way, any evaluation estimating a significant difference solely between graduates and a control group (see Table 7) runs a heightened risk of suffering from a threat to internal validity caused by selection bias.

When examining criminal justice outcomes using a quasi-experimental pre-test/post-test design comparing program participants with a control group, there appears to be a significant period of “ramping up” in criminal activity for both groups prior to program placement (although the initial level of activity may vary significantly between the treatment and control groups), followed by a period of frequent criminal justice sanctioning for only the mental health court participants in the immediate period post-enrollment, and then a significant decrease in overall criminal behavior for program participants post-graduation/discharge (see Table 8). According to Bess Associates (2004), both the participant and the treatment-as-usual groups in Butte County, California, experienced a significant increase in the percent of offender bookings in the year prior to specialty court involvement, implying similar periods of “bad functioning” pre-enrollment. That said, Christy et al. (2005) found that the treatment-as-usual group in Broward County, Florida, was still significantly more criminally prone than the experimental group, having 31 percent more average arrests in the twelve months prior to program entry and 33 percent more total aggressive acts in the three months prior to enrollment. In contrast, Frailing (2010) found that an aggregated treatment group of active participants and former graduates in Washoe County, Nevada, actually had a greater average number of jail days than the treatment-as-usual comparison in the year prior to program entry. Clearly, there is some variability in starting points for the treatment and control groups, although this variability does not appear to systematically favor one group over the other across all studies.

During enrollment, there are significant group differences in criminal behavior but these differences appear to vary by control group. When comparing a treatment-as-usual control group to specialty court participants in Santa Barbara County, California, Cosden et al. (2005) found that only program participants saw a significant increase in the number of average bookings from 24 months prior to specialty court entry to 24 months post-enrollment. The control group average remained consistent at 3.9 average arrests per subject from Time 1 to Time 2, but the treatment group actually increased from 2.97 to 5.33 average arrests per subject. The resulting 79 percent increase was significantly higher than both the treatment group at Time 1 and the control group at Time 2, implying that program participants were much more likely to be booked on new charges as a function of the increased sanctioning that came with specialty court enrollment. While this may be the case, Cosden et al. (2005) also found that participants actually served 35 percent fewer average jail days over the same period, a significant difference that implies that while participants may be arrested at higher rates due to program enrollment, the offenses may be relatively benign and thus do not demand incarceration. The treatment-as-usual group is committing offenses at the same rate as before and those offenses demand jail time as a function of severity. In contrast, when comparing an opt-out control group against mental health court participants first in King City, Washington, and then in Seattle, Washington, Trupin and Richards (2003) found that participants in King City experienced a significant decrease in booking rates and that only the opt-outs in Seattle experienced a significant increase in the severity of new offense. While the effect of program participation on arrests and bookings during enrollment may vary depending upon the comparison group, it appears that program participants are less likely to engage in more severe criminal activities during the two months post-enrollment.

While these quasi-experimental evaluations using program participants as the treatment group are the strongest studies so far in controlling for selection bias, they are still not without methodological issues. Only seven studies limit the research comparison to all program participants against a control group (see Table 9), but only four of those seven studies find some statistically significant difference from Time 1 to Time 2 in favor of the specialty court (see Cosden et al. 2005; Hiday et al. 2013; Morin 2004; Trupin and Richards 2003). Of those four, only Hiday et al. (2013) and Morin (2014) look at the impact of the court on criminal behavior post-involvement. While it may be important to examine measures of criminal behavior while enrolled in the program, any attempt to tap into the enduring effects of the court must look at measures at some point post-involvement. The strongest evidence supporting the long- or even short-term benefits of enrollment in a mental health court will come from estimates of how former participants are functioning out in the general population after they have been discharged from the program. Of the two remaining studies that examine behavior post-discharge, only Hiday et al. (2013) is a peer-reviewed work.

In a study comparing participants in a Washington, DC, specialty court with a treatment-as-usual comparison group, Hiday et al. (2013) found that the treatment group appears to experience lower rates of recidivism and criminal activity in the months post-discharge. More specifically, they found that mental health court participants experienced 72 percent fewer average arrests from 12 months prior to specialty court enrollment to the 12 months immediately after discharge. While they found that the treatment-as-usual group also experienced a significant decrease in average arrests 12 months after discharge, the level of criminal activity for the participant group was still significantly lower than the control group. The experimental group had a 26 percent lower percentage arrested and a 16 percent higher percentage with zero arrests

during that 12-month period. In addition, the participant group had lower rates of felony arrest and violent felony arrest, although neither was statistically significant. In short, even though both groups experienced a period of relatively “good functioning” in the immediate aftermath of criminal justice system involvement, the program participants appear to experience a significantly larger pro-social effect and engage in less severe forms of crime.

Outside of these post-treatment examinations of bivariate difference between-groups and within-groups, many studies have employed some type of regression analysis to examine the effect of multiple variables on criminal outcomes. Logistic regression examines whether covariates have a unique, significant effect on the odds of being in one group or another, and is used in many mental health court evaluations to estimate whether specialty court involvement has an influence on rearrest (see Burns et al. 2013; Herinckx et al. 2005; Hiday et al. 2013; Moore and Hiday 2006; Van Vleet et al. 2008). According to research using logistic regression, graduating from a mental health court has a significant, positive effect on the odds of not being in the rearrest group at twelve months post-entry (Herinckx et al. 2005; Moore and Hiday 2006) and twenty-four months post-entry (Burns et al. 2013). More importantly, mental health court participation alone significantly increases the odds of not being rearrested twelve months post-discharge (Hiday et al. 2013).

Other studies use count regression models like negative binomial regression or Poisson regression to estimate whether a series of variables have a significant effect on the predicted values of a dependent variable expressed in non-negative whole numbers. According to studies that use count regression techniques, mental health court participation has a significant negative effect on the annualized number of arrests and the number of jail days eighteen months post-enrollment (Steadman et al. 2011). In addition, mental health court graduation has a significant negative effect

on the rate of rearrest one year post-discharge (Moore and Hiday 2006) and the number of jail days two years post-discharge (Burns et al. 2013).

Finally, a number of studies use Cox regression, a type of survival analysis that uses measures of time, in order to estimate what impact key variables might have on the estimated hazard rate of a failure event. As previously mentioned, hazard rates estimate the amount of time that it will take two different groups to reach a specific failure event and can be used to either estimate the hazard ratio of “failure” of one group versus another or to predict the likely percentage of “failures” within each population at a given time. Overall, researchers have estimated significantly smaller hazards of rearrest as a result of program participation, although the groups compared in each study tend to vary greatly. When comparing program graduates with those that terminated unsuccessful from the same program, successful completion was associated with a 45 to 56 percent smaller hazard of rearrest (Dirk-Linhorst and Linhorst 2012; Hiday et al. 2013) and nearly 200 more days to new booking and days to rearrest (Van Vleet et al. 2008). In comparisons of graduates versus a treatment-as-usual control group, graduation was again associated with a 36 to 55 percent smaller hazard rate of rearrest (Rossman et al. 2012). Finally, in studies examining the different outcomes for program participants in contrast to inmates subjected to treatment-as-usual, just participating in a mental health court is associated with a 19 percent smaller hazard of rearrest (Hiday et al. 2013) and almost 44 more days to rearrest (Christy et al. 2005). While graduates are clearly more successful than any other group, a fact that speaks well for the success of such specialty courts, there is still evidence that any form of participation is useful in staving off criminal behavior.

When determining why participation may have an effect on behavioral outcomes, the most potentially useful explanations could come directly from program participants themselves. While

all of the quasi-experimental studies discussed earlier attempted to quantify the effect that involvement with the court had on criminal justice outcomes, there are a two studies that interviewed specialty court participants directly in an effort to find out what mechanisms may be causing a reduction in recidivism. Camarena (2008) conducted a qualitative assessment using direct observation and semi-structured interviews when evaluating the mental health court in Norfolk, Virginia, while Canada and Watson (2013) conducted a mixed-methods evaluation of procedural justice in four mental health courts across two unidentified counties. Both studies were primarily concerned with participant perceptions about the mental health court itself, although both did include some discussion about what participants thought was most successful about the court-ordered treatment services.

In both research projects, the largest direct effect that the court had was on program compliance. Both studies found that the judge in particular was pivotal in getting participants to adhere to the court-ordered treatment services. While non-compliance at both sites usually manifested as drug use and resulted in a brief court-ordered jail stay, both studies found that participants thought the judge treated them fairly (Camarena 2008; Canada and Watson 2013). Respondents assumed that the judge had their best interest at heart (Canada and Watson 2013) and especially appreciated the judge's capacity for "second chances" (Camarena 2008). In fact, the majority of participants said that the judge's ongoing encouragement and support kept them connected to the court (Camarena 2008).

When assessing what it was about the program outside of the court that was successful at reducing recidivism, Camarena (2008) found that the majority of participants said that specialty court involvement helped them to avoid individuals who might get them into trouble and engaging in illegal activities. Participants also cited the close supervision and frequent communication

between members of the specialty court workgroup as playing a significant role in quickly detecting and then addressing deteriorating functioning (Camarena 2008). In addition, the case managers associated with the court helped program participants obtain the services that they needed (Camarena 2008). Finally, Canada and Waston (2013) found that program clients felt more respected by the process when afforded the opportunity to participate in treatment planning and have some say goal setting. While these participant explanations do not totally get at the specific treatment mechanisms that might cause long-term behavioral change, there is still evidence that the mental health court model that adheres closely to the ideals of therapeutic jurisprudence does influence participant perceptions of effectiveness.

Mental Health Outcomes

In contrast to these relatively obvious measures of recidivism, operationalizing intended mental health outcomes is more complex. From a criminal justice standpoint, the aim is to simply see a decrease in criminal involvement by examining the aforementioned jail days, hazard rates, and various measures of law enforcement contact because any involvement with the criminal justice system within this context is universally negative. On the other hand, the stated goal of increased treatment contacts is much more variable because some contacts can be negative while others are clearly positive, and yet other contact types can exist somewhere ambiguously between the two.

One area of measurement that is viewed negatively revolves around hospital stays and institutionalization days. The more frequently an individual stays in a mental facility or the longer the duration of that stay, the more that individual is using up valuable resources and the less often

s/he has the opportunity to be out in the general population as a pro-social member of the community. In contrast, an area that is viewed as overwhelmingly positive is treatment maintenance. As someone suffering from a serious mental illness makes more frequent use of therapeutic community services and engages in more hours of treatment, s/he is more likely to sustain communal ties and be a functional member of the general public.

An air of uncertainty exists around measures of crisis and emergency intervention. Crisis denotes an episode that is much more serious than ongoing maintenance and requires treatments that are potentially more intensive than purely therapeutic services, but it also hints at a potential level of awareness that demonstrates that there is some recognition of the warning signs of impending emergency that requires steps be taken. Not that every crisis episode is necessarily subject-initiated—many states have temporary 72-hour commitment laws tied to the standard set by *Foucha v. Louisiana* (1992) that can be initiated by criminal justice and treatment professionals when an individual poses a risk to him or herself or others. Attempting to measure crisis episodes is a process that lends itself to a classification that is somewhere between institutionalization and maintenance.

Examining mental health outcomes as a result of program involvement is subject to the same variation in quasi-experimental design discussed earlier (see Tables 10, 11, and 12). Some evaluations adopt only a pre-test/post-test design with no control group (see Table 10) and, while there is some evidence for significant increases in the use of therapeutic services (Henrickx et al. 2005; Trupin et al. 2001) and significant decreases in hospital stays and crisis episodes (Henrickx et al. 2005; O’Keefe 2006) for mental health court participants, this quasi-experimental design is relatively weak.

The strongest evidence for the strength of program intervention on the use of treatment services should come from pre-test/post-test evaluations with a control group using program participants as the experimental group (see Table 12). Every study that uses all program participants as a treatment group (e.g., Boothroyd et al. 2003; Cosden et al. 2003; Cosden et al. 2005; Keator et al. 2013; Trupin and Richards 2003) finds at least one significant within-group increase in the use of services post-enrollment and one significant between-group difference when compared with a control sample of treatment-as-usual inmates or voluntary opt-outs. The principle methodological issue with most of these findings is not about adequately defining who should be the treatment group and who should be the comparison group, but about the period of data collection. More specifically, none of these studies evaluates anything post-involvement.

From a quasi-experimental perspective, this design appears to be biased. To enroll subjects in a court-ordered treatment program and then compare their use of mandated services to a comparison sample who is defined principally by the absence of an agent of the law forcing them to participate in treatment would appear to yield dubious results. Keator et al. (2013) is one of two studies that spanned three year total. When assessing the use of services for both program participants and a treatment-as-usual comparison group at 18 months prior to program enrollment compared with 18 months post-entry, the study found that those enrolled in the program saw a significant 357 percent increase in the average number of treatments post-entry, and that that increase was 243 percent higher than the comparison group. For the most part, these appear to be tests of program adherence, not of the enduring effects of utilizing therapeutic services long after it stops being required. In order to effectively capture a treatment effect, it is necessary to examine whether former participants interact with mental health providers in a different way than a comparison group.

In summarizing the short-term and long-term effects of mental health courts, it appears that such specialty courts meet some aspects of the two-pronged goal of decreased criminal justice involvement and increased mental health treatment integration. While it appears that the eradication of criminal behaviors may be exceptionally challenging, the evaluation evidence available points to a short-term variable increase in criminal bookings and arrests during the enrollment phase of program involvement, but an overall decrease in incarceration and future arrests in the long-term. In addition, there appears to be evidence that affiliation with the court promotes a significant decrease in the negative treatment contacts tied to hospital stays and a significant increase in the positive treatment contacts like ongoing therapeutic treatment maintenance, although almost every evaluation as listed in Tables 10, 11, and 12 suffers from some methodological limitation. Based upon the limited research that attempts to overcome threats to internal validity and/or meets a Level 3 rating on the Maryland Scientific Methods Scale, these courts appear to be working on criminal recidivism, but the evidence on mental health is inconclusive. From a scientific perspective, it remains unclear whether these positive outcomes are more apparent than real.

Summary

In summary, the relationship between mental illness and crime has changed over time. Policy decisions informed by a number of perspectives in the mid-Twentieth Century lead to deinstitutionalization and the dissolution of the long-established state hospital system. Initially, the treatment void created by shutting down these mental institutions was supposed to be filled by

the creation of community-based outpatient treatment facilities. Unfortunately, these facilities never received consistent funding and so were never established in large enough numbers to adequately address the need for mental health treatment. The result of this dearth of services resulted in many individuals diagnosed with severe mental illness living in high-risk, criminogenic social environments, placing them at a greater risk of both criminal involvement and violent victimization. This growing overlap between mental illness and crime resulted in a trans-institutionalization where the criminal justice system ended up acting as the primary service provider for many of the mentally ill, thus increasing the risk of criminalization of mental illness itself. As more and more judges began to notice that offenders with mental illness needed more therapeutic services and did not respond to traditional punitive measures like incarceration, individual jurisdictions created specialty courts aimed at focusing on community-based mental health treatment over jail time. As those pioneering courts began to become better known, state policymakers began to push for more problem solving courts in a variety of areas. Even though mental health court evaluation research is in its infancy, some of the more scientifically rigorous research has found that these mental health courts seem to have a significant effect on decreasing recidivism and increasing prolonged use of treatment. Embracing the mental health court model appears to alleviate some of the negative social issues caused by deinstitutionalization.

CHAPTER THREE:

THE CURRENT STUDY

Current Research Goals

The preceding chapters briefly introduced the topic of mental health courts and discussed the historical changes that necessitated the development of such problem solving courts in the United States. This chapter turns our attention to (1) articulating the goals of this research project, (2) providing the relevant context and setting, (3) describing the data collection processes involved in this research, (4) specifying the hypotheses to be tested, (5) outlining the methods that will be used to conduct the analysis, and (6) discussing the limitations that the present research will likely encounter.

This project first came to my attention when I attended the 2012 Intermountain Mental Health Court Conference at Utah State University. At the July event, Judge Kevin K. Allen of the First District Mental Health Court gave a presentation on the successes and challenges associated with running such a specialty court, but ended his talk by saying that the majority of his data was anecdotal. While his assessment of what the court did well was not based on anything quantitative, he was open to the possibility of collaborating with researchers to conduct a more formal process evaluation. After he spoke, I introduced myself and we started to talk about the possibility of putting a program assessment together.

Based upon these discussions, the overarching aims of this comprehensive study are fourfold. First, to institute a local, baseline data collection format that will provide a mental health court electronic database for Utah's First District. Second, to use that database to conduct a much needed impact assessment of the court's effectiveness at reducing recidivism and increasing mental health treatment contact. Third, to help empirically inform the greater community of mental health practitioners, researchers, and policymakers who have been demanding evidence-based assessment outcomes for mental health courts for years (see Castellano and Anderson 2013). And fourth, to validate data collection techniques that can be adopted elsewhere throughout the state of Utah. Currently, Utah has eight adult mental health courts and three juvenile courts (National Alliance of Mental Illness-Utah 2014). At this point, only one court has received any sort of impact assessment—a report prepared by the University of Utah analyzing the Salt Lake County court from 2004 to 2008 (Van Vleet et al. 2008). While that assessment is informative, some argue that the court system in the state's largest urban center is unique in that it has more mental health resources than any other area in Utah. In contrast, the majority of the new problem-solving courts in Utah are developing in largely rural districts and counties, and need assessment approaches that are more sensitive to the service limitations inherent within less urban contexts. The current proposal has the potential to establish a more generalizable statewide system standard across all jurisdictions that will evaluate the effectiveness of each specific court as well as inform the state government about the overall efficacy of the mental health and justice collaboration in Utah.

Mental Health in Utah

The first mental health court in the state of Utah was established in 2001 in Salt Lake County in Utah's Third District (Van Vleet et al. 2008). As it was one of the "first generation" of such specialty courts, the court was initially established to only process misdemeanors, although the inclusion criteria later expanded in 2002 to also include felonies (Van Vleet et al. 2008). Data collected from June 2004 to April 2008 found that the court had served 263 participants with a long history of mental illness and criminal justice involvement, and the program had a high acceptance rate of 88.14 percent and, relative to the national average (see Table 4), a high successful completion rate of 52.6 percent (Van Vleet et al. 2008). When compared with those that terminated the program unsuccessfully, mental health court graduates had significantly fewer post-program bookings, had a significantly longer time to rearrest, and had significantly more therapeutic treatment contacts (Van Vleet et al. 2008). Over time, the Third District mental health court in Salt Lake City was viewed more and more favorably, and as such the Utah specialty court system expanded to seven adult mental health courts by establishing courts in Cache County in the First District, Weber County in the Second District, Davis County in the Third District, the cities of Provo and Orem in the Fourth District, and Washington County in the Fifth District. In addition, Utah lawmakers expanded the scope of such problem solving courts beyond adult district courts to include one mental health justice court in Salt Lake City and three juvenile mental health courts in Salt Lake City, Cache County, and Box Elder County.

According to the Synthetic Estimate of Needs for Utah¹¹ and the results of a 2013 Student Health and Risk Prevention Survey published by the Utah Department of Human Services (2013),

¹¹ The Synthetic Estimates of Mental Health Needs is an estimation technique that was created by Holzer and Nguyen in 2007, which compared figures from the Collaborative Psychiatric Epidemiological Surveys against those from the most current regional U.S. Census Population Estimate. Mental health needs are calculated for people who have one

12.7 percent of adults in the state of Utah—a population estimated to be just over 250,000 people—were classified as needing some sort of mental health treatment in 2012. At the same time, 7.9 percent of Utah youth under the age of 18, or 70,500 young people, were also identified as in need of treatment for mental health issues. According to the U.S. Census Bureau (2013), the state population of Utah was 2,900,872 in 2013, meaning that roughly 1 out of every 10 Utah residents is in need of some type of mental health treatment. According to the Utah Department of Human Services (2013), the public mental health treatment system in Utah in 2012 served 45,594 individuals or just over 14 percent of the current estimated need; potentially a combined total of almost 275,000 adults and children (or up to 86 percent of the target population) in need of services who are left untreated. In short, for every one patient who needs aid and receives treatment, there are 6.5 patients in need who do not. In 2013, the majority of services provided were in urban areas and the number of urban individuals in mental health services outnumbered the amount of equivalent rural clients at a ratio of 2.45 to 1. Demographic analyses found that Utah was relatively consistent with national averages for gender and age of individuals served¹², although Utah was significantly less racially diverse as whites only comprise 62.5 percent of the national service consumer population but made up 86 percent of the Utah’s 2012 treatment population. In addition, the Utah population also diverged from national trends when assessing current living arrangements, as only 63.5 percent of the national population of clients live in a private residence, while that number increases to 82.6 percent of Utah’s 2013 service consumers. Clearly, Utah has

of a specified set of relatively severe mental health diagnoses, along with a high level of functional impairment, and, if an adult, have taken more than 120 days off work as a result of their mental illness in the last year (TriWest Group 2010). For more information about the specific report used by the Utah Department of Human Services, see Holzer, Charles E., and Hoang T. Nguyen. 2008. Synthetic estimates of mental health needs for Utah.

¹² Client populations were 53 percent female in 2012 and 52.2 percent female in 2013, both of which are consistent with the 51.8 percent national average. The majority of those aged 21 to 64 receiving mental health services during the 2012-2013 fiscal years was 62.6 percent nationally, which is relatively close to Utah’s averages of 56.8 percent in 2012 and 55.6 percent in 2013.

a relatively large population of individuals in need of mental health treatment who are more racially homogenized and have more private support when compared with the larger national population, but who are not receiving treatment at rates comparable to the need.

Of course, to suffer from mental illness does not automatically translate into increased criminal involvement, but there appears to be evidence that offending populations in Utah suffer from severe mental illness at higher rates than the general Utah population, and that serious mental illness may play a role in recidivism. In an examination of Utah state prisoners released from incarceration between January 1998 and December 2002, Cloyes et al. (2010) found that 23 percent of the sample of 9,245 offenders met criteria for serious mental illness. Within that mentally ill offender population, the most common primary diagnosis by far was major depression (72 percent, $N=1,529$) followed by bipolar disorder (22 percent, $N=465$) and borderline personality disorder (9 percent, $N=184$)¹³. When analyzing hazard rates of rearrest, a diagnosis of mental illness played a statistically significant role in time to reincarceration, as the predicted return to prison for ex-cons suffering from mental illness was 381 days versus 728 days for the non-mentally ill offenders. Stated differently, offenders diagnosed as mentally ill returned to prison nearly one full year (358 days) sooner than their non-mentally ill peers. In addition, the model predicted that 77 percent of the mentally ill group would have returned to prison within 36 months of release as compared to only 62 percent of the comparison group. While some of the data collected does overlap with the

¹³ Cloyes et al. defined severe mental illness as “a major thought disorder, mood disorder, or organic brain syndrome that fits well-established categories of the *Diagnostic and Statistical Manual of Mental Disorders*, substantially impairs functioning, and requires treatment” (2010: 178). The Axis I diagnoses that met the study selection criteria included Schizophrenia, Schizoaffective Disorder, Psychosis NOS (not otherwise specified), Bipolar Disorders I and II, Major Depression, Mood Disorder NOS, and Organic Brain Syndromes and Dementia. The only Axis II diagnosis that was allowed was Borderline Personality Disorder; Antisocial Personality Disorder was not included because less than 1 percent of the offender population with major mental illness had an Axis II diagnosis other than Borderline Personality Disorder. The authors suggest that “although Cluster B personality disorders, particularly Antisocial Personality Disorder, are seen as risk factors for incarceration, they have less clinical relevance in the treatment of mental illness in this setting than other symptoms and patterns of disorder” (2010: 180).

existence of the Salt Lake County mental health court, the majority of it was amassed prior to the formation of said court. This implies that the diagnosis of a mental disorder does increase the risk of ongoing episodes of incarceration once an individual with serious mental illness becomes involved with the criminal justice system. Given that only 14 percent of the potential local population in need of therapeutic services is actually connected to treatment providers (Utah Department of Human Services 2013), the failure to make those linkages does put the neglected target population at an increased risk of enduring criminal justice involvement.

Two of the potential reasons why as much as 86 percent of those suffering from mental illness go unnoticed by the treatment system until a crisis episode are both tied to different aspects of social integration. On one hand, an individual suffering from mental illness may be so separate from the general population and so secretive, that s/he goes unnoticed by community treatment providers (Karp 1996). On the other, s/he may be so well integrated into a family or other social support network that any “out of place” behavior will be met with attempts of normalization or dismissal (Lynch 1983). Either way, such an individual is shielded from the view of treatment professionals until a definitive outburst—a disruptive anti-social emergency typically associated with an unmanageable episode like attempted suicide or public hallucinations (Cockerham 2006)—demands formal attention. In the current treatment climate, it is more likely that such a definitive outburst would be met with a criminal justice response (Torrey 1988).

The First District Mental Health Court

As previously mentioned, given the apparent success of the Salt Lake County court in the early 21st Century, state policymakers sought to aggressively develop the mental health court

system into other districts throughout the state. After expanding south in 2004 into the city of Provo in Utah County, officials decided to establish a new problem solving court in northern Utah in 2008. As the decision coincided with the retirement of First District Judge Clint Judkins, which necessitated the selection of a new judge, members of the state judiciary decided that the newly sworn-in replacement should spearhead the development of the new court. Judge Kevin K. Allen was appointed by Governor Jon M. Huntsman, Jr., in March 2008 and, despite having no professional experience with mental illness, was charged with creating a brand new court by the end of the year (Utah Courts 2014). Once treatment linkages were made with the largest mental health provider in the First District, Bear River Mental Health Services, Inc., and once a rudimentary court workgroup was founded, the court began hearing cases involving mental illness in December 2008 and has continued to meet weekly ever since (Macavinta 2013b). As the court was founded based upon ideological assumptions of need and utility, there was no formal, locally-based needs assessment and so there is no preexisting snapshot of the role that mental illness may have specifically played in criminal activity within the First District, and more specifically within Cache County. In addition, the young court did not launch a concurrent data collection program when the court was started so some of the most basic information (e.g., program acceptance rates, participant demographics, graduation rates, etc.) remains entirely unknown.

Utah's First District contains three different counties—Box Elder, Cache, and Rich—although the mental health court is located specifically in the city of Logan in Cache County. Eligible defendants with mental illness in all three jurisdictions are processed through the Cache County courthouse, and a small Bear River Mental Health Services facility in Box Elder County provides treatment for Box Elder program participants. The primary Bear River Mental Health Services facility in the city of Logan services consumers in both Cache and Rich Counties.

According to the 2010 U.S. Census, Cache County contains 68.3 percent of the First District's total populace with a population of 112,656 residents and the city of Logan contains 42.8 percent of the county populace with a population of 48,174 residents. The county is 89.1 percent non-Hispanic white, with a 9.96 percent Hispanic or Latino population. The average household contains 3.1 residents and the average family size is 3.6 persons. While the median age is 25.5 years old, 36.3 percent the population is under the age of 20 and 27 percent of citizens are between the ages of 25 and 44. Within the city of Logan in 2000, the median household income was \$30,778 and the median family income was \$33,784, with about 22.7 percent of the population and 12.6 percent of families living below the poverty line (U. S. Bureau of the Census 2000). According to the most recent Uniform Crime Report, Cache County had a violent crime rate of 13 acts per 100,000 persons and a property crime rate of 409 per 100,000 (Federal Bureau of Investigation 2012).

The Utah Department of Human Services (2013) estimates that 5.9 percent of adults in the First Judicial District, including but not limited to those that are involved in the criminal justice system, are theoretically in need of mental health treatment. This equals a target population of 6,760 spread out over three counties. Statewide, the bulk of mental health patrons are self-referred at 37.6 percent, while those referred by courts and law enforcement professionals only make up a minority of 11.4 percent. Further statistics from Bear River Mental Health Services estimate that 1,902 adults and 1,208 youths were served in 2013, and within the First Judicial District, the most commonly treated conditions—24 percent or 1,213 adults—involve anxiety. Only 17.27 percent of the treatment population of Bear River Mental Health Services, or 873 adults, are diagnosed with a mood disorder such as bipolar disorder or major depression, and only 5.3 percent of all clients, or 273 adults, are diagnosed with schizophrenia and other psychotic disorders. Given that

most specialty courts tend to only focus on diagnoses of mood disorders or psychosis, it would appear that such a specialty court in Utah's First District would serve less than 1,200 people. However, one complication to consider is that the Utah Department of Human Services estimates that only 14 percent of the mentally ill population of the state has made contact with treatment providers, implying that up to 86 percent of the target population has no ties to public mental health services. If this estimate is accurate and generalizable to those in the justice system, then the First District population of those operating under an impaired decision-making processes due to disordered thought or compromised moods could be as high as 8,300 persons. Given that this portion of the population may run a disproportionately higher risk of repeatedly coming into contact with the criminal justice system (Torrey 1995), it is imperative to quantify the amount of impact that the Cache County specialty court, and the treatment associated with that specialty court, has had on reducing reoffending behaviors caused specifically by the presence of mental illness.

The Program Theory of the First District Mental Health Court

All referrals are subject to a period of orientation prior to acceptance into or rejection from the program. The point of such a period is twofold as (1) it allows a mental health professional to assess the defendant in order to establish a baseline diagnosis and (2) it allows the defendant to observe how the problem solving court works in order to make an informed decision about voluntarily enrolling into the program. If an offender decides that he or she does not want to participant, then that person is free to opt-out and will be remanded back to the criminal court for sentencing-as-usual. If a referral is rejected, then he or she is also placed back on a non-specialty

docket for criminal processing. If a defendant is accepted into the program, then he or she is subject to ongoing community-based corrects that acts in concordance with court-ordered mental health treatment (Redlich et al. 2010).

Bear River Mental Health Services (BRMHS) provides almost exclusive therapeutic services during specialty court participation. It is possible to receive services from a private treatment provider like a personal therapist, but this is extremely rare. For the most part, mental health court clients work entirely with the court-affiliated program out of convenience. Outpatient services offered by BRMHS include psychological and behavioral assessments, as well as individual, group, and family psychotherapy. In addition, BRMHS offers a series of coping services such as psychosocial rehabilitation, skills development for both individuals and groups, and training in behavioral and medication management. Each program participant's experience begins in more group-based learning environments before shifting to a more person-specific therapeutic approach.

Dennis Kirkman of Bear River Mental Health Services designed the majority of the treatment program associated with the First District mental health court. Transitioning successfully through the specialty court program involves four ascending levels of advancement, each of which is expected to last anywhere from 90 to 180 days. Mr. Kirkman has combined Organization Assimilation Theory (see Jamblin 1984) with the Trans-theoretical Model of behavioral change (see Prochaska, Norcross, and DiClemente 1994) and the monomyth of the Hero's Journey (see Campbell 2008) in order to give each stage a distinct program focus. At this point, in order to successfully complete the program, an offender must complete each stage in order.

Phase I is identified as the “Slumber/Anticipation/Preparation” stage (see Campbell 2008, Jamblin 1984, Prochaska et al. 1994), and focuses on functional survival and a deference to a generalized treatment plan (Kirkman 2013). This stage involves an intense amount of court supervision, including weekly status hearings where the program participant chronicles his or her level of treatment and program compliance for the judge (Kirkman 2013). At this point, the majority of treatment efforts go towards stabilizing an individual's symptoms and establishing a baseline treatment/recovery plan with a case manager at BRMS (Kirkman 2013). Stabilizing symptoms requires behavioral intervention tied to group and individual therapy services, and may involve pharmaceutical treatment if required. In addition, this stabilization process requires an individual to obtain housing, seek out employment or education, and maintain functional living; if a program participant lacks the community resources necessary to meet these baseline goals, BRMS provides complimentary services like life-skills training and case management.

The next phase, Phase II, is the “Departure/Encounter/Action” stage where the emphasis shifts toward functional recovery (Kirkman 2013). Court supervision is lessened to status hearings every other week and the treatment plan becomes more person-specific (Kirkman 2013). In Phase II, treatment services are aimed at developing commitment strategies that will ultimately result in successful program completion (Kirkman 2013). Case managers at BRMS focus on more precise, individualized services (i.e., less group therapy and more individual therapy) that will help create the coping skills necessary to maintain the functional living established in Phase I. Phase II necessitates a level of program compliance that is less externally coerced and is more dependent upon the level of commitment of the client him- or herself.

Phase III is the “Initiation/Metamorphosis/Maintenance” stage which centers on functional mastery, asking participants to move beyond functional living and toward more substantial goals

(Kirkman 2013). Participants appear before the judge only once a month and are expected to become more proactive about their participation in recovery (Kirkman 2013). At this point, the use of treatment services is focused entirely on maintenance as program participants are asked to put the coping skills learned in Phase II into consistent practice. (Kirkman 2013). The program stresses greater community integration and typically promotes defendants to become more active in a vocation, in education, or in other productive pursuits.

The final stage before successful program completion, Phase IV, is the period of “Return/Disengagement/Termination” (Kirkman 2013). In completing Phase III, a program participant has demonstrated a sustained ability to maintain and even increase pro-social functioning. In Phase IV, defendants focus on functional fulfillment and must demonstrate that they are at a low risk for a relapse (Kirkman 2013). Participants prove this low level of risk by maintaining pro-social behaviors while only meeting with the court once every three months (Kirkman 2013). In addition, participants return to group-based therapy in a leadership role, and provide peer mentoring and guidance to other program participants (Kirkman 2013). Graduation from Phase IV represents the end of the mental health court rehabilitative process.

Data Collection and Variables of Interest

The subject population of the current research consists of all referrals to the Utah First District mental health court dating back to the court’s inception in December 2008. The sole inclusion criterion for this study is a referral to the Utah First District mental health court itself, and, because the study is meant to be exhaustive, the final data set will include all program referrals. Due to the referral criteria of the program itself, all potential program participants have

committed a Class A misdemeanor or higher, and all referrals are believed to be eligible for an Axis I diagnosis (Cache County District Attorney's Office 2015). Since the current study is looking at a very specific subset of the criminal population in Utah's First District, any local offenders prosecuted for felony or misdemeanor crimes during the same time period that have not been referred to the mental health court will be excluded.

In an effort to meet the minimum standards of a Level 3 quasi-experimental research project on the Maryland Scientific Methods Scale, the current study aimed to use a pre-test/post-test design with a control group. Unfortunately, this study only had access to information about those referred to the mental health court and not to any other offender populations. Due to this inability to create a treatment-as-usual control group, the comparison group had to be created from the roster of referrals. Those that voluntarily opt-out could make an ideal control group (see Trupin and Richards 2003), although that event may be relatively rare in this instance; estimations found that purposefully opting-out only happened a handful of times. Due to this limitation, it appears that the best approach to conducting a Level 3 research design involving a comparison group would be to separate out those that are accepted into the court from those that are not but that still would like to be (Eckberg et al. 2006). Comparing two groups that are made up of subjects who are motivated to participate but who are divided by decisions beyond their control, allows for the willingness to participate to be held constant and not act as a confounding variable. Removing this potential threat to internal validity strengthens the research design and provides the inclusion of a comparison group that certainly makes the current study higher than a Level 2 project.

When considering this seemingly straightforward design comparing participants to non-participants, it is important to illuminate why it is that anyone is rejected from the court at all. Given that the court requires only that all referrals have (1) criminal charges that are classified as

a felony or class A misdemeanor and (2) a diagnosable Axis I mental illness, it is easy to assume that most rejected referrals simply fail to meet one of these criteria. While the severity of criminal charges dictates that defendants must be processed at the district level as opposed to a smaller municipal justice court, there is a strong possibility that various courtroom decision-makers may be unwilling to consider specific offenses that may not align with personal value systems or public opinion. Due to the more conservative elements of Utah, crimes that are heavily stigmatized locally by the public, the prosecutor, and even the judge may include sexual assault, child abuse or neglect, illicit drug use, and alcohol abuse. In this regard, the comparison group could well be composed of program referrals that met the criminal and diagnostic criteria, but failed to qualify due to a political technicality (Cache County District Attorney's Office 2015).

From the mental health perspective, the court limits admission to only a select set of Axis I diagnoses. As stated earlier, most courts privilege offenders suffering from schizophrenia, schizoaffective disorder, bipolar disorder, and major depression. Traditionally, the site of the current study will only admit defendants suffering from psychosis or bipolar disorder (Kirkman 2013). This means that traditionally, local referrals who committed an eligible crime but who are diagnosed with the other mood disorder—major depression—will not be granted admission into the program and will be subject to traditional criminal processing. In addition, those diagnosed with a mental illness like anxiety, another disorder that is much more common than psychosis or bipolar, will also be turned away (Cache County District Attorney's Office 2015).

Due to the nature of some of the program criteria, it makes logical sense that one could construct a control group by combining the mentally ill criminals who committed the “wrong” type of crime with the mentally ill criminals who are diagnosed with the “wrong” type of illness. Such a design would demand a series of pre-test bivariate analyses assessing any significant

differences in proportions of categorical variables and mean differences of continuous variables in order to establish that such a comparison group can act as a true control. These variables would need to include items related to criminal history and mental health severity, as well as demographic characteristics and other potentially criminogenic risk factors.

Data collection consisted entirely of agency file reviews. Working with agents of Judge Allen's court and with service providers at Bear River Mental Health Services, the principal investigator constructed a primary dataset containing demographics, criminal histories, and clinical histories using information about individual program participants filed only at the Bear River Mental Health Services treatment facility. Because data consisted of information from agency files, participants were not directly approached and the researcher did not personally interview any program participants. As such, there was no recruitment or compensation necessary. In addition, outside of the researcher, all other parties involved in data collection and record reviews (e.g., First District Court staff and Bear River Mental Health Services staff) already have access to sensitive information about program participants.

Data collection went in three stages. The first stage involved accessing files housed at Bear River Mental Health Services, including paper copies of court dockets dated from January 2009 to present, as well as an electronic database of demographic and clinical characteristics. The second stage involved working with the court clerk of the First District mental health court to access Utah State criminal records. For the purposes of this study, documented criminal histories began at 36 months prior to the offense that brought the individual to the courts attention and ended 36 months post-involvement with the specialty court; the current study is using such a broad range of dates in an attempt to capture the long-term effects of program involvement. The same clerk then coordinated getting information from the Cache County jail about incarceration during the same

period of time 36 months pre-charges and 36 months post-program involvement. The final stage of data collection required working with the Mental Health Court Administrative Supervisor at Bear River Mental Health Services to access the BRMHS database of treatment histories in order to assess the level of therapeutic service involvement for each client during the same period from 36 month prior to offense and 36 months post-program involvement.

The first stage of data collection necessitated creating a complete roster of all court participants because neither the First District Court nor Bear River Mental Health Services have a single document containing the names of every man and woman that has been referred to the court for observation. As the Mental Health Court Administrative Supervisor and the Director of Corporate Compliance at Bear River Mental Health Services, Mr. Kirkman has kept a paper copy of every court docket dating back to January 21, 2009, in a locked drawer at Bear River Mental Health Services. Each docket documents the names, case numbers, current charges, and current level of program involvement of every case that was heard during any given weekly meeting of the mental health court. The very first step of creating a database involved documenting the name of each referral, as well as a timeline of program participation by detailing (1) the offense date, (2) the first date that he or she appeared on a court docket, (3) the date that he or she either opted out of participating in the court, was rejected from the program, or was officially accepted into the court via a plea in abeyance, (4) any significant dates that marked when he or she transitioned into a higher phase of treatment, and (5) the date that he or she either terminated from the program or graduated successfully. Armed with a complete list of mental health court referrals, data collection continued by running those names through the electronic database of clients at Bear River Mental Health Services in order to code only for the demographic and clinical characteristics that BRMHS collects. What follows is a list of the variables to be used in the current study.

Demographics

Gender is a dichotomous variable where referrals will either be coded as “Male” or “Female.” *Age* is a ratio variable where referral age will be the date that he or she either was officially accepted into the court via a plea in abeyance, was rejected from the program, or opted out of participating in the program all together. *Race* is a dichotomous variable where referrals will either be coded as “Caucasian” or “Non-Caucasian.” Given that the majority of the population in Utah self-identifies as white, the non-white racial categories were collapsed. *Ethnicity* is a dichotomous variable where referrals will either be coded as “Hispanic” or “Non-Hispanic.” *Education Level* is a ratio variable where referrals will note the highest grade completed prior to mental health court involvement. *High School Graduate* is a dichotomous variable where referrals will either be coded as a “High School Graduate” or not. Being a high school dropout may theoretically impact a participant's ability to meet some of the requirements of functional living outlined in Phase I, such as obtain a job or acquire more education. *Housing Status* is a dichotomous variable where referrals will be coded as living in “Private Residence without Support” or “Residence with Some Support” based upon the absence or presence of some form of residential support at the time of acceptance, rejection, or having opted out of program participation. Because obtaining and maintaining housing is required in Phase I, the ability to do so with or without support may be theoretically important. *Employment Status* is a dichotomous variable where referrals will be coded as either “Unemployed but Not Seeking/Disabled” or “Employed/Seeking” at the time of acceptance, rejection, or having opted out of program participation. Given that transition through the various phases of the court involve employment, separating subjects based upon the desire or willingness to work would appear to be theoretically important.

Clinical Characteristics

Axis I diagnoses. Several Axis I disorders will be coded for in the data, including *Psychosis, Bipolar Disorder, Depression, and Anxiety*. These are all nominal level variables and will be coded dichotomously as either "Present" or "Absent". In addition, analysis will include a related variable, *Severity*, which will be an ordinal variable based upon the severity of the symptomatology of each subject's diagnosis (i.e., "Mild", "Moderate" or "Severe").

Axis II personality disorders. Two types of personality disorders will be included as dichotomous variables. Both *Anti-social Personality Disorder* and *Borderline Personality Disorder* will be examined, and each will be coded as either "Present" or "Absent".

Substance use disorder. Whether or not the participant was diagnosed with *Substance Abuse/Dependence* will be measured dichotomously (i.e., "Present" versus "Absent"). This diagnosis will be assessed at the time of acceptance, rejection, or having opted out of program participation.

Time in program, by phase. The time spent in various phases of the program will be assessed, and measured by the number of days. *Time from Charge to First Court Observation/Orientation* begins with the date of the specific charges that lead to a program referral and ends at the first court appearance for observation/orientation. *Time in Orientation* includes the point from the first court appearance for observation/orientation to the date of program acceptance or rejection. *Time in Phase I* spans from the date of acceptance to being promoted to Phase II. *Time in Phase II* includes the period of time between being promoted to Phase II to being promoted to Phase III. *Time in Phase III* includes the span of time from being promoted to Phase

III to being promoted to Phase IV. Finally, *Time in Phase IV* includes being promoted to Phase IV to graduating successfully from the program

At this point, the size of the target population is known. Preliminary estimates place the entire target population size (i.e., anyone that has been referred to the problem solving court since December 2008) at 215 participants. Currently, the average ongoing case enrollment each week (i.e., those that are being screened for program participation as well as those that are actively enrolled within the program) includes twenty-five participants, and the court sees an average of forty or fifty defendants a year.

The second stage required working with Traci Hillyard, the court clerk of the First District mental health court, to access court records and collect information on criminal justice-specific variables. First, Ms. Hillyard used courtroom notes from weekly status hearings to clarify the specific reason why each defendant that was rejected from participating in the alternative sentencing program was not accepted into the specialty court, and confirm why each accepted defendant that was terminated from the program was dismissed as unsuccessful. Second, she accessed Utah State criminal records in order to measure criminal involvement 36 months prior to mental health court charges through 36 months post-program involvement (i.e., when the participant graduated, terminated, opted out, or was rejected from participating in the court). If the defendant's affiliation with the court ended too recently to have a complete 36 months of information, as much post-involvement information as possible was collected and the primary researcher calculated the proportion of police contacts, charges, jail stays and jail days based upon the available post-program time frames. Police records are available for every referral to the court, so data collection was not limited to only those that were accepted and only those that graduated successfully. Finally, Ms. Hillyard coordinated getting information from the Cache County jail

about jail involvement during the same period of time pre- and post-program involvement. Working with the court clerk resulted in the following set of criminal justice-related variables.

Program characteristics. Two nominal variables will be included that categorize why some referrals did not make it into the program or did not complete the program successfully. *Reason for Rejection from the Program* codes rejected referrals as excluded due to having a non-eligible “Diagnosis”, for having charges that the “Judge Rejected” such as sexual violence or child abuse, for having charges that the “DA Rejected” such as a DUI, for having an issue with “Jurisdiction” such as primary residency outside of Cache County, or for some “Unknown” heretofore unidentified reason. *Reason for Termination from the Program* codes unsuccessful participants as terminating from the program due to “Non-compliance”, “New Charges”, “Relocating” outside of Cache County, “Incompetence”, “Absconding”, or “Death.”

Criminal Characteristics

Criminal histories. Three nominal measures of criminal histories will be measured. They include *History of Violence*, *History of Drug Violations*, and *History of Incarceration*. Each is coded as present or not. In addition, four count variables will be assessed. *Criminal Charges Pre-Involvement* documents the number of criminal charges up to 36 months prior. *Criminal Charges Post-Involvement* begins with the final date of program involvement and, if available, documents the number of criminal charges in the 36 months post. *Jail Days Pre-Involvement* counts the number of jail days 36 months prior. And *Jail Days Post-Involvement* records the number of jail days in the 36 months post-mental health court involvement.

Time to recidivism and reincarceration. *Time to First Non-Traffic Charge Post-Involvement* chronicles the number of days from the end of program involvement to the first non-

traffic charge. *Time to First Incarceration Post-Involvement* counts the number of days from the end of program involvement to the first day in jail.

The final stage of data collection necessitated returning to Bear River Mental Health Services and again working with Dennis Kirkman to access treatment histories in order to collect information about mental health-specific variables. Using records at Bear River Mental Health Services, the third state of data collection involved gathering measures of state hospital and therapeutic treatment involvement 36 months prior to a mental health court referral through 36 months post-program involvement (i.e., when the participant graduated, terminated, opted out, or was rejected from participating in the court). As with the examination of criminal records, if the defendant's affiliation with the court ended too recently to have a complete 36 months of information, as much post-affiliation data as possible will be collected and the primary researcher will estimate the proportion of hospital stays, hospital days, therapeutic treatment contacts, and therapeutic treatment service hours during the available post-program time frame. Variables used to assess the impact that the specialty court has on treatment outcomes include the following.

More Clinical Characteristics

Treatment histories. Two nominal measures of treatment histories will be assessed, including *History of Hospitalization* and *History of Therapeutic Services*. Both are coded as either absent or present. In addition, examinations will include four additional count variables. *Therapeutic Contacts Pre-Involvement* counts the number of therapeutic contacts in the 36 months prior to the date of the mental health court charges. *Therapeutic Contacts Post-Involvement* begins with the final date of program involvement and, if available, documents the number of therapeutic contacts in the 36 months post.

Time to treatment. The various times to hospitalization or to a therapeutic mental health service will be measured by the number of days. *Time to First Hospital Stay Post-Involvement* assesses the number of days from the end of program involvement until the first state or regional hospital stay. *Time to First Therapeutic Contact Post-Involvement* counts the number of days from the end of program involvement until the first therapeutic service

Research Questions and Research Analysis

The current study will conduct three different waves of statistical analysis, each with a different set of research aims. The first stage will compare program participants against rejected referrals on a number of demographic, criminal, and clinical characteristics in order to establish any significant baseline group differences prior to the introduction of the intervention. The second stage will contrast graduates (i.e., participants that successfully complete the program) with those that terminate unsuccessfully from the mental health court in order to assess whether there are any significant disparities across groups within the program itself. And the final stage will revisit the first comparison—program participants against rejected referrals—and provide the most statistically in-depth analysis by comparing outcome behaviors post-program of both groups in order to estimate the long-term impact of the court on criminal justice involvement and mental health service use.

In the first stage of analysis, when comparing the treatment group with the control group of rejected referrals prior to program enrollment, this study will attempt to answer the following questions:

- What are the demographic, criminal, and clinical characteristics of the mental health court participant population?
- What demographic, criminal, and clinical characteristics, if any, play a significant role in determining who is accepted and who is rejected?
- Is there a significant difference between comparison groups when looking at the average number of charges per month, jail days per month, or use of therapeutic services per month?
- What proportion of referrals is accepted into the mental health court? What proportion of referrals is rejected? What proportion voluntarily opts-out?

All tests of significant differences were calculated using use chi-square tests of independence or two-sample *t*-tests, depending upon the level of measurement for the given variable.

The second stage of analysis will briefly examine the differences within the treatment group by comparing program graduates with program terminates. This exploratory phase of the evaluation will be limited to answering the following questions:

- What proportion of program participants successfully complete the program? What proportion terminates unsuccessful?
- What demographic, criminal, and clinical characteristics, if any, play a significant role in determining who is successful and who is not?
- Is there a significant difference between comparison groups when looking at the average number of days spent in each Phase of the program?

Once again, all tests of significant difference will depend on the level of measurement for the variable of interest and will be limited to chi-square tests and independent-samples *t*-tests.

Building off of any baseline differences established in the first phase of analysis, the final series of tests of significant difference between program participants and rejected referrals will gauge the enduring treatment effects that mental health court participation has on criminal behaviors and mental health outcomes post-involvement. In general, this study assumes that mental health court involvement should predict a decrease in criminal offending, a decrease in incarceration, a decrease in hospitalization, and an increase in use of treatment services. These assumptions are based upon (1) the theoretical framework of therapeutic jurisprudence and (2) prior research findings. As a reminder, therapeutic jurisprudence focuses on whether the consequences produced by legal action is therapeutic or anti-therapeutic (Wexler 2000), and most mental health courts attempt to operate in a way that is pro-therapeutic (Casey and Rottman 2000). In this regard, most decisions within the court should theoretically be aimed at steering participants away from criminal behavior and toward using therapeutic services.

While issues of methodological rigor may challenge the validity of prior evaluation research, many findings still hint at significant directional effects. Examinations of within-group change find that participants experience a significant reduction in average bookings (Hiday et al. 2013, Morin 2004, Trupin and Richards 2003) and average jail days post-discharge (Frailing 2010), while graduates experience a significant decrease in proportion rearrested (Van Vleet et al. 2008), average arrests (Frailing 2010, Hiday et al. 2013, Hiday and Ray 2010), and average jail days post-involvement (Burns et al. 2013). Clearly, when assessing how such specialty courts affect criminal justice involvement, a mental health court will be deemed effective if the levels of criminal behavior are higher prior to specialty court involvement and decrease after discharge from the program.

According to research comparing program participants with various control groups post-involvement in order to assess between-group differences, participation correlates with a significantly smaller proportion of new arrests (Hiday et al. 2013), significantly fewer average arrests (Hiday et al. 2013; Moore and Hiday 2006), and significantly fewer average jail days (Cosden et al. 2005; Frailing 2010). Studies that examine the specific effect of successful program completion find that graduation is associated with a significantly smaller proportion of new arrests (Burns et al. 2013; Dirk-Linhorst and Linhorst 2012; Hiday and Ray 2010; Hiday et al. 2013; Van Vleet et al. 2008), significantly fewer average arrests (Hiday and Ray 2010; Hiday et al. 2013; Moore and Hiday 2006), and significantly fewer average jail days post-discharge (Burns et al. 2013; Frailing 2010). In addition, graduates have a significantly smaller hazard ratio of rearrest (Rossman 2012) and significantly more days to rearrest (Van Vleet et al. 2008). On the whole, mental health courts appear to have the intended diminishing effect on criminal behaviors. Based upon these trends, a successful program should see a decrease in reoffending when comparing changes within-groups over time and/or should see a lower rate of re-offense for participant populations when compared with non-participant control groups.

In contrast to these relatively obvious measures of recidivism, operationalizing intended mental health outcomes is more complex. From a criminal justice standpoint, the aim is to simply see a decrease in criminal involvement by examining the aforementioned new charges, new jail days, or hazard rate of recidivism/reincarceration. On the other hand, the stated goal of increased treatment contact is much more variable because some contacts can be negative while others are clearly positive, and yet other contact types can exist somewhere ambiguously between the two. One area of measurement that is viewed negatively revolves around hospital stays and institutionalization days; in short, the more frequently an individual stays in a mental facility or

the longer the duration of that stay, the more that individual is using up valuable resources and the less often her or she has the opportunity to be out in the general population as a pro-social member of the community. In contrast, an area that is viewed as overwhelmingly positive is treatment maintenance; as someone suffering from a serious mental illness makes more frequent use of therapeutic community services and engages in more hours of treatment, he or she is more likely to sustain communal ties and be a functional member of the general public. An air of uncertainty exists around measures of crisis and emergency intervention. Crisis denotes an episode that is much more serious than ongoing maintenance and requires treatments that are potentially more intensive than purely therapeutic services, but it also hints at a potential level of awareness that demonstrates that there is some recognition of the warning signs of impending emergency that requires steps be taken. Not that every crisis episode is necessarily subject-initiated—many states have temporary 72-hour commitment laws that can be initiated by criminal justice and treatment professionals when an individual poses a risk to him or herself or others—but this measure of intervention lends itself to a classification that is somewhere between institutionalization and maintenance.

Examinations of within-group changes in treatment-related behaviors over time find participants experience a significant decrease in the percent hospitalized (O'Keefe 2006) and a significant decrease the number of crisis episodes post-enrollment (Henrickx et al. 2005; Keator et al. 2013). In contrast, participation is associated with a significant increase in the proportion of respondents in treatment (Trupin and Richards 2003) the average number of treatment services used (Keator et al. 2013; Trupin et al. 2001), and the average number of treatment hours post-enrollment (Trupin and Richards 2003). Between-group comparisons using a control group also find that participation is associated with a greater proportion of subjects in treatment (Boothroyd

et al. 2003; Cosden et al. 2005; Keator et al. 2013; Trupin and Richards 2003) and significantly more average therapeutic services post-enrollment (Keator et al. 2013). Program graduation is also associated with a significantly larger proportion still in treatment post-involvement (Van Vleet et al. 2008). In summary, participation in mental health court appears to significantly decrease the frequency and duration of hospital stays, and significantly increase the use of maintenance services.

In summarizing the effects of mental health court, it appears that such specialty courts meet the two-pronged goal of decreased criminal justice involvement and increased mental health treatment integration. While it appears that the eradication of criminal behaviors may be exceptionally challenging, the evaluation evidence available points to an overall decrease in incarceration and future arrests in the long-term. In addition, there appears to be some evidence that affiliation with the court promotes a significant decrease in the negative treatment contacts tied to hospital stays and a significant increase in the positive treatment contacts like ongoing therapeutic treatment maintenance. Based upon this limited evidence, this analysis will attempt to address the following directional hypotheses tied to different sets of outcome measures:

Recidivism Hypotheses

- H1) The proportion of program participants committing a new non-traffic offense in the 36 months post-involvement will be significantly smaller than the proportion of rejected referrals committing the same type of new offense
- H2) The average number of charges per month will be significantly fewer for program participants than rejected referrals at every month in the 36 months post-involvement

- H3) Program participation will have a significant negative effect on the estimated hazard ratio of reoffending

Incarceration Hypotheses

- H4) The proportion of program participants that are reincarcerated will be significantly smaller than the proportion of rejected referrals
- H5) The average number of jail days per month will be significantly fewer for program participants than rejected referrals at every month in the 36 months post-involvement
- H6) Program participation will have a significant negative effect on the estimated hazard ratio of reincarceration

Hospitalization Hypotheses

- H7) The proportion of program participants that are hospitalized in the 36 months post-involvement will be significantly smaller than the proportion of rejected referrals that will be hospitalized during the same time period

Use of Therapeutic Services Hypotheses

- H8) The proportion of program participants that utilize therapeutic services in the 36 months post-involvement will be significantly larger than the proportion of rejected referrals that utilize therapeutic services during the same time period
- H9) The average number of therapeutic services per month will be significantly greater for program participants than rejected referrals at every month in the 36 months post-involvement

- H10) Program participation will have a significant positive effect on the estimated hazard ratio of use of therapeutic services

Any bivariate analysis of within-group change for program participants pre- and post-intervention will be estimated using dependent-samples *t*-tests. Any tests of between-group differences will again use either a chi-square test of independence or an independent-samples *t*-test depending upon the level of measurement of the outcome variable.

In order to examine the effect of multiple variables on criminal outcomes at one time, this study will include a series of Cox regressions. More specifically, the aim will be to use this particular type of survival analysis to estimate whether program involvement has a significant effect on the time to recidivating, to reincarceration, and to use of treatment services within the first 36 months post-involvement. According to Hamilton (2006), Cox regression estimates the hazard rate for failure at time *t*, which is defined as:

$$h(t) = \frac{\text{probability of failing between times } t \text{ and } t + \Delta t(\Delta t)}{\text{(probability of failing after time } t)}$$

This hazard rate is modeled as a function of the baseline hazard (h_0) at time *t*, and the effects of one or more predictor *x* variables:

$$h(t) = h_0(t) \exp(\beta_1 x_1 + \beta_2 x_2 + \dots + \beta_k x_k)$$

In this estimation, “baseline hazard” means the hazard for an event with all independent variables *x* equal to 0. Cox regression will also be used to estimate how much impact demographic, clinical, prior criminal histories, or prior mental health histories may have on significantly changing the risk of a given failure event.

Summary

The current study is an attempt to gather baseline information about a population that has never been assessed. In an attempt to make this research project as rigorous as possible, certain methodological decisions have been made in order to overcome the shortcomings present in previous mental health court evaluations. By including a control group, this study will improve upon the limited one-group pre-test/post-test design (see Tables 6 and 10). By including measures prior to the intervention, this study will be more rigorous than the two-group post-test only model (see Table 7). By including all program participants in the experimental group, this study will be less threatened by the selection bias that plagues graduate-only evaluations and compromises internal validity (see Tables 8 and 11; Bess Associates 2004; Frailing 2010). By including post-test measures that are actually from a period of time post-discharge as opposed to post-entry, this study will be better equipped to answer questions about long-term criminal and treatment behaviors that are not currently mandated by the court (see Boothroyd et al. 2003; Christy et al. 2005; Cosden et al. 2003; Cosden et al. 2005; Keator et al. 2013; Steadman et al. 2011; Trupin and Richards 2003). Finally, by including measures for three years prior to current charges and three years post-program involvement, this study will be able to examine enduring patterns of behavior (see Eckberg et al. 2006). In addition, by including a test of multivariate relationships, this study will be able to examine why we might see differences in long-term outcome behaviors.

CHAPTER FOUR:

RESULTS

Sample Descriptions and Comparisons

Table 13 presents the demographic, criminal, and clinical characteristics of all referrals to the mental health court. Table 14 shows the demographic, criminal, and clinical differences between the treatment group of 95 participants and the control group of 107 rejected referrals. Both samples are nearly half female, are over 93 percent white, are less than 9 percent Hispanic, and have a mean age between 33 and 34-years old. The two groups were not significantly different on any of these variables. Moreover, they do not differ significantly on the average highest grade completed and the proportion of high school graduates. The only significant demographic differences between the treatment and control groups appear when examining living situation and relationship to the labor market. Program participants are significantly more likely than rejected referrals to live in a private residence without support ($X^2=5.470, p=0.019$) and are significantly less likely to be classified as disabled/unemployed not seeking ($X^2=9.386, p=0.002$).

According to Table 14, criminal characteristics do not appear to be significantly different between the treatment and comparison groups. The percentage of program participants with at least one violent charge on their record is slightly higher than the percentage of rejected referrals with a history of violence at 49.4% and 45.2% respectively, but that difference is non-significant

($X^2=0.347, p=0.556$). The treatment group also appears to have a higher proportion of defendants with a prior drug violation (60.2% versus 54.7% of the control group), but that is also not significant ($X^2=0.612, p=0.434$). Finally, neither group is significantly more likely to have been incarcerated prior to court involvement, as 65.5% of participants and 63.1% of rejected referrals have been jailed at least once prior to mental health court involvement ($X^2=0.119, p=0.730$).

Table 13. Referral Demographics (N=202)

Characteristic	All Program Referrals
Female	46.0
Age	33.52
White	93.8
Hispanic	7.8
Highest Grade Completed	12.19
High School Graduate	80.3
Unemployed Not Seeking/Disabled	61.1
Living in Private Residence Without Support	73.2
History of Violence	48.5
History of Drug Violations	56.5
Prior Incarceration	65.3
Psychosis Diagnosis	24.0
Bipolar Disorder Diagnosis	38.8
Depression Diagnosis	24.5
Anxiety Disorder Diagnosis	38.8
Severity	2.35
Anti-Social Personality Disorder Diagnosis	10.5
Borderline Personality Disorder Diagnosis	9.0
Substance Abuse Diagnosis	45.4
Prior Hospitalization	11.0
History of Therapeutic Services	62.1
Days from Charges to Referral	145.63
Days in Orientation	31.94

Figure 1 shows the average number of charges per month in the 36 months prior to the offense that brought the defendant to the courts attention. A series of independent-samples *t*-tests at each time point shows that there appear to be no significant dissimilarities in offense frequency across both groups. Figure 2 shows the average number of jail days per month in the 36 months prior to mental health court charges. The participant and non-participant trajectories crisscross multiple times, and the only significant difference is during the time period 36 months prior to the

mental health court offense when the participant group served fewer average days in jail ($t=-2.083$, $p=0.040$). Overall, it appears that both groups are very similar in offense and incarceration histories.

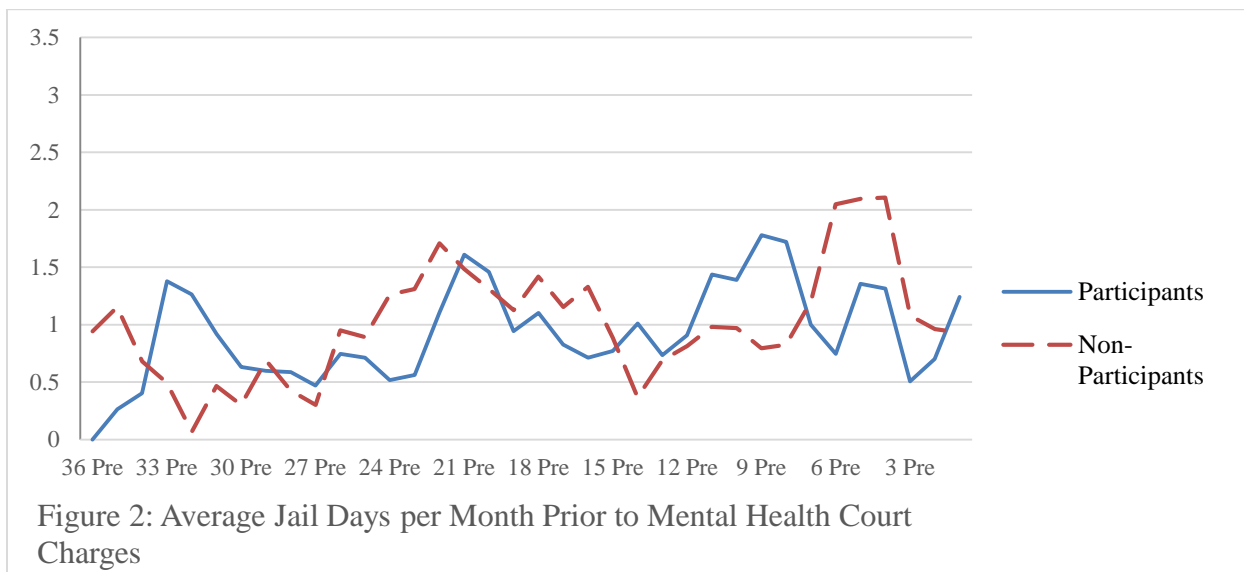
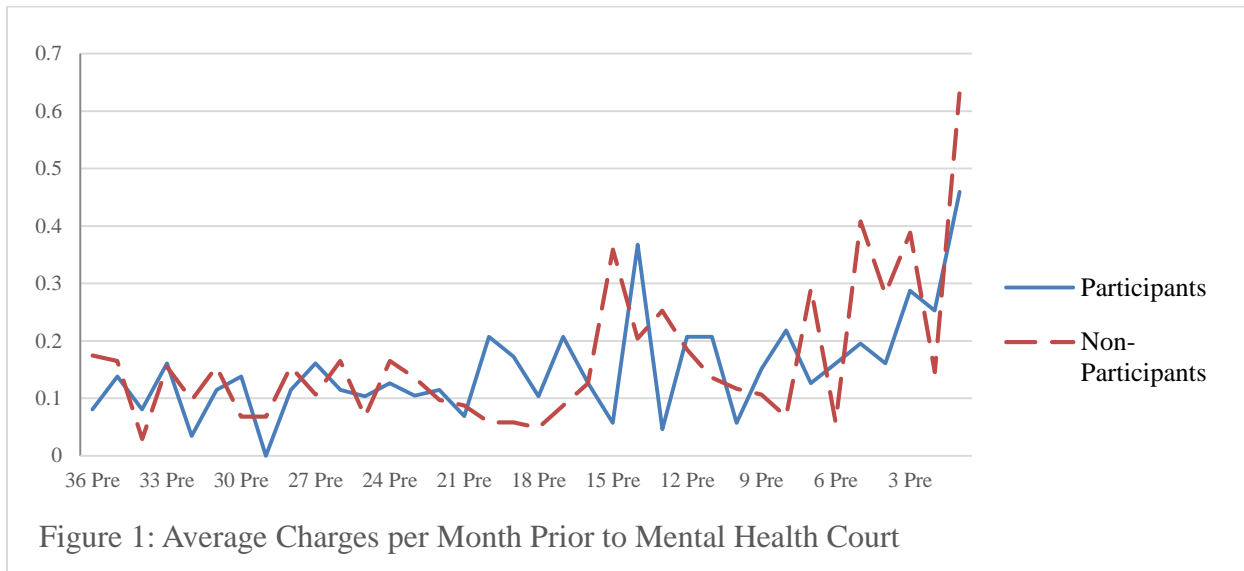
Table 14. Pre-test Demographics Comparing Program Participants with Rejected Referrals

Characteristic	Program Participants (N=95)	Rejected Referrals (N=107)	p-value
Female	47.4	45.7	0.815
Age	33.25	33.81	0.721
White	93.1	93.8	0.845
Hispanic	6.9	8.2	0.730
Highest Grade Completed	12.23	12.12	0.655
High School Graduate	80.5	80.2	0.966
Unemployed Not Seeking/Disabled	50.6	72.6	0.002***
Living in Private Residence Without Support	81.6	66.3	0.019*
History of Violence	49.4	45.2	0.556
History of Drug Violations	60.2	54.7	0.434
Prior Incarceration	65.5	63.1	0.730
Psychosis Diagnosis	31.8	18.4	0.035*
Bipolar Disorder Diagnosis	56.5	24.3	0.000***
Depression Diagnosis	9.4	36.9	0.000***
Anxiety Disorder Diagnosis	29.4	46.6	0.016*
Severity	2.41	2.34	0.637
Anti-Social Personality Disorder Diagnosis	5.0	14.7	0.035*
Borderline Personality Disorder Diagnosis	8.9	8.6	0.952
Substance Abuse Diagnosis	36.6	53.1	0.027*
Prior Hospitalization	9.1	12.7	0.492
History of Therapeutic Services	59.7	64.5	0.564
Days from Charges to Referral	131.34	160.05	0.323
Days in Orientation	42.11	23.07	0.003**

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

According to Table 14, the treatment and control groups do differ significantly on a number of mental health measurements. Nearly one-third of program participants are diagnosed with a psychotic disorder such as schizophrenia or schizoaffective disorder, which is significantly higher than the 18.4% of non-participants that have the same mental illness ($X^2=4.469$, $p=0.035$). The proportion of participants with a primary diagnosis of bipolar disorder was significantly larger ($X^2=20.327$, $p=0.000$), more than doubling that of the percentage of rejected referrals with the same diagnosis. In contrast, those in the control group were significantly more likely to have a depression diagnosis ($X^2=19.030$, $p=0.000$) or an anxiety diagnosis ($X^2=5.794$, $p=0.016$). Despite

these differences, the average severity of mental illness in each group—typically rated as mild, moderate, or severe—was non-significant ($t=0.472, p=0.637$). All things considered, this pattern of findings is not that surprising. Recall that to be eligible for the mental health court, an offender must have schizophrenia, schizoaffective disorder, or bipolar disorder. Diagnoses of depression or anxiety are not sufficient to be selected for the program.

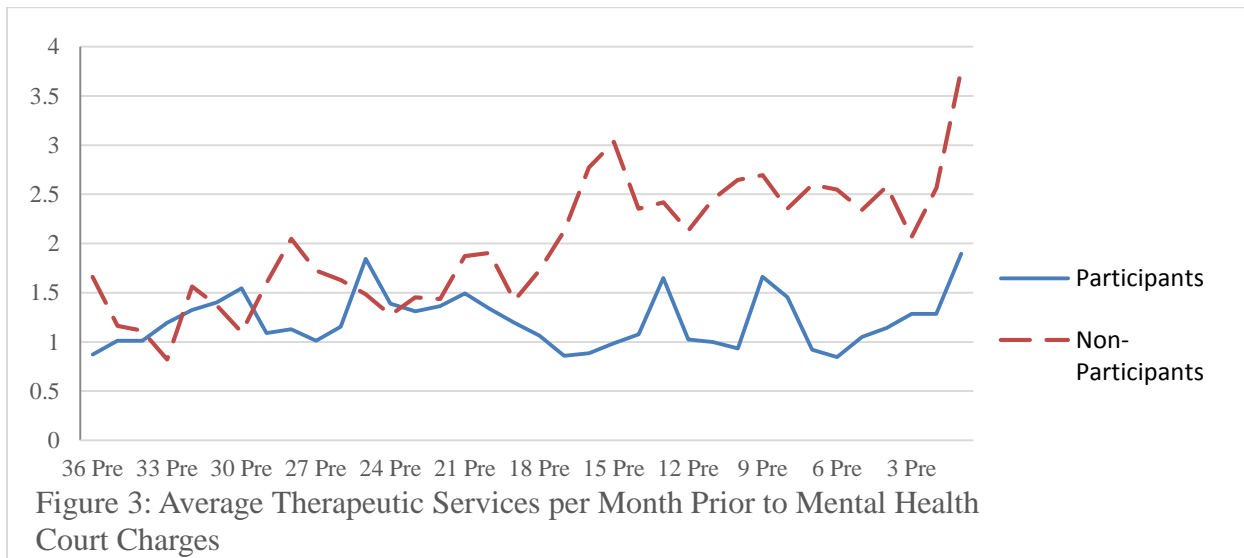


Beyond Axis I diagnoses, there appear to be significant differences between participants and rejected referrals on other mental health measures. By an almost 3-to-1 ratio, the control group has a higher proportion of subjects with anti-social personality disorder than the treatment group. Almost 15% of non-participants are diagnosed as having ASPD as compared with only 5% of participants, a difference that is statistically significant ($X^2=4.462, p=0.035$). In addition, the control group also has a significantly higher proportion of subjects with a substance abuse or substance dependence diagnosis as the proportion of non-participants with a substance-related disorder is 53.1% which is significantly higher than the 36.6% of participants ($X^2=4.879, p=0.027$). As both anti-social personality disorder and substance abuse are viewed as significant risk factors for future offending, it is important to consider these pre-test differences in any post-treatment analyses.

Finally, there appears to be mixed differences when examining treatment histories on the state or local level. While neither group is more likely to have a history of state hospitalization ($X^2=0.471, p=0.492$) nor a pre-existing relationship with the local community mental health treatment provider ($X^2=0.332, p=0.564$), there appears to be some evidence that the comparison group actually used therapeutic services more often in the three years prior to being screened for the court. Figure 3 charts the average therapeutic services per month in the 36 months prior to the mental health court offense, and while both groups cross repeatedly in the first year of analysis, they diverge 23 months prior to court consideration and then remain on separate trajectories. Participants use less average monthly services at every time point during the next two years, with those differences being significant specifically at 16 months prior ($t=-2.171, p=0.033$), 15 months prior ($t=-2.053, p=.044$), 10 month prior ($t=-2.038, p=0.045$), and 6 months prior ($t=-2.099, p=0.039$) to specialty court charges. In short, despite similar proportions of the treatment and

control group having used therapeutic services in the past, it appears that non-participants have a greater level of involvement with community mental health providers in the two years leading up to the mental health court offense.

Based upon this series of comparisons, there appears to be some key differences between these groups, but those distinctions are primarily along demographic and clinical lines. Looking at the demographic variables, mental health court participants appear to be at a more stable level of functional living than rejected referrals as a significantly higher proportion of participants live in a private residence without support and a significantly lower percentage is unemployed not seeking or disabled. Living independently and not being permanently outside of the labor force may point at a higher potential for symptom stabilization and reestablishing functional recovery, thus indicating that program participants may already be more susceptible to reestablishing pro-social behavioral patterns.



In addition, there are significant clinical differences between the treatment and comparison groups. While the severity of diagnoses is the same between both groups, those diagnoses

themselves are distinct. The treatment group of program participants have significantly higher proportions of psychosis and bipolar disorder. In contrast, the comparison group of rejected referrals includes higher percentages of individuals with depression diagnoses, anxiety disorders, anti-social personality disorder, and substance-related disorders. While the variation in Axis I disorders (i.e., psychosis, bipolar disorder, depression, and anxiety) is attributable to court-specific selection criteria, the dissimilarities in the presence of anti-social personality disorder and substance use disorders may be problematic as both diagnoses are commonly seen as criminogenic risk factors. Just as the significant contrasts in demographic characteristics pointed to an increased potential for program participants to reestablish pro-social functioning, having a higher rate of asocial clinical risk factors may hint at a higher potential for anti-social tendencies. In short, the higher proportion of anti-social personalities and substance abuse/dependence in the rejected referral group may indicate a preexisting inability to establish pro-social behavioral patterns.

In spite of all of this demographic and clinical variability between groups, there appears to be no significant difference in criminal histories. In fact, the proportion of program participants that have a history of violence, a history of drug offenses, and a history of incarceration are all slightly, but non-significantly, higher than those in the comparison group. Due to the lack of overwhelming evidence supporting the assumption that one group is more or less criminally prone than the other, this study can explore criminal justice outcomes comparing program participants and rejected referrals without using a fixed-effects model. Further analysis will show whether the aforementioned demographic or clinical differences have a significant effect on outcome behaviors.

Mental Health Court Completion

Table 14 shows the proportions of program involvement at each stage. Among the 215 referrals at the end of data collection, 95 (or 44.81%) were accepted into the program, 107 (or 50.47%) were rejected due to any of a number of reasons (see Figure 4), 10 (or 4.72%) self-selected out of the program by voluntarily opting-out, and 2 were still in orientation awaiting a decision. Of the 95 that were accepted into the specialty court, and excluding the 25 participants that were still working their way through the program, 33 (or 47.14%) successfully graduated and had all charges dropped while 37 (or 52.86%) terminated unsuccessful.

Table 15. Percentages of Program Involvement

Program Status	N	%
Accepted	95	44.81
Rejected	107	50.47
Opted-out	10	4.72
Graduated	33	34.74
Current Participants	25	26.32
Terminated	37	38.95

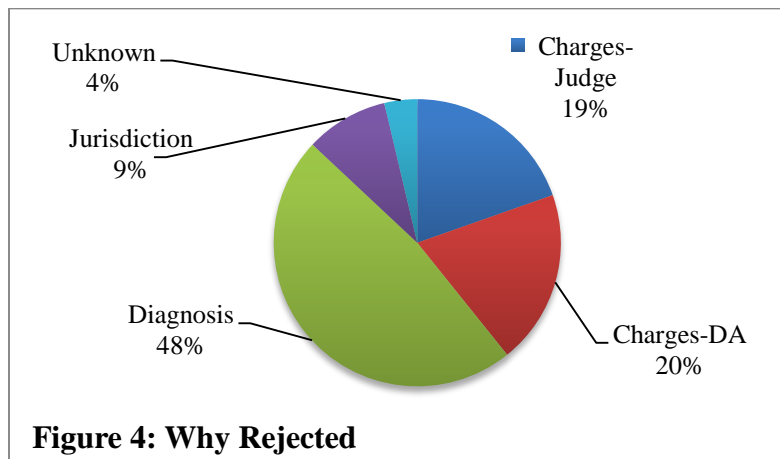
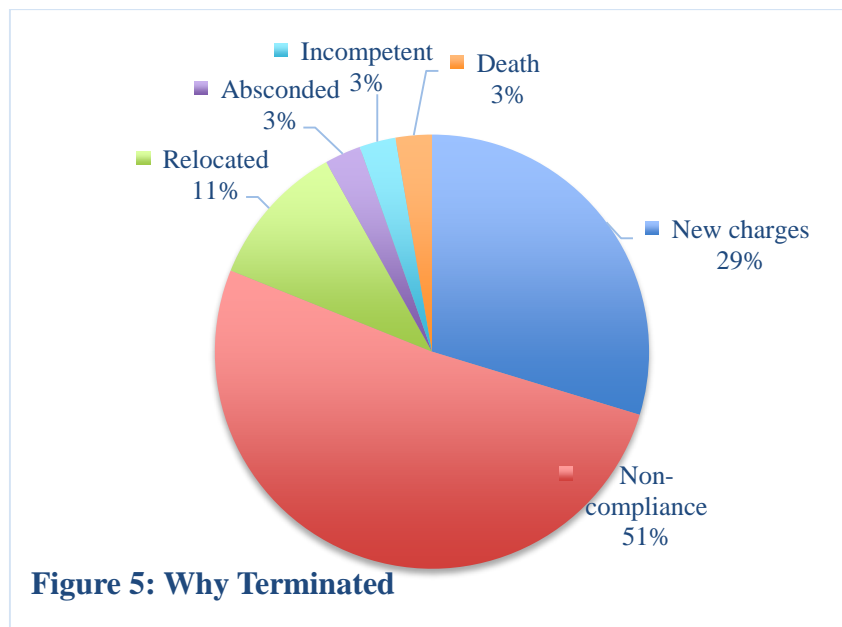


Figure 5 shows the reasons why participants terminated unsuccessful and Table 16 summarizes the demographic, criminal, and clinical characteristics of both the graduate group and the group of terminates. For the most part, there are not many significant differences between the groups other than a few demographic characteristics that are only significant at the $p=0.010$ level. According to the data, those that terminate tend to be male, Hispanic, less educated, and are less likely to live in private residences without institutional support. The termination group also

includes more subjects with a history of violence and a history of drug charges, although those differences are not more significant. In contrast, it is interesting to note that, though non-significant, the graduation group includes more defendants with a history of prior incarceration. Clinically, there also appears to be no difference between those that complete the program successfully and those that do not, although the percentage of terminates with borderline personality disorder is almost double the percentage of graduates with the same diagnosis.



When examining how those that completed the program successfully differ from those that did not, it may also be important to pay attention to disparities in program processing. While there is no significant difference between groups in the amount of time from charges to first courtroom observation/program orientation ($t=-0.476$, $p=0.635$) and in the amount of time spent in program orientation while the court workgroup decides to whether accept or reject the referral ($t=0.227$, $p=0.821$), there is a significant differences in of days spent in Phase II of the four-phase sequence. This difference may have some bearing on participant outcomes as members of the termination

group spend an average of 212 more days, or over seven months, in Phase II than the graduation group ($t=-2.732, p=0.016$).

Table 16. Program Demographics Comparing Graduates with Terminates

Characteristic	Program Graduates (N=33)	Rejected Terminates (N=37)	p-value
Female	48.5	37.8	0.369
Age	32.73	32.32	0.877
White	87.9	97.3	0.127
Hispanic	0.0	8.1	0.095
Highest Grade Completed	12.79	11.92	0.062
High School Graduate	87.9	70.3	0.073
Unemployed Not Seeking/Disabled	51.5	48.6	0.811
Living in Private Residence Without Support	90.9	73.0	0.054
History of Violence	48.5	54.1	0.642
History of Drug Violations	57.6	62.2	0.696
Prior Incarceration	69.7	59.5	0.372
Psychosis Diagnosis	30.3	36.1	0.609
Bipolar Disorder Diagnosis	63.6	52.8	0.361
Depression Diagnosis	3.0	5.6	0.607
Anxiety Disorder Diagnosis	18.2	33.3	0.152
Severity	2.36	2.52	0.455
Anti-Social Personality Disorder Diagnosis	3.0	2.9	0.966
Borderline Personality Disorder Diagnosis	6.1	11.4	0.435
Substance Abuse Diagnosis	30.3	34.3	0.726
Prior Hospitalization	12.1	5.7	0.352
History of Therapeutic Services	57.6	65.7	0.490
Days from Charges to Referral	136.06	160.81	0.635
Days in Orientation	47.21	44.49	0.821
Days in Phase I	184.32	182.74	0.958
Days in Phase II	161.63	374.36	0.016*
Days in Phase III	194.35	294.14	0.316
Days in Phase IV	175.69	144.67	0.446
Total Days in Program	571.87	432.23	0.057

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

Effect on Criminal Recidivism

Overall, the effect of the court on criminal recidivism is mixed. When examining a number of different events in the 36 months post-discharge from the court, Table 17 reports the proportion of each group that experiences each event. When identifying the timeframe as “post-discharge”, this marks the end of the fallout from the offense or offenses that brought the defendant to the attention of the court. For mental health court graduates, this begins the day of program completion

when all requirements have been met and all charges are dismissed. For program participants that terminated unsuccessful, this begins the day they are released from the jail sentence that was imposed in the wake of program termination. For those that did not complete the program but were not sentenced to jail time, the period post-discharge begins the day they were officially rejected from the program. Finally, for those in the control group of rejected referrals, post-discharge begins the day they completed the jail sentence associated with this offense or series of offenses. If, for some reason, there is no jail time imposed as a penalty for breaking the law, the period post-discharge begins the day they were rejected by the program.

Table 17. Proportion of New Events within 36 Months Post-Discharge for Program Participants and Rejected Referrals

Event	Program Participants	Rejected Referrals	p-value
New Non-Traffic Violation	40.0	40.8	0.919
New Incarceration	35.7	59.2	0.002***
New Hospitalization	7.8	6.3	0.742
New Therapeutic Service	63.1	67.7	0.581

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

Research Hypothesis 1 states, “The proportion of program participants committing a new non-traffic offense in the 36 months post-involvement will be significantly smaller than the proportion of rejected referrals committing the same type of new offense.” Based upon the information in Table 17, the proportion of program participants that end up offending during the three years post-discharge is nearly equal to the proportion of non-participants, at 40.0% and 40.8% respectively ($X^2=0.010$, $p=0.919$). Given that the proportion of new violators within each group is not statically distinct, we fail to reject the null hypothesis.

Research Hypothesis 2 asserts that, “The average number of charges per month will be significantly lower for program participants than rejected referrals at every month in the 36 months post-involvement.” In an initial attempt to disaggregate out any differences as a function of time, charges for the participant group only were averaged for each of the three years preceding program

affiliation and each of the three years post-involvement (see Table 18). While each annual post-program average is smaller than its corresponding pre-program time period, a series of dependent-samples *t*-tests found that there was only a significant decrease when comparing the average of the twelve months immediately preceding participation with the average number of charges in the first year post-discharge ($t=-3.806, p=0.000$). This short-term within-group reduction in offending appears consistent with previous research (Hiday et al. 2013; Trupin and Richards 2003).

Table 18. Within-Group Differences on Annual Averages for Participants Pre- and Post-Program

Event	Pre-Program	Post-Program	<i>p</i> -value
Charges: 1-12 Months	0.2323	0.0804	0.000***
Charges: 13-24 Months	0.1545	0.0853	0.255
Charges: 25-36 Months	0.1141	0.0401	0.070
Jail Days: 1-12 Months	1.4314	0.7003	0.245
Jail Days: 13-24 Months	1.1150	0.6726	0.512
Jail Days: 25-36 Months	1.5800	0.5741	0.213
Therapeutic Services: 1-12 Months	1.2422	1.1281	0.741
Therapeutic Services: 13-24 Months	1.2674	1.4960	0.807
Therapeutic Services: 25-36 Months	0.9539	1.6613	0.378

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

To examine how the treatment group and comparison group differed post-intervention, the annual number of offenses for each group was averaged for the first, second, and third year post-discharge (see Table 19). Based upon a series of one-tailed tests, mental health court participants committed a significantly lower number of average arrests than the comparison group within the first year ($t=-2.155, p=0.016$). There appears to be no significant difference in the second year post-discharge, but average offenses for participants in the third year was significantly lower once again ($t=-1.676, p=0.049$). These between-group findings appear to be consistent with other mental health court evaluations that find a treatment effect on offending (Hiday et al. 2013; Moore and Hiday 2006).

In a further attempt to tease out any group differences over time, Figure 6 shows the average number of charges per month in the 36 months post-discharge for both participants and

rejected referrals. A series of one-tailed independent-samples *t*-tests at each time point shows that the treatment group had a significantly lower number of charges during six different months in that three-year span. Mental health court participants had significantly lower charges in month 2 ($t=-1.912, p=0.025$), month 3 ($t=-1.712, p=0.048$), month 12 ($t=-1.751, p=0.048$), month 29 ($t=-2.049, p=0.022$), month 34 ($t=-2.06, p=0.022$), and month 36 ($t=-1.704, p=0.048$). These findings hint at a proximal, positive effect on offending in the three months immediately after court involvement and a potential distal effect almost three years later, although it should be noted that both the participant and non-participant trajectories do crisscross multiple times in between. Based upon this mixed evidence, we also fail to accept the research hypothesis, although this is only because Research Hypothesis 2 claimed a lower average number of charges at every month post-discharge. There are instances of specific time frames or individual months where recidivism is significantly lower for the treatment group when compared with the group of rejected referrals.

Table 19. Between-Group Differences on Annual Averages Post-Discharge

Event	Program Participants	Rejected Referrals	<i>p</i> -value
Charges: 1-12 Months	0.0804	0.1452	0.016*
Charges: 13-24 Months	0.0853	0.0978	0.376
Charges: 25-36 Months	0.0401	0.0913	0.049*
Jail Days: 1-12 Months	0.7003	2.1335	0.002**
Jail Days: 13-24 Months	0.6726	2.6042	0.004**
Jail Days: 25-36 Months	0.5741	1.4632	0.075
Therapeutic Services: 1-12 Months	1.1281	2.4298	0.068
Therapeutic Services: 13-24 Months	1.4960	1.9539	0.334
Therapeutic Services: 25-36 Months	1.6613	1.4887	0.434

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

Research Hypothesis 3 states, “Program participation will have a significant negative effect on the estimated hazard ratio of reoffending.” The Cox regression on reoffending revealed no significant treatment effect (see Table 20). In the first model, which omitted program participation as a predictor variable, the only variables that had a significant estimated hazard ratio of reoffending was a history of drug violations ($z=2.36, p=0.018$) and a history of incarceration ($z=2.27, p=0.023$). With an estimated hazard ratio of 2.05, someone with a prior drug offense is

105% more likely to reoffend. Interestingly, a history of drug violations was statistically significant even after including a diagnosis of substance dependence/abuse. With an estimated hazard ratio of 1.90, a prior jail stay predicts that a subject 90% more likely to reoffend. Once program participation was factored into the Cox regression in the second model, both variables remained statistically significant (e.g., a history of drug offenses $z=2.28$, $p=0.022$; a history of incarceration $z=2.25$, $p=0.025$). Program participation, on the other hand, had no significant effect on its own ($z=0.53$, $p=0.599$) and the entire model actually dips outside of statistical significance ($\chi^2=20.92$, $p=0.051$). Even more troubling than the lack of an effect is the direction of the estimated hazard ratio of reoffending. With a hazard ratio of 1.15, mental health court participants appear to be 15% more likely to reoffend over the three-year period post-involvement. Again, we fail to accept the research hypothesis.

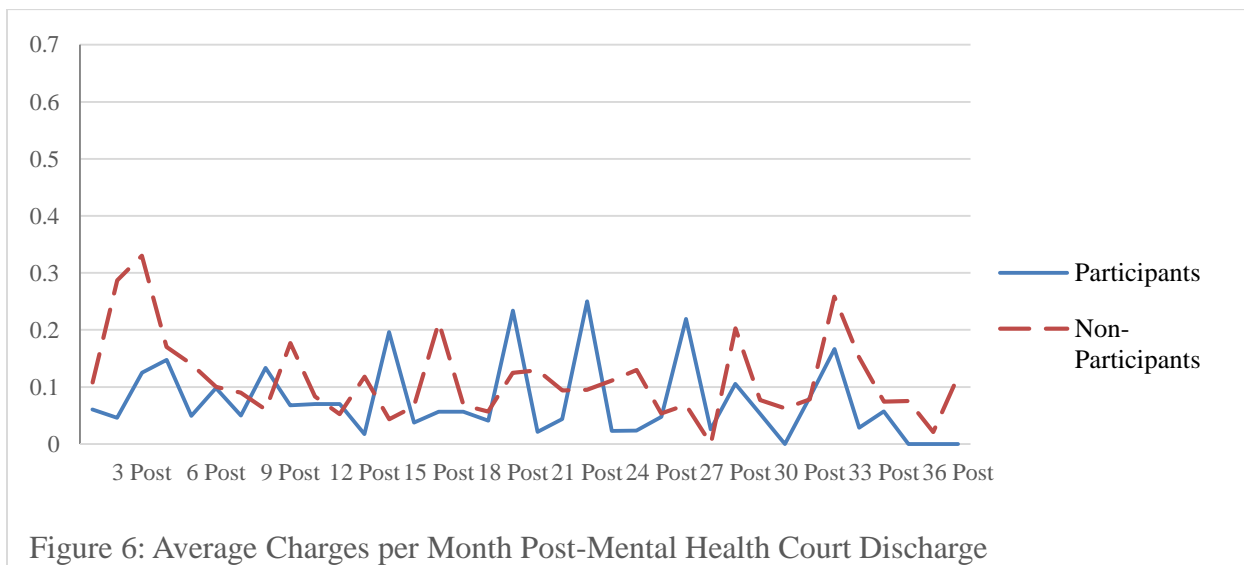


Figure 7 illustrates the differences in survival probability of offending when comparing rejected referrals with program participants. There appears to be a very large difference between the survival probabilities of both groups early on, although that difference decreases over time as the two trajectories being to converge and eventually even crisscross multiple times. While we

failed to find clear support for all three research hypotheses, the evidence attempting to estimate a treatment effect on reoffending hints at a significant short-term reduction in criminal behavior immediately post-court involvement, although this effect appears to be complicated and requires some interpretation.

Table 20. Cox Regression on Hazard Rate of Reoffending within 36 Months Post-Discharge for Program Participants and Rejected Referrals

Variable	Model 1 (N=156)		Model 2 (N=156)	
	Hazard Ratio (N=66 failures)	95% CI	Hazard Ratio (N=66 failures)	95% CI
Male (reference: female)	0.83	.50-1.39	0.83	.49-1.39
Age	0.99	.96-1.02	0.99	.97-1.02
White (reference: not white)	0.63	.26-1.55	0.64	.26-1.56
Highest grade completed	0.89	.75-1.07	0.89	.75-1.07
Unemployed not seeking/Disabled (reference: employed/seeking)	1.39	.79-2.46	1.43	.80-2.56
Private residence w/o support (reference: other)	1.15	.62-2.13	1.12	.60-2.11
History of violence (reference: no history)	1.35	.80-2.29	1.34	.79-2.27
History of drug offenses (reference: no history)	2.05	1.13-3.72*	2.01	1.10-3.66*
History of incarceration (reference: no history)	1.90	1.09-3.31*	1.89	1.08-3.29*
Anti-social personality disorder (reference: no diagnosis)	1.39	.59-3.28	1.42	.60-3.39
Substance dependence/abuse (reference: no diagnosis)	1.29	.77-2.19	1.32	.77-2.25
MHC Participation (reference: non-participants)	-	-	1.15	.68-1.95

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

Model 1: $\chi^2(11, N=156) = 20.64, p=0.037$; Model 2: $\chi^2(12, N=156) = 20.92, p=0.051$

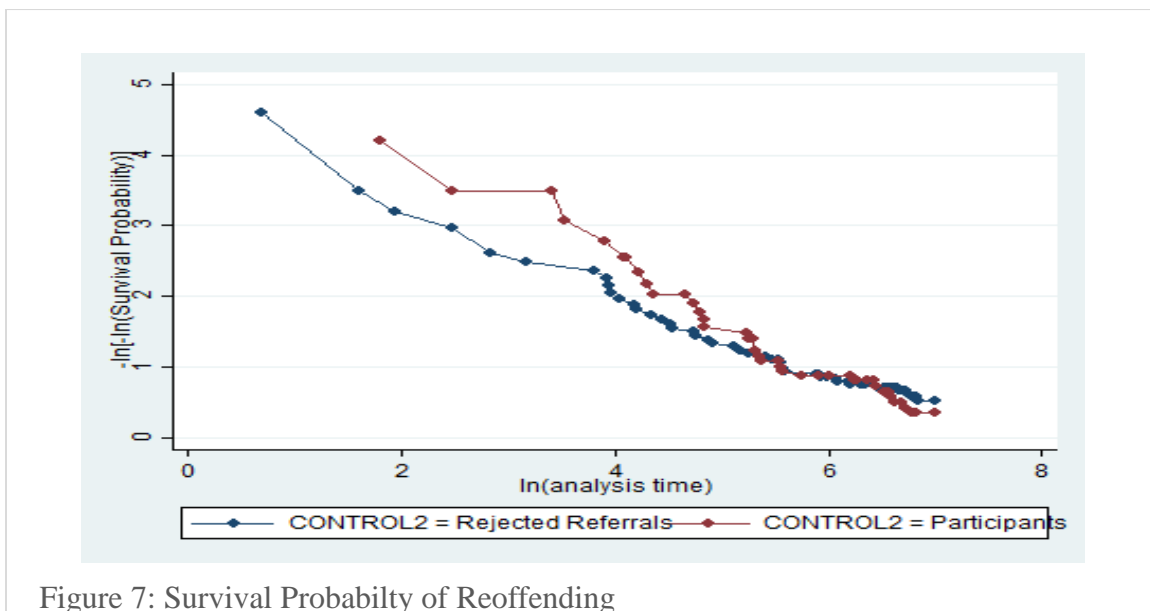


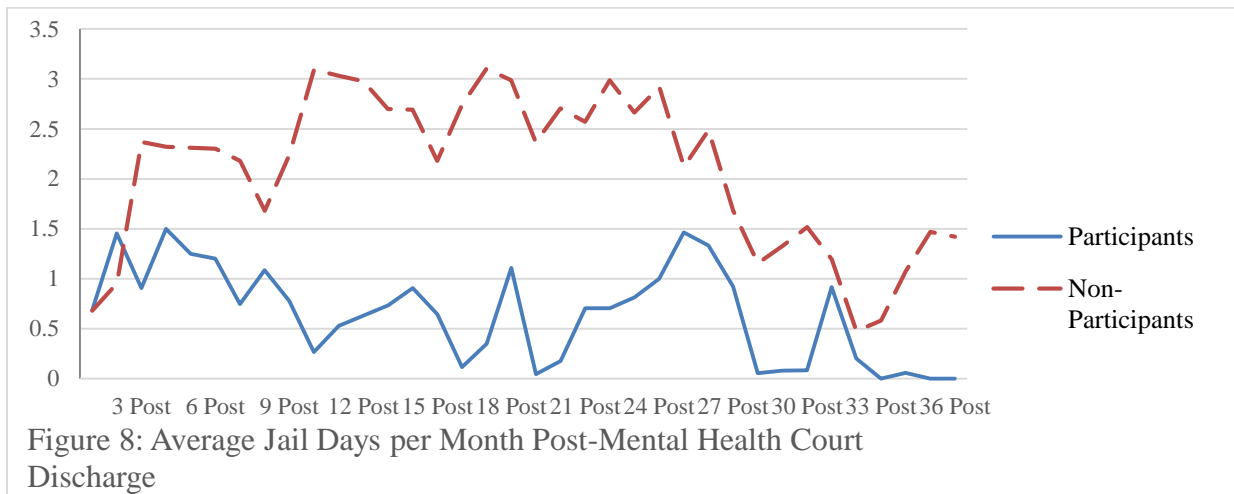
Figure 7: Survival Probability of Reoffending

Effect on Incarceration

Separate from the varied evidence surrounding the court's impact on reoffending, there appears to be strong evidence that the court does have the intended reduction effect on reincarceration. Research Hypothesis 4 claims, "The proportion of program participants that are reincarcerated for a new crime will be significantly smaller than the proportion of rejected referrals." The percent of program participants (37.5%) that end up serving a new jail sentence in the 36 months post-discharge is significantly lower than the percent of non-participants (59.2%; see Table 17; $\chi^2=9.214$, $p=0.002$). Furthermore, when compared with the group of rejected referrals, the number of average jail days for mental health court participants was significantly lower in the first year (see Table 19; $t=-2.918$, $p=0.002$) and second year post-discharge ($t=-2.676$, $p=0.004$). Based upon these findings, we reject the null hypothesis and accept the research hypothesis.

Research Hypothesis 5 asserts that, "The average number of jail days per month will be significantly lower for program participants than rejected referrals at every month in the 36 months post-involvement." Figure 8 chronicles the average number of jail days per month in the 36 months post-mental health court discharge. In the second month post-court involvement, the participant group has a higher number of average monthly jail days, but that group average immediately drops below the control group average in month 3 and remains there for the next three years. In fact, according to a series of one-tailed independent-samples t -tests at each time point, the disparity in jail days becomes statistically significant in month 10 ($t=-3.070$, $p=0.000$) and stays significant for the next year until month 22 ($t=-1.961$, $p=0.052$). After that, the difference in

monthly jail days remains, although the discrepancy is only significant once more in month 35 ($t=1.701, p=0.048$). These findings are consistent with other mental health court evaluations that found that participants served significantly fewer average jail days when compared with a control group (Cosden et al. 2005; Frailing 2010). While we cannot accept the research hypothesis because it specified a lower average number of jail days at every month post-discharge, there is a large body of evidence that specific time frames or individual months see significantly lower averages in the program participation group over the comparison group.



Research Hypothesis 6 stipulates that, “Program participation will have a significant negative effect on the estimated hazard ratio of reincarceration.” Table 21 presents the results of a Cox regression on the hazard rate of reincarceration within the first 36 months post-discharge. When mental health court participation is not included in the regression, the only variable that even approaches statistical significance is age ($z=-1.92, p=0.055$). Once the model is expanded to include program participation, age becomes significant ($z=-2.06, p=0.039$) and there is evidence for a treatment effect (estimated hazard ratio=0.58, $z=-2.10, p=0.036$). In the expanded Model 2, a subject in the treatment group is 42% less likely than a member of the comparison group to be incarcerated within 36 months. Figure 9 shows the visual plot of the differences in survival

probability of reincarceration across the treatment and comparison groups and at every point the treatment group has a higher probability of survival. Based upon the Cox regression, we accept the research hypothesis.

Table 21. Cox Regression on Hazard Rate of Reincarceration within 36 Months Post-Discharge for Program Participants and Rejected Referrals

Variable	Model 1 (N=154)		Model 2 (N=154)	
	Hazard Ratio (N=83 failures)	95% CI	Hazard Ratio (N=83 failures)	95% CI
Male (reference: female)	1.11	.69-1.77	1.14	.71-1.82
Age	0.97	.95-1.00*	0.97	.95-1.00*
White (reference: not white)	1.20	.50-2.90	1.27	.53-3.08
Highest grade completed	0.98	.84-1.14	1.00	.85-1.16
Unemployed not seeking/Disabled (reference: employed or seeking)	1.64	.97-2.80	1.50	.88-2.55
Private residence w/o support (reference: other)	0.93	.54-1.59	0.98	.58-1.65
History of violence (reference: no history)	1.02	.63-1.65	1.03	.63-1.67
History of drug offenses (reference: no history)	1.09	.65-1.83	1.12	.67-1.89
History of incarceration (reference: no history)	1.38	.86-2.22	1.46	.90-2.36
Anti-social personality disorder (reference: no diagnosis)	1.67	.81-3.46	1.57	.77-3.20
Substance dependence/abuse (reference: no diagnosis)	1.41	.88-2.26	1.30	.80-2.12
MHC Participation (reference: non-participants)	-	-	0.58	.35-.96*

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

Model 1: $\chi^2(11, N=154) = 19.64, p=0.050$; Model 2: $\chi^2(12, N=154) = 24.30, p=0.018$

When examining the impact that program participation has on reincarceration, we accepted two research hypotheses and technically failed to accept a third. A more in-depth analysis of the comparisons tied to that failed research hypothesis actually shows a significant treatment effect at specific times. In other words, if that failed hypothesis were restated in a different way, there would be enough evidence to reject the null and accept the alternative hypothesis. By every quantitative measure used in this study, program participation has a significant negative effect at some point on reincarceration.

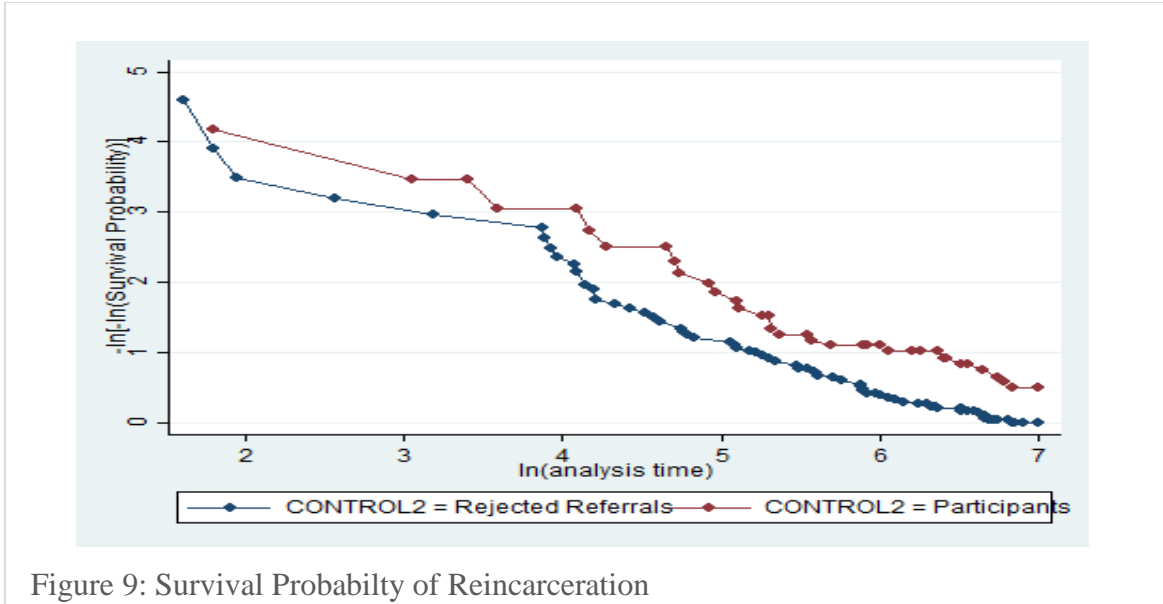


Figure 9: Survival Probabilty of Reincarceration

Effect on Hospitalization

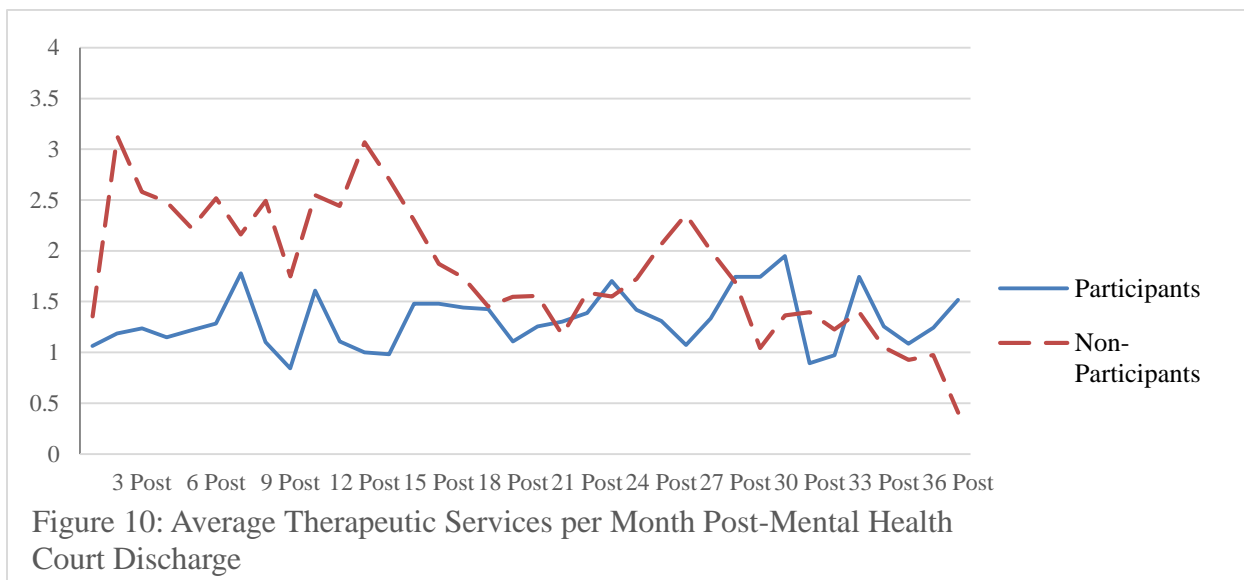
Similar to the mixed findings for reoffending, the impact of the specialty court on future use of mental health services is also unclear. The lone hypothesis tied to hospitalization (Research Hypothesis 7) states that “The proportion of program participants that are hospitalized in the 36 months post-involvement will be significantly smaller than the proportion of rejected referrals that will be hospitalized during the same time period.” Based upon studies that found a reduction effect in hospitalization post-enrollment (Henrickx et al. 2005; Keator et al. 2013; O’Keefe 2006), this study assumed that participation would cause a similar reduction post-involvement. In reality, 7.8% of participants and 6.3% of non-participants experienced an acute in-patient crisis episode or a long-term hospitalization in the three years after interacting with the court, and that difference was not significant (see Table 17). Based upon this information, we fail to accept the research hypothesis and conclude that participation in the mental health court has no effect on future hospitalization.

Effect on Use of Therapeutic Services

The court's effect on the long-term use of therapeutic services is similar. Despite other evaluations finding evidence to the contrary (Van Vleet et al. 2008), by every measure in this study there appears to be no significant difference between program participants and rejected referrals on maintaining contact with the community mental health provider during the three-year period post-discharge. According to Research Hypothesis 8, "The proportion of program participants that utilize therapeutic services in the 36 months post-involvement will be significantly larger than the proportion of rejected referrals that utilize therapeutic services during the same time period." In that three-year time period, over 63% of mental health court enrollees and nearly 68% of the comparison group used at least one mental health service at some point (see Table 17). In addition, there was no significant difference between the treatment and comparison groups in the number of average therapeutic services utilized in the first, second, and third year post-discharge (see Table 19). In fact, in the first year post-involvement, program participants averaged less than half as many treatment services (1.13) as the rejected referrals (2.43), although that difference is non-significant ($t=-1.506, p=0.068$). In all, there is no empirical support for the research hypothesis.

A further analysis of program participant within-group change pre- and post-program involvement using the annual average use of services found a non-significant effect at every time point (see Table 18). In a reversal of expectation, program participants actually average fewer services in the twelve months post-discharge than in the year preceding enrollment mental health court. Program participants ended up averaging more usage in the second and third year post-discharge than in the equivalent pre-test periods, but these patterns are still not significant.

Figure 10 goes into more depth by presenting the average therapeutic services per month utilized by both groups over that period of time in order to address the claim in Research Hypothesis 9 that “The average number of therapeutic services per month will be significantly higher for program participants than rejected referrals at every month in the 36 months post-involvement.” Despite the control group using more services in every month during the first year and a half, a series of independent-samples *t*-tests indicated that there were no significant differences at any given time point. After month 18, the group trajectories start to fluctuate in terms of who used more average services and there continued to be no significant group-based differences. Once again, we fail to accept the research hypothesis.



The final research hypothesis (Research Hypothesis 10) asserts that, “Program participation will have a significant positive effect on the estimated hazard ratio of use of therapeutic services.” A third Cox regression was conducted on the hazard rate of using therapeutic services in the three years post-specialty court involvement. According to the findings reported in Table 22, when specialty court participation is omitted, the only variables that have a

significant estimated hazard ratio of future treatment is a history of hospitalization (hazard ratio=2.00, $z=2.00$, $p=0.045$) and a history of therapeutic service use (hazard ratio=2.36, $z=3.21$, $p=0.001$). This stands to reason as a history of crisis episodes and pre-existing treatment relationship with the community mental health service provider would absolutely encourage continued use of services. Once specialty court participation is included, a history of therapeutic service use remains significant ($z=3.17$, $p=0.002$), while a history of hospitalization drops out of significance ($z=1.92$, $p=0.055$). Participation in the mental health court itself has no significant effect ($z=0.74$, $p=0.460$). Despite being non-significant, the estimated hazard ratio of participation is positive though, meaning that it is going in the expected direction. For a visual representation of how mixed these results may be, see Figure 11 for the survival probability of utilizing treatment services by treatment versus comparison group affiliation. In the end, we fail to accept the research hypothesis.

Table 22. Cox Regression on Hazard Rate of Using Therapeutic Services within 36 Months Post-Discharge for Program Participants and Rejected Referrals

Variable	Model 1 (N=123)		Model 2 (N=123)	
	Hazard Ratio (N=82 failures)	95% CI	Hazard Ratio (N=82 failures)	95% CI
Male (reference: female)	0.75	.47-1.18	0.74	.47-1.18
Age	0.99	.97-1.02	0.99	.97-1.02
White (reference: not white)	0.90	.41-1.99	0.89	.41-1.97
Highest grade completed	1.10	.95-1.27	1.09	.94-1.26
Unemployed not seeking/Disabled (reference: employed or seeking)	1.29	.75-2.20	1.35	.78-2.35
Private residence w/o support (reference: other)	0.72	.44-1.21	0.71	.43-1.18
History of violence (reference: no history)	1.04	.65-1.66	1.04	.65-1.67
History of drug offenses (reference: no history)	0.94	.58-1.51	0.93	.58-1.50
History of incarceration (reference: no history)	0.77	.47-1.25	0.78	.48-1.26
History of hospitalization (reference: no history)	2.00	1.01-3.96*	1.96	.99-3.88
History of therapeutic services (reference: no history)	2.36	1.40-4.00***	2.34	1.38-3.95**
MHC Participation (reference: non-participants)	-	-	1.20	.74-1.92

$p < .05 = *$, $p < .01 = **$, $p < .001 = ***$

Model 1: $\chi^2(11, N=123) = 22.74$, $p=0.019$; Model 2: $\chi^2(12, N=123) = 23.29$, $p=0.025$

Based upon all of the available evidence, program participation does not have any of the theorized long-term effects on use of mental health services. This study failed to accept all four research hypotheses tied to crisis episodes and treatment maintenance. Findings indicate that rejected referrals actually use treatment services more during the first eighteen months post-discharge, although that difference is also non-significant. Clearly, these results require further examination and a reformulated research strategy.

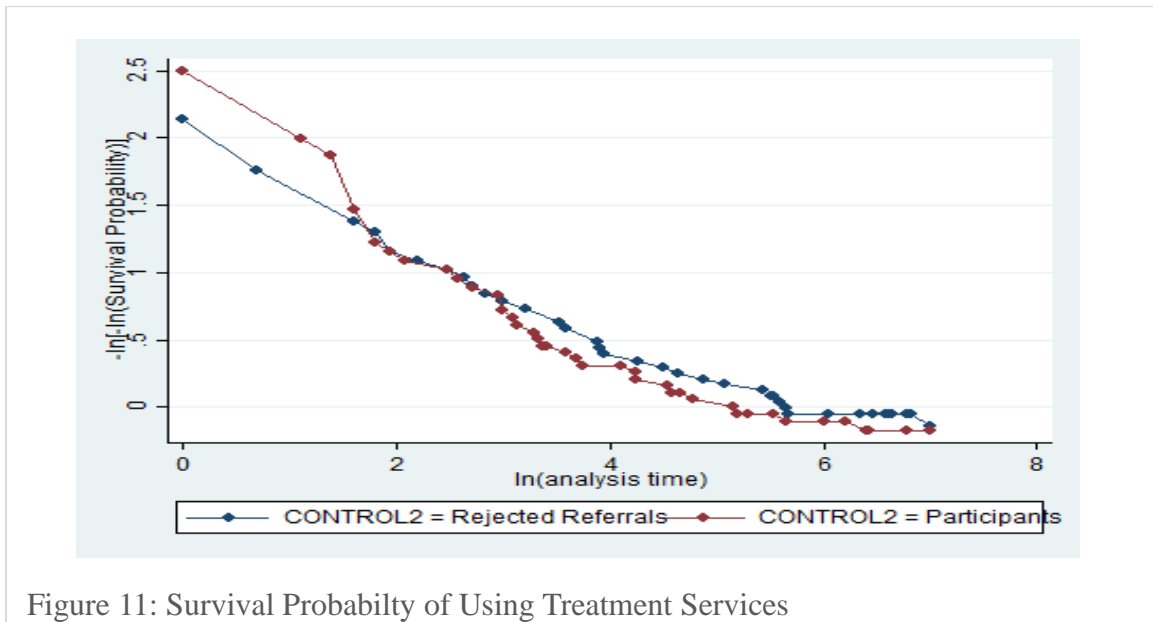


Figure 11: Survival Probability of Using Treatment Services

CHAPTER FIVE:

DISCUSSION

Treatment Effects on Criminal Measures

According to a recent meta-analysis assessing the overall impact of mental health courts, such specialty courts have a small to moderate effect on reducing recidivism and a non-significant effect on clinical outcomes for program participants with serious mental illness (Cross 2011). Based upon the results of the current study, this trend appears to be accurate. We could only accept two of the ten research hypotheses, although two more found partial evidence. Of the six that were outright rejected, all of the hypotheses about mental health treatment outcomes found no evidence of a treatment effect. Overall, there appears to be a reliable and significant long-term treatment effect on incarceration, but the impact on reoffending is short-lived and inconsistent, and the impact on treatment outcomes is non-existent.

In examining the inconsistent effect that the court has on reoffending, the only evidence that lends positive support for the intervention is the fact that program participants significantly average fewer annual offenses in the first year post-discharge when compared to both themselves pre-treatment (see Table 18) and the rejected referral comparison group post-discharge (see Table 19). This effect appears to be most significant during the first few months when program participants averaged fewer monthly offenses than the control group (see Figure 6). More

precisely, mental health court participants had significantly fewer average monthly offenses specifically in the second and third month of that first year. During the second year post-program involvement, there is no statistically significant reduction in either the annual or monthly average charges. But, in the third year post-discharge, program participants once again see a significantly lower number of average annual charges, with significantly fewer monthly offenses on-and-off in the last seven months of data collection. While any claims to a consistent treatment effect might be misplaced, there appears to be something of a “bookending effect” when compared with rejected referrals where program participants see a period of greater pro-social functioning immediately after court involvement and then again over two years later.

When evaluating the impact that the court has on incarceration, there is consistent evidence of a treatment effect in every assessment that was conducted. A significantly smaller percentage of program participants were reincarcerated in the 36 months post-involvement (see Table 17). The same group of participants saw significantly fewer annual average jail days in the first and second year post-discharge (see Table 19), with a significant difference specifically from months ten through twenty-two (see Figure 8). And program participation was significantly associated with a 42% reduction in the likelihood of reincarceration (see Table 21), with a survival probability of reincarceration that was reliably higher for participants in the three years post-discharge (see Figure 9). All things considered, while the ability to avoid new charges did not have a reliable relationship with program participation in the time post-discharge, the ability to stay out of jail appears to be significantly associated with enrolling in the mental health program.

This trend is important for a number of reasons. The first is that there was no initial difference between the treatment and comparison groups on prior incarceration (see Table 13). In fact, the proportion of program participants who had been incarcerated prior to referral to the

mental health court was actually higher (although nonsignificant). While the incarceration trajectories of both groups ebbed and flowed in the three years prior to coming to the attention of the court (see Figure 2), there was no statistically significant trend that implicated one group over the other as more criminally prone. Even if the disparity in average jail days in the 36 months post-discharge is more indicative of an increase in incarceration for the rejected referrals than a decrease in incarceration for program participants, that still hints at a significant shielding effect. Based upon all pre- and post-test evidence, having been accepted into the program, regardless of whether one graduates or not, significantly decreases the likelihood of future incarceration.

The second reason that the results related to incarceration are meaningful is that they may imply something about the type of offense that most program participants might be committing post-program involvement. While there was not a statistically significant trend in terms of rejected referrals being more likely to engage in a post-discharge non-traffic violation (see Table 17), the fact that the comparison group ends up spending more time incarcerated may imply something about the seriousness of their offense-types that cannot be captured by offense averages alone. While there is no empirical evidence in the current study to support such a claim, it does make some intuitive sense as prior mental health court evaluations have shown that new offenses are significantly less severe post-mental health court participation both in pre-test/post-test designs (Moore and Hiday 2006) and in control group comparisons (Moore and Hiday 2006; Trupin and Richards 2003). While it was beyond the scope of the current study, future examinations using this dataset should explore the possibility that while the average number of monthly charges may be comparable between groups, these charges may not be qualitatively the same. The difference in jail time may be an indicator of this imbalance in severity of illegal activity, but without substantive evidence it is purely speculation at this point.

The third and final reason that this treatment effect is important is economic. Incarceration is expensive. In 2012, incarceration in the local Cache County Jail cost \$68.33 per inmate per day (Macavinta 2013d). For inmates with serious mental illness, that cost typically goes up (Ferguson et al. 2008). If this program is particularly adept at reducing reincarceration, it will save the county and the state a substantial amount of money. As noted in Table 19, the average rejected referral spent 2.6042 days in jail per month during the second year post-involvement, while the average program participant spent a significantly fewer 0.6726 days behind bars during the same period. At the baseline cost of \$68.33 per day, the average rejected referral is costing taxpayers \$177.95 per month while the average program participant only costs \$45.96. This leads to a savings of \$131.99 per month per offender. Multiplied out over a full year, that is an annual savings of \$1,583.88 per person. Given that the program accepts nearly 45 percent of applicants, finding support for this treatment effect hints at a significant reduction in incarceration costs.

When considering the treatment effects of program participation on criminal measures, there are still some confounders to consider. Despite the lack of significant difference in criminal histories during pre-testing, there are still demographic differences between those that are accepted into the program and those that are not that may be important. As program participants are both less likely to be outside of the workforce and are more likely to live in a private residence without institutional support (as opposed to a private residence with support, a 24-hour care facility, a state hospital, or the local jail), one could argue that they are more capable of pro-social functioning and autonomy.

Outside of these demographic disparities, there appear to be significant clinical differences that may also be important. Rejected referrals have significantly higher rates of substance-related diagnoses and anti-social personality disorder. Both of these diagnoses are generally viewed as

criminogenic risk factors that predict an ongoing pattern of anti-social behavior (see Viridi and Trestman 2015; White 2015). The fact that rejected referrals are incarcerated at higher rates and serve more jail time than the treatment group may be influenced by the higher proportion of these more potentially criminogenic diagnoses. Moran and Hodgins (2004) found that 75 percent of persons with both schizophrenia and antisocial personality disorder have a criminal history, and both together increase the likelihood of a substance-related disorder. In a sample of mental health court participants, Burns et al. (2013) found that substance-related diagnoses significantly predicted the percent of program participants that reoffended and the mean number of post-exit jail days. Other mental health court evaluations that considered the role of substance abuse found that it also significantly affects the number of jail days during the first eighteen months in the program (Steadman et al. 2011); whether participants terminate unsuccessfully (Burns et al. 2013; Rossman et al. 2012); and whether program graduates are rearrested in the first year post-completion (Dirk-Linhorst and Linhorst 2012). Unfortunately, the impact of antisocial personality disorder on program involvement has not been expressly examined in prior evaluations. In the current study, while both potentially run a heightened risk of confounding the relationship between participation and reincarceration, neither was statistically significant in the Cox regression on hazard rate of reincarceration (see Table 22).

Another important consideration about substance dependence/abuse is that separate from the mental health court, Utah's First District also runs a drug-themed specialty court. It is possible that some of the referrals to the mental health court are rejected because local community treatment specialists believe that the source of ongoing offending is not due primarily to mental illness, but may be due to ongoing substance dependence/abuse. There is the potential that at least a few rejected referrals have gone on to participate in the First District Drug Court after being denied by

the mental health court. Unfortunately, this information was not as readily available during data collection and so could not be explored empirically.

Treatment Effects on Mental Health Measures

Besides limiting criminal recidivism, one of the other primary goals of a mental health court is increasing the number of therapeutic linkages. On one hand, a reduction in hospitalization theoretically points to a greater ability to self-manage a pervasive mental illness, so much so that crisis episodes end up diminishing as a function of program participation. On the other hand, a post-treatment increase in the use of therapeutic services would seem to indicate how one is able to manage a serious mental illness so well. Ideally, participants would maintain an ongoing relationship with the community treatment provider. If that is not possible, an alternative goal would be a periodic embracing of treatment whenever necessary in order to potentially avoid a sudden and unexpected crisis episode. At this point, the results of this study would appear to support this alternative model of periodic treatment when necessary, as there is no evidence to support either the reduction in hospitalization or the ongoing use of maintenance therapeutic services.

The results of the examination of future hospitalization were inconsistent with initial expectations. The research hypothesis that program affiliation would actually lead to a lower percentage of participants who are hospitalized in the three years after involvement ended up being wrong (see Table 17). In fact, a greater (but non-significant) proportion of program participants than rejected referrals experience a crisis episode requiring hospitalization in the three years post-discharge. While the lack of statistical significance supports the idea that any difference that we

think we see is actually due to random chance, the results are consistent with anomalous non-significant findings in other mental health court evaluations (see Cross 2011). One limitation to consider with the current study is the particularly small sample size of hospitalizations post-discharge (N=10), which restricts the ability to provide statistical validity.

Evaluating the treatment effect of program affiliation on use of treatment services is problematic in a different way. According to the Cox regression on hazard rates of utilizing treatment services, the primary predictor of a continued use of such services is a pre-existing history of treatment (see Table 22). Based upon the complete regression model, an individual is 134% more likely to engage in a therapeutic service at Bear River Mental Health Services during the three-year period post-discharge if s/he went to BRMHS at least once prior to referral to the court. No other variable, including participation in mental health court, appears to have an impact on use of treatment services.

In fact, as mentioned earlier in the results chapter, the comparison group of rejected referrals interacted significantly more with the community treatment provider in the months leading up to mental health court charges (see Figure 3). Despite a non-significant difference in the proportions of the participant and comparison group who used therapeutic services in the past (see Table 13), it appears that the rejected referrals that did use the service provider did so with a higher level of frequency. The post-involvement trajectories also point to the comparison group maintaining a higher (albeit non-significant) number of average services, especially in the first 18 months (see Figure 10). Within this, there may be an argument that participants and rejected referrals alike may engage in a periodic utilization of treatment whenever necessary in order to potentially avoid a sudden and unexpected crisis episode

Given that participants will have been subject to an ongoing series of court-mandated therapeutic services during the entire duration of their program affiliation, and given that non-participants have either just been released from jail or rejected from the program, it stands to reason that both groups are at different points in relation to a crisis episode. While 38.95 percent of participants is coming off of the negative experience of a termination that potentially placed them in jail, there is still 34.74 percent of participants that are experiencing the positive effects of graduating successfully (see Table 15). In contrast, every single person in the non-participant comparison group is coming off of a negative experience, whether it is rejection from the program or incarceration for the pending crime. The differences that we see in treatment trajectories may be due to the differences in environmental stress across both groups.

Finally, program participation has no significant bearing on the long-term use of services. In general, the most important thing appears to be a pre-existing relationship with the community treatment provider. It is possible though that environmental stress may drive one back toward utilizing therapeutic services in order to preempt the more traumatic experience of hospitalization. In this vein, the most positive effect of mental health court participation may be in how it attempts to teach internal coping strategies that do not necessitate the use of community services. According to the official literature of Bear River Mental Health, the final phase of mental health court participation, Phase IV, stresses functional fulfillment and community integration (Kirkman 2013). In this final stage, defendants are prompted to become more active in community-based activities like education, in a vocation, or an appropriate recreational activity. Moreover, participants are encouraged to adopt leadership roles as peer mentors in the program itself. Once graduation is complete, there may be no immediate need to employ therapeutic services in order to maintain the momentum of functional fulfillment.

Limitations

The current study was limited in four key ways. The first set of limitations is tied to having only limited access to institutional data and the second group of limitations is tied to having no access to self-reported information. The third set of limitations centers on the decision not to specifically explore the treatment mechanisms that may be causing changes in outcome variables and the final area of limitation is related to bias.

As data collection consisted entirely of agency file reviews, the agency contacts available will strongly dictate what reports could be assembled. As this study was working with the First District Court itself, data collection was limited to court documents detailing criminal histories and sentences in the state of Utah. There was no access to any national databases chronicling criminal behaviors outside of Utah borders. In addition, the information about incarceration and jail days was limited to the local jail in Cache County. While there may have been some documentation in the district court records about inmate stays in the Utah State penitentiaries in Draper or Gunnison, there was no guarantee that court records will include this material. As the First District Court primarily collaborates with the local facility, the more reliable reports about incarceration frequency and duration came from the Cache County jail itself.

As is the case when attempting to monitor physical health, compiling records from just a single hospital or health facility was incredibly problematic when attempting to create an accurate treatment history. Accurate histories of state hospitalizations for the current study were also limited by whatever documentation is available or by the firsthand knowledge of the current court personnel. As Bear River Mental Health Services is the only repository of mental health

information available, another potential limitation was the absence of total knowledge about the mental health history of each subject.

In addition, information available about the sample population was heavily dictated by discretionary decisions made by court workgroup actors outside of the researcher's influence. An example of this limitation was the aforementioned inclusion of documentation about state penitentiary stays, which is dependent upon the court reporter including it in his or her procedural notes. Another example of this limitation was how the referral population is constructed; there was no official documentation of how referrals come to the court's attention other than anecdotal accounts of past potential participants who may have been recommended by a defense attorney, the Office of the Cache County District Attorney, Bear River Mental Health, or the Jail Division of the Cache County Sheriff's Office. As there appears to be no single document chronicling program recommendations, there was no way of knowing where the majority of referrals were coming from and no way of exploring whether these referrals were indeed capturing the target population. In short, the first body of limitations of the present research was that measures of criminal charges were limited only to Utah, and further measures about jail stays and incarceration days were limited only to Cache County. Moreover, measures of mental health histories were limited to what information is available at Bear River Mental Health Services, and all information about the referral process was entirely inaccessible. While each of these represents an important limitation, such is the nature of program evaluation.

Finally, yet another limitation tied to a lack of total information involves the First District drug court. As mentioned earlier, there is a drug-themed specialty court that runs parallel to the mental health court that may be treating a portion of the rejected referrals that have been screened as ineligible for the mental health court. While none of the file reviews that provided information

about why rejected referrals were not accepted into the program included any documentation about transferring mental health referrals to the drug specialty court, this does remain a possibility. According to Figure 4, four percent of rejected referrals were denied enrollment due to an unknown reason. It is possible that that four percent was transferred over and the court clerk failed to note the change. It is also possible that many of the other individuals that were rejected for other reasons, including diagnostic ineligibility or specific charges, were encouraged to observe or enroll in the drug court instead.

This is potentially a major limitation as an individual enrolled in a drug court is subject to a similar level of court-ordered community treatment (see Council of State Governments 2005). In this regard, that rejected referral may also be receiving ongoing therapeutic aid from Bear River Mental Health Services, in which case, s/he is experiencing something very similar to mental health court participation. Unfortunately, there is simply no way to know how strong a possibility that is at this point. If another process evaluation is requested and more data is to be collected, than this information will need to be known.

The second set of research limitations is also the natural result of collecting data only through formal file reviews. Because of this data collection design, researchers in the current study had no personal contact with program referrals. As such, the information gathered could not provide any insight into the participant experience and had no measures of psychological progress. Many mental health court studies have used structured interviewing and self-administered questionnaires to gauge client perceptions of courtroom proceedings. Thanks to this research design, these studies have been able to articulate and quantify the impact that the mental health court design has had on topics like admission experience, perceptions of coercion, courtroom equity, procedural justice, judicial encouragement, and overall client satisfaction (Boothroyd et al.

2003; Boulden et al. 2011; Callahan et al. 2013; Canada and Watson 2013; Frailing 2010; Kopelovich et al. 2013; Liedtke et al. 2012; O’Keefe 2006; Poythress et al. 2002; Pratt et al. 2013; Trupin and Richards 2003; Trupin, et al. 2001). In addition, a related body of studies have used similar survey techniques to assess changes in psychological processes like psychiatric ratings, global functioning, quality of life, symptom intensity, recovery assessments, and treatment motivation (Behnken 2010; Bess Associates 2004; Boothroyd et al. 2005; Callahan et al. 2013; Cosden et al. 2003; Cosden et al. 2005; Kopelovich et al. 2013; Pratt et al. 2013; Trupin and Richards 2003). While both of these sets of measures provide essential insight into the participant experience, these rich descriptions were unavailable in the current study design.

The third group of study limitations is tied to a lack of examination of the actual treatment mechanisms that lead to pro-social change. As previously mentioned, the philosophy of therapeutic jurisprudence dictates that a mental health court consider pro-therapeutic outcomes in judicial decision-making (Wexler 2000). But, outside of facilitating ongoing status hearings in order to incentivize program compliance, the problem-solving court exists external to the individualized treatment schedule. Traditionally, the community treatment provider (e.g., Bear River Mental Health Services) dictates what services are available and who should receive those services based upon specific needs (Almquist and Dodd 2009). While the court supplies the legal motivation to maintain an ongoing relationship with that provider, it also assumes that the recommended therapeutic services will provide the best rehabilitative experience possible. The current study has no assessment of those treatment services themselves.

Bear River Mental Health Services has instituted a very specific four-phase system that is meant to transition a participant from one series of goals to the next (Kirkman 2013). Outside of looking at how many days the group of graduates and the group of terminated participants spent

in each phase, the current study included no assessment of the phases themselves. In order to know what is working for program participants, it would be important to know what specific treatment schedule goes into each phase and how much treatment participants receive. At present, treatment histories were primarily used to estimate the number of therapeutic services utilized pre- and post-mental health court involvement. In the future, it would be more informative to explore what specific services if any (i.e., group therapy, individual therapy, life-skills training) were utilized prior to establishing contact with the court, what specific treatments were used during affiliation with the court, and what service usages endured post-court involvement. In short, this evaluation may provide some estimation of a treatment effect but it provides no insight into what therapeutic mechanisms cause that effect to take place.

The final study limitation is related entirely to the unknown threat posed by potential bias. While there was no direct difference in criminal histories between the treatment and comparison groups, there were still significant differences in other variables that may have an indirect effect on behavioral outcomes (e.g., the relationship to the workforce, residential autonomy, the presence of a substance-related diagnosis, anti-social personality disorder). While the demographic and clinical dissimilarities did not affect the likelihood of future offending and incarceration as estimated by Cox regression (see Tables 20 and 21), the presence of such differences hints at a possible threat to internal validity. In short, the fact that the group of program participants and the group of rejected referrals are different on some variables implies that they are probably different on others. The inability to know for certain how different these groups may be introduces potential bias. While statistical techniques such as regression allow researchers to control for some of these differences, it is impossible to know for certain that bias is not present. As such, the inability to know is a research limitation

Future Research

Beyond conducting the current research project in order to fulfill the requirements for a doctorate, this evaluation was intended to serve as a vehicle for a larger series of goals. Two goals were institutional in nature while the other two were specifically tied to assessment. The first institutional goal was to organize disparate pieces of information about the court into a cohesive data collection format. The second institutional goal was to validate these data collection techniques locally so that they might be adopted in other mental health court systems throughout the state of Utah. The first goal has obviously been met as the analyses conducted as a part of this study could not have been performed otherwise. The second goal has yet to be realized, but may be possible at a later point depending upon the direction that this project takes in the future.

The first assessment-related objective was to conduct an impact assessment gauging the court's efficacy at diverting offenders suffering from mental illness away from criminal behaviors and toward treatment-based activities. And the second assessment-related aim, and the final research goal overall, was to empirically inform the greater community of mental health practitioners, researchers, and policy makers. Similar to the previous pair of objectives, the first goal has been met to a certain degree while the second is still lingering as a function of future research.

This impact assessment is really the first of many potential studies exploring this specific mental health court. In general, Utah's First District specialty court needed baseline measures for important information like acceptance rates, graduation rates, and clientele demographics because they were all entirely unknown. The court also needed to know how effectively it affected program

goals like reductions in reoffending and increases in use of therapeutic services. The design of the current study was intended to start this process by providing some very basic information about whether the court has any kind of effect on recidivism and use of treatment services.

This analysis found that, when compared with those referrals that were rejected, program participants engage in a significantly lower level of criminal activity in the first few months post-discharge, along with a significantly lower level of incarceration in the following year. In fact, by every measure tested in this study, the court appears to have a significant, diminishing effect on reincarceration overall. This information is absolutely necessary in order for the court to demonstrate its utility to policy makers. In addition, this analysis was done in such a specific way as an attempt to overcome the issues of bias that affect some of the previous mental health court evaluations, thus providing a valid contribution to the research community. Unfortunately, the findings of this study do not include information that will help to inform mental health practitioners about best evidence-based practices. The court and its workgroup will now be reliant upon future research in order to start teasing out what is working and what is not.

Building upon what has been learned throughout the process of managing the current project, there are two areas that need future attention. The first issue is that future examinations need more precise measures of mental health change, as just tracking “use of services” over time has proven insufficient. The second issue is that prospective studies should focus on discovering what specific aspects of the program are affective at achieving the two-pronged institutional goals of less crime and improved mental health. At this point, there is no gauge of mental health improvement other than court compliance, an absence of new charges, and transitioning successfully through the program phases. In addition, there is no information about what works in this local program and what does not. The current study approached program assessment from

a criminal justice perspective, where outcome behaviors post-involvement are used as the measure for program effectiveness. This limited approach may be part of the reason why there is mixed evidence for a treatment effect on recidivism and incarceration and absolutely no evidence for an enduring influence on use of treatment services post-discharges. Now that it has been established that the court does work at reducing recidivism in one way or another, the primary research question is why.

In order to address the first issue concerning measuring improvements in mental health, we recommend incorporating one or more of the self-assessment inventories used in preceding specialty court evaluations to measure mental health progress over time. Bess Associates (2004) and Cosden et al. (2003, 2005) used both the Addiction Severity Index and the Lehman Quality of Life scale to measure post-test differences between an experimental group and a control group. Boothroyd et al. (2005) used the Brief Psychiatric Rating Scale to compare the minimization of symptoms for two groups across two different times. Callahan et al. (2013), Kopelovich et al. (2013), and Pratt et al (2013) all used the Colorado Symptom Index and the Recovery Assessment Index as measures of change. And multiple studies have used the Global Assessment of Functioning index (Behnken 2010; Bess Associates 2004; Cosden et al. 2003; Cosden et al. 2005; Trupin and Richards 2003) to quantify within-groups and between-groups changes in social, occupational, and psychological. Clearly, there is no dearth of viable indices or scales for measuring mental health change. In reality, the primary issue is introducing such a measurement tool into any ongoing data collection project that can access program participants directly at multiple points in time.

In order to address the second issue of what aspects of the court are most effective at reducing recidivism, there is are quantitative solutions and qualitative solutions. The quantitative

approach would demand revisiting the data already cataloged and (1) first shifting the specific time period under investigation in order to assess differences between program participants and rejected referrals, and (2) recoding monthly therapeutic services to include frequency measures of specific treatments such as the number of group therapy meetings, the number of individual therapy sessions, and number of life-skills classes, and then focusing on the differences between those that graduate successfully and those that terminate unsuccessful.

Despite other mental health court evaluations finding an effect when measuring treatment outcomes post-discharge (Ferguson et al. 2008; Frailing 2010; Van Vleet et al. 2008), focusing on the three years post-involvement in the current study provided little insight into the use of therapeutic services. As a result, future research will adopt the more prevalent pre-test/post-test design that measures service usage post-enrollment (Boothroyd et al. 2003; Cosden et al. 2003; Cosden et al. 2005; Eckberg et al. 2006; Henrickx et al. 2005; Keator et al. 2013; O'Keefe 2006; Trupin et al. 2001; Trupin and Richards 2003) in an effort to assess changes in service use that arise entirely as a function of mental health court participation.

Recoding monthly therapeutic services to be more specific about what treatments are provided when will have a number of positive benefits. On one hand, it will provide a detailed examination of what therapeutic mechanisms may or may not actually work locally within this specific program to promote program adherence, successful program completion, reduce recidivism, and reduce future incarceration. In addition, it may help inform the larger treatment community about what may or may not work globally, and thus fill a significant void in mental health court research related to the lack of evaluation research that focuses on evidence-based best practices (Castellano and Anderson 2013).

While the current study found no significant demographic, criminal, or clinical differences between graduates and terminates other than time spent in the second phase of the program (see Table 15), that lack of any systematic difference may not be a negative thing. If the characteristics of the participants alone are not important, than the differences in outcomes may be due to how those characteristics interact with key elements of the program itself. Rossman et al. (2012) found that enrollees who were incarcerated at referral had a significantly greater likelihood of terminating. Redlich et al. (2010) looked at the impact of judicial supervision and the number of bench warrants during enrollment to see how variability in judicial behaviors affects participant outcomes. Redlich et al. (2012) has recently called for the mental health court evaluation community to look at the impact of time spent in diversion prior to court acceptance in order to see how that may affect program outcomes. While examining any of these processing factors is important on its own, even more intriguing is the thought of testing how each of these variables may interact with specific individual characteristics to influence who graduates and who terminates. In short, a few minor alterations to pre-existing quantitative information can facilitate a series of new research questions on the impact of judicial processing.

Other quantitative measures of program effectiveness involve incorporating scales of participant satisfaction. Given that an underlying premise of mental health courts is the legal philosophy of “therapeutic jurisprudence”, or the use of the legal system as a therapeutic aid (Wexler and Winick 1996), process analyses might want to focus on effectively that philosophy is born out (Redlich and Han 2014). Other studies have looked at perceptions of procedural justice (Canada and Watson 2013; O’Keefe 2006; Poythress et al. 2002), perceptions of coercion (O’Keefe 2006; Poythress et al. 2002), client satisfaction (Liedtke et al. 2011), and admission

experiences (Callahan et al. 2013; Kopelovich et al. 2013; Pratt et al. 2013) in an attempt to quantify the client experience.

The qualitative solution to assessing what works and what does not work involves the use of courtroom observation and semi-structure interviewing. Of the fifty-two prior evaluations identified in this study, only seven directly observed the court itself (Boothroyd et al. 2003; Frailing 2010; Kopelovich et al. 2013; Ray et al. 2011; Rossman et al. 2012; Trupin and Richards 2003), only four interviewed service providers (Boulden et al. 2008; Rossman et al. 2012; Trupin and Richards 2003; Van Vleet et al. 2008), and only two conducted interviews with actual participants in the program (Camarena 2008; Canada and Watson 2013). Given that some of the success of the court hinges on the subjective experience of the clients, interviewing would provide a layer of depth that cannot be captured otherwise. All of these potential avenues of future research could not only benefit the local stakeholders but also inform the large community of practitioners and researchers.

Conclusion

Even though this study was only able to accept two out of ten research hypotheses, there is still cause to be optimistic. When compared with a sample of rejected referrals, there is strong evidence that the court reduces reincarceration significantly in the long-term and mixed evidence of a reduction effect on offending in the short-term. While this study found no evidence of a treatment effect on the use of mental health service outcomes post-discharge, that does not necessarily mean that there is not a treatment effect on mental health itself.

Utah's First Judicial District mental health court started at the end of 2008 and has been operating ever since. Barring holidays, the court meets every Wednesday afternoon to screen new referrals and check in on current participants. All of this is done in an effort to help offenders with serious mental illness pay their debt to society while also learning to manage their mental illness. In a personal interview, on October 1, 2013, Judge Allen said that he often uses diabetes as an analogy for mental illness in court when addressing new program participants¹⁴. He argued that both are illnesses that need do not want to have but do, that need to be managed instead of ignored, and that can be exacerbated by stress and other negative environmental influences. He claimed that he and the rest of the court workgroup are doing everything that they can to make people's lives better by using the law to force them to get the treatment that they need. He believed that they were doing good works, and he trusted all of this without any tangible quantitative evidence.

When evaluating the impact that the court has on incarceration, there is consistent evidence of a treatment effect in every assessment that was conducted. A significantly smaller percentage of program participants were reincarcerated in the 36 months post-involvement (see Table 17). The same group of participants saw significantly fewer annual average jail days in the first and second year post-discharge (see Table 19), with a significant difference specifically from months ten through twenty-two (see Figure 8). And program participation was significantly associated with a 42% reduction in the likelihood of reincarceration (see Table 21), with a survival probability of reincarceration that was reliably higher for participants in the three years post-discharge (see Figure 9). Enrolling in the mental health court appears to be significantly associated with staying out of jail.

¹⁴ Judge Kevin K. Allen, personal interview, October 1, 2013, Utah State University, Logan, UT.

In contrast to the overwhelming evidence of a diminishing influence on incarceration, the treatment effect on recidivism is more mixed. Program participation causes a significant reduction in offending during the first year post-involvement (see Tables 18 and 19), specifically during the second and third month post-discharge, after which there appears to be little difference in the rate of reoffending between the treatment and comparison groups (see Figure 6). While program participation does not yield the same reliable, long-term impact on reoffending that it does on reincarceration that does not mean that the program is not successful. Reframing the significant short-term effects as an accomplishment requires a slight reinterpretation of how success is defined.

Borrowing from Judge Allen's earlier analogy, it is widely accepted that while Type I diabetes has no cure there are various techniques for managing it effectively. Proactive lifestyle routines like regular exercise and healthy eating habits can act as a form of maintenance that helps regulate blood sugar and prevent a negative physical episode. But sometimes those techniques are not enough and something else is needed to shock the sugar levels back into a stable range. In those instances, diabetics use insulin injections to bring symptoms under control and reset their blood sugar levels.

It is possible that mental health court is more comparable to an insulin shot than a diet plan for some participants. Mental illness flares up due to environmental stress or an inability to maintain the proactive routine that keeps it under control, and in individual does something that attracts police attention. As a result of court-mandated treatment, mental health court acts as a shot in the arm that helps to reset the mental health equivalent to blood sugar levels and that shot helps stabilize things in the short run. To test this possibility more thoroughly, future research will

endeavor to specifically study participants during treatment in order to get at the therapeutic mechanisms that are causing change.

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