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## COMPONENTS OF THE DICKINSON COUNTY TREATMENT COURT: WHICH ARE THE MOST EFFECTIVE?

Amber R. Miller  
*Northern Michigan University*

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COMPONENTS OF THE DICKINSON COUNTY TREATMENT COURT: WHICH  
ARE THE MOST EFFECTIVE?

By:

Amber R. Miller

THESIS

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Title of Thesis: Components of the Dickinson County Treatment Court: Which are the Most Effective?

This thesis by Amber Miller is recommended for approval by the student's Thesis Committee and Department Head in the Department of Criminal Justice and by the Assistant Provost of Graduate Education and Research.

\_\_\_\_\_  
Committee Chair: Dr. Michael Harrington Date

\_\_\_\_\_  
First Reader: Dr. Dale Kapla Date

\_\_\_\_\_  
Second Reader: Dr. Kevin Waters Date

\_\_\_\_\_  
Department Head: Dr. Dale Kapla Date

\_\_\_\_\_  
Dr. Brian D. Cherry Date  
Assistant Provost of Graduate Education and Research

## ABSTRACT

### COMPONENTS OF THE DICKINSON COUNTY TREATMENT COURT: WHICH ARE THE MOST EFFECTIVE?

By

Amber R. Miller

In 2005 the Dickinson County District Court started a drug and alcohol treatment court for select individuals charged with misdemeanor offenses where substance abuse was a leading factor in the commission of the offense. There have been 77 participants to date. This study examines the 73 closed cases by analyzing various factors that may potentially influence a person's treatment court outcome. The program itself is based upon the National Drug Court Association's 10 Key Drug Court Components, and consists of three progressive phases. The purpose of this study is to determine the differences in the variables that positively or negatively affect the outcome of the Dickinson County Treatment Court.

Utilizing  $t$  – Tests, Chi square, and Fisher Exact tests results show that the majority of the factors studied had no statistically significant difference upon a participant's program outcome. However, these tests conclude that the prior number of felonies on a person's criminal history, the number of incentives they receive throughout the course of the program, and what their drug of choice is could potentially affect their outcome.

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This thesis follows the format prescribed by the *APA 6<sup>th</sup> Edition*.

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## **INRODUCTION**

In 2005 Dickinson County, Michigan initiated a Treatment Court Program as a sentencing alternative to jail time for offenders convicted of misdemeanor offenses where drug and alcohol abuse was a contributing factor. The goal of the program is to reduce the use of incarceration and provide individuals with an intensive supervision/treatment program to reduce recidivism, and increase an individual's chance of becoming a productive, contributing member of society. Since its implementation, the Dickinson County Treatment Court has not been empirically examined as to its effectiveness. The research presented here is intended as an analysis of the Dickinson County Treatment Court. To that end, the research question posited here is: Are there significant differences in the characteristics of those who successfully complete the treatment court program with those that failed to complete the program?

Drug and treatment courts have only been utilized in the State of Michigan since 1992 (Frasier, 2009), and in Dickinson County since 2005. However, the information regarding their effectiveness is rather limited. This study will serve as an additional source of information about treatment court programs regarding what variables are most effective in determining an individual's success or failure.



## **DEFINITION**

### *Definition of Drug/Treatment Court*

A drug court is one of several types of courts that stress treatment and supervision by the court. Additional types of courts include mental health, family court, OWI court, problem solving courts, or any other forms of assistance that the drug court team deems appropriate for an individual (Office of Justice Programs, 2012). These alternative type courts generally include specifically assigned supervising judge, prosecuting attorney, defense attorney, treatment providers, and court staff such as probation officers. Some jurisdictions may also include members from local law enforcement agencies, community programs, or jails (Office of Justice Planning, 2012). All those responsible for administering the program must complete training and be committed to the alternative processing of the specific type of offender.

With respect to drug courts, any member of the team may refer an individual, who has been charged with an offense where drug/alcohol dependency is a contributing factor to the program at any time. Typical referrals occur following a triggering event such as an arrest or probation violation. After being reviewed by the drug court team an individual will be either accepted or denied. Offenders maybe excluded from participation for a number of reasons; these include being charged with violent offenses, no desire to change their behavior or lack of commitment to the program, pending charges, or anything deemed not acceptable by the drug court team. For example, federally funded programs cannot take violent offenders (Frasier, 2009). However, those courts that are self funded and not receiving any monies from federal programs have

more flexibility and freedom to choose their own standards as long as they follow the 10 Key Components (National Association of Drug Court Professionals, 2012).

Additionally, while the Dickinson County Treatment Court follows the governing rules of the national drug courts, it is technically a treatment court due to its inclusion of drug and alcohol offenses.

The first key component is centered on the practices and the variations of the practices. It states that the courts will combine treatment case processing strategies as well as traditional justice system processing. For example, the courts will provide clients with access to various forms of counseling, including AA/NA meetings, group counseling, and individual counseling as part of the treatment case processing. Treatment providers are responsible for providing the court with written progress reports and attending drug court meetings.

The second key component is that the court will utilize a non-adversarial approach when dealing with offenders in the drug court system. This is true for both prosecution and defense attorneys. They are to promote public safety while not compromising the due process rights of clients. Both a representative of the defense counsel as well as a prosecuting attorney are expected to present at drug court staffings, meetings, and court sessions. This component allows for multiple offenses deemed appropriate; not just drug/alcohol offenses. Also it allows for a reduction of jail time or an elimination of a sentence as an incentive for drug court participation.

The third key component states that drug court eligible clients will be identified early on in the judicial process, and placed into the drug court program in a timely fashion. The rationale is to reduce jail populations through the diversion of clients into

treatment type settings rather than jail. This component also states that all participants will be promptly screened for substance abuse and/or dependence, and if applicable, for mental health issues to further determine program eligibility. Lastly, it requires that all clients be provided with a written set of drug court requirements and will sign an agreement regarding the terms.

Key component four is that the drug court will provide clients with a continuum of services including treatment, rehabilitation services, employment and education assistance, and aftercare programs. Furthermore, drug courts should limit the program to approximately a year in length, and that treatment will be offered in a series of phases. However, it does not set hard limits and allows for extended time frames if appropriate to complete the program. It further states that each drug court will follow a set of guidelines regarding time frames for each phase of the program.

The fifth key component is that abstinence and sobriety will be regularly monitored by frequent alcohol and drug tests. This can be conducted on a random basis through the use of breath tests, saliva tests, and/or urinalysis tests. Additionally, it governs that participants must maintain a minimum of 90 days of negative sobriety testing before they will be allowed to successfully complete the final phase. Testing frequency is generally higher in the earlier phases, and is reduced in frequency throughout the program.

Key component six addresses incentives and sanctions. It states that jail may be used as a sanction, and that only the judge can dispense sanctions to participants. Incarceration is not the only option for sanctioning clients. Judges may order increased treatment sessions and attendance, community service work, as well as a number of other

things may be used as a sanction. The second part of this component states that decreased testing frequency, reduced attendance, phase graduation, certificates, and other tangible awards may be used as incentives or rewards for positive progress. Furthermore, it governs that all participants will be provided with written descriptions of the rules of conduct and policies.

The focus of key component seven is that the judge plays a crucial role in the drug court program. The presiding judge is to attend all drug court staffings, meetings, and drug court sessions. The judge will receive written notice of client's progress and clients will appear before the judge on a regular basis. The frequency of appearances will vary depending on each phase of the program. For example, during Phase I participants will appear before the judge on a weekly basis. This is reduced to once per month during their final phase.

Key component eight states that program effectiveness and achievement of program goals will be monitored and evaluated on a regular basis. It requires that drug court staff routinely collect data and report program statistics. Case management must be conducted in an electronic database and be evaluated by an independent evaluator. It also states that drug courts are to maintain proper paper case files in addition to the electronic database.

The ninth key component focuses more on the drug court program itself, and not the offenders involved in it. It states that officials responsible for implementing drug courts are to receive continuous training on an annual basis and remain current regarding drug court practices. It also states that new employees must attend a drug court orientation.

The tenth and final component also addresses the program. It states that drug courts are to promote community wellness, and interagency cooperation. It outlines who is to be part of the drug court team (judge, drug court coordinator, defense attorney, prosecuting attorney, member of the probation department, law enforcement member, and a representative for treatment providers). It also states what forms of assistance is to be offered to participants. This includes employment and education assistance, wrap around services, in addition to treatment services.

Those who are accepted for participation will follow a four-phase plan as outlined by the National Association of Drug Court Professionals (NADCP, 2012). The first phase, as defined by NADCP is the stabilization phase. In this phase an individual is assessed by the drug court team to establish what the individual's needs are, then establish resources to meet these needs. They will also detoxify from all substances and begin counseling (Office of Justice Programs, 2012). Drug testing and alcohol testing is high at this stage. For example, in Dickinson County, an individual is required to complete 90 consecutive days of negative preliminary breath tests (PBTs) to test for alcohol, and 90 consecutive negative days for any controlled substances. Alcohol is tested for by PBTs and urine tests. Controlled substances are tested for by instant urine tests, lab tests, or saliva tests (Office of Justice Programs, 2012).

The second phase is the intensive treatment phase. Testing will vary depending on the individual's progress. For example, if an individual has had an extended period of time without testing positive, their testing schedule may be reduced (weekends only, three times per week vs. daily, or as the supervisor deems appropriate). In Dickinson County if an individual is doing well in Phase II they may be required to report less to

their probation officer or the judge. These are all incentives for continued progress. If they do relapse they can be demoted back to Phase I, be placed on daily testing again, or their counseling may be increased. This would be in addition to any jail or community service sanctions (Office of Justice Programs, 2012).

The third phase is the transition phase. This phase basically makes sure all needs have been met, and an individual is ready to integrate back into normal life. For completion of this phase in Dickinson County and individual must maintain employment or be enrolled in school, they must have stable residency, and they will be completing any remaining counseling. It is the transition phase because it is the phase in which their restrictions will once again be reduced (similar to Phase II), and they will be learning how to become “sober” citizens (Office of Justice Programs, 2012).

The last and final phase is graduation, or completion, from the program (Office of Justice Programs, 2012). At this stage an individual has successfully completed the program by maintaining their sobriety and meeting the requirements of the program. They may or may not be released from the jurisdiction of the court depending on their individual case and their terms surrounding their charge.

People may wonder why an individual would subject themselves to such a rigorous program. Drug courts are designed to be incentive/sanctioned based. Incentives are generally graduation to the next phase or reduced testing, but are not limited. Sanctions vary depending on the offense committed. For example, a failed drug screen may mean a weekend in jail. Many times the incentive for participating in a drug court program is a reduced sentence or charge reduction. For example, if an individual is arrested for possession of marijuana the prosecutor’s office may offer them a plea

agreement stating that they will amend the charge to use of marijuana if they successfully complete drug court. Or they may offer a plea agreement of 30 days in jail and 150 days of jail time suspended they successfully complete drug court versus 180 days in jail right away. However, participation should be voluntary for the most successful outcome (Office of Justice Programs, 2012).

## HISTORY

In 1989 the first drug court was enacted as a response to the “War on Drugs” that was waged in the 1980’s. Miami justice officials under the direction of Judge Herbert Klein in the 11<sup>th</sup> Judicial Circuit Court decided that in an effort to combat the drug epidemic they would try a radical new approach. They would, “Try to help people.” Their intentions were to help with the overcrowding problem that they were facing in courts, jails, and prisons (Goldkamp, 2003). Within a short period of time, other areas of the country were establishing drug court programs of their own. Fort Lauderdale, FL; Portland, OR; Las Vegas, NV; and Kalamazoo, MI were all starting drug court programs (Goldkamp, 2003).

Drug court programs, and later on treatment court programs, were designed, in part, as a sentencing alternative to jail and prison for felony drug offenders to reduce populations and costs. The goal was to divert lower level and first time offenders out of the criminal justice system. For example, in 2006 the State of Michigan’s gross appropriations for prison was \$1,884,478,700. This is comparable to most states. What this does not take into consideration are county jail populations and their operating expenses (Michigan, 2012). Drug court administrators hope to off set some of these costs by allowing individuals to participate in the newly founded drug court programs. For example, it is common that jail time is reduced for participation. Additionally, payment for substance abuse treatment may be paid for by the individual during the course of the program, or it may be partially or fully funded by grants. Thus further reducing costs to the State.



### *Michigan History*

Kalamazoo was the first city in the State of Michigan to enact a drug court program under the supervision of Judge Schma in 1992. Judge Schma had attended a Michigan Judicial Institute training program that identified judges as an effective source for intervention on behalf of substance abusers. Judge Schma stated, “We recognized judges can be effective interveners...because of the clout they bring and their role in the justice system.” (Lombardo, 2008 p 4).

There are currently 39 adult drug court programs in the State of Michigan. This number does not include juvenile drug court programs, sobriety courts, OWI courts, family courts, or problem-solving courts (Michigan Association of Drug Court Professionals). Michigan drug court programs, as with all programs in the nation, must follow the *10 Key Components of Drug Courts* that is set by the National Association of Drug Court Professionals (NADCP, 2012).

Additionally, Michigan programs are governed by Michigan Public Act 224 of 2004. The Act states, “A drug treatment court means a court supervised treatment program for individuals who abuse or are dependant upon any controlled substance or alcohol...” (MADCP, 2012).

### *Effectiveness*

The national average graduation rate for all drug courts in 2009 was 27 to 66 percent. According to the State Court Administrator’s Office of Michigan, the Michigan rate in 2009 was 47 percent. This falls well within the national range (Frasier, 2009).

However, it is definitively hard to state that those percentages are correct. This is not to say that drug court programs are not successful. Out of the studies that have been

conducted, the findings support the concept that by breaking the addiction cycle, drug court programs are reducing recidivism rates and increasing employment (Kalich, 2006).

This study of the Dickinson County Treatment Court Program will help fill in some of the literature gaps by providing an analysis of one specific rural drug court. This of course will not represent all rural drug courts, but will provide a glimpse into them. Dickinson County has a population of 27, 239 people as of the 2000 United States Census (Dickinson County, 2012). The United States Census Bureau defines rural as any area outside of an urbanized area. An urbanized area must include a population density of at least 1,000 persons per square mile (Census Bureau, 2012).

### *Limitations*

Some drug court practices may artificially inflate their success statistics through participant selection processes. For example, the practice of “skimming” is all too common. “Skimming” is the process of selecting candidates with the highest chance of success. This practice may be intentional or unintentional. This may mean selecting candidates with the strongest support systems, most motivation, or most available resources these offenders may have successes without drug court intervention. In doing so, success rates may not be accurate (Frasier, 2009).

Another limitation that needs to be taken into consideration is socioeconomic factors, race, gender, and even drug of choice. Hartley and Phillips (2001) found lower success rates among minorities and those with less education. Furthermore, many programs are geared towards males. This leads one to believe that possible treatment goals geared towards females or minorities would be beneficial (Kalich, 2006). Furthermore, there are very few studies that consider the educational/employment aspect

of a participant's chance for success. The majority of studies discuss the history, the background, need for alternatives to jail, structure of drug courts, and personal narrative of clients lives prior to and after completion of a drug court program. However, there is a lack of evidence regarding how many individuals are employed at the time of graduation or termination from the program, or how many of them advanced their education in order to be successful in life. The majority of the studies also focus on large urban programs with a larger program populations and rarely breakdown the data into what charges the offenders were charged with or what their drug of choice is (Lombardo, 2008). This study will fill in those gaps by providing some of the missing information such as employment/educational changes in a rural drug court program.

#### *Demographics of Dickinson County, Michigan*

Dickinson County is a rural area in the Northern Michigan Peninsula located approximately five (5) miles from the Wisconsin border, it is comprised of approximately 27, 472 individuals as of the 2000 census (Dickinson County, 2012). The county is comprised of 761.4 square miles, with 34.4 persons per square mile. It is limited in diversity with 98% of the population being Caucasian (approximately 26, 909 individuals). The remaining 2% is comprised of: 142 American Indians (.5%), 109 Asian Americans (.4%), 32 African Americans (.1%), and 47 of other races (.3%).

Out of the 27,472 individuals, 13,521 (49.2%) are male, and 13,951 (50.8%) are female. The sex ratio is almost 50/50. The median income for males in Dickinson County was \$36,501 while female median income was only \$22,952. However, the median family income in 2010 was \$43,021. Additionally, 9% of the population and 7% of families were below the poverty line (Dickinson County, 2012).

## Comparative Demographics

	<u>Dickinson County</u>	<u>Kalamazoo County</u>	<u>Michigan</u>
Population:	27,472	252,074	9,876,187
Race: White	98%	82.8%	80.2%
Black	.1%	11.1%	14.3%
Indian	.5%	.5%	.7%
Asian	.4%	2.4%	2.5%
Hispanic	-	4.1%	4.5%
Other	.3%	7.3%	6.6%
Gender: Female	49.2%	51%	50.9%
Male	50.8%	49%	49.1%
Land Area (in square miles)	761.4	561.66	56,538.90
Median Family Income	\$43,021	\$44,794	\$48,432
Below Poverty Level	7%	18.4%	14.8%

## LITERATURE REVIEW

The majority of the literature regarding drug courts has been centered on whether or not drug court programs in general are effective. The studies have concluded that they are indeed effective in reducing recidivism and lowering incarceration rates (Marlow, Festinger, Lee, Schepse, Hazzard, Merrill, Mulvaney, McLellan, 2003). However, what is lacking is in-depth research to what operative components or elements have the most effect, positive or negative, on program outcomes.

The most commonly studied component is the role of the judge and judicial status hearings. In a study conducted by Marlow et al. (2003) their results suggest that more frequent judicial status hearings and reports to the judge result in higher detection of infractions, but had no great impact on program outcome for participants (Marlow et al., 2003). This study did not only show better outcomes for participants assigned to the drug court docket than the standard judicial docket, but that the individuals reporting every two weeks for the first 14 weeks of drug court had better program outcomes than those assigned to report to the judge on an “as-needed” basis (Marlow et al., 2003). All other elements of the program were the same. More specifically, substance abuse treatment schedules, case management services, drug test monitoring, and rewards and sanctions administered. Additionally, factors such as age, marital status, socioeconomic status, gender, legal problems, and social/psychological problems remained consistent within each group. Therefore, the number of reports to the judge in a specified time frame had no considerable impact.

Another component that has not been thoroughly researched or considered as a variable is a participant's mental health status. The *Drug Court Survey Report* (Cooper, 1997) states that 60% of the drug court participants surveyed suffered from some form of mental health issue. These included depression, anxiety disorders, bipolar disorders, or psychosis. Research has indicated that failure to address co-existing mental health issues in addition to substance abuse issues, can negatively affect the participant's program outcome (Gray & Saum, 2005). According to the *10 Key Components of Drug Court Systems*, it is imperative that drug courts administer and promote co-occurring treatment options for participants. It is believed that the interaction of mental health problems and substance abuse issues may significantly influence the drug court outcome (Gray & Saum, 2005).

The results of a study conducted by Gray and Saum (2003) showed that participant's who reported feelings of depression at the time of program start were less likely to successfully complete the drug court program than those that did not. The outcome varied depending on the type of mental health issue the participant was experiencing. Those that reported depression had higher rates of unsuccessfully completing the program, but those that reported feelings of anxiety showed no effects either way on program outcome. Additionally, participants had a higher successful completion rate if they were prescribed medications for their psychological or emotional issues (Gray & Saum, 2003). The findings of their study also indicate that women are more likely to report mental health issues than men, and were more often treated for psychological issues. The study shows that 37% of woman reported feelings of anxiety within 30 days of program start, but only 18.8% of men reported the same. Furthermore,

39.1% of females reported feelings of depression, whereas only 17.9% of males did. Out of these participants, 23.5% of females and only 6.1% of males were prescribed medication for psychological or emotional issues (Gray & Saum, 2005).

Even with these statistics regarding mental health issues, Gray and Saum (2005) reported findings that women overall were more likely to complete the program successfully; thus, making sex another factor that needs to be considered when evaluating possible program outcomes.

Other elements where research is lacking, but may influence program outcome are race, education level, and criminal history. For example, Gray and Saum (2005) found that white offenders had a 118.3% higher rate of successfully completing the program than non-white participants. They also report that every additional arrest a participant has on their criminal record decreases their drug court success rate by 17.7% per arrest. Lastly their study indicates that participants with higher levels of education have higher rates of successful completion (Gray & Saum, 2005).

More recently, offender's drug of choice has been examined in terms of affect on program outcomes. In a study conducted in Escambia County, Florida, (Bouffard & Richardson, 2007), participant's who primarily used marijuana and alcohol had higher rates of success than those that reported using cocaine. Additionally, alcohol users had a higher success rate than marijuana users, and those that graduated the program versus those that did not were less likely to use crack cocaine (Bouffard & Richardson, 2007).

However, not all research is consistent with this finding. Other studies (Bouffard & Richardson, 2007) suggest that clients with a history of "hard" drug use (e.g. crack/cocaine) were more likely to succeed while other research indicates no such

relationship amongst drug of choice and program outcome. There are other studies that show just the opposite findings, stating that methamphetamine users had a higher unsuccessful completion rate (Bouffard & Richardson, 2007). These inconsistencies may be due to the lack of in-depth research and variations among studies. Nonetheless, it is an important element to consider.

Similar to judicial status hearings, another component that is starting to be researched more is the use of graduated rewards (incentives) and graduated sanctions. Additionally, there is a research gap in client's perceptions to the rewards and sanctions, and how that too may affect possible program outcomes. One concern that researchers have regarding graduated sanctions is that participants may become "habituated" or accustomed to them; thus, having less of a desired affect (Marlow et al., 2003). This is just one concern however. This is not to say that the concept of graduated rewards and sanctions does not work. It is an area that is just beginning to be studied.

The purpose of such rewards and sanctions is to try to increase compliance among participants and keep them on their best behavior, so to speak. Studies show that in order for a sanction to be most effective expectations must be clear to clients, the sanction must be appropriate and achievable, the initial infraction must first be detected, they must be consistent and immediate, and they must be of appropriate intensity (Lindquist, Kreebs, Latimore, 2006).

According to Lindquist, Kreebs, Latimore (2006), the most effective sanction reported by participants is jail. They also report that the less effective sanctions are house arrest, increased substance abuse treatment, boot camps, and restitution programs (Marlow et al., 2003). However, the study suggests that while the sanction must be



consistent for all participants, it must also be administered accordingly in regards to the infraction and the client. The most highly regarded reward reported was simple praise by the judge, probation officer, or treatment provider. Other rewards that were reported as being effective included phase graduation, program termination, and reduced appearances (Lindquist, Kreebs, Latimore, 2006).

While these are all types of sanctions and rewards another area addressed by Lindquist, Kreebs, and Latimore (2006) is how sanctions and rewards are administered. Participants agreed that it is the role of the judge to administer such things, and the best way to do so is in a calm, respectful, and non-adversarial manner. This also follows one of the *10 Key Components of Drug Court Systems*.

## METHODOLOGY

The data utilized and analyzed in this study are individuals that have participated in the Dickinson County Treatment Court Program since its inception in 2005. The data was collected to examine success and failure among drug court participants. Since the program's beginning, there have been 77 participants to date. The data regarding the four active cases will not be used for any analysis purposes due to their continuously changing status and information.

The data was collected using the Michigan Drug Court Case Management System (<https://dccmis.micourts.org>). Additionally, permission was granted in writing from District Court Judge Christopher Ninomiya allowing confidential access to information and to analyze it for purposes of this research. All information drawn from the website is confidential. No names or identifying information was used. All individuals were given a number for identification purposes (i.e. subject 1, 2, etc). The information collected for each individual was: age at program start, sex, program outcome, days in program, days of sobriety, drug of choice, sanctions/incentives, amount of time spent in each form of counseling program, and amount of time in each phase. The purpose of this is to provide information regarding what elements of the Dickinson County Treatment Court program are most beneficial for an individual to maintain sobriety.

There are two possible outcomes for participants in the program – successful completion or unsuccessful completion. A successful completion is defined as a participant successfully completing their terms of probation and adherence to the requirements for drug court participation. These include: paying all fines, completing all

counseling requirements, maintaining employment/education, having a stable support system, and maintaining abstinence from all substances. Unsuccessful completion from the program is defined as termination from drug court due to failing to complete the above stated requirements, absconding, committing a new crime, failing to remain sober, or anything deemed unacceptable by the drug court staff including early termination from program participation.

This information will be obtained from the Drug Court Case Management Information System (DCCMIS) system if the data is available. It will also be obtained from the Dickinson County internal AS400 system. AS400 is the internal database housing all file information for misdemeanor cases. This information is confidential and labeled the same as the information obtained from the DCCMIS website. Furthermore, the data will be subdivided by sex to see if there are any variances depending on gender. There have been few changes in the structure and procedures of the program since its inception. Also, in 2009 a new judge began overseeing the program.

This information is only part of the information contained in the DCCMIS website. This system contains all person demographics, case notes, counseling information, and reports to the judge. The personal demographics section contains the most information and the most useful information for the purposes of this study. The following is the information this research will use to investigate the efficiency of the Dickinson County Treatment Court Program.

#### *Age of Offender*

Michigan law identifies the legal age to be considered an adult as 17 years of age ([www.michigan.gov](http://www.michigan.gov)). Since the 95B District Court is an adult court the minimum age is

17 years old to be involved in the treatment court program. There is no maximum age limit for participation. This could be an important factor for determining a person's outcome in the program because it could effect a person's living situation, work or school history, social support system, etc. An older participant might already have stable housing, employment, or stable support system whereas a younger participant may have a shorter criminal history or be involved in a circle of friends that is not conducive to sobriety. These are all points that need to be considered when structuring a treatment plan. This factor will be measured on a ratio scale. A ratio scale uses the true value point of zero and an interval scale of numbers based upon that to measure value.

### *Gender*

Gender is a factor that needs to be taken into consideration when it comes to dealing with drugs and alcohol. Women potentially face different circumstances than males and these need to be taken into consideration (Kalich 2006). For example, in Dickinson County male participants are required to attend a men only counseling group, and women are required to attend a women only counseling group. Furthermore, the male participants are supervised by a male probation officer, and the females by a female. The basis behind this is that people may be more comfortable talking to and dealing with a member of the same sex. Women may not feel comfortable talking to a man about personal relationships or problems, and vice versa. Therefore, gender needs to be looked at when analyzing data.

### *Race*

Race is a category that is listed in the personal demographic section of the drug court database system. While it may seem like a trivial element compared to the others, it

is an important factor to consider. The demographics of the county and the demographics of the drug court may or may not be similar. Culture surrounding race should be considered during counseling sessions, as well as long term living situations, for a person's success. This is why it is important to include it in this study. This too will be nominal in nature and consist of four categories: White, Black, Native American, and Hispanic.

### *Mental Health History*

An individual's mental health history is an important factor to consider as well because in some instances it is not possible to have an individual to be totally free from any substance due to health risks. For example, a person with mental health issues such as bipolar disorder may have to stay on a form of medication to control symptoms. It is imperative for the drug court staff to stay in contact with prescribing physicians as to make sure a person is properly taking any prescribed medication. That is why mental health workers are part of the drug court staff (Office of Justice Programs, 2012). To illustrate, a drug court participant may have serious mental health problems such as bipolar disorder. Most often, individuals with bipolar disorder are under the care of a physician and common treatment strategies for bipolar include psychotropic medication. Therefore, drug court caseworkers must not only ensure that participants not use illicit drugs, but also remain compliant with medical directives to address their mental health issue. Mental health history will be analyzed nominally based upon the type of mental health issue. For example, a serious or major mental health disorder includes major depression, bipolar disorder, post traumatic stress disorder (PTSD), schizophrenia, panic disorders, obsessive compulsive disorders (OCD), and borderline personality disorders.

These are all recognized by the mental health community as disruptive to daily functioning and living and are treated similarly to a medical issue such as diabetes (National Alliance on Mental Health, 2013). These disorders will be categorized as major mental health disorders. All other disorders such as mild depression and anxiety will be categorized as minor mental health disorders. This information will be categorized nominally as either major mental health, minor mental health, or none.

#### *Drug of Choice/Substance Abuse History*

Drug and alcohol history can give the drug court staff knowledge about a person's prior drug/alcohol use and abuse. The greatest limitation on this is that a person may not be upfront and honest about past incidences. However, having even a sliver of information can help in establishing counseling or drug testing requirements to try to increase a person's time of sobriety. Additionally, for this study it needs to be considered because the results may vary depending on how many substances a person is dependent upon and for how long the abuse has been occurring.

Of equal importance, substance abuse history is a participant's drug of choice. Drug of choice is a term used to refer to a person's primary substance that they abuse. For example, some individuals may abuse alcohol solely and never have a problem with any other controlled substance. This would make alcohol their drug of choice. This information gives the drug court team a direction for an individual's counseling in addition to which substance to be on alert for when it comes to drug or alcohol testing. For example, a participant with an alcohol problem will be monitored more closely for alcohol violations than an individual who prefers opiates. This too will be measured categorically. Participant drug of choice will be measured as alcohol, marijuana, opiates,

and poly-substance. The opiate category includes all opiate drugs and their derivatives. This will include heroin as well as prescription medications. The poly-substance category includes the participants that identify, or are classified by their assessors as dependent upon more than one substance (i.e. alcohol and opiates, marijuana and alcohol).

### *Criminal History*

Another area that needs to be considered is a person's criminal history. This is an important section because if one of the goals of drug court programs is to reduce recidivism, then it is necessary to know what a person's criminal background looks like. It is also an important area to look at when looking at how well a person did after completing the program. A criminal history can also help the drug court staff in determining if a person is an appropriate candidate or even able to be considered for participation. For example, certain offenses such as drug distribution or assaultive felony crimes are not permissible (Office of Justice Programs, 2012). By knowing an individual's criminal history it may help to predict a person's possible success in the program. Individuals with more prior offenses or more severe offenses such as felonies may be more committed to the criminal lifestyle and apt to reoffend and be unsuccessful in the program. This element will be classified as prior misdemeanor offenses and prior felony offenses.

### *Drug Court Offense*

Similar to criminal history, a person's offense that led to their drug court involvement needs to be studied as well. The reason behind this is very close to the criminal history aspect and will provide information to the drug court staff as to where the individual is coming from and why they are being referred to the program. There are

no assaultive felony convictions allowed in the program. However, some select misdemeanor crimes that are classified as assaultive (i.e. domestic violence) are allowed in the program if substance abuse is an underlying factor and possibly precipitated the charge. The nominal categories for this element are: alcohol offenses, marijuana, poly-substance, and other. Alcohol offenses will include drunk driving charges and minor in possession charges. These may be first, second, or subsequent in nature. The drug charge category is broader and will include any charges relating to controlled substances. This can vary from possessing or using marijuana, to possessing or using controlled substances, or driving under the influence of drugs. The other two categories are broader still. The poly-substance category is for participants that have more than one substance abuse charge against them. This can be a combination of alcohol and drug charges such as possession of marijuana and drunk driving. The final category of “other” is a catch all for all the charges that do not fit in to one of the above categories. This may include, but is not limited to, larceny, or domestic violence.

### *Sanctions/Incentives*

Negative sanctions, and positive incentives are an integral part of a treatment court or drug court program and their efficiency, or lack thereof, should also be considered when studying the various aspects of the program in regards to success or failure. Sanctions are negative consequences to an action or behavior. For example, testing positive of a drug screen may result in jail time or community service work. Participants are made aware of the possible consequences at the start of the program and the idea is to deter individuals from committing such offenses that would result in a negative consequence. The Dickinson County Treatment Court utilizes jail time,



community service work, increased reporting, increased alcohol or drug testing, curfews, tether (or house arrest), or any other limitation deemed appropriate by the drug court staff.

Positive incentives are the opposite of sanctions. Incentives are explained to participants in advance as well. This allows individuals to know in advance what to expect for program compliance and positive choices. The Dickinson County Treatment Court does not utilize monetary incentives, but instead relies upon program incentives. This can be reduced drug and alcohol testing, decrease in reports to the probation department or court reports to the judge, program advancement, reduction in counseling hours, and ultimately graduation from the program. Depending on the situation and the person an incentive could be something other than those listed above. For example, in Dickinson County participants are not allowed to leave the state or immediate area for that matter. As an incentive for program compliance a participant may be allowed to spend the weekend out of town. Like sanctions, incentives are determined by the drug court staff for appropriateness and fairness. It is important to analyze these elements to see if they have any effect on outcomes. They will be analyzed nominally like many other elements.

### *Statistical Analysis*

The above mentioned variables will be measured by utilizing two different statistical tests. The first one will be the  $t$ -Test. This will be used to measure such variables as age and gender due to their numerical reference points.  $t$ -Tests are used to measure variables (such as age) that are normally distributed. They are used to prove whether or not the means of two designated groups are statistically different from each other. For example, in terms of gender, the  $t$ -Test is designed to prove whether or not

there is a statistical difference between the males that have successfully completed the program and the males that did not.

The second method of analysis that will be utilized is the Chi-Square. This test will be used for such things as race and mental health. It is used to determine whether or not there is a significant difference or variance in a normal sample population. Like the *t*-Test it is based upon a null hypothesis and is used to test the frequency distribution of an event within a population. Both tests will be utilized to analyze the data depending on their numerical or population information.

#### *Excluded Participants*

There are currently four active participants in the program, and their information will not be used for analysis. This is due to the continuous nature of their individual progress, and that it may change with any sanctions or violations. Therefore, all cases utilized are closed cases that the court has no jurisdiction over. This does not mean that the person may not be under the court's jurisdiction for a new or current charge. The remaining 73 closed cases will be analyzed.

## RESULTS

The data was analyzed by utilizing the *t*-Test, Chi-square, and Fisher's Exact method. This was done to see what the statistical difference, if any, is. The frequency table illustrated in Table 1 lists all of the variables, their sample population, and their frequency within the data.

Table 1 - Frequency Distributions

Variable	Successful (N =58%)	Unsuccessful (N=42%)
Age	$\bar{x} = 29.8$	$\bar{x} = 29.7$
Proportion Male	64.2%	58.1%
Race		
White	n = 40	n = 29
Black	n = 0	n = 0
Native American	n = 0	n = 2
Hispanic	n = 2	n = 0
Mental Health		
No MH	n = 26	n = 18
Major MH	n = 9	n = 5
Minor MH	n = 7	n = 8
Treatment Court Offense		
Alcohol	n = 20	n = 18
Marijuana	n = 11	n = 5
Poly-substance	n = 6	n = 2
Other	n = 5	n = 6
Drug of Choice		
Alcohol	n = 21	n = 14
Marijuana	n = 13	n = 3
Opiates	n = 5	n = 2
Poly-substance	n = 3	n = 12
Prior Misdemeanors	$\bar{x} = 3.69$	$\bar{x} = 4.06$
Prior Felonies	$\bar{x} = .26$	$\bar{x} = .94$
Sanctions	$\bar{x} = 1.31$	$\bar{x} = 1.65$
Incentives	$\bar{x} = .74$	$\bar{x} = .23$

The Dickinson County success averages fall directly in the middle of the national average. The national average for success is between 27% and 66%. Dickinson County has a 58% success rate.

A *t*-Test was used to analyze the independent variables such as age, gender, prior offenses, and sanctions/incentives. It is used to find the differences between two set groups (i.e. male vs. female) (Williams III, 2009). Table 2 illustrates the results of the *t*-tests conducted.

Table 2 – *t*-Test

	Successful		Unsuccessful		<i>p</i> =
	Mean	Standard Deviation	Mean	Standard Deviation	
Age	29.8	10.7	29.7	11.2	.969
Prop. Male	36%	.48	42%	.50	.595
Prior Misdem.	3.7	2.5	4.0	3.1	.571
Prior Felonies	.3	.73	.9	1.8	.033*
Sanctions	1.3	2.0	1.7	1.6	.447
Incentives	.7	1.2	.2	.8	.047*

\*  $p < .05$

Based upon the results of the *t*-test, the only variables that show significance in regards to possible outcome are the number of prior felonies and the number of incentives that a participant receives. This conclusion is based upon the standard that the probability has to be less than or equal to .05. Since the number of prior felonies is .033 and the number of sanctions is .047, these are the only two results that show a great enough difference in significance to be considered.

While the *t*-Test was used to measure ratio variables, the Chi-square test was utilized to measure nominal variables. A sub-set of the Chi-square is the Fisher Exact test. The Fisher Exact test is a two-by-two analysis of two variables that does not make assumptions in regards to sample size and was used due to the small sample populations

of some of the variables (Williams III, 2009). Table 3 is the Chi square table for the nominal variables such as race, mental health status, treatment court offense, and drug of choice.

Table 3 – Chi – square Results

	Successful		Unsuccessful		$\chi^2$
	N = 42	(%)	N = 31	(%)	
Race					.123*
White	40	95%	29	94%	
Black	0	0%	0	0%	
Native American	0	0%	2	5%	
Hispanic	2	5%	0	0%	
Mental Health					.598
No MH	26	62%	18	58%	
Minor MH	9	21%	5	16%	
Major MH	7	17%	8	26%	
Treatment Court Offense					.415*
Alcohol	20	48%	18	58%	
Marijuana	11	26%	5	16%	
Poly-substance	6	14%	2	6%	
Other	5	12%	6	19%	
Drug of Choice					.005*
Alcohol	21	50%	14	45%	
Marijuana	13	31%	3	10%	
Opiates	5	12%	2	6%	
Poly-substance	3	7%	12	39%	

\*  $\chi^2$  assumes  $\geq .05$

Due to the small sample size, the only accurate Chi-square number based upon the assumption is the mental health category and that it has no effect on the outcome of an individual's participation in the treatment court program. One of the assumptions of Chi-Square is large sample sizes (Sheskin, 2007). For the three variables (race, treatment court offense, and drug of choice), the cell sizes were too small and thus violated the large sample assumption. A suggested alternative analytical tool for small samples is the Fisher's Exact Test. The Fisher's exact test is identical to the Chi Square test, but is better suited for small samples and can only be done using a 2x2 table (Sheskin, 2007). The other three categories

were further analyzed with the Fisher's Exact method. Table 4 is the Fisher Exact table for race.

Table 4

Variable	Variable 1	Variable 2	$\chi^2$
Race	White	Native American	.187
	White	Hispanic	.187
	White	Black	N/A
	Native American	Hispanic	.167
	Native American	Black	N/A
	Hispanic	Black	N/A

\*  $\chi^2$  assumes  $\geq .05$

Due to the lack of a black population in Dickinson County the results involving black participants are not applicable. However, there is no statistically significant difference in race based upon the results. Therefore, race does not affect an individual's outcome.

Table 5

Variable	Variable 1	Variable 2	$\chi^2$
Drug of Choice	Alcohol	Opiates	.454
	Alcohol	Marijuana	.119
	Alcohol	Poly-substance	.010*
	Opiates	Marijuana	.492
	Opiates	Poly-substance	.032*
	Marijuana	Poly-substance	.001*

\*  $\chi^2$  assumes  $\geq .05$

Table 5 is the Fisher Exact table for the variable drug of choice. The results support the idea that if a person's drug of choice is multiple substances or poly-substance they have a greater chance of unsuccessfully completing the program. However, there is no statistical difference in the other drugs of choice. Table 6 is the Fisher Exact results for the last variable of treatment court offense.

Table 6

Variable	Variable 1	Variable 2	$\chi^2$
Treatment Court Offense	Alcohol	Marijuana	.215
	Alcohol	Poly-substance	.224
	Alcohol	Other	.469
	Marijuana	Poly-substance	.572
	Marijuana	Other	.208
	Polysubstance	Other	.208

\*  $\chi^2$  assumes  $\leq .05$

Based upon the results of table 6, there are no significantly statistical differences in the offense that the individual commits that enters them into the treatment court program.

After reviewing all of the data and the results of the various tests and equations run on the data, the only variables that show a statistical difference and potentially affect a person's outcome, whether successful or unsuccessful, are the number of prior felonies that a person has on their criminal history, the number of incentives that they earn throughout the course of the program, and if their drug of choice is poly-substance in nature.

## DISCUSSION

After examining the variables and their empirical results, there are very few of the variables that potentially could affect a participant's outcome. These include the prior number of felonies that a person possesses, the number of incentives that a person receives, and whether or not their drug of choice is multiple substances. There could be many explanations for these results, but that does not necessarily mean that they are exact.

With respect to criminal history, the data here suggests that the more prior felony offenses a person has, the less likely they are to successfully complete the treatment court program. Offenders with more than one prior felonies may be more committed to a criminal lifestyle and therefore less interested in successfully completing the treatment court program. This observation does not appear to be true for those with a misdemeanor criminal history. Furthermore, those with prior felony offenses may not have pro-social networks. Although only speculative, this may be a due to prior prison terms associated with these felony offenders. However, this is assuming that their prior offenses were substance abuse related. There is no evidence or data in this study that separates felony substance abuse convictions such as possession of cocaine to a felony conviction of burglary. Depending on the type of prior felony convictions, treatment court failure of prior felony offenders may be an addiction issue rather than a commitment to a criminal lifestyle.

The data also suggests that the number of incentives that a participant receives during the program could influence treatment court outcomes. One of the central tenants of drug and treatment courts is that the better a person does the more incentives they will



receive. It is not uncommon for offenders to come from broken homes or dysfunctional families and may often lack positive reinforcement from their primary social group. Sometimes a simple “good job, keep up the hard work” or “we’re proud of you” goes a long way with people. When people are always in negative situations and never receive any sort of praise just having the judge, or a lawyer, tell them that they are making good choices and doing what is best can influence them more than a monetary incentive might. This could also explain why sanctions had no affect on a person’s outcome. As observed in the data, very few of the treatment court participants are first time offenders. Many have already served jail or prison time, or completed numerous hours of community service work. Therefore, using that as a sanction may have less influence as a negative reinforcement.

The final variable that showed any possible impact is drug of choice. This shows that what a person uses in terms of illegal substances has a greater impact on a person’s outcome than the offense that landed them in the treatment court is. There was no variance for any other drug of choice other than poly-substance. This may be because having a dependence on one substance is easier to correct then overcoming an addiction to multiple drugs. These participants may also be less discriminatory in what substances they put into their body. For example, an alcoholic may steadily oppose the use of opiates. However, for those that are dependent upon opiates, benzodiazepines, and alcohol may have lower inhibitions to trying a new drug such as amphetamines as a substitute. Or they may be further into the drug culture and have a harder time turning their lives around. Without a total transformation of lifestyle a person may have a hard

time maintaining sobriety, and logically an addiction to more than one substance will be harder to maintain than an addiction to only one.

While a person's drug of choice is an important factor to consider, the charge for which they were placed in the treatment court program lacked a significant difference between those that were successful and those that were unsuccessful. To elaborate, the results suggest that there is no significant difference with drunk driving offenders or those charged with possession of drugs. This seems to imply that the underlying offense may have little to do with the drug of choice. For example, a person may be convicted of a drunk driving but be poly-substance user. The alcohol abuse (drunk driving) may be secondary to other issues such as emotional distress or financial hardships.

Another finding of interest is the age of the offender. Based on most criminological research, one would expect younger offenders to be less likely to successfully complete the treatment court program. The results presented here suggest that age has little to do with success in treatment court programs. Although speculative, the results may be that younger people are more easily influenced by their friends and society into making poor choices or that they are less likely to have careers, families, or stronger support systems in place to facilitate change. However, it could also be argued that older individuals have had longer times of addictions (possibly) and are more set in their ways; therefore, less likely to change dangerous behavior. The results show none of this though. According to the data age does not appear to influence a person's outcome.

Mental health is another factor that had the potential to be a great predictor. However, it too showed little difference statistically. This could be because treating the underlying mental health issues is an aspect of the program that is addressed and dual

diagnosis and co-occurring counseling are standard practices. By addressing the mental health issues in addition to the substance abuse issues it may help a person overcome addiction easier than if they were left to their own accord in regards to mental health.

The results are not out of the ordinary to the degree that one could consider them possibly wrong. The results reflect the data accurately and offer insight to the elements that should be considered when the treatment court staff are evaluating offenders for induction into the program. It is interesting that age, mental health, and treatment court lack a statistically significant difference. However, there are factors that have not been addressed that potentially could explain this, and possibly should be looked at in future research. Many of these are hard to study though because they are individual internal factors. They are the human elements such as determination, attitude, and most importantly their desire for change.

### *Limitations*

There are several limitations that need to be considered when analyzing the data. The data is as reliable as data can be. However, due to human error, lack of information, and individual factors that cannot be measured all the data needs to be taken with a grain of salt. One of the biggest factors that may affect the data outcome is that some of the categories, such as mental health, consist of information that was provided by the individual themselves. While participants are instructed to be forthright and honest in their information, they may not always be. In the case of mental health, an individual may not report a mental health issue or they may self-diagnose and report an issue as something more than it truly is. This could alter the results of the data. Unfortunately, there is no way to insure complete accuracy and honesty.

Another limitation that needs to be considered is where the information is coming from. The information was drawn from a website where multiple users enter the information. This can allow for missed information, improper data, or misrepresented information. There have been two probation officers, the probation department secretary, and four outside counseling agencies that are all authorized to enter information into the database. This allows for human error to possibly occur at many times by many people.

There were some changes within the Treatment Court Program that need to be considered as well for possible contribution to discrepancies. The program was originally created under the direction of Judge Michael Kusz, but is continuing under the supervision of Judge Christopher Ninomiya after Judge Kusz's retirement from Dickinson County. While the program outline stayed the same, it is a variance that potentially could affect participant outcome. Similarly, program participants were originally supervised by one male probation officer. However, two years into the program women participant's were transferred to the supervision of a female probation officer. Male participants continued to be supervised by the male probation officer. The premise behind this change was that potentially women would be more successful when placed with a female officer.

Other changes during the course of the program's history that potentially could have affected a person's outcome is the treatment that they were receiving. There have been numerous changes to substance abuse and mental health counseling programs that may or may not have altered the data. This includes curriculum changes, counselor changes, new programs created, or older programs phased out. While there is

consistency within the Dickinson County Treatment Court model, there are individual human factors that potentially could affect the data.

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