Evaluation of HIV/HCV Prevention Intervention: Taking it to Treatment Court

Elizabeth Christine Speaker

The University of Montana

Recommended Citation
Speaker, Elizabeth Christine, "Evaluation of HIV/HCV Prevention Intervention: Taking it to Treatment Court" (2010). Graduate Student Theses, Dissertations, & Professional Papers. 398.
https://scholarworks.umt.edu/etd/398
EVALUATION OF AN HIV AND HCV PREVENTION INTERVENTION:

TAKING IT TO TREATMENT COURT

By

ELIZABETH CHRISTINE SPEAKER

BA, University of Montana, Missoula, MT, 2005

Thesis

Presented in partial fulfillment of the requirements for the degree of

Masters of Science in Health Promotion

The University of Montana
Missoula, MT

December 2010

Approved by:

Perry Brown, Associate Provost for Graduate Education
Graduate School

Dr. Annie Sondag, Chair
Health and Human Performances

Dr. Laura Dybdal
Health and Human Performances

Dr. Jean Carter
Pharmacy Practice
ABSTRACT

Speaker, Elizabeth, M.S., December 2010

Health and Human Performances

Evaluation of an HIV and HCV Prevention Intervention: Taking it to Treatment Court

Chairperson: Annie Sondag

The purpose of this study was to evaluate the HIV/HCV prevention intervention, Taking it to Treatment Court (TITTC), which is part of the greater Yellowstone County Family Drug Treatment Court (YCFDTC) program. The findings from this study will be used by the Montana Department of Public Health and Human Services, The Yellowstone County Family Drug Treatment Court, and the Montana HIV Prevention Community Planning Group to determine the effectiveness of TITTC and make changes as necessary. To evaluate TITTC this study utilized quantitative and qualitative research methods. Quantitative data were collected through a Theory of Planned Behavior survey and an HIV and HCV knowledge questionnaire. Participants of TITTC were given the survey instrument pre intervention, two weeks post intervention, and again at a three month follow up. Urinalysis and arrest report data were also collected from YCFDTC and compared to self report data. Qualitative data were collected through two focus groups with past participants of TITTC. Results of this study indicate that the TITTC intervention was effective in increasing participants’ HCV knowledge; increasing overall intentions to abstain from drug use, and improving attitudes towards abstaining from drug use. The intervention also was successful at encouraging participants to test for HCV. The intervention did not result in significant gains in HIV knowledge nor in intentions to practice safer sex. In addition, results also revealed a lack of congruence between self reported drug use and the urinalysis and arrest data. Emergent themes from the focus group data validated findings from the survey data. Overall, TITTC appears to have some positive effects on participants’ intentions to engage in HIV and HCV risk reduction behaviors. Evaluators recommend that the program be lengthened and that facilitators spend more time on the areas where fewer gains were seen. Given the preliminary success of the program, expanding TITTC to other drug courts throughout the state of Montana is advised.
Acknowledgements

Thank you to all the wonderful people out there who have supported and encouraged me throughout the years to dream high and push myself beyond my limits. Without your kindness and love I would not be where I am today.

Thank you so much to my committee, Dr. Annie Sondag, Dr. Laura Dybdal, and Dr. Jean Carter, for backing me up and guiding me along the way. You have all encouraged me to work hard and strive for excellence. Especially thanks to Dr. Sondag for all your words of wisdom and long hours working with me on this project. You have been a true inspiration and an excellent mentor along the way.

Casey and Eddy Rudd, thank you so much for all the hard work you do. Your help and speedy work made this project run so much smoother. Your work is truly making a difference in people’s lives.

To the Yellowstone County Family Drug Treatment Court, thank you for allowing this project to happen. A special thanks to Becky Bey for all the extra effort you put forth to help us when we needed focus groups organized and data submitted. And thank you to all the willing participants of YCFDTC. Without your participation this study would not have been possible.

A special thank you to my family for always being there. Each one of you has helped me to grow and learn so much more than I ever could in a book.

To Peter, I say thank you for being there when I needed support the most. I hope to be as supportive, loving, and caring of you when you embark this journey.

To all my friends, near and far, thank you for your encouragement and patience.

And finally, thank you to all faculty of the Health and Human Performances Department. You are all so encouraging and helpful. I am happy to have been able to work and learn from many of you.
Table of Contents

Thesis Abstract .................................................................................................................. ii
Acknowledgements .......................................................................................................... iii

CHAPTER I
INTRODUCTION ............................................................................................................... 1

  Purpose of the Study ....................................................................................................... 5
  Statement of the Problem ............................................................................................... 5
  Research Questions ....................................................................................................... 6
    Hypothesis 1 .................................................................................................................. 6
    Hypothesis 2 .................................................................................................................. 6
    Hypothesis 3 .................................................................................................................. 7
    Hypothesis 4 .................................................................................................................. 7
  Research Sub Questions ............................................................................................... 7
  Delimitations .................................................................................................................. 8
  Limitations .................................................................................................................... 9
  Definitions of Terms ..................................................................................................... 9

CHAPTER II
REVIEW OF THE LITERATURE ..................................................................................... 11

  Drug Courts .................................................................................................................... 12
  Yellowstone Family Drug Treatment Court ................................................................. 16
  Description of the Intervention ..................................................................................... 18
  HIV and Injection Drug Use ........................................................................................ 21
    Prevention Strategies ................................................................................................ 23
  HCV and Injection Drug Use ......................................................................................... 25
    Prevention Strategies ................................................................................................ 28
CHAPTER III

METHODS ...............................................................34

Research Design..........................................................34

Description of the Target Population ..................................35

Protection of Human Subjects ...........................................36

Sample Selection ............................................................36

Evaluation Survey, Urinalysis, and Arrest Reports ....................36

Focus Groups ..............................................................36

Data Collection .............................................................37

Evaluation Survey Data ....................................................37

Focus Group Data ..........................................................38

Urinalysis and Arrest Report Data .......................................38

Instrumentation ..............................................................39

Taking it to Treatment Court: Evaluation Survey ......................39

Section 1: Demographics ..................................................39

Section 2: Theory of Planned Behavior ...................................40

Elicitation Interviews ......................................................40

Pilot Test ......................................................................41

Section 3: HIV Knowledge ................................................43

Section 4: HCV Knowledge ................................................44

Pilot Test ......................................................................45

Taking it to Treatment Court: Focus Groups ..........................45

Taking it to Treatment Court: Urinalysis and Arrest Reports .........46

Data Analysis ...................................................................46
CHAPTER IV
RESULTS ..................................................................................................................49

Taking it to Treatment Court: Evaluation Survey ..............................................49

Section 1: Demographics ......................................................................................49

Section 2: Theory of Planned Behavior .................................................................50

Drug Use Survey .....................................................................................................51

Safer Sex Survey ......................................................................................................57

Self Report Data ......................................................................................................62

Section 3: HIV Knowledge Questionnaire ..........................................................64

Section 4: HCV Knowledge Questionnaire ............................................................65

Taking it to Treatment Court: Focus Groups .........................................................66

Description of the Focus Groups ...........................................................................66

Researcher’s Impressions of the Focus Group Process .........................................67

Focus Group #1 .........................................................................................................68

Focus Group #2 .........................................................................................................68

Emergent Themes .......................................................................................................69

Taking it to Treatment Court was a Positive Experience .......................................69

Taking it to Treatment Court Encouraged Participants to get Tested ....................70

Outreach Workers Encouraged Safer Sex ...............................................................71

Participants gained Knowledge about HIV and HCV ...........................................72

Taking it to Treatment Court Encouraged Abstaining from Drug Use ..................73

Participants Respected and Trusted the Outreach Workers ...................................74
Taking it to Treatment Court: Urinalysis and Arrest Reports ........................................... 76

CHAPTER V

DISCUSSION .......................................................................................................................... 81

Intentions to Abstain from Drug Use ................................................................. 81
Intentions to Practice Safer Sex ........................................................................... 82
HIV Knowledge ............................................................................................................ 83
HCV Knowledge .......................................................................................................... 84
Perceptions of Taking it to Treatment Court ....................................................... 86
Urinalysis and Arrest Report Correlation .............................................................. 87
Limitations .................................................................................................................... 88
Recommendations ....................................................................................................... 90
Conclusions .................................................................................................................. 91

REFERENCES .................................................................................................................... 95
Appendix A: Elicitation Interview Survey ............................................................... 82
Appendix B: Taking it to Treatment Court Evaluation Survey .............................. 84
Appendix C: Yellowstone County Family Drug Treatment Court Participant
Criteria ................................................................................................................................. 86
Appendix D: Focus Group Questions ......................................................................... 88
Appendix E: Cover Letter to Participants ................................................................. 90
Appendix F: Institutional Review Board Approval .................................................. 93

List of Tables and Figures

FIGURES

1. Theory of Planned Behavior .................................................................................. 31
2. TPB Pretest Drug Use Survey Scores and Positive UA’s ...................................... 79
3. TPB Three Month Follow up Drug Use Survey Scores and Positive UA’s .......... 80
TABLES

1. TPB Drug Use Survey-Total Scores .................................................................51
2. TPB Drug Use Attitude Sub-scale Scores .....................................................52
3. TPB Drug Use Subjective Norm Sub-scale Scores .......................................53
4. TPB Drug Use Control Sub-scale Scores .....................................................54
5. TPB Direct Measure Drug Use Attitude Scores ...........................................56
6. TPB Direct Measure Drug Use Control Scores ...........................................57
7. TPB Safer Sex Survey-Total Scores .............................................................58
8. TPB Safer Sex Attitude Sub-scale Scores ...................................................59
9. TPB Safer Sex Subjective Norm Sub-scale Scores .......................................60
10. TPB Safer Sex Control Sub-scale Scores .....................................................61
11. TPB Direct Measure Safer Sex Attitude Scores .........................................62
12. HIV and HCV Testing and Test Results .....................................................64
13. HIV Knowledge Questionnaire Scores .....................................................65
14. HCV Knowledge Questionnaire Scores .....................................................66
15. Self Report Frequencies of Drug Use: Pretest ............................................77
16. Self Report Frequencies of Drug Use: Three Month Follow Up ................77
Chapter I

Introduction

Drug court rose out of Dade County, Florida in 1989 as a response to jails becoming overcrowded with individuals on non-violent drug charges. The drug court model was the first attempt to rehabilitate drug offenders utilizing a combination of the criminal justice system, social services, counseling, and life training skills (Huddleston, Freeman-Wilson, & Boone, 2004). The purpose of drug courts is to reduce recidivism and substance abuse rates among nonviolent substance abusing offenders and “increase the offenders’ likelihood of successful habilitation through early, continuous, and intense judicially supervised treatment, mandatory periodic drug testing, community supervision and use of appropriate sanctions and other habilitation services” (Huddleston et al., 2004). The National Survey on Drug Use and Health estimated there were 19.9 million illicit drug users aged 12 and older (DPHHS, 2008), so it is not surprising widespread adoption of the drug court model has occurred throughout the United States and is appearing internationally as well. As of December 31, 2007 there were 2,147 drug courts operating in the United States, and this number continues to grow every year (Huddleston, Marlowe, & Casebolt, 2008). Many new drug court models have specific population targets such as adults or juveniles only, families, universities, tribes or drunk driving (Huddleston et al., 2004).

Family drug treatment courts first appeared in Reno, Nevada in 1995. This system utilized the traditional drug court model, but narrowed the focus to drug abusing parents charged with child abuse or neglect, in a civil rather than criminal court system.
Family drug court was designed to address findings suggesting that 80% of child abuse cases involved parents who had a substance abuse problem (Huddleston et al., 2008). The ultimate goal is timely resolution of the child maltreatment cases for the benefit of children, families and society (Roche, 2008). As of December 31, 2007 there were 301 family drug courts in operation, and four of those were located in Montana (Huddleston et al., 2008).

Yellowstone County Family Drug Treatment Court (YCFDTC) is one of the family drug court systems in Montana. The focus of this study was on YCFDTC’s human immunodeficiency virus (HIV) and hepatitis C (HCV) prevention intervention Taking it to Treatment Court (TITTC) in Billings, MT. Specifically, the study examined TITTC’s effectiveness to promote factors that enhance participants’ intentions to practice HIV and HCV risk reduction behaviors – in particular the practice of safer sex and abstinence from drug use.

Injection drug use (IDU) is the most common route of exposure for HCV and second most common route for HIV (CDC: Basic Statistics, 2008; CDC: MTDPHHS, 2008). HIV is the virus that causes acquired immunodeficiency syndrome (AIDS) which impairs immune function, ultimately leading to death (CDC, 2006). There are approximately 1.1 million people living with HIV/AIDS in the United States. In 2006 there were 56,300 new cases of HIV diagnosed (CDC, 2008). Practicing unsafe sex, vaginally or anally, is the most common route of exposure for HIV infection. Men who have sex with men (MSM) are the highest risk group for HIV (CDC: Basic Statistics, 2008). While injection drug use is not the most common route of exposure to HIV, it does contribute to infection rates indicating more prevention and awareness efforts are
needed within this population. Injection drug use has accounted for 36% of all reported HIV cases in the US since the epidemic began (CDC, 2002).

As of February 17, 2010, there were 955 reported cases of HIV in Montana since 1985; of those reported cases, 445 are living cases. Injection drug use accounts for 13% of the reported cases of HIV in Montana (MT-DPHHS, 2009). In February 2009 there were 122 known living cases of HIV related to injection drug use in Montana, with 33 percent, or 40 of those cases in Yellowstone County (MT-DPHHS, 2009).

HIV positive people who use injection drugs frequently are co-infected with HCV. Studies funded by the National Institute on Drug Abuse (2008) have found that within three years of injection drug use, most injection drug users will contract HCV, and upwards of 90% of HIV infected persons who use injection drugs may also be infected with HCV. Hepatitis C (HCV) is a viral infection of the liver transmitted through contaminated blood which can lead to cirrhosis and liver cancer in chronic cases (CDC: Hepatitis C, 2008). HCV is the most common chronic blood borne infection in the United States, and the most common route of exposure is injection drug use (Shepard, Finelli, & Alter, 2005). The United States is estimated to have 3.2 million people chronically infected with HCV, with an estimated 30,000 new cases each year (CDC: Hepatitis C, 2008). Of those new cases, approximately 68% are attributable to IDU (Shepard et al., 2005).

Prevention strategies remain crucial to slow the spread of HIV and HCV infection amongst persons who use injection drugs since there is no cure or vaccination for either virus (CDC, 2006; WHO 2000). Prevention strategies focus on education and harm reduction methods such as community outreach, methadone treatment, needle exchange,
and in-patient or out-patient abstinence programs (Coyle, Needle, & Normand, 1998). Community outreach strategies, such as face-to-face communication; HIV awareness, prevention, and available services; condom distribution; bleach kit distribution for cleaning injection equipment; information on available drug treatment options within the community; and HIV testing and confidential risk assessments, have been identified as one of the top three prevention strategies for reducing incidence of HIV among IDUs (Coyle et al., 1998). Providing sterile injection equipment and providing education on safer injection practices remain the primary methods to reduce HCV incidence (Edlin, 2002). While disease transmission rates have gone down in the presence of prevention efforts, HCV rates remain high compared to HIV rates amongst persons who use injection drugs. Hepatitis C transmission is approximately ten times more efficient than HIV (Edlin et al., 2005) indicating prevention efforts need to be directed at more than just using sterile syringes.

Taking it to Treatment Court (TITTC) is the only intervention program within the YCFDTC system to offer clients information on HIV and HCV risk reduction behaviors. This intervention also provides YCFDTC participants the opportunity to enhance their education and awareness of HIV and HCV, build a support system, and receive one-on-one mentoring. After completion of the six hour course, a graduation ceremony is held one week later, open to friends and family. Participants are given the opportunity to discuss what they learned from TITTC. The final stage of TITTC consists of two individual follow up sessions with the group facilitator over a two month period where participants can seek more individualized care and referrals as needed. Participants of TITTC are encouraged to take advantage of the follow up services upon release from the
YCFDTC. Some of these services include family support, job and housing referrals, street outreach, further HIV/HCV counseling, parole planning, and harm reduction counseling (Roche, 2008). Follow-up services are coordinated by the outreach workers who facilitate TITTC.

**Purpose of the Study**

The purpose of this study was to evaluate the HIV/HCV prevention intervention, *Taking it to Treatment Court*. This evaluation examined whether the program (1) increased participants’ knowledge about HIV/HCV risk reduction behaviors and (2) if their attitudes and beliefs about safer sex and drug use were affected. The findings from this study will be used by the Montana Department of Public Health and Human Services, The Yellowstone County Family Drug Treatment Court, and the Montana HIV Prevention Community Planning Group to determine the effectiveness of TITTC. If found effective at increasing participants’ knowledge about HIV and HCV and their intentions to change risk behaviors associated with HIV and HCV, TITTC may be expanded to all family drug treatment courts in Montana.

**Statement of the Problem**

Injection Drug Use (IDU) is the leading risk factor for HCV in the United States today (CDC: Hepatitis C, 2008). As of December 31, 2008 there were 9,593 known cases of HCV in Montana. It is estimated 20 to 40 percent of those cases are related to IDU, or 1,919 to 3,837 cases respectively (Baus: CDC, 2009). The use of injection drugs is a major risk factor for HIV as well. In February 2009 there were 122 known living
cases of HIV related to injection drug use in Montana with 33 percent, or 40 of those cases, in Yellowstone County (MT-DPHHS 2009). Preliminary data from the Montana Department of Public Health and Human Services (2008) estimates 93 known living cases of HIV and HCV co-infection in Montana with injection drug use as the primary risk factor.

Research Questions

Research questions for this study focused on the effect Taking it to Treatment Court had on YCFDTC clients’ knowledge, attitudes, beliefs, subjective norm, and control factors pertaining to HIV and HCV risk reduction behaviors. For the purpose of this study, risk reduction behaviors were defined as abstinence from drug use and safer sex practices through condom use. The questions were as follows:

Hypothesis 1

Intervention participants will demonstrate a significant gain in mean knowledge scores on The HIV Knowledge Questionnaire between pretest and a two week post test.

1a: These gains will be maintained at a three month follow-up post test.

Hypothesis 2

Intervention participants will demonstrate a significant gain in mean knowledge scores on The HCV Knowledge Questionnaire between pretest and a two week follow-up post test.

2a: These gains will be maintained at a three month follow-up post test.
Hypothesis 3

Intervention participants will demonstrate significant gains in intention to practice safer sex as demonstrated by scores on the *Theory of Planned Behavior Questionnaire* between pretest and a two week post test in the following areas:

a) positive attitude toward condom use
b) positive subjective norm toward condom use
c) positive control beliefs regarding condom use

3a: These gains will be maintained or further improve at the three month follow-up post test.

Hypothesis 4

Intervention participants will demonstrate significant gains in intention to abstain from drug use as demonstrated by scores on the *Theory of Planned Behavior Questionnaire* between pretest and a two week follow-up posttest in the following areas:

a) positive attitude toward abstaining from drug use
b) positive subjective norm toward abstaining from drug use
c) positive control beliefs regarding abstinence from drug use

4a: These gains will be maintained or further improve at the three month follow-up post test.

Research Sub-Questions

1. What are the perceptions of individuals who participated in the HIV/HCV prevention intervention, *Taking it to Treatment Court*, in regards to:
a. the extent to which the intervention did or did not empower them to engage in HIV/HCV risk reduction behaviors?

b. aspects of the HIV/HCV intervention that were influential at encouraging them to engage in risk reduction behaviors?

2. How closely does self-reported drug use correlate with urinalysis and arrest records.

**Delimitations**

The delimitations of the study were as follows:

1. The study was delimited to persons enrolled in the Yellowstone County Family Drug Treatment Court in Billings, Montana from August 2009 to April 2010.

2. Data were collected using a written questionnaire, focus groups, and court provided urinalysis data and arrest records.

3. Data collected with the written questionnaire and focus groups were restricted to participants’ self report.

4. The subjects for this study were voluntary participants who self selected themselves.

5. The data collected was delimited to the *Taking it to Treatment Court* curriculum which is a small program within the larger court system.
Limitations

The limitations for this study were as follows:

1. Information gathered in this study from the written questionnaire was limited to the voluntary action of the participants completing the questionnaire.

2. Information gathered in this study from focus groups was limited to participants being able to attend the meetings and openly share their personal information.

3. All of the information collected from the written questionnaire and focus groups all based on self-reporting which can produce socially desirable answers that are not honest or accurate.

4. The study was limited by the small population of participants in the intervention.

Definitions of Terms

Child Abuse and Neglect: Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act which presents an imminent risk of serious harm (US: DHHS, 2009).

HCV: Hepatitis C, viral hepatitis contracted only through transmission of infected blood and can lead to cirrhosis of the liver and/or liver cancer (CDC: Hepatitis C, 2008).

HIV: Human Immunodeficiency Virus, the virus that causes AIDS (CDC, 2006).
**Incidence**: A measure of the frequency of occurrence of a disease or health problem in a population based on the number of new cases over a given period of time (Green and Krueter, 2005).

**IDU**: Injection drug use

**Prevalence**: A measure of the extent of a disease or health problem in a population based on the number of cases (old and new) existing in the population at a given time (Green and Krueter, 2005).

**Recidivism**: habitual relapse into crime and drug use (Huddleston, Marlowe, & Casebolt, 2008).

**Risk Reduction Behaviors**: behaviors that lead to abstinence from drug use and practicing safer sex (Semaan, Des Jarlais, & Malow, 2006)

**Safe sex**: the use of condoms while engaging in sexual behavior to reduce the risk of sexually transmitted infections and HIV (CDC, 2010)

**Seroconversion**: The presence of HIV or HCV antibodies in previously seronegative individuals, or becoming positive for HIV or HCV (Fuller, Ompad, Galea, Wu, Koblin, & Vlahov, 2004).

**TITTC**: Taking it to Treatment Court

**YCFDTC**: Yellowstone County Family Drug Treatment Court
CHAPTER II
Review of Literature

Traditionally there have been three options for the treatment of substance abuse: incarceration, abstinence based programs, and harm reduction (WHO, 2006). Incarceration involves punishing and removing illicit drug users from society using the criminal justice system (Cusick, 2005). Abstinence based programs involve treating drug use as a disease or illness through long-term hospitalization, methadone maintenance programs, outpatient, and self help groups (WHO, 2006). Harm reduction interventions suggest stopping the use of illicit drugs should not always be the top priority, but rather attention should be focused on introducing harm reduction techniques to minimize the risks associated with the injection of illicit drugs, like HIV or HCV contraction (Cusick, 2005). A fourth treatment option emerged in 1989 called drug court. Drug court is a collaborative treatment option with participation from social services, counselors, judges, and the judicial system (Huddleston, Marlowe, & Casebolt, 2008). Drug court seeks to reduce the reliance on incarceration of non-violent drug abusers and fully rehabilitate the individual by treating the addiction through abstinence based program options (Huddleston et al., 2008).

This chapter is an overview of the current literature on drug courts as a treatment option for drug users, the intervention strategies available for reducing HIV and HCV incidence among drug users, and the intervention Taking it to Treatment Court that will be evaluated in this study. The chapter is divided into six sections: 1) Drug Courts, 2) Yellowstone County Family Drug Treatment Court, 3) Description of the intervention,

Drug Courts

The first drug court began operation in 1989 in Dade County, Florida as a response to jails that were overcrowded with individuals on non-violent drug charges (Huddleston, Freeman-Wilson, & Boone, 2004). The drug court model was the first attempt to rehabilitate non-violent drug offenders utilizing the criminal justice system, social services, counseling, and life skills training. The purpose of drug courts is to reduce recidivism and substance abuse rates among nonviolent substance abusing offenders and “increase the offenders likelihood of successful habilitation through early, continuous, and intense judicially supervised treatment, mandatory periodic drug testing, community supervision and use of appropriate sanctions and other habilitation services” (Huddleston et al., 2004).

The Arrestee Drug Abuse Monitoring study (2000) found between one-fourth and one-half of all adult males arrested, and one-half of all females arrested were at risk for drug dependence. The National Survey on Drug Use and Health estimated there were 19.9 million illicit drug users aged 12 and older (DPHHS, 2008). The widespread adoption of the drug court model is an attempt to reduce drug use rates in the United States, and is gaining international popularity as well. As of December 31, 2007 there were 2,147 drug courts operating in the United States, and this number has grown every year since 1989 (Huddleston, Marlowe, Casebolt, 2008). Much public and private funding has come forth to support drug courts over the years as well. The US General
Accounting Office estimated in 1997 that from 1989 to 1997, over $80 million in federal funding went to planning, implementing, improving, and evaluating drug courts across the United States (Wilson, Mitchell, & Mackenzie, 2006).

The time a person spends in drug courts varies, but is generally one year to eighteen months. Individuals have regularly scheduled hearings with a judge to discuss their progress in the program. They also have scheduled urinalysis testing to monitor for drug use (Huddleston et al., 2008). Drug court is a system of rewards and sanctions. Rewards range from verbal praise to dropping the criminal charges upon successful completion of drug court. Sanctions can range from verbal reprimands to incarceration. Drug courts will also assist individuals with finding jobs or a home, reuniting families, and improving social and life skills (Huddleston et al, 2008).

Family treatment drug courts (FTDC) operate on the same premise as adult drug court: to reduce recidivism of drug abusers (Worcel, Furrer, Green, Burrus, & Finigan, 2008). The differences come from who is targeted and the ultimate goal. Clients served in FTDCs are parents with substance abuse problems who are charged with child neglect or abuse. The goal is to treat the parents’ addictions and provide a safe permanent home for the child/ren, whether through reunification with the parent(s) or adoption. The ultimate goal for parents in FTDC is not only avoiding jail time and dropped felony charges, but reunification with their children and permanent custody (Worcel et al., 2008). While reunification is preferred, it is not always in the best interest of the child/ren.

As of December 31, 2007 there were 301 operating FTDC in the United States (Huddleston et al., 2008). The first FTDC began operation in Reno, Nevada in 1995.
(Roche, 2008). These courts seek to break the cycle of addiction that has been correlated with children of addicted parents. Children of addicted parents have a two to nine percent increased risk for developing substance abuse problems later in life (Kumpfer and Johnson, 2007). It is estimated that 25% of children, or 19 million, in the United States under the age of 17 have a parent who is an alcoholic, and 12.7% of children, or 9.2 million, have parents with a chemical dependency (Kumpfer and Johnson, 2007). Having a parent who uses alcohol or drugs increases the likelihood for the child to use later in life. Families that drink alcohol raise youth that drink alcohol 82% of the time, compared to families that abstain from alcohol use who raise children that abstained 72% of the time (Kandel et al., cited in Johnson and Leff, 1999). A national survey conducted by the National Center on Child Abuse and Neglect (2003), found that children of substance abusing parents are three times more likely to be abused and four times more likely to be neglected than children of parents who do not abuse alcohol and/or other drugs (Gaudiosi, 2003).

Like drug court, family treatment drug courts require frequent court hearings (often weekly), intensive judicial monitoring, provisions of substance abuse treatment, drug screening, and rewards and sanctions based on progress through the court system (Huddleston et al., 2008). One major difference between the court models are the populations served; adult drug courts are predominantly male clients, while FTDC are approximately 85% female (Worcel et al., 2007). Another difference is the goal of the clients being served, as mentioned earlier. Drug court participants final outcome is avoiding jail or prison time and having felony drug charges dropped. Family drug court clients’ final outcome is reunification with their children, and hopefully full permanent
custody (Huddleston et al., 2008). Parents in FTDC often times have many issues outside of addiction that need addressing before reunification can occur. Parents must find employment, housing, and demonstrate new parental skills before a child will be returned. Successful treatment of the addicted parent has been positively correlated to the likelihood of reunification with children (Worcel et al., 2008).

Research on whether FTDC is effective is limited. However, preliminary studies are finding promising results. One retrospective study compared participants of a FTDC to clients served through a more traditional child welfare system (Green, Furrer, Worcel, Burrus, & Finigan, 2007). The results found parents were more likely to enter treatment, and entered treatment more quickly, stayed in treatment longer, and were more likely to complete treatment if they were enrolled in FTDC than the child welfare system. The parents in FTDC were also reunified with their children more often than parents in the child welfare program (Green et al., 2007). In a prospective follow up study, Worcel et al., (2008) also found that women who entered FTDC were more likely to enter treatment, entered treatment faster, stayed in treatment twice as long, and were twice as likely to complete treatment as the comparison group. The comparison group was comprised of women who had qualified for FTDC, but were unable to participate. Participants of FTDC were also twice as likely to be reunified with their children as the comparison group (Worcel et al., 2008). While preliminary data is showing positive results for FTDC, more information in needed on why reunification is more prevalent for the drug court model. Studies would benefit from an examination of the various components of FTDC to determine which aspects reduce recidivism and increase the likelihood of parent/child reunification.
Yellowstone County Family Drug Treatment Court

Yellowstone County Family Drug Treatment Court began operating in June 2001 to serve parents with substance abuse problems involved in the Child Welfare System in Yellowstone County, Montana (For a complete list of participant criteria see Appendix C) (Roche, 2008). Yellowstone County is located in south central Montana with an estimated population of 139,936 (US Census Bureau, 2007). The mission of YCFDTC is to reduce the rate of substance use among parents in the Yellowstone County who are involved with the Child Welfare System, reunify parents with their children (when appropriate), and to reduce the frequency of future drug offenses, criminal offenses, and child maltreatment reports for YCFDTC participants (Roche 2008).

The goals of YCFDTC are to:

1. Increase the court’s influence over child abuse and neglect cases;
2. Promote children’s safety by reducing substance abuse and subsequent child abuse and neglect among participants;
4. Address the family’s social and economic needs by identifying the needs and strengths of the family that will aid them in leading a law abiding and substance free life;
5. Strengthen the capacity of families to promote structure, guidance, and nurturance for their children;
6. Increase participants overall physical and mental health status; and
7. Develop and evaluate an operational model for family drug courts to be replicated in other jurisdictions (Roche 2008).

To date YCFTDC has served 97 adults and 167 children. The minimum number of months an individual must remain in the YCFDTC is twelve, but on average participants take sixteen months to graduate (Roche, 2008). As of November 11, 2008, 31 of the 97 participants had graduated from YCFDTC, 26 participants were terminated after being in YCFDTC for more than 60 days, 15 individuals were terminated within the first 60 days of YCFDTC, one individual had their case transferred to Tribal Jurisdiction, 20 clients are still active in the YCFDTC, four opted to return to the regular drug treatment after 60 days, and four opted for regular drug treatment within the first 60 days of YCFDTC (Roche, 2008). The total number of participants is less than 97 because three of the participants graduated twice from YCFDTC and one of the individuals terminated after 60 days was the same individual whose case was transferred to Tribal Jurisdiction (Roche, 2008). Graduation is marked by reunification of the client with their child/ren (Roche, 2008).

In comparison to traditional drug treatment programs, the YCFDTC has been found to have a higher success rate of parent/child reunification. In Roche’s (2008) evaluation of the YCFDTC, a comparison study was mentioned which examined reunification rates between YCFDTC and a control population of parents with child neglect and/or abuse charges related to substance abuse. Results found that permanency of children was established in 74.5% of YCFDTC participants compared to 64% in the control group. Forty nine percent of parental rights were terminated in the control group, compared to 3.7% in the YCFTDC group. Finally, no parental rights were relinquished
in the control group compared to 27.9% relinquished in the YCFTDC group (Roche, 2008). Further studies comparing YCFDTC to other similar treatment models could reinforce the findings from this study to build a stronger case for YCFDTC and other FTDC.

**Description of the Intervention**

_Taking it to Treatment Court_ is a pilot intervention currently implemented as one of the many aspects of the Yellowstone County Family Drug Treatment Court (YCFDTC) in Billings, MT. It is a six hour group level intervention with a follow-up component consisting of phone calls. The primary purpose of the intervention is to educate, motivate, and support the practice of HIV and HCV risk reduction behaviors among participants in YCFDTC.

_Taking it to Treatment Court_ is based on Fishbein’s Theory of Planned Behavior (TPB). This behavior change model distinguishes between attitudes toward a behavior and attitudes towards the outcomes or goals of a behavior. This model demonstrates that behavior can better be predicted based on the attitude toward the behavior, than the attitude toward the outcome (Montano, Kasprzyk, & Taplin, 1997). For example, a person’s attitude toward safer sex and abstinence from drug use is a better predictor of those behaviors than a person’s attitude towards the risk of contracting HIV or HCV from not practicing safer sex or abstaining from drugs.

Furthermore, Fishbein asserts the best way to predict a person’s behavior is by ascertaining that person’s behavioral intention (Montano, et al, 1997). According to this model, there are three direct determinants of behavioral intention:
• **Attitude toward Performing the Behavior**: attitude is determined by the individual’s beliefs about the outcome of the behavior and by how much the individual values that outcome.

• **Subjective Norm**: subjective norm is determined by whether or not important or significant people approve or disapprove of the behavior, weighted by the individual’s motivation to comply with those significant people.

• **Perceived Behavioral Control**: behavioral control is determined by the presence of facilitators and barriers to behavioral performance, weighted by the perceived power of each factor to facilitate or inhibit the behavior.

  Each of the three determinants of behavioral intention is addressed by the intervention TITTC. The following is a description of intervention components designed to influence the model’s three main constructs.

**Elements that Influence Attitudes:**

• Provide information about HIV/HCV transmission.

• Increase perceptions of risk related to HIV/HCV in Montana.

• Address negative attitudes regarding condom use and abstinence from drugs.

• Facilitate the development of personal goals related to HIV/HCV prevention.

• Discuss the relationship between personal goals and behaviors related to those goals.

**Elements that Influence the Participants Subjective Norm:**

• Increase awareness of social norms related to safer sex and drug use.

• Provide support and a safe environment for discussion of social norms related to safer sex and drug use.
• Provide positive role models whose lives demonstrate the successful attainment of the desired behaviors.

**Elements that Influence Perceived Behavioral Control:**

• Develop risk reduction goals and steps for achieving those goals.

• Practice decision-making or problem-solving skills related to barriers to practicing safer sex and/or abstaining from drug abuse.

• Identify and develop methods for managing triggers for engaging in risky sex behaviors and/or drug use.

*Taking it to Treatment Court* also incorporates some of the qualities of effective HIV prevention interventions identified by Lyles et al. (2007) in a meta-analysis of 100 behavioral interventions. The qualities of effective interventions identified were:

• The intervention is structured based on behavioral theory.

• The intervention is facilitated by an individual that is indigenous to the target population.

• The intervention includes technical, personal and interpersonal skill-building components.

• The intervention utilizes a variety of delivery methods:
  
  • discussion,
  
  • demonstration,
  
  • lecture/instruction, and
  
  • role play.
HIV and Injection Drug Use

The human immunodeficiency virus (HIV) is the virus that causes acquired immunodeficiency syndrome (AIDS) (CDC, 2006). HIV lives within the infected individual’s immune system by hosting in the white blood cells, or CD4+ lymphocytes. HIV weakens the individual’s immune system over time leaving them more susceptible to other illnesses and infections (NIDA, 2008). Contact with HIV infected blood or other bodily fluid can transmit the virus. Practicing unsafe sex, vaginally or anally, and injection drug use are the two highest risk factors for exposure to HIV (CDC: Basic Statistics, 2008). The use of non-injection drugs and alcohol can impair judgment and result in risky sexual behavior, such as not wearing a condom, increasing the possibility of exposure to HIV as well. Although IDU is not the most common route of exposure for HIV, IDU continues to expose and infect individuals with the virus indicating more prevention and awareness efforts are needed (CDC: Basic Statistics, 2008).

The first case of HIV among persons who use injection drugs was in New York in 1981. The discovery of HIV among persons who use injection drugs did not gain much national attention immediately, as it was considered to be a geographically isolated incidence of HIV with low prevalence through 1984; only 1,353 cases of HIV were reported up to this point (Des Jarlais, Friedman, & Ward, 1993). More sophisticated tests for the presence of HIV/AIDS antibodies were developed and people were getting testing around the world. Results from individuals’ tests revealed HIV was no longer a small New York issue (Des Jarlais et al., 1993). HIV test results showed half the persons who used injection drugs in New York and northern New Jersey’s were infected with HIV, 30% of Amsterdam’s IDU population were infected, and 50% of Edinburgh and parts of
Italy’s IDU population were infected as well (Des Jarlais, et al., 1993). HIV was also being transmitted to non-injecting sex partners and perinatally from infected mothers. During the 1980s IDU was considered the most common route of exposure to HIV/AIDS (Des Jarlais et al., 1993).

There are approximately 1.1 million people living with HIV in the United States. In 2006 there were 56,300 new cases of HIV diagnosed (CDC: Basic Statistics, 2008). Compared with the rest of the United States, Montana has a low incidence of HIV, 21.1 cases per 100,000 and 1.7 cases per 100,000, respectively (MT-DPHHS, 2009). As of February 17, 2010, there were 955 reported cases of HIV in Montana since 1985; of those reported cases, 445 are living cases. During 2000 to 2008 there was anywhere from 16 to 27 new cases of HIV reported in Montana each year (MT-DPHHS, 2009). In 2008, 22 cases of HIV were reported and five of those cases were related to injection drug use. In total, 13% of the reported cases in Montana are related to injection drug use (MT-DPHHS, 2009). In February 2009 there were 122 known living cases of HIV related to injection drug use in Montana, with 33 percent, or 40 of those cases in Yellowstone County (MT-DPHHS, 2009).

Many factors contribute to the rapid spread of HIV among IDUs. The factors go beyond the sharing of injection equipment. Des Jarlais and Semaan (2008) explain these factors as:

1. Lack of information about HIV/AIDS in the local IDU population.

2. Restricted access to sterile needles and syringes for drug users. The restrictions may be related to laws, such as requiring prescriptions for the sale of syringes and drug paraphernalia, or from law enforcement practices, such as stationing police
near syringe exchange programs or arresting drug users for drug residue in a used syringe.

3. Situations that create rapid risk-partner change where IDUs may share needles and syringes with many IDUs in a short time period. Examples include “shooting galleries” in which a single needle and syringe are rented out to multiple users; “dealer’s works,” where a drug dealer may lend the same needle and syringe to many sequential customers; and “hit doctors,” who may use the same needle and syringe to inject many clients who may have trouble injecting themselves.

4. People recently infected with HIV tend to be very infectious.

Another common practice among persons who use injection drugs is to pool resources to purchase drugs. Pooling resources to obtain drugs increases the likelihood of sharing injecting equipment and backloading. Backloading is the process of dividing drugs using one syringe to fill the drug solution into the backs of other syringes. If the parent syringe is not sterilized before distribution and contaminated with HIV, the opportunity for HIV infection increases (Hahn, Page-Shafer, Lum, Bourgois, Stein, Evans, Busch, Tobler, Phelps, & Moss 2002).

**Prevention Strategies**

The human immunodeficiency virus has no cure. There are several treatment options available to slow down the progression of the disease which involves taking antiretroviral drugs (CDC, 2009). The use of antiretroviral drugs reduces the plasma viral load in the bloodstream to undetectable levels making an individual less infectious (CDC, 2009). While antiretroviral therapy is not a cure, there have been advancements in these over the
years. Since the introduction of combination antiretroviral therapy in 1996, the life expectancy for person’s living with HIV have improved (Schackman, Gebok, Walensky, Losina, Muccio, Sax, Weinstein, Seage, Moore, & Freedberg, 2006). With proper use of combination antiretroviral drugs, life expectancy from the time of diagnosis is 24.5 years. It was estimated in 2006 the lifetime cost to treat HIV for that amount of time was $618,900 (Schackman et al., 2006).

As funding continually goes to finding a cure and vaccination for HIV, prevention strategies remain crucial in slowing the spread of this disease (NIDA, 2008). Intervention strategies to reduce the incidence of HIV among persons who use injection drugs have evolved over time. Some intervention strategies include community outreach, methadone treatment, needle exchange, and in-patient or out-patient abstinence programs (Coyle, Needle, & Normand, 1998).

One of the earliest primary prevention strategies was community outreach, relying on peers and indigenous members of the IDU community to educate out-of-treatment persons who use injection drugs on the dangers of unsafe drug and sex practices using culturally appropriate language and information. Outreach has been identified as one of the top three prevention strategies for reducing incidence of HIV among IDUs (Coyle et al., 1998). Strategies for community outreach are based on harm reduction principles like face to face communication; HIV awareness, prevention, and available services; condom distribution; bleach kit distribution for cleaning injection equipment; information on available drug treatment options within the community; and HIV testing and confidential risk assessments. Coyle et al.’s (1998) meta-analysis on the effectiveness of community based HIV interventions for persons who use injection drugs found that between 24% and
31% of outreach participants reported stopping injecting in the past 30 days. Participants that did not stop injecting reported using less in the past 30 days, from 73 injections per month to 45 injections per month (Coyle et al., 1998).

One study assessed the risk of sexual transmissions for HIV amongst persons who use injection drugs compared to persons who use non-injection drugs (Booth, Kwiatkowski, & Chitwood, 2000). Current drug users, defined as using in the past 30 days, and were out-of-treatment injectors and crack cocaine smokers, were recruited from 22 cities (n=26,982). The cities were part of a National Institute on Drug Abuse Cooperative Agreement which was evaluating the effectiveness of community based intervention strategies to reduce risk behaviors for HIV among persons who use injection drugs (Booth et al., 2000). Participants were interviewed and asked questions about their sexual risk behaviors in the 30 days prior. Results indicated 28 percent reported having sex with two or more individuals, 23 percent had a partner who used injection drugs, 24 percent exchanged sex for drugs or money, and 80 percent reported not using a condom during sex (Booth et al., 2000). Booth et al. (2000) conclude that addressing condom use in prevention strategies for persons who use drugs remains crucial, as sexual transmission remains a primary route of HIV exposure.

**HCV and Injection Drug Use**

Hepatitis C (HCV) is a viral infection of the liver transmitted through contaminated blood and can lead to cirrhosis and liver cancer in chronic cases (CDC: Hepatitis, 2008). Prior to its causative agents discovery in 1989, it was called parenterally transmitted non A and non B hepatitis (WHO, 2000). It is considered the leading cause of chronic liver disease
and liver transplants in the world. Approximately 80% of all HCV cases become chronic, with 10-20% resulting in cirrhosis and 1-5% resulting in liver cancer (WHO, 2000).

HCV is also the most common chronic blood borne infection in the United States (CDC: Hepatitis, 2008). HCV can be transmitted through blood transfusions from unscreened donors, injection drug use, unsafe therapeutic injections and health care related procedures (Shepard, Finelli, & Alter, 2005). It is estimated globally that 170 million people are infected with HCV, or 3% of the total global population, with 3 to 4 million new cases each year (WHO, 2000). The incubation period for HCV can be anywhere from 15 to 150 days, with mild to no symptoms for years. The most common symptoms include jaundice and fatigue (CDC: MTDPHHS, 2008).

Prior to 1990, blood transfusions were the most common route of exposure to HCV in the United States (CDC: Hepatitis, 2008). Upon HCV’s discovery, blood was screened more thoroughly, and the current risk for HCV from blood transfusions in the United States is marginal. Injection drug use is now the most common route of exposure to HCV in the United States and other developed nations (Edlin 2002; CDC: Hepatitis, 2008; WHO, 2000; Shepard et al., 2005). The United States is estimated to have 3.2 million people chronically infected with HCV, with an estimated 30,000 new cases each year (CDC: Hepatitis, 2008). Of those new cases, approximately 68% are attributable to IDU (Shepard et al., 2005). Studies funded by the National Institute on Drug Abuse (2008) have found that within three years of injection drug use, most IDUs will contract HCV, and 90% of HIV infected IDUs may also be infected with HCV.

As of December 31, 2008 there were 9,593 known cases of HCV in Montana (Baus; CDC, 2009). Approximately 20-40 percent of those cases are related to injection
drug use, or 1,919-3,837 cases respectively (Baus; CDC, 2009). In 2008 there were 943 cases of HCV, chronic and acute, reported in Montana and 218 of those cases were in Yellowstone County. The overall rate for HCV in Montana is 97 cases/100,000 population (Baus; CDC, 2009). The number of individuals diagnosed with HCV under the age of 25 was relatively high in Montana, 65 cases per 100,000, most likely indicating injection drug use (MTDPHHS, 2009) and a need for earlier prevention efforts.

HCV prevalence in persons who use injection drugs range from 80-90%, and estimates for the number of people who inject drugs is one to 1.5 million (Edlin, Kresina, Raymond, Carden, Gourevitch, Rich, Cheever, & Cargill 2005). Intervention programs targeted at reducing needle sharing for HIV prevention over the past 15 years were effective, and now fewer IDUs share syringes. However, sharing injection equipment remains a common practice and the reduction in needle sharing has not reduced the incidence of HCV as effectively as HIV. Hahn et al. (2002) recruited persons who use injection drugs and tested for HCV seroprevalence. The persons who use injection drugs that tested negative for HCV were asked to return for a second screening to monitor for seroconversion. Forty-eight participants seroconverted to HCV for a seroconversion rate of 25.1/100 person years. Sixty-seven percent of the participants self-reported borrowing a needle or syringe and 85% had ever shared drug preparation equipment (Hahn et al., 2002).

The transmission of HCV is estimated to be 10 times more efficient than HIV, and is generally a result of not only sharing syringes, but also sharing injection equipment, like cookers (bottle caps, spoons, or any other container to dissolve drugs), and cottons, i.e. filters to remove particulate matter while drawing up the drug solution
into the syringe (Edlin et al., 2005). Backloading, like HIV, is another transmission route for HCV (Hahn et al., 2002). Some other risk factors include pooling money together to buy drugs, exchanging drugs for sex, and spending time in jail (Hahn et al., 2002).

Prevention Strategies

There is no vaccination or established cure for HCV, so prevention methods are crucial in reducing HCV incidence (WHO, 2000; Edlin, 2005). Two antiviral drugs are prescribed for HCV, interferon and ribavirin. Costs for these drugs remain high and the effectiveness is low for chronic HCV seroprevalence. Interferon prescribed alone is effective in 10-20% of patients. Ribavirin is ineffective on its own, but in combination with interferon they are effective in 30-50% of patients (WHO, 2000). Approximately 20% of new HCV cases reverse on their own without any treatment, but it is unknown why this occurs (Edlin, 2002). If detected early, HCV treatments can reverse diagnosis if the virus is still in acute stages (Edlin et al. 2005). Given the minimal success of antiviral drugs in chronic cases, primary and secondary prevention strategies remain critical in preventing the spread of HCV. Most new infections in the US are amongst persons who use injection drugs, and so “developing, testing, and implementing effective prevention and treatment strategies for persons who inject drugs” is the primary way to control HCV (Edlin, 2002, p. s210).

Prevention efforts to slow the spread of HCV amongst persons who use injection drugs have coincided with HIV prevention efforts (Wright and Thompkins, 2006). Like HIV, education is needed to inform persons who inject drugs of the dangers of sharing needles and other injection equipment in regards to HCV exposure (Edlin, 2002).
Providing sterile injection equipment and providing education on safer injection practices remains the primary methods to reduce HCV incidence (Edlin, 2002). Edlin (2002) suggests community based HCV prevention programs are needed as a means to provide outreach, counseling and testing, education on safer injection practices, and link individuals who are positive for HCV to medical care.

The same prevention efforts used to prevent the spread of HIV have not been as effective at reducing the spread of HCV. A meta-analysis (Wright and Tompkins, 2006) on the effectiveness of primary prevention interventions for HCV amongst persons who use injection drugs found that needle exchange programs reduce the incidence of HCV, though prevalence remains high, methadone maintenance programs marginally affected the HCV infection rate, and limited evidence supports the efficacy of behavioral interventions, bleach disinfectants, or drug consumption rooms. Given HCV transmission is approximately ten times more efficient than HIV (Edlin et al, 2005); efforts need to be directed at more than just using sterile syringes. Wright and Tompkins (2006) cited a study conducted in the US which found some evidence that sharing “cookers”, or spoons and/or metal containers to prepare and heat the drugs, presents a greater risk for spreading HCV than sharing cotton filters or water.

**Theory of Planned Behavior**

The Theory of Planned Behavior (TPB) was developed by Ajzen as an extension of the Theory of Reasoned Action (TRA). The TRA was developed by Fishbein and introduced in 1967 (Montano, Kasprzyk, & Taplin, 1997). Measures of attitude and social normative perceptions are determined to predict behavioral intention which in turn
predicts behavior according to the TRA. An individual’s behavioral intentions are based on:

- attitudes toward performing the behavior and
- subjective norm associated with the behavior (Montano et al., 1997).

Attitudes toward the behavior are based on:

- behavioral beliefs toward the action and
- an evaluation of the behavioral outcomes associated with action (Montano et al., 1997).

Subjective norm is based on normative beliefs:

- and whether or not significant others approve of the behavior, and
- the motivation to comply with significant others beliefs on performing or abstaining from the behavior (Montano et al., 1997).

The TPB added a construct examining how perceived control influences behavioral intention as well. The perceived control is based on control beliefs concerned with:

- resource availability for and obstacles to performing the behavior, weighted by
- the perceived power of the resources and obstacles to facilitate or inhibit the behavior (Montano et al., 1997). See Figure 1.

By influencing the predictor variables - attitude toward a behavior, subjective norm, and perceived behavioral control - the likelihood of an individual adopting or abstaining from a particular behavior increases. The more favorable the attitude and subjective norm, and the greater the perceived control, the stronger a person’s intention to perform a behavior becomes (Montano et al., 1997).
All interventions based on the TPB should define their target behavior in terms of its Target, Action, Context, and Time (TACT) (Francis, Eccles, Johnston, Walker, Grimshaw, Foy, Kaner, Smith, & Bonetti, 2004; Ajzen, 2002). For example, consider the behavior of abstaining from drug use. The target is current persons who use drugs, the action is abstaining from drugs, the context is drug use or addiction, and the time is during and post intervention. For safer sex practices, the target is people who do not engage in safer sex practices, the action is condom use, the context is risky sexual behaviors, and the time is during and post intervention.

**Figure 1.** Theory of Planned Behavior

Source: Ajzen and Fishbein, 1980; cited in Montano et al., 1997, p. 87.

To utilize the TPB, a questionnaire must be developed to assess the attitudes toward a behavior, the subjective norm, and the perceived control (Ajzen, 2002). The first step constructing a TPB questionnaire is to conduct elicitation interviews (Ajzen,
Elicitation interviews are semi-structured, open-ended interviews given to individuals of the target population; for this study, current and past drug users with children were interviewed by the Taking it to Treatment Court outreach workers (Appendix A). The elicitation interviewer asks questions pertaining to positive and negative outcomes or attributes associated with the desired behavior, individuals the subject values and listens to on issues concerning the behavior in question, factors that facilitate or obstruct the practice of the desired behavior, and feelings toward performing the behavior (Montano et al, 1997). The information gathered from the elicitation interviews is then analyzed for content on behavioral outcomes, normative referents, and perceived control factors. The identified factors are used to develop TPB measures on behavior, subjective norm and perceived control to be used on the final TPB questionnaire (Montano et al., 1997).

The TPB questionnaires are given to members of the chosen target population and scored. Each item that assesses the individual's attitudes towards a behavior, subjective norm, or perceived control on the TPB questionnaire are determined by a seven-point Likert-like Scale (Montano, et al 1997). For example, an individual will mark where their attitude toward a behavior lies on a scale from strongly agree to strongly disagree. Based on the individuals’ responses a score is calculated for each measure. The score is used to predict whether or not the individual will engage or avoid the target behavior (Ajzen, 2002). The results of the individuals’ responses are also useful to help researchers identify factors that should be targeted for intervention efforts. The intervention efforts should target all constructs of the TPB model in order to maximize effectiveness. For example, “attempting to modify control beliefs concerning factors
that facilitate carrying out one’s intention will not be effective if a person is not motivated to perform the behavior in the first place. Conversely, changing attitude and intention may not result in behavioral change if the person holds strong control beliefs about conditions that constrain the behavior” (Montano et al. 1997, p. 109). Finally, it is important to administer the TPB questionnaire before and after an intervention to evaluate the impact the intervention has on individuals’ attitudes toward behavior, subjective norm, and perceived control. If changes are not found, adjustment can be made based on TPB measures (Montano et al., 1997).
CHAPTER III

Methods

Hepatitis C and HIV infection are serious threats to persons who use injection drugs everywhere. Although HIV incidence rates are dropping among this population, HCV infection remains high. More prevention efforts and educational programs are needed to increase person’s who use injection drugs awareness of the behaviors that increase their probability of contracting HIV and HCV. It is also important for persons who use injection drugs to know their disease status so they can begin medical treatments if necessary and learn how to prevent the spread of HIV and/or HCV. The intervention examined in this study, Taking it to Treatment Court, aims to educate persons recovering from drug use on harm reduction methods to decrease the spread of HIV and HCV. The following sections examine the methods used to evaluate TITTC.

Research Design

This study utilized a mixed methods approach to program evaluation. Researchers gathered information from participants enrolled in Taking it to Treatment Court in Yellowstone County using both quantitative and qualitative data collection and analysis methods. Two methods were used to collect quantitative data; 1) a pretest/posttest non-experimental design and (2) collection of urinalysis and arrest report data from YCFDTC. The survey consisted of four sections and was developed based on the Theory of Planned behavior. Demographic data and information about the individual’s attitudes, beliefs, subjective norms, and control factors related to safer sex practices and abstinence from
drug use were collected. The survey also measured knowledge about HIV and HCV. The survey was administered immediately before the intervention, two weeks post intervention and at a three month follow-up. Researchers looked for changes over time related to the TITTC intervention.

Urinalysis (UA) testing and arrest report data were collected from the YCFDTC. Participants of the YCFDTC are remanded to frequent urinalysis testing. These data were used as a comparison to the self reported data recorded for drug use on the survey.

The qualitative component of the study utilized focus group interviews. Participants were asked to recall their experiences of participation in TITTC, what they liked and did not like about the intervention, and the impact, if any, the intervention had on their lives. Researchers looked for major themes regarding participants’ perceptions of the effects of the intervention on their HIV/HCV risk behaviors.

Description of the Target Population

The target population for the Taking it to Treatment Court Evaluation Survey, Urinalysis and Arrest Report Data consisted of the individuals enrolled in Yellowstone Family Drug Treatment Court between August 2009 and April 2010. Individuals involved in the focus groups were clients enrolled in the YCFDTC from December 2008 to December 2009. The YCFDTC serves substance abusing parents with child abuse and/or neglect charges related to drug use in Yellowstone County, Montana. The families are involved with the Montana Department of Health and Human Services-Child and Family Services Division (Roche, 2008). Participants of YCFDTC must be at least 18 years old.
Protection of Human Subjects

All research materials were approved by the Institutional Review Board (IRB) at the University of Montana to ensure protection of human rights. Information was collected on a voluntary basis and responses were anonymous (See Appendix F).

Sample Selection

Evaluation Survey, Urinalysis and Arrest Reports

The sample for the quantitative portion of the study consisted of all individuals enrolled in Taking it to Treatment Court from August 2009 to April 2010. Clients of YCFDTC during this time were given a research packet along with a $10 cash incentive at the start of TITTC requesting their participation in the study. Willing participants were asked to read and sign the consent form, complete the survey, and place the completed survey in a sealed envelope that was collected by the intervention outreach worker. Given the low number of clients enrolled in YCFDTC each year and the ethical issues associated with withholding information, finding a control group was determined unfeasible.

Focus Group

The sample for the qualitative portion of the study consisted of clients enrolled in TITTC from December 2008 to December 2009. Clients were approached by the outreach workers to participate in a focus group. A written invitation was distributed to past clients. The invitation contained a brief explanation of the focus group procedures and asked the client to check a box indicating that they were “willing” or “not willing” to
participate. Individuals who agreed to participate were asked to provide e-mail or phone contact information and return the invitation to the outreach workers.

**Data Collection**

Data were collected using three different methods: a four part survey, focus group interviews, and urinalysis (UA) and arrest reports. Survey and focus group data were collected from intervention participants who volunteered for this study. Urinalysis and arrest report records on the target population was acquired through the Drug Court Coordinator of the YCFDTC.

**Evaluation Survey Data**

All clients participating in *Taking it to Treatment Court* were given a packet of information before the intervention began. The packet included a cover letter, an informed consent, and a $10.00 cash incentive to complete the survey. The packets were handed out to participants by the outreach workers who conduct TITTC. Participants were asked to place a unique identifier at the top of the survey for the purpose of matching pre, post and three month follow-up surveys. When finished, the completed surveys were placed in a manila envelope by the participants. The envelope was then mailed to the researchers by the outreach worker.

The post test surveys were mailed to the study participants by the outreach workers who routinely ask program participants’ to provide them with names and addresses for the purpose of offering future social support and information as needed. Follow-up surveys were mailed to participants two weeks post intervention and again at
three months post intervention. Each follow-up packet contained a brief explanation of the study, a survey, a $10.00 cash incentive, and a stamped, self-addressed envelope addressed to the researchers at the University of Montana.

Focus Group Data
The outreach worker contacted former TITTC participants and invited them to participate in a focus group. The outreach workers gave the names of willing participants to the YCFDTC Coordinator who scheduled the time and place for the focus groups to occur. Each focus group was held in a private conference room in the evening and lasted approximately one hour. At the beginning of each session the researchers gave an overview of the study and handed out consent forms. Prior to starting the group, study volunteers were reminded the focus groups would be voice recorded, and no identifying information would be linked to the information collected. A $30.00 cash incentive, pizza and beverages were offered to the participants. Additionally, participants were reminded they were free to discontinue their participation at any time and keep the incentive money. During the focus groups one researcher asked the group questions while the second researcher recorded responses on paper.

Urinalysis and Arrest Report Data
Participants who completed the survey filled out a separate form with their name, contact information, and unique identifier. The unique identifier is the same identifier listed on the participants’ surveys. The form was kept with the outreach workers who conducted TITTC. When the UA and arrest report data were needed the outreach worker supplied
the unique identifier to the YCFDTC Coordinator who matched the names of the clients to the identifier. The researchers then contacted the YCFDTC Coordinator who supplied the data via e-mail. Only the YCFDTC Coordinator and outreach worker had access to the information connecting the clients’ name to the identifier. The data collected were matched to the respective participant survey with the unique identifier. This allowed the researchers to compare the UA and arrest report data with the self report survey data without compromising the identity of the YCFDTC client.

**Instruments**

**Taking it to Treatment Court: Evaluation Survey**

Participants were given a survey pre and post intervention and again at a three month follow-up. The survey was 14 pages and consisted of four sections: 1) Demographics, 2) Theory of Planned Behavior Questionnaire, 3) HIV Knowledge Questionnaire, and 4) HCV Knowledge Questionnaire. The survey responses were made anonymous to protect the identities of clients served by YCFDTC (Appendix B). Informed consent forms and completed surveys were collected separately to maintain anonymity of participants. The following sections provide an in-depth examination of each part of the survey.

**Section 1: Demographics**

Participants were asked for basic demographic data such as age, sex, number of children, race, education level, employment status, and marital status. A unique identifier question
was also included at the top of the survey for the purpose of matching pre and post-test surveys and UA and arrest report data.

Section 2: Theory of Planned Behavior

A questionnaire was constructed to measure the variables in the Theory of Planned Behavior (TPB) related to intention to change behavior. Variables measured include attitudes, beliefs, subjective norm, and control factors associated with safer sex practices and abstinence from drug use (Appendix B).

Elicitation Interviews

A critical step in the application of the TPB involves conducting open-ended elicitation interviews to identify the relevant behavioral outcomes, and referents for each particular behavior and population under investigation (Glanz, Rimer and Lewis, 2002). Montano et al (1997) recommends conducting elicitation interviews with individuals who are currently engaging in the desired behavior and with individuals who are no longer engaging in the desired behavior. Participants for the elicitation interviews were recruited by the intervention outreach workers. The open-ended interview questions were sent via mail on February 10, 2009 to sixteen individuals. Participants were asked their current drug use status. The results were as follows:

- eight individuals were recovering drug users,
- two individuals were current users with intentions to stop using, and
- six individuals were current drug users with no intention to stop using.
The elicitation interview consisted of nine questions on drug use and nine questions on safer sex practices (Appendix A). The responses to these questions were used to develop the TPB questionnaire. Once it was constructed, a review of the TPB questionnaire was undertaken by experts on HIV and HCV at the Montana Department of Public Health and Human Services, researchers at the University of Montana, and the intervention outreach workers. Upon completion of this review, the questionnaire was pilot tested by former and current individuals who use drugs and have children, including former participants of TITTC.

Pilot Test
The Theory of Planned Behavior Survey was pilot tested in July of 2009. The purpose of the pilot test was to determine internal consistency and reliability. Fifty five pilot test surveys were distributed by the TITTC outreach workers to current and past drug users. Of these, fifty were returned for a response rate of 92.7 percent. Data were entered into SPSS and Excel.

Internal consistency was calculated on the overall scores for the TPB Drug Use and Safer Sex Questionnaire using Cronbach’s Alpha. Generally a reliability of 0.70 is a sufficient score for a survey instrument; however, it is more desirable for each subscale to fall in the range of 0.80 or higher, and the entire questionnaire to have a reliability of 0.90 or higher (Garson, 2009; uSPEQ, 2008; Gliem and Gliem, 2003). For the entire questionnaire, including the Drug and Safer Sex Sections, Cronbach’s Alpha was (.916), indicating high internal consistency. When ran individually, the Drug Use Section and
the Safer Sex Section of the TPB Survey both had high internal consistency
independently, with $\alpha = 0.899$ and $\alpha = 0.897$, respectively.

The Drug Use and Safer Sex Questionnaires are divided into three sub sections
which correlate to the concepts of the TPB; attitude beliefs, subjective norm, and control
beliefs. The reliability co-efficient for each sub section of the Drug Use and Safer Sex
Questionnaires were calculated using Spearman-Brown split half reliability co-efficient.
The results were:

- Drug Use: Attitude = .615; Subjective Norm = .53; Behavioral Control = .737, and
- Safer Sex: Attitude = .801; Subjective Norm = .667; Behavioral Control = .854.

Generally, a co-efficient of 0.80 or higher is considered adequate reliability (Garson, 2009). A co-efficient of 0.80 or higher was found for the Safer Sex attitude and
behavioral control sections of the questionnaire. A common cutoff for reliability is a co-
efficient of 0.60 (Garson, 2009). The only section of the questionnaire that fell below
this mark was Drug Use: Subjective Norm. The Drug Use subjective norm may have
yielded a low co-efficient because this section consisted of only eight questions.
Increasing the number of questions on a survey can drive the alpha score up to an
adequate level (Garson, 2009).

The final TPB portion of the survey had 87 items, with 50 questions related to
drug use, 30 questions related to safer sex practices, and seven self report items regarding
drug use, safer sex practices and HIV/HCV health status. The TPB survey assessed three
areas: 1) attitudes and beliefs toward drug use and safer sex behaviors; 2) subjective norm
based on factors that reinforce or dissuade drug use and safer sex behaviors; and 3) feelings of control over the behaviors related to drug use and safer sex.

The TPB portion of the survey was scored based on recommendations by Francis et al. (2004). Based on these recommendations, a total score for the three constructs - attitudes towards a behavior, subjective norm and behavioral control - were obtained for each participant. Each construct had an indirect measure. To calculate the score of an indirect measure for any of the three constructs the belief score related to that construct was multiplied by the corresponding motivation to comply score (Francis et al., 2004). The resulting products for each section were summed to create an overall score for attitude, subjective norm, and control belief. The higher an individual’s scores were, the more likely they are to perform the behavior in question. There are three direct measures questions on the survey that utilize the five point Likert-like scale as well. Each direct measure question has a four part answer. To calculate the score of a direct measure question the point values corresponding to the answers supplied are averaged giving a value between one and five. The higher the score the more likely a participants is to perform the behavior in question (Francis et al, 2004).

Section 3: HIV Knowledge

The HIV knowledge questionnaire used in this study was developed by Carey, Morrison-Beedy, and Johnson (1997) (Appendix B). This questionnaire has 45 true/false questions related to the transmission, prevention, and consequences of HIV infection. The HIV Knowledge Questionnaire (HIV-K-Q) was extensively tested by the authors. Carey et al.’s (1997) study included a scale construction and formative evaluation, item and factor
analysis, generalization of the factor solution, reliability, validity, reading level, and completion time required. Measures found the HIV-K-Q was internally consistent and stable over three month intervals. Validity analysis also found the HIV-K-Q to not be associated with other constructs like social desirability, negative or positive mood, self-esteem, depression, dyadic adjustment, sexual satisfaction, or attitudes towards condoms (Carey et al., 1997). The HIV-K-Q is written at a sixth grade level and takes approximately seven minutes to complete (Carey et al., 1997).

Two additional items were included in the HIV-K-Q regarding anti-retroviral drugs. Given the HIV-K-Q is an older instrument it did not have items addressing persons who are positive for HIV and take anti-retroviral drugs. The following true/false/don’t know questions were added:

1. A person cannot get HIV by having sex with a person who is HIV+ but is taking anti-retroviral drugs, and
2. A person cannot get HIV from a person who is HIV+ and has a zero viral load.

The questionnaire was scored by summing the total number of correct answers. The purpose of the HIV-K-Q was to determine if there were gains in HIV knowledge among the participants in Taking it to Treatment Court over time.

Section 4: HCV Knowledge

The Hepatitis C Knowledge Questionnaire (HCV-K-Q) was developed by the researchers (Appendix B). This 22 item questionnaire was developed based on HCV knowledge gained by the researchers through a systematic review of literature about transmission, prevention, and consequences of HCV infection. Content and face validity were
established through a review of the HCV-K-Q by a national HCV expert, HIV/STD prevention staff at MT DPHHS, university professors, and the *Taking it to Treatment Court* outreach workers.

**Pilot Test**

Once the survey was reviewed by experts it was pilot tested by 51 YCFDTC participants enrolled or previously enrolled in *Taking it to Treatment Court* in July of 2009. A total of fifty five surveys were mailed out, for a return rate of 92.7 percent. The results of the pilot test were not included as part of the final study, but were used to improve the content and face validity of the survey. Data were entered into SPSS and Excel. Spearman Brown split half reliability coefficient was calculated and the instrument was found to have adequate reliability (0.793) (Garson, 2009).

The questionnaire was scored by summing the total number of correct answers. The purpose of the HCV-K-Q was to determine if there were gains in HCV knowledge among the participants in TITTC over time.

**Taking it to Treatment Court: Focus Groups**

Questions for the focus groups were developed by the researchers to obtain an understanding of the participants’ perceptions of *Taking it to Treatment Court* and the outreach workers who conduct the intervention. The Theory of Planned Behavior served as the foundation for the development of the focus group interview guide. Questions asked pertained to the effects the intervention may or may not have had on their attitudes, sense of support, and confidence to abstain from drugs and practice safer sex. When
necessary, more specific questions were asked regarding how the intervention influenced knowledge about prevention, transmission, and consequences of HIV and HCV infection and if the knowledge gained increased the likelihood to engage in preventative behaviors (See Appendix D).

**Taking it to Treatment Court: Urinalysis and Arrest Reports**

Urinalysis and arrest report data were collected for the purpose of comparing participants’ self-reported behavior on the TITTC evaluation survey with more objective information. Yellowstone County Family Drug Treatment Court requires all participants to be drug and alcohol tested on a weekly basis by urinalysis (UA). Drug testing is randomized among clients, so individuals are unaware of when or how many times a month they will be called for screening (Roche, 2008). Results of all UAs are given to the YCFDTC Coordinator daily and included in the participant’s *Client Status Report* that is used during clients’ treatment meeting and hearings (Roche, 2008). YCFDTC maintains participant’s arrest reports while in treatment as well. These records were compared to the TPB intentions to abstain from drug use scores to look for a correlation between intentions to abstain from drugs and actually abstaining.

**Data Analysis**

**Taking it to Treatment Court: Evaluation Survey**

Data from the questionnaires were entered into the SPSS statistical package and descriptive statistics were calculated. The degree to which intentions to change risk
behaviors were affected by the intervention was examined and described for each of the three constructs of the behavior change model. HIV and HCV knowledge scores were calculated as well. Mean scores, ranges, and standard deviations for pre, post and three month follow-up survey results were presented in charts. Repeated measures ANOVA was used to determine statistically significant differences in TPB construct scores and HIV and HCV knowledge scores over time. Due to the small $n$ in the study combined with the low return rate on the three month follow-up survey, the researchers also ran $t$-tests on the pretest and two week posttest data to determine if there were any short term statistically significant gains.

In addition, the relationship between the intent to perform behaviors (the predictor variable reported on the post-test survey) and the actual behaviors (the criterion variable representing mandatory drug tests) was examined. Bivariate correlation statistics was used to calculate an $r^2$ value. Researchers’ predict a positive relationship exists between intent to perform a behavior and actually performing the behavior once participants complete TITTC.

**Taking it to Treatment Court: Focus Group**

Analysis of the focus group data was based on qualitative research techniques (Creswell, 1998). The focus groups were taped and notes were taken. Immediately following the focus group, the researchers’ recorded on a contact summary sheet general impressions of the interview process including length of interview, location, a general physical description of the interviewees, and any notable or unusual circumstances. The tapes were transcribed completely and compared to the notes to check for accuracy. The first
part of the analysis involved reading the transcriptions through numerous times and taking notes in the margins. The emergent themes and concepts were organized into separate categories. Lastly, the emergent themes were compared and condensed into overall themes and sub-themes.

**Taking it to Treatment Court: Urinalysis and Arrest Reports**

Urinalysis (UA) and arrest report data were obtained from the YCFDTC Coordinator three months post intervention. Data were collected from three months pre intervention to three months post intervention, corresponding to the self report questions on drug use and arrest history from the evaluation survey. Results of the UA were recorded on a dichotomous scale as passing the drug screen, indicating no presence of drugs, or failing, indicating drug use. These results were compared to the self-reported drug use behavior. Arrest report data was examined in terms of recidivism. The use of UA and arrest report data ultimately contributed to the validation of responses from the evaluation survey and determined if a correlation existed between intention to abstain from drugs and actual behavior.
CHAPTER IV

Results

The purpose of this study was to evaluate *Taking it to Treatment Court*, an HIV and HCV prevention intervention for clients of the Yellowstone County Family Drug Treatment Court. This study examined the effects of the intervention on participants’ knowledge of HIV and HCV and on their behavioral intentions to practice safer sex and abstain from drugs. The following section reports the findings of this study.

**Taking it to Treatment Court: Evaluation Survey**

*Section 1: Demographics*

Eleven participants entered the study; however one dropped out of the YCFDTC system during the evaluation period of this study and did not complete the post test evaluations. Data from this participant was excluded in this analysis. Of the ten participants in the study there were:

- 8 females and
- 2 males.

The average age of participants was 28.2, with a range from 20 to 37 years old. Race was indicated as follows:

- 6 white (non-hispanic),
- 2 American Indian/Alaskan Native,
- 1 Hispanic/Latino/Chicano, and
Nine participants were heterosexual and one was bi-sexual. Seven participants indicated they were single parents, one was separated, and one lived with a partner. The total number of children participants reported was as follows:

- 1 child (n=3),
- 2 children (n=3),
- 3 children (n=1), and
- 4 children (n=3).

Four participants did not have a high school diploma, four received a high school diploma or GED, and two indicated they had attended some college. Six participants indicated they were employed; however none had an income level over $10,000 per year. The majority (n=7) had income levels below $6,000 and two ranged from $6,000 to $10,000. One participant did not indicate an income level.

Section 2: Theory of Planned Behavior

All ten participants completed the Taking it to Treatment Court pre-evaluation survey and two weeks post intervention evaluation survey for a 100% return rate. The three month follow-up survey was completed by five participants. The remaining five participants were sent the three month follow-up survey, but failed to return it for a response rate of 50%. The low return rate of the three month follow up survey resulted in the researchers calculating a paired sample t test with the pretest and two week posttest survey. A repeated measures ANOVA was run on the five participants with all three data points. A p value of .05 was set to determine significance.
Score ranges on the Theory of Planned Behavior survey are based on a five point Likert-like scale and total number of questions. The lower the score the lower an individual’s intention is to perform a behavior, the higher the score the higher an individual’s intention is to perform a behavior. For each section of the TPB survey scores were calculated to determine the possible range of total scores. The ranges are listed in the tables below.

Drug Use Survey

The TPB Drug Use Survey was designed to measure participants’ intentions to abstain from drug use. Mean scores, ranges, and standard deviations for the drug use section of the questionnaire were calculated. Pre, post and three month follow-up scores for the total questionnaire and three subscales of the TPB are illustrated in tables’ one through six below. Results of the paired samples \( t \) test and repeated measures ANOVA follow the respective table.

Table 1. TPB Drug Use Survey – Total Scores

<table>
<thead>
<tr>
<th>TPB INTENTION TO ABSTAIN FROM DRUGS</th>
<th>Mean Score</th>
<th>Range (24-600 possible)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test</td>
<td>353.0 (n=10)</td>
<td>267-433</td>
<td>51.8</td>
</tr>
<tr>
<td>Post Test</td>
<td>401.5 (n=10)</td>
<td>281-508</td>
<td>68.2</td>
</tr>
<tr>
<td>3 Month Follow Up</td>
<td>387.8 (n=5)</td>
<td>286-435</td>
<td>58.4</td>
</tr>
</tbody>
</table>

The TPB Drug Use Survey was designed to measure participants’ overall intentions to abstain from drug use, including attitudinal, normative and control beliefs.
A paired samples \( t \) test was calculated for the TPB Drug Use Survey total scores from pretest to two week posttest. The \( t \) value = -2.313 and \( p = .046 \), which is significant at the \( p = .05 \) level. A repeated measures ANOVA was run on the TPB Drug Use Total scores for pre, post, and three month posttests for the five participants with complete data sets. No significance was found (\( p = .433 \)).

A score below 216 on this subscale indicates a weak intention to abstain from drug use, while a score above 216 indicates a strong intention to abstain from drug use. The three calculated means for this construct show that overall participants had strong intentions to abstain from drug use. The range column shows that none of the individual participants scored below a 216 on the pretest indicating each participant had a relatively strong intention to abstain from drugs prior to engaging in TITTC. The intentions towards abstaining from drugs scores fell during the three month follow-up but remained higher than the baseline scores.

**Table 2.** TPB Drug Use Attitude Sub-Scale Scores

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
<th>Range</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(10-250 possible)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre Test</td>
<td>151.8 (n=10)</td>
<td>98-195</td>
<td>32.3</td>
</tr>
<tr>
<td>Post Test</td>
<td>184.3 (n=10)</td>
<td>129-234</td>
<td>33.2</td>
</tr>
<tr>
<td>3 Month Follow Up</td>
<td>162.8 (n=5)</td>
<td>94-196</td>
<td>40.7</td>
</tr>
</tbody>
</table>

The TPB Drug Use Attitude sub-scale was designed to measure attitudinal beliefs towards abstaining from drug use. Attitudes toward abstaining from drug use are based on behavioral beliefs toward the action and an evaluation of the behavioral outcomes.
associated with action (Montano et al., 1997). A paired samples $t$ test was calculated for the TPB Drug Use Attitudes scores from pretest to two week posttest. The $t$ value $= -2.43$ and $p = .038$, which is significant at the $p = .05$ level. A repeated measures ANOVA was run on the TPB Drug Use Attitudes scores for pre, post, and three month post tests for the five participants with complete data sets. No significance was found ($p = .379$).

A score below 90 on this subscale indicates a negative attitude toward abstaining from drug use, while a score above 90 indicates a positive attitude toward abstaining from drug use. The three calculated means for this construct show overall participants had positive attitudes towards abstaining from drug use. The range column shows that none of the individual participants scored below a 90 on the pretest indicating each participant had a relatively positive attitude toward abstaining from drug use prior to engaging in TITTC. The positive attitudes were maintained through the three month follow up.

<table>
<thead>
<tr>
<th>Table 3. TPB Drug Use Subjective Norm Sub-Scale Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TPB DRUG USE SUBJECTIVE NORM SCORES</strong></td>
</tr>
<tr>
<td>Mean Score</td>
</tr>
<tr>
<td>Pre Test</td>
</tr>
<tr>
<td>Post Test</td>
</tr>
<tr>
<td>3 Month Follow Up</td>
</tr>
</tbody>
</table>

The TPB Drug Use Subjective Norm sub-scale was designed to measure normative beliefs towards abstaining from drug use. Normative beliefs are based on whether or not significant others approve of the behavior, and the motivation to comply
with significant others beliefs regarding performing or abstaining from the behavior (Montano et al., 1997).

A paired samples $t$ test was calculated for the TPB Drug Use Subjective Norm scores from pretest to two week posttest. The $t$ value = -.908 and $p$ = .388, which is not significant at the $p$=.05 level. A repeated measures ANOVA was run on the TPB Drug Use Subjective Norm scores for pre, post, and three month post tests for the five participants with complete data sets. No significance was found ($p$=.827).

A score below 36 on this subscale indicates a negative normative belief, while a score above 36 indicates a positive normative belief. The three calculated means for this construct show overall participants had positive normative beliefs towards abstaining from drug use. The range column shows that none of the individual participants scored below a 36 on the pretest indicating each participant had relatively positive normative beliefs toward abstaining from drugs prior to engaging in TITTC. The positive normative beliefs were maintained through the three month follow up.

**Table 4.** TPB Drug Use Control Sub-Scale Scores

<table>
<thead>
<tr>
<th></th>
<th>Mean Score (n)</th>
<th>Range (10-250 possible)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Test</strong></td>
<td>123.5 (n=10)</td>
<td>89-149</td>
<td>22.9</td>
</tr>
<tr>
<td><strong>Post Test</strong></td>
<td>135.2 (n=10)</td>
<td>90-179</td>
<td>31.5</td>
</tr>
<tr>
<td><strong>3 Month Follow Up</strong></td>
<td>139 (n=5)</td>
<td>112-191</td>
<td>30.7</td>
</tr>
</tbody>
</table>

The TPB Drug Use Control sub-scale was designed to measure participants’ perceived control beliefs towards abstaining from drug use. Perceived control beliefs are
based on resource availability for and obstacles to performing the behavior, weighted by the perceived power of the resources and obstacles to facilitate or inhibit the behavior (Montano et al., 1997). A paired samples t test was calculated for the TPB Drug Use Control scores from pretest to two week posttest. The t value = -1.376 and p = .202, which is not significant at the p=.05 level. A repeated measures ANOVA was run on the TPB Drug Use Control scores for pre, post, and three month follow up post tests for the five participants with complete data sets. No significance was found (p=.458).

A score below 90 on this subscale indicates low perceived control beliefs towards abstaining from drug use, while a score above 90 indicates high perceived control beliefs towards abstaining from drug use. The three calculated means for this construct show overall participants had positive perceived control beliefs towards abstaining from drug use. The range column shows that a participant scored just below 90 on the pretest, however overall participants had relatively high perceived control beliefs prior to engaging in TITTC. The positive control beliefs were maintained through the three month follow up.

Two direct measures questions were asked related to drug use in the attitude and control section. For a direct measure, the participant is given a statement followed by four sub scales consisting of dichotomous terms ranked from 1 through 5 on a Likert-like scale. For example, the phrase “Overall drug use is …” is followed by four pairs of terms such as “enjoyable” and “not enjoyable”. The answers provided by participants are averaged with one indicating negative attitudes or feelings of control towards the behavior and five indicating positive attitudes or feelings of control towards the behavior.
The following are tables with the means, ranges and standard deviations of these constructs.

**Table 5. TPB Direct Measure Drug Use Attitude Scores**

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
<th>Range (1-5 possible)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Test</strong></td>
<td>3.4 (n=10)</td>
<td>1.75-5</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Post Test</strong></td>
<td>3.5 (n=10)</td>
<td>2.5-5</td>
<td>0.72</td>
</tr>
<tr>
<td><strong>3 Month Follow Up</strong></td>
<td>3.86 (n=5)</td>
<td>3.3-4</td>
<td>.31</td>
</tr>
</tbody>
</table>

A paired samples *t* test was calculated for the TPB Direct Drug Use Attitudes scores from pretest to two week post test. The *t* value = -.214 and *p* = .835, which is not significant at the *p* = .05 level. A repeated measures ANOVA was run on the TPB Direct Drug Use Attitudes scores for pre, post, and three month post tests for the five participants with complete data sets. No significance was found (*p* = .569).

A score below three on this subscale indicates negative direct attitudinal beliefs, while a score above three indicates positive direct attitudinal beliefs. The range column shows some participants scored below and above a three on the pretest and two week posttest, indicating direct attitudinal beliefs prior to engaging in TITTC were mixed. By the three month follow up all participants (n=5) had scores over three.
Table 6. Direct Measure Drug Use Control Scores

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
<th>Range (1-5 possible)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Test</strong></td>
<td>3.9 (n=10)</td>
<td>1-5</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Post Test</strong></td>
<td>4.8 (n=10)</td>
<td>3.75-5</td>
<td>0.41</td>
</tr>
<tr>
<td><strong>3 Month Follow Up</strong></td>
<td>4.85 (n=5)</td>
<td>4.25-5</td>
<td>.34</td>
</tr>
</tbody>
</table>

A paired samples \( t \) test was calculated for the TPB Direct Drug Use Control scores from pretest to two week posttest. The \( t \) value = -1.75 and \( p = .114 \), which is not significant at the \( p = .05 \) level. A repeated measures ANOVA was run on the TPB Direct Drug Use Control scores for pre, post, and three month post tests for the five participants with complete data sets. No significance was found (\( p = .738 \)).

A score below three on this subscale indicates low direct control beliefs, while a score above three indicates high direct control beliefs. The range column shows some participants scored below and some scored above a three on the pretest, indicating direct control beliefs prior to engaging in TITTC were mixed. By the two week posttest all participants had scores over three which were maintained over time.

**Safer Sex Survey**

The TPB Safer Sex Survey was designed to measure participants’ intentions to practice safer sex, as defined by using condoms. Mean scores, ranges, and standard deviations for the safer sex section of the questionnaires were calculated. Pre, post and three month follow-up scores for the total questionnaire and the three subscales of the TPB are
illustrated in tables seven through eleven below. Results of the paired samples \( t \) test follow the respective table.

**Table 7.** TPB Safer Sex Survey - Total Scores

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
<th>Range (15-375 possible)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Test</strong></td>
<td>189.2 (n=10)</td>
<td>117-243</td>
<td>47.8</td>
</tr>
<tr>
<td><strong>Post Test</strong></td>
<td>198.2 (n=10)</td>
<td>99-317</td>
<td>71.5</td>
</tr>
<tr>
<td><strong>3 Month Follow Up</strong></td>
<td>212.2 (n=5)</td>
<td>125-276</td>
<td>63.1</td>
</tr>
</tbody>
</table>

A paired samples \( t \) test was calculated for the TPB Safer Sex Total scores from pretest to two week posttest. The \( t \) value = -.592 and \( p=.568 \), which is not significant at the \( p=.05 \) level. A repeated measures ANOVA was run on the TPB Safer Sex Total scores for pre, post, and three month post tests for the five participants with complete data sets. No significance was found (\( p=.914 \)).

A score below 135 on this construct indicates weak intentions to practice safer sex, while a score above 135 indicates strong intentions to practice safer sex. The range column, shows that some individual participant’s intentions to practice safer sex were weak prior to entering TITTC. The weak individual intentions towards practicing safer sex were unchanged through the three month follow up. Findings also show some individual’s intentions were strong from pretest and were maintained through the three month follow up test.
Table 8. TPB Safer Sex Attitude Sub-Scale Scores

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
<th>Range</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Test</strong></td>
<td>104.8 (n=10)</td>
<td>65-155</td>
<td>23.6</td>
</tr>
<tr>
<td><strong>Post Test</strong></td>
<td>97.5 (n=10)</td>
<td>58-157</td>
<td>32.1</td>
</tr>
<tr>
<td><strong>3 Month Follow Up</strong></td>
<td>109 (n=5)</td>
<td>68-137</td>
<td>32.0</td>
</tr>
</tbody>
</table>

The TPB Safer Sex Attitude sub-scale was designed to measure attitudinal beliefs towards practicing safer sex. A paired samples $t$ test was calculated for the TPB Safer Sex Attitude scores from pre test to two week post test. The $t$ value = .816 and $p$ = .435, which is not significant at the $p$ = .05 level. A repeated measures ANOVA was run on the TPB Safer Sex Attitudes scores for pre, post, and three month post tests for the five participants with complete data sets. No significance was found ($p$ = .743).

A score below 72 on this subscale indicates a negative attitude toward practicing safer sex, while a score above 72 indicates a positive attitude toward practicing safer sex. The range column shows that some individual participant’s attitudes towards practicing safer sex were negative prior to entering TITTC and stayed negative over time. Findings also show some individual’s attitudes were positive from pretest and were maintained through the three month follow up test.
Table 9. Safer Sex Subjective Norm Sub-Scale Scores

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
<th>Range (3-75 possible)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Test</strong></td>
<td>33.9 (n=10)</td>
<td>3-65</td>
<td>21.1</td>
</tr>
<tr>
<td><strong>Post Test</strong></td>
<td>37.4 (n=10)</td>
<td>7-75</td>
<td>27.2</td>
</tr>
<tr>
<td><strong>3 Month Follow Up</strong></td>
<td>45.2 (n=5)</td>
<td>25-70</td>
<td>21.3</td>
</tr>
</tbody>
</table>

The TPB Safer Sex Subjective Norm sub scale was designed to measure participants’ normative beliefs towards practicing safer sex. A paired samples *t* test was calculated for the TPB Safer Sex Subjective Norm scores from pretest to two week posttest. The *t* value = -.655 and *p* = .529, which is not significant at the *p* = .05 level. A repeated measures ANOVA was run on the TPB Safer Sex Subjective Norm scores for pre, post, and three month post tests for the five participants with complete data sets. No significance was found (*p* = .718).

A score below 27 on this subscale indicates negative normative beliefs towards practicing safer sex, while a score above 27 indicates positive normative beliefs toward practicing safer sex. The range column shows that individual participant’s normative beliefs towards practicing safer sex range from very negative to very positive prior to entering TITTC and remain this way over time.
Table 10. TPB Safer Sex Control Sub-Scale Scores

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
<th>Range (4-100 possible)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Test</strong></td>
<td>50.5 (n=10)</td>
<td>31-80</td>
<td>17.9</td>
</tr>
<tr>
<td><strong>Post Test</strong></td>
<td>63.3 (n=10)</td>
<td>30-95</td>
<td>24.2</td>
</tr>
<tr>
<td><strong>3 Month Follow Up</strong></td>
<td>58 (n=5)</td>
<td>32-74</td>
<td>17.4</td>
</tr>
</tbody>
</table>

The TPB Safer Sex Control sub scale was designed to measure participant’s perceived control over practicing safer sex. A paired samples $t$ test was calculated for the TPB Safer Sex Control scores from pre test to two week post test. The $t$ value = -1.636 and $p$ = .136, which is not significant at the $p$=.05 level. A repeated measures ANOVA was run on the TPB Safer Sex Control scores for pre, post, and three month post tests for the five participants with complete data sets. No significance was found ($p$=.325).

A score below 36 on this subscale indicates low perceived control beliefs towards practicing safer sex, while a score above 36 indicates high perceived control beliefs toward practicing safer sex. The range column shows that some individual participant’s perceived control beliefs were slightly negative prior to entering TITTC and stayed slightly negative over time. Findings also show some individual’s perceived control beliefs were high from pretest and these beliefs were maintained through the three month follow up test.

One direct measure question was asked related to safer sex attitudes. The following is a table with the means, ranges and standard deviations of this construct.
Table 11. TPB Direct Measure Safer Sex Attitude Scores

<table>
<thead>
<tr>
<th></th>
<th>Mean Score</th>
<th>Range (1-5 possible)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Test</strong></td>
<td>3.6 (n=10)</td>
<td>2.3-5</td>
<td>.85</td>
</tr>
<tr>
<td><strong>Post Test</strong></td>
<td>3.8 (n=10)</td>
<td>2.5-5</td>
<td>.82</td>
</tr>
<tr>
<td><strong>3 Month Follow Up</strong></td>
<td>4.3 (n=5)</td>
<td>3-5</td>
<td>.84</td>
</tr>
</tbody>
</table>

A paired samples *t* test was calculated for the TPB Direct Safer Sex Attitude scores from pre test to two week post test. The *t* value = -1.956 and *p* = .082, which is approaching significance at the *p*=.05 level. A repeated measures ANOVA was run on the TPB Direct Safer Sex Attitudes scores for pre, post, and three month post tests for the five participants with complete data sets. No significance was found (*p*=.410).

A score below three on this subscale indicates negative direct attitudinal beliefs towards practicing safer sex, while a score above three indicates high direct attitudinal beliefs towards practicing safer sex. The range column shows some participants scored below and above a three on the pretest and two week posttest, indicating direct attitudinal beliefs prior to engaging in TITTC were mixed. By the three month follow up all participants (n=5) had scores of three or above.

Self Reported Data

At the end of the TPB Survey, participants were asked 11 questions related to number of times the participant has been in treatment or arrested; drug use history, including frequency and drugs used; arrest charges; if the participant had been tested for HIV or
HCV and the results; and risk factors for HIV and HCV (See Appendix B). The results of HIV and HCV testing and risk factors are reported below (See Table 12). Results of the participants’ responses in regards to treatment, drug use history, and arrest report data are examined further in the Urinalysis and Arrest Report Section.

The pretest TPB self reported data indicated that nine out of the ten participants had been tested for HIV, and none of those individuals tested were positive. Half of the participants (n=5) had been tested for HCV, and three had positive test results (See Table 12). Participants were asked to indicate any risk factors they had for HIV and HCV. The results were as follows:

- injection drug use (n=5),
- having unprotected anal sex with men (n=3),
- having unprotected heterosexual sex (n=6), and
- not a member of a risk group (n=2).

The sum total of these results exceeds ten as participants were able to indicate more than one risk factor.

The two week posttest TPB Self Reported data indicated again that nine out of the ten participants had been tested for HIV, however only eight negative test result responses were given. One participant’s test result datum was missing. At the two week follow up, nine participants indicated they had been tested for HCV, and four had positive test results (See Table 12). Participants were asked again to indicate any risk factors they had for HIV and HCV. The only result that changed from pre to two week post was the category Not a member of a risk group (n=4). The one participant who had
not been tested for HIV was the same participant not tested for HCV. By the three month follow up, this individual indicated she had still not been tested.

**Table 12.** HIV and HCV Testing and Test Results

<table>
<thead>
<tr>
<th>HIV/HCV TESTING AND RESULTS</th>
<th>Participants Tested</th>
<th>Participants Tested Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Pre Test</td>
<td>9 (n=10)</td>
<td>0</td>
</tr>
<tr>
<td>HIV Post Test</td>
<td>9 (n=10)</td>
<td>0</td>
</tr>
<tr>
<td>HCV Pre Test</td>
<td>5 (n=10)</td>
<td>3</td>
</tr>
<tr>
<td>HCV Post Test</td>
<td>9 (n=10)</td>
<td>4</td>
</tr>
</tbody>
</table>

**Section 3: HIV Knowledge Questionnaire**

Ten participants completed the pre and posttest HIV Knowledge Questionnaire for a return rate of 100 percent. Five participants completed the three month follow up HIV KQ, for a return rate of 50 percent. Means, ranges and standard deviations for the pre, post and follow-up scores are reported in table 13 below. The low return rate of the three month follow up survey resulted in the researchers calculating a paired sample $t$ test with the pretest and two week posttest survey. A repeated measures ANOVA was run on the five participants with all three data points. A $p$ value of .05 was set to determine significance. Results of the paired samples $t$ test and repeated measures ANOVA follow table 13.
Table 13. HIV Knowledge Questionnaire Scores

<table>
<thead>
<tr>
<th>HIV KQ DESCRIPTIVE STATISTICS</th>
<th>Mean Score</th>
<th>Range (47 Total Points)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test</td>
<td>37.1 (n=10)</td>
<td>15-43</td>
<td>8.0</td>
</tr>
<tr>
<td>Post Test</td>
<td>39.8 (n=10)</td>
<td>31-44</td>
<td>3.8</td>
</tr>
<tr>
<td>3 Month Follow Up</td>
<td>37 (n=5)</td>
<td>27-43</td>
<td>6.37</td>
</tr>
</tbody>
</table>

A paired samples *t* test was calculated for the HIV KQ from pretest to two week posttest. The *t* value = -.923 and *p* = .38, which is not significant at the *p* = .05 level. A repeated measures ANOVA was calculated for the HIV KQ for pre, post, and three month post tests for the five participants with complete data sets. No significance was found (*p* = .427).

Section 4: HCV Knowledge Questionnaire

Ten participants completed the pre and posttest HCV Knowledge Questionnaire for a return rate of 100 percent. Five participants completed the three month follow up HCV KQ, for a return rate of 50 percent. Means, ranges and standard deviations for the pre, post and follow-up scores are reported in table 14 below. The low return rate of the three month follow up survey resulted in the researchers calculating a paired sample *t* test with the pretest and two week posttest survey. A repeated measures ANOVA was run on the five participants with all three data points. A *p* value of .05 was set to determine significance. Results of the paired samples *t* test and repeated measures ANOVA follow table 14.
Table 14. HCV Knowledge Questionnaire Scores

<table>
<thead>
<tr>
<th></th>
<th>Mean Score (22 Total Points)</th>
<th>Range</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre Test</strong></td>
<td>10.6 (n=10)</td>
<td>5-17</td>
<td>4.5</td>
</tr>
<tr>
<td><strong>Post Test</strong></td>
<td>16.2 (n=10)</td>
<td>12-20</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>3 Month Follow Up</strong></td>
<td>16 (n=5)</td>
<td>11-19</td>
<td>3.32</td>
</tr>
</tbody>
</table>

A paired samples $t$ test was calculated for the HCV KQ from pre test to two week post test. The $t$ value $= -5.154$ and $p = .001$, which is significant at the $p = .05$ level. A repeated measures ANOVA was calculated for the HCV KQ for pre, post, and three month post tests for the five participants with complete data sets. There was a significant difference ($p = .003$). The significance was between the pre and three month follow up survey ($p = .028$), and the pre and two week post survey was approaching significance ($p = .064$). It is important to note the pre and posttest mean scores represent all ten participants. The mean differences between pre, post and three month follow up tests are different for the five participants with complete data sets.

**Taking it to Treatment Court: Focus Groups**

*Description of Focus Groups*

Two focus groups were held on Wednesday December 16, 2009 in Billings, Montana. The meetings were held in a private conference room in the Family Child Services Building each lasting approximately one hour. The YCFDTC Coordinator was present at the start of both groups to introduce clients to the researchers. The groups were seated
around a conference table, dress was casual, and the participants were all friendly and familiar with one another.

The first focus group was held at 4:00 PM and had six participants; one male and five females. No demographic information was collected from the group, however based on the researcher’s observations the group consisted of three non-Hispanic whites and three Native Americans aged 25 to 45. The second group immediately followed the first group at 5:15 PM. The members of this group were four females, and based on observation were three non-Hispanic whites and one Native American aged 21 to 45. Participants were asked how long ago they completed *Taking it to Treatment Court*. One participant had taken it as recent as three months prior, while the rest of the group had completed the course nine months to one year ago.

*Researcher’s Impressions of Focus Group Process*

The purpose of the focus groups was to obtain general impressions of TITTC from former clients. On a whole the participants of these focus groups were compliant, talkative, and friendly. All participants contributed to the discussion, although there tended to be dominant voices in the dialogue. Each group had slightly different dynamics that will be discussed further in the following paragraphs. In general, the participants seemed unenthusiastic about participating in the focus group, but eager to assist the outreach workers in bettering the program and obtaining funding. They appeared slightly confused as to why researchers were asking questions about a program they took nearly a year ago and eager to conclude the meeting. Receiving the incentive money and getting
free food and beverage seemed to be the motivating factors to participate in the focus group.

Focus Group #1
In the first group, a participant’s daughter was present. She was approximately 10 years old, and during the focus group she sat and drew pictures. At one point in time she got up and left the room and came back minutes later which was distracting. Often time’s participants would make light of a discussion by using jokes. The male in the group was used as a scapegoat for many participants to divert attention away from the questions posed by the researchers. The male and one of the females in the group were in a relationship which may have affected the way either of these individuals participated in the discussion. One participant in this group was very quiet and only answered questions when directly asked. A few times members of this group would ask if the meeting was nearly over, which would make other members of the group anxious to leave.

Focus Group #2
The second group had three very talkative women and one relatively quiet woman. All four women knew each other well and had a lot to say that did not pertain to the questions asked. As in the first group, jokes were used frequently as a way to lighten the mood. One of the participants was much younger than the rest and she was used as a scapegoat to divert attention away from the questions posed. This same young woman would provide elaborate stories that were not necessarily related to TITTC or the outreach workers who conduct the intervention. Her stories were distracting for the rest of the
group and the researchers had to continually bring the conversation back to the intervention.

Overall, the depth of information provided by these two groups was very minimal. Neither group directly answered the questions related to the sense of support the intervention gave them. The majority of answers pointed to the intervention being primarily a source of information about HIV and HCV.

**Emergent Themes**

Data were analyzed for common themes, patterns, and constructs during the focus groups. Themes that emerged during the focus groups overlapped between the two groups since the same questions were posed. The following is a look at the major themes discussed by the participants during the focus groups.

*Taking it to Treatment Court was a Positive Experience*

In general, the participants believed the intervention was a positive experience. *Taking it to Treatment Court* was described as informative, positive, relaxed, comfortable, thorough, personal, a chance to meet other YCFDTC participants, and delivered by genuine, caring outreach workers with whom they could identify.

“I thought that it [Taking it to Treatment Court] was very positive, very um, it taught you a lot. It taught me a lot about what I didn’t know about the things that were taught.”

“Um, when I was in the group that all of us were in...were in the Drug Court Program, and so I got to know people that were in that [program] better than I would have had that group not been in place.”

“Very relaxed and comfortable. It wasn’t you know, awkward talking about that stuff you know.”
“They [outreach workers] kept it interesting, they didn’t...They didn’t make you feel uncomfortable. You were welcome no matter what, they were funny, and they also got the point across. [Be]cause I didn’t know nothing about that stuff.”

“They [outreach workers] were really involved with it [Taking it to Treatment Court] because he [an outreach worker] had it [HCV] and it, you know, that just made it more, ah, more sincere and more honest from them really.”

“Yeah, it was realistic. It’s not just something, it’s not going to happen to me, and here I mean, it [HCV] happened to him [outreach worker], and it could easily happen to me. And it just made it more realistic.”

“Once you get through the program, you say, ‘Wow! That was good!’”

**Taking it to Treatment Court Encouraged Participants to Get Tested**

There were many times throughout the focus groups that participants brought up the importance of getting tested for HIV and HCV and how Taking it to Treatment Court encouraged them to get tested. Participants also felt it would be a good idea to offer onsite HIV and HCV testing as part of TITTC in the future.

“Yeah, for me it was like, once you learned the different ways that is it possible to contract, like Hep C, like if you have it, using his razor blade, you know, to shave my legs or something, or sharing tooth brushes, I mean you want to get tested.”

“I just got tested for all of that [HIV and HCV].”

“For Hep C, um, they gave me a couple of mail in test kits.”

“I think that if they have taken out the option to get tested there on the spot, if that was taken from the class, I think it should be put back in.”

“Yeah, [be]cause a lot of times you think, um, well I never shot up or anything like that, so...But then they’re [the outreach workers] like [say]you know, even using tooters can do it [lead to HIV/HCV infection]...”

“Oh yeah. Yeah, I mean, even though I wasn’t an IV user, but you know, I had unsafe protection sex before, and you know, she [the outreach worker] let me know. Especially with someone you really know.”
Outreach Workers Encourage Safer Sex

It was very clear during both focus groups that the outreach workers reinforced the importance of practicing safer sex. Safer sex was defined during the focus groups as using condoms. Participants’ mentioned several times that their level of support for practicing safer sex was increased by the outreach workers. This was achieved by the outreach worker’s dedication to distribute free condoms and lube to YCFDTC clients, education about condom negotiation, and supplying knowledge about resources for reproductive health issues.

“Oh yeah, she always has them [condoms], every day she shows up there is bags of them.”

“I mean she offers them out, she does mention this is a great way to not pass this [HIV] on... She [the outreach worker] does it, she gives them [condoms] to you, and I don’t know... The first time I came home I had like two drawers of them. They are everywhere, so I mean what more of a sense of support for using condoms can you have then everywhere you look there is one.”

“But also, you know, they you know, they tell you where you can get like free testing and where you can go and get like free condoms, and you know birth [control]...”

“They [the outreach workers] just reinforced it [safer sex] a lot.”

“I think I remember her [outreach worker] saying something about it [monogamous relationships]. [Be]cause I was like, I remember saying something about being married and she said that there is always a possibility [for contracting a disease] that he goes out or you know something.”

“Yeah, I’m not scared to tell a dude to put a condom on anymore.”

“Maybe more comfortable than you had ever thought of it [condoms] before. It was kind of like a, oh my god I couldn’t bring that [condoms] up. I’d be so embarrassed. But now, I mean, now you know how to bring that up. It’s not hard.”

“To be able to talk to a partner about it [using condoms] maybe.”
“You know, and it’s more likely for women to carry condoms in their purses now than it is for a man to carry a condom around with him. Or when he knows he’s going to have you know, sex, he’ll be prepared and have them in his car or whatever, they just don’t do it. So that’s their excuse to not use them, well I don’t have it. And if you have them, there is no reason to not use it.”

“Yeah, they gave out free condoms and lube and it was awesome!”

Participants gained knowledge about HIV and HCV

Participants believed the most valuable aspect of the intervention was an increase in their knowledge about HIV and HCV. Gains in knowledge about HIV and HCV were the primary themes discussed during both focus groups. Participants felt the intervention did a good job of presenting HIV and HCV information by clearing up questions or myths pertaining to the viruses and did not leave them with any questions. Overall, participants felt they learned more about HCV than HIV. The HIV knowledge was described as an upgrade of knowledge, whereas the HCV knowledge was all fairly new material.

Participants mentioned specific knowledge gains in the following areas: statistics about HIV and HCV prevalence; where and how to get tested; effects of HIV and HCV on body organs; effects of injection drug use as well as non-injection drug use on the risk of disease transmission; methods for protecting oneself from disease transmission; HIV and HCV etiology and transmission; importance of bleaching drug injecting equipment; negotiating condom use; resource availability for reproductive health; and effects of drug use on important others.

“I liked how they showed you hands on what it did to your body, what it does to your body, your liver, and just talk about the liver, it was nice to see the damage.”

“Just learning the statistics on HIV and Hep C in Montana and how long Hep C is alive.”
“I didn’t know anything about Hep C until I took the class, so it was good information for me.”

“For me it was like kind of a different scope because I have been recently diagnosed with Hep C. I have had it for awhile and didn’t know. So that class really, it had a big impact because it taught me you know, what was really involved, you know. Because I have a lot of misperceptions about how easily my kids could get it, or you know. And it really put my mind at ease and educated me on, on how to keep everybody safe and at the same time, you know, I was going through the HCV treatments. They had a lot of information that really set my mind at ease, so.”

“Yeah, just it was kind of like the, how long it [HCV] survives airborne, it’s, I didn’t, I wouldn’t imagine it being able to live that long.”

“I think mine was learning about the statistics back home in ____ County, you know because I grew up on that reservation and I know all those people pretty much, and to know that like so many of them you know, [have HIV and HCV], and they don’t even know it.”

“I felt, I felt pretty secure when I left it, you know. I had enough knowledge to keep everybody I knew safe. I mean, I wasn’t asking questions, I really felt like they covered most of the area that I would have had any questions about.”

“[I learned] how to protect yourself and you know, be aware of what you can do to yourself. And how easy it is to get, and it is a permanent thing.”

“I do think people mostly feel like, yeah, I kind of know how it [HIV] is passed, and Hep C is really the one that we don’t know.”

Taking it to Treatment Court Encouraged Abstaining from Drugs

Participants felt TITTC provided some motivation to engage in protective behaviors related to abstaining from drugs. Participants mentioned TITTC was an incentive to abstain and offered ways in which the knowledge from the intervention has impacted their thinking. One participant mentioned a time when she relapsed and how she kept reminding herself of the information she learned from the intervention.

“It was an incentive [to abstain].”
“More reasons to think about not doing it [use drugs].”

“It may have, it have done it [made me feel more confident to abstain from drug use] in the fast line of...of, actually catching the disease, that you can catch from using drugs. Opposed to, oh well, I’ll never catch this [HIV or HCV]. You know what I mean? Kind of got the education on it, so you are more likely to think about it, instead of just being like, oh, it’s never been something I had to worry about now, so let’s not even think about it.”

“It is scary to just, to realize how many times I put myself in a situation where I could have gotten it [HIV or HCV].”

“You thought twice before you stuck a needle in your arm that you thought was dirty.”

“It was like, when I relapsed it was always in the back of my head about like passing a loker [glass pipe used to smoke meth] around because the chapped lips. It dehydrates you and that pipe, when you pass it around, you know, you can get it that way because, it was always in the back of my head.”

Participants Respected and Trusted the Outreach Workers

Focus group participants thought very highly of the outreach workers who conduct TITTC. They were described as being knowledgeable, sincere, honest, relatable, personal, funny, supportive, passionate, compassionate, easy to understand, comforting and helpful. Participants were willing to listen to the outreach workers because they were indigenous to the population which allowed the outreach workers to build trust and rapport. Participants of the focus group also talked about whether or not the intervention would work if different outreach workers conducted TITTC. In general participants felt any outreach worker would need to be similar in lifestyle, attitude, passion and experience as the outreach workers who conduct this intervention. Participants mentioned if the outreach workers were not indigenous to the population they would be less respected, effective, or trusted.
“I think their personalities bring a lot to it and makes you want to actually, to listen and pay attention.”

“[T]hey make you laugh, and I mean they make you comfortable.”

“It might be the same if you had other people that were like, like them. You know, had that like you know attitude.”

“People that have lived our life and know what that’s like, it might have the same effect.”

“If I think that part of it for me was just that they really make you want to pay attention [be]cause they are interesting and they relate, you know, you can relate to them, and I don’t know. You know, maybe if someone comes in with text book knowledge of it, I would be bored to tears.”

“It would only be a good program on its own if there was two people involved that had the history and the stories to back up the program. Because you have two people that don’t have anything to do with what you’re teaching, nobody wants to pay attention to those people because they don’t, they don’t have firsthand experience...You want firsthand experience if you are being taught something honest.”

“They are genuine, they’re like us. It’s not just like they are just doing it for the paycheck...”

“If has to be someone who want to do that [teach an intervention]. I mean the reason that it is so effective is because they [the outreach workers] are interested in it.”

“I mean, I think the way they have it set up is great and I don’t know how you could improve upon that, and that’s just kind of, I think that if you had two different people in there and they did it the same way it might not work as well. I think it’s just that you got the two right people doing the right thing.”

“It makes me feel more secure [to know the outreach workers are available when you need them]. I mean, you really could call them.”

“I thought it was very important [the outreach workers offered follow up support]. Very important. And anytime that I have seen her [outreach worker], like at Drug Court when she is there, or whatever, there is so much support from them about anytime contact me, you know. Her little card that she hands out, you know.”
Taking it to Treatment Court: Urinalysis and Arrest Reports

Participants were asked 11 self report questions at the end of the Theory of Planned Behavior survey. The results of their answers to the drug use history and arrest report questions are examined below. The responses given by the participant were compared to actual Urinalysis (UA) and arrest report data supplied to the researchers by the YCFDTC coordinator and compared to scores on the TPB survey. Researchers were looking for correlations between intentions to abstain from drugs and actually abstaining. Each week participants of YCFDTC are remanded to UA screening. The results of these tests are placed in the client’s permanent file along with any records of recent arrests (Roche, 2008). Researchers obtained this information through the use of unique identifiers to maintain anonymity of participants. The YCFDTC Coordinator matched the names of the client to their unique identifier supplied on the study survey. Results were obtained via email.

One of the self report questions asked participants to write in their primary drugs of choice prior to entering YCFDTC. All ten participants responded. The results are based off the pre test survey data and were as follows:

- Alcohol (n=9)
- Marijuana (n=7)
- Methamphetamine (n=1)
- Opiates (n=2)
- Prescription drugs (n=3)

The total for drugs used exceeds ten as participants indicated more than one drug of choice.
Participants of this study were asked to recall how many times in the three months prior to YCFDTC they used drugs and/or injection drugs and how many times they had used drugs and/or injection drugs in the past three months prior to TITTC. Responses to the drug use frequency questions were answered by checking one of four boxes: daily; weekly (1-2 times/week); monthly (1-2 times/month); or never. The following tables show the frequencies of answers given. The three month follow up posttest results represent the five participants with complete data sets.

Table 15. Self Report Frequencies of Drug Use Pretest

<table>
<thead>
<tr>
<th></th>
<th>DU Prior YCFDTC</th>
<th>IDU Prior YCFDTC</th>
<th>DU Past 3 Months</th>
<th>IDU Past 3 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Weekly</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Monthly</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Never</td>
<td>0</td>
<td>6</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 16. Self Report Frequencies of Drug Use Three Month Follow Up Posttest

<table>
<thead>
<tr>
<th></th>
<th>DU Prior YCFDTC</th>
<th>IDU Prior YCFDTC</th>
<th>DU Past 3 Months</th>
<th>IDU Past 3 Months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Weekly</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Monthly</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Never</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
Participants were asked an open ended question in regards to arrest history. They were to write in any charges they had incurred during the past three months. One participant indicated he/she had been arrested for a felony drug charge, three driving under the influences, one fleeing and eluding, and stealing a car. Another participant indicated he/she had been arrested for possession of drug paraphernalia and an outstanding warrant. All other participants indicated this question was not applicable or they had no arrests.

Participants’ UA and arrest records were obtained from three months prior TITTC, to three months post TITTC. The results of this data were compared to overall intentions to abstain from drug use scores on the TPB survey. Researchers were looking for correlations between intentions to abstain from drugs and actually abstaining based on UA data. The following graphs plot the overall behavioral intention to abstain from drugs score with the total number of positive UAs for each participant. A positive UA indicates the presence of drugs in the urine. The two week posttest survey data was not included in this analysis. The data only includes the five participants with complete data sets, as these were the only participants that complete UA data was made available.
Figure 2. Pretest Drug Use Survey Scores and positive UAs.

Of the five participants included in this data set above, the two participants that self-reported no drug use in the past three months had positive UAs. The other three participants that self-reported they used drugs in the past three months did not have positive UA results. A correlation co-efficient was run using Microsoft Excel. There was not a correlation between pretest drug use scores and positive UA results ($r^2=0.002$).
Of the five participants included in this data set above, three participants self-reported they never used drugs in the past three months, which was confirmed by the UA results. The other two participants self-reported they never used drugs in the past three months, and both of these individuals had positive UA results. A correlation coefficient was run using Microsoft Excel. There was not a correlation between three month posttest drug use scores and positive UA results ($r^2=0.059$).
CHAPTER V
Discussion

The purpose of this study was to evaluate the HIV/HCV prevention intervention, *Taking it to Treatment Court*. This evaluation examined whether the program (1) increased participants’ knowledge about HIV/HCV risk reduction behaviors and (2) if their intention to abstain from drug use and/or practice safer sex was affected. Analysis of results from the TPB Questionnaire, the HIV and HCV Knowledge Questionnaire, and focus group interviews are discussed below.

**Intentions to Abstain from Drug Use**

There was overall statistically significant short term gains in intention to abstain from drug use based on the *Theory of Planned Behavior Drug Use Survey* between the pre and two week posttests when examining total scores. Long term gains in intention to abstain from drug use were not seen from the pre to three month follow up surveys when examining the five participants with complete data sets.

In analyzing each subsection of the TPB Drug Use Survey the attitude subsection was the only section found to have short term statistical significance. The significant gains in attitudinal scores from pre to posttest may be a result of increased knowledge about the dangers of HCV when using drugs. Attitudes toward a behavior are based on behavioral beliefs toward the action (If I use drugs I am at high risk for HCV) and an evaluation of the outcomes associated with the behavior (HCV can be a deadly disease) (Montano et al., 1997). Focus group participants mentioned TITTC focused more on
knowledge about HIV and HCV then on support to abstain from drugs, which may be why statistically significant gains were not found for normative beliefs.

Statistically significant gains were not found in the Normative Belief, Control and Direct Measures sub-scales from pre to posttest. While the lack of statistical significant may indicate that the intervention had little effect on normative beliefs and perceptions of control, it is important to note that the lack of significance also may be related to the small sample size or too few questions related to each subscale. Despite the lack of statistical significance, means scores did increase from pre to posttest.

Whether or not TITTC improved normative and control beliefs directly cannot be determined. Participants came into TITTC with high normative beliefs towards abstaining from drugs which may be a result of a strong sense of support from the YCFDTC and this support may have increased over time. Control beliefs were also high at pretest and continued to increase over time. Control beliefs may have increased over time as a result of abstaining from drugs for longer periods of time. Participants may be gaining skills from other YCFDTC programs that allow them to feel more in control towards abstaining from drugs.

The YCFDTC is designed to encourage participants to abstain from drugs through the use rewards and sanctions, and ultimately reunification with their children (Roche, 2008). Overtime, it would be expected that participants’ intentions to abstain from drug use would increase as the incentives become greater. It is hard to definitively conclude that the intentions to abstain from drug use are a result of TITTC independently. However, based on the pretest/posttest results it would appear that TITTC may have contributed to YCFDTC participants’ gains in intentions to abstain from drug use.
Intentions to Practice Safer Sex

Long and short term gains in intention to practice safer sex were not statistically significant. This lack of statistical significant may indicate that the intervention had little effect on intentions to change risky sexual behavior, or the lack of significance may be related to the small sample size or to measurement error. Ambivalence about intentions to practice safer sex, as indicated by the pretest scores, could have contributed to the lack of statistically significant findings. It may also be that a six hour intervention was not long enough to encourage long lasting behavioral change. Research indicates that effective behavioral interventions usually last between 9 and 18 hours and involve more than one meeting (Lyles et al., 2007). This supposition is supported by the fact that changes in attitudes toward drug use, which were reinforced everyday as part of the YCFDTC, were found to be statistically significant, while changes in attitudes toward safer sex that were encouraged only during the six hour TITTC program were not.

It is important to note that although there was no statistically significance change from pre to posttest, means scores did increase over time. This increase in scores from pre to posttest is supported by comments from focus group participants who indicated TITTC did a good job of offering free condoms and lube, encouraging safer sex practices, and condom negotiation.

HIV Knowledge

The results of the paired samples t test showed the short term and long term gains in HIV knowledge were not significant from pre to posttest. This lack of significance may be due, in part, to the high pretest scores. The pretest scores indicated that participants had a
good understanding of HIV prevention and transmission before participating in TITTC. Since HIV has been the focus of prevention efforts for 17 years (Kops, 2010) high pretest scores may be indicative of the effectiveness of these prevention efforts.

Despite the high scores on the HIV knowledge questionnaire, analysis of individual questions reveals areas that would benefit from more emphasis. Many participants incorrectly answered questions on the posttest and three month follow up tests related to the types of body fluids that transmit the virus. Many also were unaware of behaviors that put them at risk for HIV as well as being unaware of the effects of antiretroviral drugs on transmission risk.

Results from the focus group interviews tended to reinforce the results from the HIV knowledge questionnaire. Most participants indicated TITTC was a good refresher of information on HIV and cleared up any myths they believed in regards to HIV transmission and prevention. However, outside of the current epidemiologic information presented, none of the focus group participants stated that the HIV knowledge provided was new material. Overall, this may indicate that less time needs to be spent on general information about HIV during interventions. Instead, intervention specialists may want to focus on common myths or misunderstandings about HIV/AIDS transmission and prevention.

HCV Knowledge

Participants in TITTC showed significant short term gains in HCV knowledge scores from pre to two week post evaluations. Long term gains in HCV knowledge were upheld from pretest to three month follow up when analyzing the five participants with complete
data sets. Pretest scores on the HCV Knowledge Questionnaire were much lower on average than pretest scores on the HIV Knowledge Questionnaire. This is not surprising given that HIV has been the focus of prevention efforts for the past 17 years, while HCV prevention has received minimal funding and little attention in the state of Montana (Kops, 2010) or nationally (Edlin, 2002).

Results of the focus groups reinforced the findings from the HCV questionnaire. The majority of participants indicated they had little to no prior knowledge about HCV before TITTC. Most participants indicated the education about HCV in TITTC was valuable and necessary. Despite the significant gains in knowledge from pre to posttest on the HCV questionnaire, there were several questions many participants answered incorrectly on both the pretest and the posttest. Questions most frequently missed were those related to: the prevalence of HCV; knowledge about symptoms of acute and chronic HCV; and modes of transmission. Emphasis on these topics may encourage uninfected individuals to avoid behaviors that put them at risk for infection, as well as encourage those infected with HCV to recognize symptoms, seek treatment, and avoid further disease transmission.

The effects of the intervention on HCV knowledge and behavior are further reinforced by the findings from the question regarding HCV testing. Prior to TITTC, only five participants had been tested for HCV. Two weeks post intervention nine participants had been tested. This may indicate that TITTC was an incentive for HCV testing. Offering this service as part of TITTC may ensure all participants are tested in the future.
Perceptions of Taking it to Treatment Court

The general impressions based on the focus group data were *Taking it to Treatment Court* offered more in the way of knowledge than encouraging abstinence from drug use or practicing safer sex. Participants mentioned they felt encouraged by the outreach workers to engage in these behaviors, but more emphasis was placed on the intervention educating clients about the risks of HIV and HCV.

Many of the comments provided during the focus groups were validated by the TITTC Evaluation Survey results. Participants mentioned the intervention taught them more about HCV than HIV, and the survey data showed significant gains in HCV knowledge, but not HIV knowledge. The gains in knowledge may be why a short term change in attitudes toward drug use was found.

Studies have tried to capture what makes an HIV intervention effective. Lyles et al. (2007), in a meta-analysis of 100 behavioral interventions, describes the qualities of an effective HIV prevention intervention. The qualities of effective interventions identified in the meta-analysis that TITTC meet are:

- the intervention is based on behavioral theory,
- the intervention encourages social or group support,
- the intervention is facilitated by an individual that is indigenous to the target population,
- the intervention helps participants develop plans or set goals for risk reduction,
- the intervention includes technical, personal and interpersonal skill-building components, and
- the intervention utilizes a variety of delivery methods:
Discussion

Demonstration

Lecture/Instruction

Role play (Lyles et al., 2007).

While these qualities are satisfied by TITTC and were mentioned by participants of the focus groups, some important qualities are missing. Important qualities missing from TITTC include:

- 9-18 hours of intervention time over more than one session,
- stress reduction and management skill building, and
- identification and management of triggers for risky sexual behaviors.

The interventions examined by Lyles et al. (2007) which contained these components saw significant gains in condoms use, reduced number of sexual partners, reduced incidence of sexually transmitted infections, and reduced IDU or needle sharing at three to twelve month follow ups. These behaviors would not only protect against HIV transmission, but HCV transmission as well. By following more of these recommendations from Lyles et al. (2007), TITTC may become a more effective behavioral intervention to minimize risky sexual and drug use behaviors.

**Urinalysis and Arrest Report Correlation**

Data collected from the YCFDTC coordinator indicated that no participants were arrested during the study time. Two participants indicated they had been arrested, however the arrests specified may have occurred before the time of the study and so were not relevant.
Urinalysis data showed positive UA results for three of the five participants with complete data sets. The self-report and UA data did not match for any of the pretest surveys; participants either checked they never used drugs and did, or checked they used drugs but had negative test results. For the three month posttest data, three participants self report answers matched the UA data and two participants indicated they never used drugs but had positive test results. There was no correlation between any of this data. The lack of correlation may be a result of small sample size, participants offering socially desirable answers, or high behavioral intentions not resulting in direct behavioral change immediately.

**Limitations**

Limitations exist within all study designs that may impact the results. There were many limitations within this study that could have impacted the data collected. The following is an examination of the limitations.

This study was limited to a small sample size. Eleven participants entered the study, ten completed the two week follow up, and five completed the three month follow up. The participant that dropped out of the study was terminated from the YCFDTC and so was unable to complete the study. While the sample size was small, the ten participants comprised the total population of clients in YCFDTC during the time of the study. However, only five of the ten participants completed all three data points, resulting in a less than desirable sample size and only half the total population.

Clients of YCFDTC are required to attend weekly hearings with the drug court judge, counseling sessions, and other courses and groups throughout the 12 to 18 months
they are enrolled in the program. *Taking it to Treatment Court* is only one six hour intervention offered to these clients. It is however, the only intervention that provides information on HIV and HCV prevention. While the gains in HCV knowledge may be attributed to TITTC, it is difficult to discern if changes in intention to abstain from drugs were the result of participation in TITTC or a combination of many factors related to participation in YCFDTC. Had this study utilized a control group, more definitive conclusions could have been drawn. However, given the small sample size and the difficulty of recruiting a comparable control group, this was not a feasible option.

Focus group data was limited to the participants who attended the meetings. Approximately 15 participants were recruited, however only ten showed up. The ten participants who attended the focus groups may represent a group of individuals with similar ideals and values based on their willingness to participate and follow through with their commitment. There were also dominant participants in both focus groups. The quotes selected may only reflect the opinions and attitudes of these few individuals rather than the entire group. Dominant participants may have discouraged other participants from getting involved as well, which might have resulted in an omission of other important attitudes and opinions of TITTC.

The focus groups were conducted by two researchers from the University of Montana. The drug court coordinator was present before and after each focus group, but was not part of the dialogue. The presence of two individuals who are not indigenous to the population may have discouraged participants from disclosing too much information. The participants may not have trusted the researchers, or gave socially desirable answers to protect themselves and the outreach workers they were evaluating. Participants of
YCFDTC may have also worried of disclosing incriminating information which could result in program sanctions, losing child custody, or being arrested, regardless of confidentiality being established.

**Recommendations**

The population examined in this study appears to have a solid foundation for HIV knowledge, and less of an understanding of HCV. It would be beneficial to continue to incorporate HCV education for drug use interventions, as injection drug use is the primary route of transmission for this virus (CDC: Hepatitis, 2008). Offering sterile injection equipment or information on where such equipment could be obtained may also result in a reduction in HCV transmission (Edlin, 2002) as well as encouraging safer drug use practices should relapse occur. TITTC’s effectiveness may also benefit from focusing more heavily on misconceptions, myths, sexual transmission and condom use for HIV amongst this population, as injection drug transmissions rates are low and sexual transmission remains a primary route of exposure (Booth et al., 2000). Many participants missed questions pertaining to these topics on the pre and posttest survey as well.

It would also be advisable to increase the length and number of sessions of the intervention to match the recommendations from Lyles et al. (2007). This would allow additional time to incorporate more of the elements of an effective HIV intervention. TITTC appeared to have had a greater effect on factors related to HCV rather than HIV prevention, so lengthening the intervention and emphasizing the difference in transmission modes between HIV and HCV may be useful for future interventions. For example, one or two sessions could focus on HCV and intentions to abstain from drugs.
and one or two sessions could focus on HIV and intentions to practice safer sex. This distinction might help participants understand that while HIV and HCV are both diseases that afflict persons who use drugs, their primary modes of transmission are dramatically different. While it is possible to transmit HCV sexually, the rate of sexual transmission is minimal. HIV can be transmitted via injection drug use; however sexual transmission is the primary route of infection for this virus (Booth et al., 2000). Furthermore, individuals who take the necessary precautions to protect themselves from HCV when injecting drugs would also ensure protection from HIV (Edlin et al., 2005; Hahn et al, 2002). This has been seen in needle exchange programs where HIV and HCV incidences decrease overtime (Edlin et al., 2005). In the end, separating information base on primary modes of transmission may reduce confusion about disease transmission and risks.

Finally, TITTC may benefit from offering on site testing to ensure all participants know their disease status which may contribute to a reduction in disease transmission. While this study found increases in the total number of participants tested for HCV from pre to posttest, there was still one individual who was not tested through the three month follow up. Individuals who test positive for HIV and/or HCV can also seek out medical attention and counseling as needed.

Conclusions

The data collected during this research was used to determine the effectiveness of Taking it to Treatment Court. While the small sample size limited the researchers ability to draw definitive conclusions based on statistical tests, several findings appear to have practical
significance for prevention specialists who work with individuals who use injection drugs.

One of the most important finding in this study may be the dramatic difference between participants’ gains in knowledge about HCV versus gains in knowledge about HIV. HCV has not been the primary focus of prevention efforts targeted toward drug users and as a result transmission and prevalence rates are alarmingly high among persons who use injection drugs (Edlin, 2002). It is not surprising then that participants’ scores on the Hepatitis C Knowledge Questionnaire at baseline were low and that focus group results validated participants’ lack of knowledge about HCV. The positive effects of the intervention can be clearly seen in the two week posttest and three month follow-up results from this study wherein participants made significant gains in knowledge about HCV transmission and prevention. In addition, the effects of the intervention on HCV are reinforced by the increase number of participants who were tested for HCV from pretest to two week posttest. Both these finding strengthens the argument by Edlin (2002) that more emphasis needs to be placed on HCV prevention for persons who use drugs.

On the other hand, HIV prevention has been the focus of prevention efforts in Montana for nearly two decades (Kops, 2010) and may be the reason baseline scores on the HIV Knowledge Questionnaire were high. Because of the high initial scores, no increase in knowledge was found on either the two week posttest or the three month follow-up test. This may indicate that relative to HCV less intervention time needs to be spent on information on HIV.
A second important finding in this study was the statistically significant increase
in intentions to abstain from drug use from pretest to two week posttest. This increase
may be, in part, a result of increased knowledge about HCV. Knowing the dangers of
HCV may have provided the participants further incentive to abstain from drugs. It is
also highly probable that increased intention to abstain from drug use was a result of the
combined effects of YFDTC’s and TITTC’s focus on abstinence from drug use. It was
not possible to separate the effects of participants’ overall involvement in the day to day
activities of drug treatment court from the effects of the six hour TITTC intervention.
However, it is likely that both programs contributed to the short term statistically
significant change in intentions to abstain from drug use.

A third important finding in this study was that intentions to practice safer sex
were not significantly changed over time. Overall, TPB Safer Sex scores were mixed
prior to the intervention indicating participants had mixed feeling about intentions to
practice safer sex and mixed attitudinal, normative, and control beliefs towards the
behavior. Despite the ambivalence of some of the survey participants about practicing
safer sex, focus groups participants reported that the outreach workers did a good job of
handing out condoms and lube and encouraging safer sex. Gains may not have been seen
because the intervention may not have been long enough to effect changes in sexual
practices.

Finally, it is important to recognize that despite the small sample size
statistically significant increases over time were found in HCV knowledge and in
intentions to abstain from drug use. Given that this intervention may have been effective
at increasing HCV knowledge, may have contributed to participants gains in intentions to
abstain from drugs and is perceived in a positive light by individual participants, it may be worthwhile to consider expanding it to other treatment courts where HIV/HCV education and prevention are woefully absent and where evaluation efforts can be expanded to include a comparison of individuals who participate in TITTC and those who do not participate.
REFERENCES


97

Appendix A

Elicitation Interview Survey
THEORY OF PLANNED BEHAVIOR: ELICITATION INTERVIEWS

☐ recovering user
☐ current user/intention to stop
☐ current user/no intention to stop

DRUG USE
Behavioral Outcomes of Drug Use

1. What do you believe are the positive aspects of drug use?
2. What do you believe are the negative aspects of drug use?
3. Is there anything else you associate with drug use?

Normative Referents for Drug Use

1. Are there any individuals or groups who would approve of your drug use?
2. Are there any individuals or groups who would disapprove of your drug use?
3. Are there any other individuals or groups who come to mind when you think about drug use?

Control Factors for Drug Use

1. What factors or circumstances would enable you to stop using drugs?
2. What factors or circumstances would make it difficult or impossible for you to stop using drugs?
3. Are there any other issues that come to mind when you think about the difficulty of not using drugs?

☐ Practicing safer sex
☐ Not Practicing safer sex
SAFER SEX

Behavioral Outcomes of Safer Sex

1. What do you feel are the advantages of safer sex, i.e. male/female condom use?

2. What do you feel are the disadvantages of safer sex?

3. Is there anything else you associate with safer sex?

Normative Referents for Safer Sex

1. Are there any groups or individuals who would approve of you having safer sex?

2. Are there any groups or individuals who would disapprove of you having safer sex?

3. Are there any other individuals or groups who come to mind when you think about safer sex?

Control Factors for Safer Sex

1. What factors or circumstances would enable you to practice safer sex?

2. What factors or circumstances would make it difficult or impossible to practice safer sex?

3. Are there any other factors that come to mind when you think about the difficulty of practicing safer sex?
Appendix B

Taking it to Treatment Court: Evaluation Survey
Taking it to Treatment Court: 
Evaluation Survey 
2009-2010

University of Montana 
Department of Health and Human Performances

Elizabeth Speaker, BA 
Annie Sondag, PhD; CHES
Taking it to Treatment Court:
Evaluation Survey

Instructions:
Please read each question thoroughly and answer to the best of your ability. Do not spend much time answering each question; generally your first thought is the best answer.

Your identity will be completely protected and the answers you provide will not be used against you in any way. Absolutely do not write your name anywhere on this survey.

If at any time you decide you are not comfortable with a question or completing the survey please do not hesitate to leave the question blank or stop filling out the survey.

Thank you very much. Your time is greatly appreciated!

Code Number

Please circle the month you were born:

AND Write the first three letters of your mother’s first name: ___________
Section 1: Demographics

1. Age: _____ years

2. Biological Sex (sex at birth):
   □ Male       □ Female

3. What is your sexual orientation?
   □ Heterosexual/straight       □ Bisexual
   □ Homosexual/gay or lesbian   □ Unsure

4. What is your relationship status?
   □ Single       □ Widowed
   □ Married  □ Living with a partner/not married
   □ Divorced
   □ Separated

5. How many children do you have?
   □ 1 □ 2 □ 3 □ 4 □ 5 □ 6 □ 7+

6. What is the highest level of education you have completed?
   □ Less than high school       □ Some college
   □ High school graduate/GED    □ College graduate
   □ Trade vocational school     □ Graduate/Professional school

7. Prior to treatment had you been tested for? (circle one)
   HIV: Yes No
   Hepatitis C: Yes No

8. Are you employed or do you have other regular income?
   □ Yes       □ No

9. Which of the following represents your individual yearly income?
   (The amount you would claim on your income tax forms.)
   □ < 6,000       □ 35,001 - 50,000
   □ 6,001 - 10,000 □ 50,001 - 75,000
   □ 10,001 - 20,000 □ 75,001 - 100,000
   □ 20,001 – 35,000 □ 100,000+
10. With which of the following do you identify?

- White (non-Hispanic)
- American Indian/Alaska Native
- Black/African American (non-Hispanic)
- Hispanic/Latino/Chicano
- Asian/Pacific American
- Bi-racial or multi-racial/ethnic (Please specify) _______________
- Other (Please specify) _______________

Section 2: Drug Use and Safer Sex Survey

<table>
<thead>
<tr>
<th>Sample Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>The questions in this survey use a seven point scale to rank each item. Please mark the position on the scale you feel best fits your opinion. For example, the question may ask you to rank the following statement:</td>
</tr>
<tr>
<td>Summer is my favorite season of year.</td>
</tr>
<tr>
<td>Extremely</td>
</tr>
<tr>
<td>If you extremely agree that summer is your favorite season, then you mark an X where the number one would be.</td>
</tr>
<tr>
<td>Summer is my favorite season of the year</td>
</tr>
<tr>
<td>If you feel summer is neither your favorite, nor least favorite season of the year, then you mark an X where the number four would be.</td>
</tr>
<tr>
<td>Summer is my favorite season of the year</td>
</tr>
<tr>
<td>In marking your ratings, please remember the following points:</td>
</tr>
<tr>
<td>➢ Be sure to answer all items</td>
</tr>
<tr>
<td>➢ Never supply more than one answer for any one question.</td>
</tr>
<tr>
<td>Some of the questions may appear to be asking the same thing, however they are asking somewhat different issues. Please read the questions carefully before marking your answer.</td>
</tr>
</tbody>
</table>
Each question in the section below refers to your PAST DRUG USE

<table>
<thead>
<tr>
<th>Question</th>
<th>Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Drug use is a way for me to escape from my problems</td>
<td>Strongly agree___ ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>2. If I stop using drugs my friendships with people who use drugs will end</td>
<td>Extremely likely___ ___ ___ ___ ___ Extremely unlikely</td>
</tr>
<tr>
<td>3. Drug use leads to ________ relationships with my family</td>
<td>Very good___ ___ ___ ___ ___ Very poor</td>
</tr>
<tr>
<td>4. I will get my kids back if I stop using drugs</td>
<td>Strongly agree___ ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>5. Going to jail because of my drug use</td>
<td>Extremely likely___ ___ ___ ___ ___ Extremely Unlikely</td>
</tr>
<tr>
<td>6. My health is __________ when I use drugs</td>
<td>Very poor___ ___ ___ ___ ___ Very good</td>
</tr>
<tr>
<td>7. I have lost touch with reality because of drug use</td>
<td>Strongly disagree___ ___ ___ ___ ___ Strongly agree</td>
</tr>
<tr>
<td>8. Drugs have made it_______ for me to hold a steady job</td>
<td>Extremely likely___ ___ ___ ___ ___ Extremely Unlikely</td>
</tr>
<tr>
<td>9. Overall, I think drug use is</td>
<td>Harmful___ ___ ___ ___ ___ Beneficial</td>
</tr>
<tr>
<td></td>
<td>Pleasant___ ___ ___ ___ ___ Unpleasant</td>
</tr>
<tr>
<td></td>
<td>Enjoyable___ ___ ___ ___ ___ Not enjoyable</td>
</tr>
<tr>
<td></td>
<td>Easy to avoid___ ___ ___ ___ ___ Difficult to avoid</td>
</tr>
<tr>
<td>10. Using drugs increases my risk for HIV</td>
<td>Extremely likely___ ___ ___ ___ ___ Extremely Unlikely</td>
</tr>
<tr>
<td>11. Using drugs increases my risk for Hepatitis C</td>
<td>Extremely likely___ ___ ___ ___ ___ Extremely Unlikely</td>
</tr>
<tr>
<td>12. Escaping from my problems through drug use is</td>
<td>Extremely Undesirable___ ___ ___ ___ ___ Extremely Desirable</td>
</tr>
<tr>
<td>13. Maintaining my friendships with friends who use drugs is</td>
<td>Extremely Undesirable___ ___ ___ ___ ___ Extremely Desirable</td>
</tr>
<tr>
<td>14. Maintaining positive relationships with my family</td>
<td>Extremely Undesirable___ ___ ___ ___ ___ Extremely Desirable</td>
</tr>
<tr>
<td>Question</td>
<td>Rating Options</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>15. Getting my kids back is</td>
<td>Extremely Desirable ___ ___ ___ ___ Extremely Undesirable</td>
</tr>
<tr>
<td>16. Going to jail is</td>
<td>Extremely Undesirable ___ ___ ___ ___ Extremely Desirable</td>
</tr>
<tr>
<td>17. Maintaining good health is</td>
<td>Extremely Undesirable ___ ___ ___ ___ Extremely Desirable</td>
</tr>
<tr>
<td>18. Losing touch with reality is</td>
<td>Extremely desirable ___ ___ ___ ___ Extremely Undesirable</td>
</tr>
<tr>
<td>19. Maintaining a steady job</td>
<td>Extremely Undesirable ___ ___ ___ ___ Extremely Desirable</td>
</tr>
<tr>
<td>20. Decreasing my risk for/spreading of HIV by not using drugs is</td>
<td>Extremely Undesirable ___ ___ ___ ___ Extremely Desirable</td>
</tr>
<tr>
<td>21. Decreasing my risk for/spreading of Hepatitis C by not using drugs is</td>
<td>Extremely Desirable ___ ___ ___ ___ Extremely Undesirable</td>
</tr>
<tr>
<td>22. My using friends think that I use drugs</td>
<td>Should ___ ___ ___ ___ Should not</td>
</tr>
<tr>
<td>23. My parents and siblings think that I use drugs</td>
<td>Should ___ ___ ___ ___ Should not</td>
</tr>
<tr>
<td>24. My child/children think that I use drugs</td>
<td>Should ___ ___ ___ ___ Should not</td>
</tr>
<tr>
<td>25. The Yellowstone Family Treatment Drug Court thinks that I use drugs</td>
<td>Should ___ ___ ___ ___ Should not</td>
</tr>
<tr>
<td>26. My using friends’ opinions on my drug use are important to me</td>
<td>Extremely ___ ___ ___ ___ Not at all</td>
</tr>
<tr>
<td>27. My parent’s and sibling’s opinions on my drug use are important to me</td>
<td>Extremely ___ ___ ___ ___ Not at all</td>
</tr>
<tr>
<td>28. My child’s/children’s opinions on my drug use are important to me</td>
<td>Extremely ___ ___ ___ ___ Not at all</td>
</tr>
<tr>
<td>29. The Yellowstone Family Treatment Drug Court’s opinions on my drug use are important to me</td>
<td>Extremely ___ ___ ___ ___ Not at all</td>
</tr>
<tr>
<td>Question</td>
<td>Options</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>30. I lack the knowledge of how to stop using drugs</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>31. The threat of going to jail/prison is enough to keep me from using drugs</td>
<td>Disagree ___ ___ ___ ___ Agree</td>
</tr>
<tr>
<td>32. When I am depressed or lonely I am___________________ to use drugs</td>
<td>Unlikely ___ ___ ___ ___ Likely</td>
</tr>
<tr>
<td>33. I will have to find new friends that do not use drugs</td>
<td>Unlikely ___ ___ ___ ___ Likely</td>
</tr>
<tr>
<td>34. Running into using friends tempts me to use again</td>
<td>Very much so ___ ___ ___ ___ Not at all</td>
</tr>
<tr>
<td>35. When my kids are around I use drugs</td>
<td>Unlikely ___ ___ ___ ___ Likely</td>
</tr>
<tr>
<td>36. Being around drugs tempts me to use</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>37. I have used drugs to cope with stress</td>
<td>Unlikely ___ ___ ___ ___ Likely</td>
</tr>
<tr>
<td>38. I am able to find a job</td>
<td>Likely ___ ___ ___ ___ Unlikely</td>
</tr>
<tr>
<td>39. My family relationships fell apart because of my drug use</td>
<td>Unlikely ___ ___ ___ ___ Likely</td>
</tr>
</tbody>
</table>
| 40. Having the knowledge on how to stop using drugs would make it _______ | \begin{tabular}{l}
<p>| that I would stop using \end{tabular} |
|                                                                               Less likely ___ ___ ___ ___ More likely |
| 41. I will not go to jail/prison because of my drug use                   | Agree ___ ___ ___ ___ Disagree                                           |
| 42. I can cope with depression or loneliness without turning to drugs    | Unlikely ___ ___ ___ ___ Likely                                          |
| 43. It is _______ that I will find new friends that do not use drugs      | Extremely likely___ ___ ___ ___ Extremely unlikely                      |
| 44. I can run into using friends and control my urges to use             | Extremely likely___ ___ ___ ___ Extremely unlikely                      |
| 45. It is _________________ that I will use again if I do not get my kids back | Extremely likely___ ___ ___ ___ Extremely unlikely             |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Likelihood Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>46. I can be around drugs and not use</td>
<td>Extremely likely ___ ___ ___ ___ Extremely unlikely</td>
</tr>
<tr>
<td>47. Feeling stressed would make it ___________ that I would use drugs to cope</td>
<td>Extremely likely ___ ___ ___ ___ Extremely unlikely</td>
</tr>
<tr>
<td>48. Having a job makes it ___________ to stay off drugs</td>
<td>Much more difficult ___ ___ ___ ___ Much easier</td>
</tr>
<tr>
<td>49. I am ____________ to stay clean if my regain my relationships with my family</td>
<td>Less likely ___ ___ ___ ___ More likely</td>
</tr>
<tr>
<td>50. Changing my entire lifestyle to stay clean will be</td>
<td>Very undesirable ___ ___ ___ ___ Very desirable</td>
</tr>
<tr>
<td></td>
<td>Extremely likely ___ ___ ___ ___ Extremely unlikely</td>
</tr>
<tr>
<td></td>
<td>Beneficial ___ ___ ___ ___ Harmful</td>
</tr>
<tr>
<td></td>
<td>Good ___ ___ ___ ___ Bad</td>
</tr>
</tbody>
</table>

Each question in this section refers to you practicing safer sex. Safer sex is defined as using a condom.

<table>
<thead>
<tr>
<th>Question</th>
<th>Likelihood Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>51. Using a condom does not feel good</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>52. I will lose the trust of my partner if I decide we should use condoms</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>53. Being with a partner for a long time reduces the need to use condoms</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>54. Using condoms reduces my risk for HIV and other Sexually Transmitted Diseases (STDs)</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>55. Using condoms reduces my risk for Hepatitis C</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>56. Using a condoms inconvenient</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>57. Condoms are too expensive</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>58. Having sex without a condom with a casual partner is too risky</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>59. Having sex without a condom is _____________________________ sex with a condom</td>
<td>More desirable ___ ___ ___ ___ Less desirable</td>
</tr>
<tr>
<td>60. Maintaining the trust of my partner is _________________ than asking my partner to use a condom</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>More important ___ ___ ___ ___</td>
<td>Less important</td>
</tr>
</tbody>
</table>

61. It is _________________ that I will use condoms with a long time partner

| Likely ___ ___ ___ ___ | Unlikely |

62. Reducing my risk for HIV and other STDs by using a condom is

| Extremely desirable ___ ___ ___ ___ | Extremely undesirable |

63. Reducing my risk for Hepatitis C by using a condom is

| Extremely desirable ___ ___ ___ ___ | Extremely undesirable |

64. The convenience of having sex without a condom is ____________ than sex with a condom

| More desirable ___ ___ ___ ___ | Less desirable |

65. Regardless of the expense of condoms it is __________ that I will still use condoms

| Very Likely ___ ___ ___ ___ | Very Unlikely |

66. Protecting myself from STDs or pregnancy that may occur from sex without a condom with a casual partner is:

| Very Unlikely ___ ___ ___ ___ | Very Likely |

67. My current sex partner thinks I/we __________ use condoms

| Should ___ ___ ___ ___ | Should not |

68. My friends think I _________________ use condoms

| Should ___ ___ ___ ___ | Should not |

69. Any casual sex partners I have had thought I/we _____________ use condoms

| Should ___ ___ ___ ___ | Should not |

70. My sex partner’s opinions about condom use are important to me

| Extremely ___ ___ ___ ___ | Not at all |

71. My friend’s opinions about condom use are important to me

| Extremely ___ ___ ___ ___ | Not at all |

72. My casual sex partner’s opinions about condom use are important to me

| Extremely ___ ___ ___ ___ | Not at all |

73. I am confident that I could use a condom when I am not sober

<p>| Strongly agree ___ ___ ___ ___ | Strongly disagree |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>74. The decision to use condoms is beyond my control</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>75. I am confident that I could use a condom when in the heat of the moment</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>76. The resources I need to practice safer sex are not available to me</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>77. For me to use a condom when I am not sober is</td>
<td>Extremely likely ___ ___ ___ ___ Extremely unlikely</td>
</tr>
<tr>
<td>78. Whether or not a condom is used during sex is entirely up to me</td>
<td>Strongly agree ___ ___ ___ ___ Strongly disagree</td>
</tr>
<tr>
<td>79. For me to use a condom when in the heat of the moment is</td>
<td>Extremely likely ___ ___ ___ ___ Extremely Unlikely</td>
</tr>
<tr>
<td>80. If I had the resources available I would use condoms all the time</td>
<td>Extremely likely ___ ___ ___ ___ Extremely unlikely</td>
</tr>
<tr>
<td>81. Overall, I think using a condom is</td>
<td>Harmful ___ ___ ___ ___ Beneficial</td>
</tr>
<tr>
<td></td>
<td>Pleasant ___ ___ ___ ___ Unpleasant</td>
</tr>
<tr>
<td></td>
<td>Likely for me to do ___ ___ ___ ___ Unlikely for me to do</td>
</tr>
<tr>
<td></td>
<td>Extremely Easy ___ ___ ___ ___ Extremely Difficult</td>
</tr>
</tbody>
</table>
Past Behavior: Self Report

82. I have been in drug treatment _____ times, excluding this time.

83. In the three months prior to entering Yellowstone County Family Drug Treatment Court (YCFDTC) I used drugs:
   - Daily
   - Weekly (1-2 times/week)
   - Monthly (1-2 times/month)
   - Never

84. In the three months prior to entering YCFDTC I injected drugs:
   - Daily
   - Weekly (1-2 times/week)
   - Monthly (1-2 times/month)
   - Never

85. In the past three months I have used drugs:
   - Daily
   - Weekly (1-2 times/week)
   - Monthly (1-2 times/month)
   - Never

86. In the past three months I injected drugs:
   - Daily
   - Weekly (1-2 times/week)
   - Monthly (1-2 times/month)
   - Never

87. In the three months prior to entering YCFDTC I used the following drugs:

88. Prior to entering YCFDTC I was arrested _____ times.

89. During the past three months I have been arrested for the following charges:

90. I have been tested for HIV (circle one):  yes  no
   a. If yes, I was:
      - positive
      - negative

91. I have been tested for HCV (circle one):  yes  no
   a. If yes, I was:
      - positive
      - negative

92. My risk factors for HIV/Hepatitis C include:
   - Injection Drug Use
   - Having unprotected anal sex with men
   - Having unprotected heterosexual sex
   - Not a member of a risk group
## Section 3: HIV Knowledge Questionnaire

For each statement, please check True, False, or Don’t Know.

If you do not know, please do not guess; instead, circle “Don’t Know.”

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>HIV and AIDS are the same thing.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>2.</td>
<td>There is a cure for AIDS.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>3.</td>
<td>A person can get HIV from a toilet seat.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>4.</td>
<td>Coughing and sneezing DO NOT spread HIV.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>5.</td>
<td>HIV can be spread by mosquitoes.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>6.</td>
<td>AIDS is the cause of HIV.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>7.</td>
<td>A person can get HIV by sharing a glass of water with someone who has HIV.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>8.</td>
<td>HIV is killed by bleach.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>9.</td>
<td>It is possible to get HIV when a person gets a tattoo.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>10.</td>
<td>A pregnant woman with HIV can give the virus to her unborn baby.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>11.</td>
<td>Pulling out the penis before a man climaxes/cums keeps a woman from getting HIV during sex.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>12.</td>
<td>A woman can get HIV if she has anal sex with a man.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>13.</td>
<td>Showering, or washing one’s genitals/private parts, after sex keeps a person from getting HIV.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>14.</td>
<td>Eating healthy foods can keep a person from getting HIV.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>15.</td>
<td>All pregnant women infected with HIV will have babies born with AIDS.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>16.</td>
<td>Using a latex condom or rubber can lower a person’s chance of getting HIV.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>17.</td>
<td>A person with HIV can look and feel healthy.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>18.</td>
<td>People who have been infected with HIV quickly show serious signs of being infected.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>19.</td>
<td>A person can be infected with HIV for 5 years or more without getting AIDS.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>20.</td>
<td>There is a vaccine that can stop adults from getting HIV.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td>21.</td>
<td>Some drugs have been made for the treatment of AIDS.</td>
<td>True [ ] False [ ] Don’t Know [ ]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>22. Women are always tested for HIV during their pap smears.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>23. A person cannot get HIV by having oral sex, mouth-to-penis, with a man who has HIV.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>24. A person can get HIV even if she or he has sex with another person only one time.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>25. Using a lambskin condom or rubber is the best protection against HIV.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>26. People are likely to get HIV by deep kissing, putting their tongue in their partner’s mouth, if their partner has HIV.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>27. A person can get HIV by giving blood.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>28. A woman cannot get HIV if she has sex during her period.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>29. You can usually tell if someone has HIV by looking at them.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>30. There is a female condom that can help decrease a woman’s chance of getting HIV.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>31. A natural skin condom works better against HIV than does a latex condom.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>32. A person will NOT get HIV if she or he is taking antibiotics.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>33. Having sex with more than one partner can increase a person’s chance of being infected with HIV.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>34. Taking a test for HIV one week after having sex will tell a person if she or he has HIV.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>35. A person can get HIV by sitting in a hot tub or a swimming pool with a person who has HIV.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>36. A person can get HIV through contact with saliva, tears, sweat, or urine.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>37. A person can get HIV from a woman’s vaginal secretions/wetness from her vagina.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>38. A person can get HIV if having oral sex, mouth on vagina, with a woman.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>39. If a person tests positive for HIV, then the test site will have to tell all of his or her partners.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>40. Using Vaseline or baby oil with condoms lowers the chance of getting HIV.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
<tr>
<td>41. Washing drug use equipment/”works” with cold water kills HIV.</td>
<td>[ ] True</td>
<td>[ ] False</td>
</tr>
</tbody>
</table>
## Section 4: Hepatitis C Knowledge Test

The following questions are true/false/don’t know and multiple choice. If you do not know, please do not guess; instead, circle “Don’t Know.”

<table>
<thead>
<tr>
<th>Question</th>
<th>True</th>
<th>False</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hepatitis C affects which body organ?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Heart</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Lungs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Liver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Kidneys</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Don’t Know</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Hepatitis C is caused by ________?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Bacteria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ A Virus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ A Fungus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Don’t Know</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. If I have received vaccinations for hepatitis I no longer have to worry about Hepatitis C?</td>
<td>True</td>
<td>False</td>
<td>Don’t Know</td>
</tr>
<tr>
<td>□ True</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ False</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Don’t Know</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. More people have Hepatitis C than HIV/AIDS.</td>
<td>True</td>
<td>False</td>
<td>Don’t Know</td>
</tr>
<tr>
<td>□ True</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ False</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Don’t Know</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Hepatitis C is spread by</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Blood</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Saliva</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Eating contaminated food/water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Seminal/vaginal fluid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Don’t Know</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Don’t Know</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. What is the most common way of getting Hepatitis C today?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Sexual Activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Eating contaminated food/water</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Blood Transfusions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Don’t Know</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>□ Injection Drug Use</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7. When having sex with someone who has Hepatitis C, you should ________.
   - Always wear a condom
   - Wear a condom if an STD or cut is present
   - Never wear a condom
   - Sometimes wear a condom
   - Don’t Know

8. What percentage of individuals with Hepatitis C will develop chronic health conditions?
   - 10-15%  
   - 30-35%  
   - 60-65%  
   - 80-85%  
   - Don’t Know

9. What is the most common symptom of chronic Hepatitis C?
   - Fatigue  
   - Insomnia  
   - High blood pressure  
   - Flu-like symptoms  
   - Don’t Know  

10. What is the most common symptom of acute Hepatitis C?
    - Fatigue  
    - Insomnia  
    - High blood pressure  
    - Flu-like symptoms  
    - Don’t Know

11. If I am diagnosed with Hepatitis C but have no symptoms I do not need to seek medical attention until symptoms develop?
    - True  
    - False  
    - Don’t Know

12. Hepatitis C can cause ________.
    - Heart Attack  
    - Stroke  
    - Cirrhosis of the liver  
    - High blood pressure  
    - Don’t Know

13. Antibiotics can treat Hepatitis C?
    - True  
    - False  
    - Don’t Know

14. Is there a risk of transmitting Hepatitis C from an infected mother to an unborn child?
    - No risk  
    - Yes, a potential risk exists  
    - Yes, if the mother had Hepatitis C before she was pregnant  
    - No, if she got Hepatitis C while she was pregnant  
    - Don’t Know

15. How long does it usually take before chronic signs or symptoms appear after Hepatitis C infection?
    - Within the first year  
    - 5-10 years  
    - 20-30 years  
    - Hepatitis C has no symptom  
    - Don’t Know
16. Hepatitis C is not always life threatening?

- □ True
- □ False
- □ Don’t Know

17. How many people in the US are estimated to have Hepatitis C?

- □ 100,000
- □ 500,000
- □ 1.5 million
- □ 4 million
- □ Don’t Know

18. If I received a blood transfusion before 1992 I am at risk for Hepatitis C?

- □ True
- □ False
- □ Don’t know

19. I am at risk for Hepatitis C when I use drugs that I do not inject?

- □ True
- □ False
- □ Don’t Know

20. Hepatitis C can remain active and contagious for up to four days outside the body?

- □ True
- □ False
- □ Don’t Know

21. How can you determine whether or not you have Hepatitis C?

- □ Tired all the time
- □ Constant abdominal pain
- □ Blood Test
- □ Urine Test
- □ Don’t Know

22. Touching or using the bathroom after someone with Hepatitis C puts me at risk for Hepatitis C?

- □ True
- □ False
- □ Don’t know

Thank you again for your time!!!
Appendix C

Yellowstone County Family Drug Treatment Court: Participant Criteria
13th Judicial District
Yellowstone County Family Drug Treatment Court
Participation Criteria

The court is targeting parents whose children have been placed into the child welfare system due to abuse and/or neglect related to substance abuse, using the listed criteria to determine eligibility.

Client must meet the following criteria to be considered for participation in YCFDTC:
- Parent is 18 years of age or older
- Parent has neglected/abandoned child and there are allegations of substance abuse
- The child has been removed and the parent(s) acknowledges the removal is due to substance abuse-related neglect
- Parent meets DSM-IV criteria for drug/alcohol dependence
- Parent is able to understand and willing to comply with Participation Agreement and Informed Consent
- Parent is willing to participate in Yellowstone County Family Drug Treatment Court
- Child(ren) have been adjudicated as youth in need of care and temporary legal custody has been granted to DPHHS-Child and Family Services Division
- Treatment team approval

If client meets one or more of the following criteria, client will be ineligible for participation in YCFDTC:
- Parent is not a resident of Yellowstone County, Montana
- Parent has been convicted of a deliberate homicide or murder, kidnapping, robbery, felony assault or other violent felonies, sex offenses
- Parent has another charge pending for which (s)he would be deemed ineligible
- Parent has a medical or psychiatric condition causing a degree of impairment or instability such that it would interfere with program participation and functioning
- Parent can not effectively participate in YCFDTC because of time constraints imposed by the Adoptions and Safe Families Act
Appendix D

Focus Group Questions
Focus Group Questions

1. What do you recall about the HIV/HCV program?

2. What effect, if any, did the program have on you while you were going through treatment court?

3. More specifically, what effect did your participation in the program have on the following:
   a. Your knowledge about how to prevent HIV
   b. Your knowledge about how to prevent HCV
   c. Your attitude about abstaining from drug use
   d. Your attitude about using condoms
   e. Your sense of support for abstaining from drug use from significant people in your life
   f. Your sense of support for using condoms from significant people in your life
   g. Your level of confidence that you will be able to abstain from drug use
   h. Your level of confidence that you will be able negotiate the use of condoms with your sexual partners

4. What suggestions do you have for improving future HIV/HCV prevention programs?

5. Do you have any additional comments that you would like to add about the program or anything else we’ve discussed?

6. If you were to choose one thing that was most memorable or most helpful about the program, what would it be?

7. How effective do you think the program would be if it were taught by someone other than Casey and Eddie?
Appendix E

Cover Letter to Participants
Dear Taking it to Treatment Court Participant,

My name is Casey Rudd and I’ll be facilitating a program you will be attending called, “Taking it to Treatment Court.” The state public health department wants to conduct an evaluation study of the program to see if it makes a difference in the lives of people who participate. Therefore, we are asking you to complete the questionnaire enclosed in this packet.

Enclosed you will find the Taking it to Treatment Court Evaluation Survey along with $10 for completing the survey. A self addressed stamped envelope is also provided for you to mail your responses directly to the researchers at the University of Montana. Again, all your answers will remain anonymous, and your identity will not be disclosed to the researchers at the University of Montana or facility of the Yellowstone County Family Drug Treatment Court. You can also participate in a focus group that will be held after Taking it to Treatment Court has ended. Upon participation you will receive $20?

Thank You,

Casey Rudd
Appendix F

Institutional Review Board Approval
At The University of Montana (UM), the Institutional Review Board (IRB) is the institutional review body responsible for oversight of all research activities involving human subjects outlined in the U.S. Department of Health and Human Services Office of Human Research Protection (http://www.hhs.gov/ohrp) and the National Institutes of Health, Inclusion of Children Policy Implementation (http://grants.nih.gov/grants/funding/children/children.htm).

Instructions: A separate registration form must be submitted for each project. IRB proposals are approved for three years and must be continued annually. Faculty members may email the completed form as a Word document to IRB@umontana.edu. Students must submit a hardcopy of the completed form to the Office of the Vice President for Research & Development, University Hall 116.

1. Administrative Information

   **Project Title:** Evaluation of an HIV/HCV Intervention: Taking it to Treatment Court  
   **Principal Investigator:** Elizabeth Speaker  
   **Title:** BA, Research Assistant  
   **Email address:** hpspeaker@yahoo.com elizabeth.speaker@umontana.edu  
   **Work Phone:** 406-381-2795  
   **Department:** HHP  
   **Office Location:** McGill 239

2. Human Subjects Protection Training (All researchers, including faculty supervisors for student projects, must have completed a self-study course on protection of human research subjects within the last three years [http://www.umontana.edu/research/compliancecenter/irb/]) and be able to supply the “Certificate(s) of Completion” upon request. Add rows to table if needed.

<table>
<thead>
<tr>
<th>NAME and DEPT.</th>
<th>PI</th>
<th>CO-PI</th>
<th>Faculty Supervisor</th>
<th>Research Assistant</th>
<th>DATE COMPLETED Human Subjects Protection Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elizabeth Speaker, HHP</td>
<td>☒</td>
<td>☒</td>
<td>☒</td>
<td>☐</td>
<td>9/16/2008</td>
</tr>
<tr>
<td>Annie Sondag, HHP</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>1/2008</td>
</tr>
</tbody>
</table>

3. Project Funding

   Is grant application currently under review at grant funding agency? ☐ Yes ☒ No  
   Has grant proposal received approval and funding? ☐ Yes ☒ No  
   **Agency:** MT-DPHIS  
   **Grant No.:** 09-07-4-51-026-0  
   **Start Date:** January 1, 2009  
   **End Date:** December 31, 2009  
   **PI:** Annie Sondag

   Is this part of your thesis or dissertation? ☒ Yes ☐ No  
   If yes, date you successfully presented your proposal to your committee: 5/21/2009

IRB Determination:

☑ Approved by Expedited Administrative Review  
☑ Approved (see *Note to PI*)  
☐ Conditional Approval (see memo) - IRB Chair Signature/Date:  
☐ Conditions Met (see *Note to PI*)  
☐ Resubmit Proposal (see memo)  
☐ Disapproved (see memo)  

Final Approval by IRB Chair: [Signature]  
Date: 6/10/09  Expires: 6/9/10

*Note to PI: Study is approved for one year. Use any affected IRB-approved forms (supplied to IRB) as "masters" when preparing copies. If continuing beyond the expiration date, a continuation report must be submitted. Notify the IRB if any significant changes or unanticipated events occur. Notify the IRB in writing when the study is terminated.