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DEPARTMENT OF CRIMINOLOGY

I CAN QUIT WHENEVER I WANT TO:
SELF-PERCEPTION OF ALCOHOLISM IN A DUI COURT CONTEXT

ROBIN MOUSSA
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A thesis
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Reviewed and approved* by the following:

Lecinda Yevchak
Assistant Teaching Professor of Criminology
Thesis Supervisor

Stacy Silver
Associate Professor of Sociology and Human Development and Family Studies
Honors Adviser

* Signatures are on file in the Schreyer Honors College.

ABSTRACT

The increasing prevalence of DUI court programs, a relatively new phenomenon in the criminal justice landscape, is changing our national response to DUI offenses. DUI courts target repeat offenders and use a non-adversarial approach that emphasizes treatment and accountability to reduce DUI recidivism. This study, an analysis of data collected from the Centre County DUI Court program, explores the relationships between age, gender, self-perceptions of alcoholism, intended future drinking behaviors, and graduation among program participants. The sample includes 50 past participants of the program from the years 2015 and 2016. Personal information about participants was gathered at the time of entrance into the program, and information related to outcomes such as graduation and revocation was added later based on court records. Results indicate that offenders who begin drug court not identifying themselves as alcoholic are more likely to intend to resume drinking behavior following graduation and probation. A review of the literature in combination with the results and limitations of this study indicates several potential avenues for future DUI court research.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

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Chapter 1

Introduction

The first drug court in Pennsylvania opened in Philadelphia in 1997 to help non-incarcerated offenders receive treatment for substance abuse disorders while still being monitored by the criminal justice system ("Problem-Solving Courts," n.d.). Other, more specialized drug courts, including DUI courts, quickly began to open throughout the Commonwealth. Numerous studies have found connections between participation in drug and DUI court programs and reductions in recidivism compared to other sentencing alternatives, such as incarceration (King & Pasquarella, 2009; Marlowe, Hardin, & Fox, 2016). Furthermore, for each dollar spent on adult drug court programs, communities will see an expected 200 to 400% return on investment (Marlowe, Hardin, & Fox, 2016). Drug courts are becoming an increasingly common and apparently efficient response to substance abuse disorders, but there are notable gaps in the research surrounding them. Studies of effectiveness, in particular, tend to examine the practices of the drug courts themselves without taking into account factors specific to individual participants, such as demographic characteristics (age, gender, etc.) and clinical characteristics (severity of substance abuse, physical and mental health, etc.) (Saum, Hiller, & Nolan, 2013).

This study seeks to help bridge a key gap in the research surrounding DUI courts, a specialized type of drug court, by examining frequently overlooked factors linked to successful outcomes in the Centre County DUI Court Program. The research questions of interest in this study are as follows.

1. Are older participants more likely to identify themselves as alcoholic than younger

participants?

2. Are male participants more likely to identify themselves as alcoholic than female participants?

3. Are participants who identify themselves as alcoholic more likely to graduate from drug court

than participants who do not identify themselves as alcoholic?

4. Are participants who identify themselves as alcoholic more likely to intend to drink after

completing drug court than participants who do not identify themselves as alcoholic.

The hypotheses to be tested in this study are as follows.

1. Older participants are more likely to identify themselves as alcoholic than younger

participants.

2. Male participants are more likely to identify themselves as alcoholic than female participants.

3. Participants who identify themselves as alcoholic are less likely to graduate from drug court

than participants who do not identify themselves as alcoholic.

4. Participants who identify themselves as alcoholic are more likely to intend to drink after

completing drug than participants who do not identify themselves as alcoholic.

Brief Overview of DUI Courts

As of June 2015, there were a recorded 284 DUI courts in the United States, and 15 of those were located in Pennsylvania ("Drug Courts," 2018; "Drug Treatment Court Programs," 2018). In general, drug courts target offenders with moderate or severe substance abuse problems as well as other risk factors, including prior criminal records and past problems with treatment. DUI courts specifically aim to serve repeat DUI offenders and offer programs that will increase their compliance with treatment for alcohol and substance use disorders (Marlowe, Hardin, & Fox, 2016). DUI courts emphasize a non-adversarial approach that works with participants to reduce problematic behaviors and improve public safety. Prosecution and defense counsel, evaluators, judges, probation officers, and other DUI court personnel work together as a team to promote improvements in offenders' behavior (Ashcroft, Daniels, & Herraiz, 1997). Following an initial evaluation of risks and needs, offenders take frequent or surprise alcohol and drug tests, frequently check in with a judge at court facilities, and undergo intensive treatment programs, typically including participation in Alcoholics Anonymous or another equivalent self-help group (Marlowe, Hardin, & Fox, 2016; Saum, Hiller, & Nolan, 2013).

To encourage participant compliance, DUI courts are responsive to participant behavior. Participants are required to test negative for alcohol and drugs and avoid re-arrest for a set duration of time in order to graduate. If a participant relapses, the judge can use discretion to increase the frequency of status hearings or drug testing, send the offender back to an earlier phase in the program, or, in more severe situations, call for the offender to be incarcerated (King & Pasquarella, 2009).

Evidence of DUI Court Effectiveness

Across the body of literature on the topic, most studies of effectiveness have found that DUI courts reduce recidivism for those who participate. Numerous studies have shown that DUI courts reduce recidivism for future DUI offenses and general crime by about 12%, but the most effective programs can reduce crime by as much as 50-60% (Marlowe, Hardin, & Fox, 2016). Research has also shown that the crime-reducing effects of involvement in DUI court can last at least 4 years after graduation from the programs (Marlowe, Hardin, & Fox, 2016).

While most studies do report positive findings however, some notable studies have reached mixed or negative conclusions about effectiveness. An investigation by Bouffard, Richardson, and Franklin (2010) indicated that drug court programs may reduce recidivism for non-DUI offenders but not for repeat DUI offenders, the target population of DUI courts. Another study observed that while DUI court presence can reduce a county's rate of DUI case filings, it has no effect on county-wide DUI accident rates or DUI recidivism (Bouffard & Bouffard, 2011).

When reviewing the many studies on DUI courts and effectiveness, one must be wary of overgeneralizations about court procedures and outcomes. In DUI court research, it is extremely difficult to isolate which factors led to success or failure for participants, and many studies overlook important factors such as age, race, gender, socioeconomic status, and substance abuse history (King & Pasquarella, 2009).

Another way to gauge DUI court effectiveness is to examine self-reported outcomes by participants themselves. Though this type of study may not yield a quantitative assessment of effectiveness based on recidivism, it can help researchers to better understand the benefits of

drug court in the eyes of participants. A study of clients' experiences in drug and DUI courts in Oklahoma found abstinence to be one of the most reported outcomes, consistent with the courts' official goals (Liang, Long, & Knottnerus, 2016). Many clients responded that staying clean and sober over an extended period of time was a significant achievement for them. Drug and DUI courts allowed these individuals to learn alternatives to substance abuse and prioritize new lifestyles.

Alcohol Abuse and Alcohol Dependence

DUI courts are a type of problem-solving court that work to respond to a specific problem: the threat to safety posed by offenders driving under the influence. As such, DUI courts target those individuals who are most likely to engage in this behavior: repeat DUI offenders. The vast majority of repeat DUI offenders (97.6%) have met the criteria for alcohol use disorder at some point in their lifetimes, with 56.9% qualifying for alcohol abuse and 40.7% qualifying for alcohol dependence (Shaffer et al., 2007). The rate for alcohol use disorder is slightly lower but still a notable majority of offenders (73.5%) when only looking at the 12 months prior to their being studied (Shaffer et al., 2007). There is also a significant positive correlation between number of DUI offenses and likelihood of having an alcohol use disorder. Offenders with more prior DUIs are much more likely to have an alcohol use disorder (Shaffer et al., 2007).

DUI courts are different from most other types of drug courts because some of the offenders participating may use only alcohol and not illicit substances. Because alcohol is legal for persons over the age of 21, this may impact how offenders view their problematic behavior,

including alcohol abuse and dependence. A study conducted by Saum, Hiller, and Nolan (2013) suggested that DUI offenders are more likely than illicit drug users to deny their alcohol or substance abuse problems

Age Differences in Drinking Behavior

The relationship between age and drinking behavior is difficult to define with one correlation or one model. Generally, heavy drinking behavior decreases in the latter half of life when looking at aggregate data, but there is substantial variation in individuals' drinking across the lifespan (O'Leary & Woodin, 2005; Cicchetti et al., 2016). A longitudinal study of alcoholism symptoms from the ages of 15-45 found three basic trajectories experienced by both men and women (Cicchetti et al., 2016). "Young adult onset" alcoholics experience the most symptoms throughout the lifespan, with symptoms increasing rapidly around age 15 and peaking from ages 30 to 35. "Developmentally cumulative" alcoholics have a more gradual onset of symptoms which level off but stay relatively constant from ages 30 to 40. Finally, "developmentally limited" alcoholics peak in symptoms around age 21, after which symptoms taper off (Cicchetti et al., 2016). This study demonstrates the complex relationship between alcoholism and age. There is no singular age in the lifespan when alcoholism is most likely to occur for any individual. Other factors in an individual's life unrelated to age impact whether and when they will demonstrate alcoholic tendencies.

The age - alcohol behavior relationship is further complicated by studies that indicate there are generational differences in alcohol consumption. For example, young people today

binge drink less than other generations have in the past (McCoy & Nieland, 2011). It may be possible that there are age-related trends in drinking which stay consistent across generations, but generational cultural differences likely have an effect as well.

Gender Differences in Drinking Behavior

There is an ample body of research on the relationship between gender and drinking behavior, including alcohol abuse, but research on drinking behaviors of women in DUI court specifically is much more lacking. A study conducted by Polen et al. (2009) on drinking patterns, gender, and health found that in the general public, women are much less likely to report "heavy drinking" at any frequency and twice as likely to report never engaging in heavy drinking. Bravo et al.'s 2013 study, which was particularly interested in the role of gender in alcohol dependence treatment contexts, also found gendered differences in alcohol use. While women in treatment had lower baseline alcohol consumption and lower consumption across treatment benchmarks, they did tend to seek treatment more quickly and had more symptoms of alcohol dependence (Bravo et al., 2013). However, a notable study focusing on the experiences of women in DUI court programs found no gendered differences in drug history or criminal history (Liang & Long, 2013). Seventy-one percent of men and 76% of women relapsed at some point during DUI court, and alcohol was the drug of choice for about 3/4 participants (Liang & Long, 2013). More research is needed to better understand the relationship between gender and drinking behavior in a DUI court context.

Several studies have suggested that there is greater stigma against female alcoholics than male alcoholics (Liansky Gomberg, 1988; McClellan, 2011) This stigma may serve as an obstacle to women seeking treatment and make them less likely to identify themselves as exhibiting problematic drinking behaviors.

Intersections of Age, Gender, and Alcohol Use

To properly understand the relationships among age, gender, and drinking behavior, it is important to understand age and gender not as isolated traits but as components of identity that interact to shape the whole of an individual's experiences. Looking at both simultaneously allows researchers to gain a deeper understanding of how age and gender affect alcohol consumption.

For example, the Cicchetti et al. study (2016) that identified three trajectories for men *and* women's alcohol consumption also found a fourth trajectory that was only observed in men. "Early onset severe" alcoholics are men who exhibit the most symptoms of alcoholism of any group by far. For these men, the number of symptoms escalates at a young age and peaks around age 30 but stays high throughout the studied lifespan (Cicchetti et al., 2016). Women, by contrast, tend to begin alcohol and substance abuse later in life, but their use progresses to addiction much more rapidly than men's (Liang & Long, 2013).

Self-Identifying as Alcoholic and DUI Court Outcomes

Labeling theory in the field of criminology describes the influence of formal responses to deviance and deviant labels on deviant behavior itself. The theory predicts that offenders internalize the language used to describe them, and this process shapes their self-concept and future behaviors and associations (Restivo & Lanier, 2015). Research on the connection between labeling oneself as an alcoholic and success in a DUI court or treatment context is limited, but studies that have been done on the topic indicate this may be a question worthy of further investigation. Gray (2010) examined the effects of labels in counseling settings for alcohol and other drugs. She found that labels such as "addict" in combination with stigmatized drug use or alcohol abuse led to a prevalence of shame among clients. This, in turn, influenced treatment professionals to take a more punitive, adversarial approach, which is contrary to the goals of treatment.

Self-help organizations such as Alcoholics Anonymous and Narcotics Anonymous, by contrast, lean in to labels as part of the treatment process. Alcoholics Anonymous in particular emphasizes accountability and acknowledging one's wrongs. This is evident in the 12-step program model. Step five states, "We admitted we were powerless over alcohol - that our lives had become unmanageable" ("The Twelve Steps," 1981). Throughout the recovery process and even evident in the program's name itself is the explicit statement that participants *are* alcoholics.

Ultimately, it remains unexamined whether or not the label "alcoholic" has any impact on outcomes in DUI court programs, in terms of either participants' drinking behavior or graduation.

Centre County DUI Court Program Overview

The primary goal of the Centre County DUI Court, according to the first line of its mission statement, is "to break the cycle of alcohol and drug addiction among repeat DUI offenders, thereby substantially reducing DUI recidivism" ("Centre County DUI Court," 2017). The court targets DUI offenders whose alternative sentences are a minimum of 90 days of incarceration. The court can also serve second-time offenders who broke the guidelines of intermediate punishment for DUI. Individuals facing charges for a 4th DUI or more may not be considered for participation, however ("Centre County DUI Court," 2017).. Participants must be present at DUI court every other week for the duration of the program, which lasts around two years or longer, depending on the needs and behavior of the individual.

The program is split into four distinct phases, with gradually decreasing levels of supervision. Phase 1 can last for 30 to 90 days depending on the sentence and involves incarceration at the Centre County Correctional Facility with work release. During this time, participants receive treatment, attend support groups, and undergo random drug and alcohol testing ("DUI Court Program Participation", 2015). In phase 2, participants are placed on house arrest and electronically monitored at all times for a period ranging from 120 to 275 days. During this time they must attend 90 support group meetings in 90 days, and then four weekly meetings for the rest of their first year of the program ("DUI Court Program Participation", 2015). In phase 3, which lasts for at least 6 months, supervising officers regularly check-in with participants in person and by phone and email. Treatment continues as needed, and support group attendance is reduced to three meetings per week after the one-year mark. For the first 90 days of this phase, participants receive ongoing alcohol monitoring, after which tests are

administered randomly ("DUI Court Program Participation", 2015). Phase 4 can last for up to a year, but most offenders graduate from the DUI court program after about 6 months in this phase. Appearances in drug court become to monthly or quarterly according to the judge's recommendation, and regular treatment and support group attendance continue.

Following graduation from DUI court, offenders finish out the remainder of their probation sentences and report to DUI court on a quarterly basis ("DUI Court Program Participation", 2015). Ultimately, the Centre County DUI Court program aims to serve both participants and the community by encouraging sobriety and reducing recidivism for repeat DUI offenders and reintegrating them into the community as productive, law-abiding individuals ("Centre County DUI Court," 2007).

Chapter 2

Data and Methods

The data for this study on demographics, alcoholism, intentions, and outcomes in DUI courts was collected in the Centre County DUI Court in Bellefonte, Pennsylvania. Researcher Dr. John Kramer collected information about the sample of DUI court participants during a 2-year period. The researcher recorded relevant demographic characteristics for each participant. At the time of entrance into the program, participants responded to questions about perceptions and intentions including, "Do you view yourself as alcoholic?" and "Do you plan to drink once done with probation?" Dr. Kramer later added data on graduation, recidivism, and revocation based on court records following each client's graduation or termination from the program.

Sample

The sample includes 50 drug court participants who graduated from or otherwise ceased involvement in the Centre County DUI Court program in the years 2015 and 2016. As mandated by the court's requirements for enrollment, each individual in the sample was a repeat DUI offender facing a minimum mandatory sentence of 90 days incarceration or who had violated the guidelines of an intermediate sentence.

Justification of Sample

The Centre County DUI Court is a relatively new inclusion to the county's criminal justice landscape, and little research has been conducted to evaluate its effectiveness, particularly concerning the factors of age, gender, and perceived alcoholism. The extant body of research on DUI courts, while inclined towards a positive outlook, includes mixed findings on drug court effectiveness (Marlowe, Hardin, & Fox, 2016; Bouffard, Richardson, & Franklin, 2010; Bouffard & Bouffard, 2011). The Centre County DUI Court is closely in line with the standard DUI court model, as it emphasizes the nationally accepted Key Components of DUI Court and targets the same population: repeat DUI offenders ("DUI Court Program Participation," 2015). This research may therefore be generalizable to a wider population of DUI courts within the state and beyond. Studying this sample helps to fill a substantial gap in the research surrounding DUI court effectiveness.

Independent and Dependent Variables

Figure 1: Conceptual Diagram
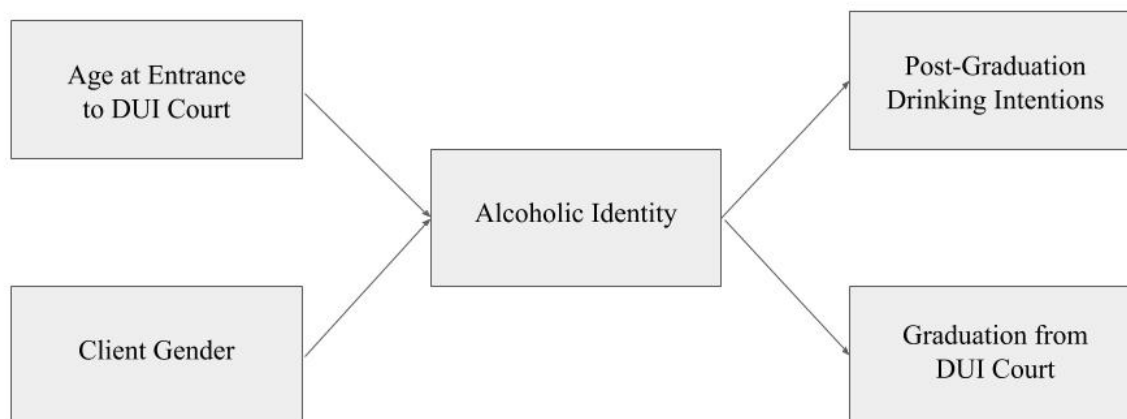
The independent variables in this study are age at entrance to DUI court and client gender. These demographic factors have been found to impact drinking behaviors and social stigma associated with alcohol abuse and dependence (O'Leary & Woodin, 2005; Cicchetti et al., 2016). Age and gender may therefore be associated with differences in self-conception as an alcoholic.

The dependent variables being studied are post-graduation drinking intentions (whether an individual plans to drink after the conclusion of DUI court and probation) and graduation from DUI court. Labeling theory asserts that in many cases, the labels used to describe deviant behavior impact self-concept and encourage future deviance (Restivo & Lanier, 2015). In a DUI court context, a person's identification with the term "alcoholic" (or lack thereof) has the potential to impact their outcomes [graduation] and intentions [post-graduation drinking].

Alcoholic identity (whether or not a person identifies themself as alcoholic) is both a dependant variable (relative to age at entrance to DUI court and client gender) and an independent variable (relative to post-graduation drinking intentions and graduation from DUI court).

Sample Characteristics

Age at Entrance to DUI Court

This variable indicates the age of the offender at the time they began participating in the Centre County DUI Court program, as reported by the researcher, Dr. John Kramer. Age is measured in years. Note that offenders must stay involved in the program for approximately 2 years to graduate, so participants are older than the age listed in the data at the time they graduate from the program. The youngest participant in the sample was 24 years old at entrance to DUI court, and the oldest was 68 years old. Both the mean and median age of participants were 42 years old after rounding to the nearest year, and this value was imputed to account for missing data in the sample for the purpose of data analysis. Table 1 shows the descriptive statistics of the data before 42 was imputed for missing values, and Table 2 demonstrates the minor changes in mean and standard deviation as a result of mean imputation.

Table 1: Age at Entrance to DUI Court before Mean Imputation

	N	Minimum	Maximum	Median	Mean	Std. Deviation
Age (in years)	50	24	68	42.00	41.81	11.163
Valid N (listwise)	32					

Table 2: Age at Entrance to DUI Court after Mean Imputation

	Valid N	Minimum	Maximum	Median	Mean	Std. Deviation
Age (in years)	50	24	68	42.00	41.88	8.879
Valid N (listwise)	50					

Client Gender

This variable indicates the gender of the participant, as reported by the researcher. All clients were listed as either female or male. 70.0% of the participants were male, and 30.0% were female.

Table 3: Client Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	15	30.0	30.0	30.0
	Male	35	70.0	70.0	100.0
	Total	50	100.00	100.0	

Alcoholic Identity

This variable refers to whether a client responded yes or no to the question "Do you view

yourself as alcoholic?" upon entrance to the DUI court program. Because this is the client's

response, it should be understood as a subjective measure, indicative of a person's perceived self.

This is not a clinical evaluation of the presence or absence of alcoholic behavior/tendencies. As

Table 4 demonstrates, 8 individuals in the sample (16.0%) responded that they do not view

themselves as alcoholic, 20 (40.0%) responded that they do, and 22 (44.0%) gave no response or

were not asked this question. Looking at just those who do have recorded responses, the majority

(71.4%) view themselves as alcoholic while a significant minority (28.6%) do not.

Table 4: Alcoholic Identity (Do you view yourself as alcoholic?)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	8	16.0	28.6	28.6
	Yes	20	40.0	71.4	100.0
	Total	28	56.0	100.0	
Missing	System	22	44.0		
Total		50	100.0		

Post-Graduation Drinking Intentions

This variable refers to a client's yes or no response to the question "Do you plan to drink once

done with probation?" upon entrance to the DUI court program. Of the 28 individuals who had a

recorded response to this question (56.0% of the total sample), 89.3% do not intend to drink

following probation, and 10.7% do.

Table 5: Post-Graduation Drinking Intentions (Do you plan to drink once done with probation?)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	25	50.0	89.3	89.3
	Yes	3	6.0	10.7	100.0
	Total	28	56.0	100.0	
Missing	System	22	44.0		
Total		50	100.0		

Graduation from DUI Court

This variable indicates whether the client completed the Centre County DUI Court program, or "graduated," as indicated by the researcher based on drug court records. Table 5 shows that the vast majority of eligible clients in this study did graduate (90%) while a small minority (10%) did not. This graduation rate indicates an unusually successful sample of participants.

Table 6: Graduation from DUI Court

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No (Eligible)	5	10.0	10.0	10.0
	Yes	45	90.0	90.0	100.0
	Total	50	100.00	100.0	

Chapter 3

Analysis

Having established univariate statistics (in the Sample Characteristics section above),

bivariate statistics will now be examined to assess the presence, strength, and direction of any

relationships between age at entrance to DUI court, client gender, alcoholic identity, post-

graduation drinking intentions, and graduation from DUI court within the sample.

Age – Alcoholic Identity Relationship

Because there were twenty different ages reported by participants in the sample, age had

to be recoded into a categorical variable for the purpose of analysis. This was done in 3 ways:

splitting the data into age ranges at increments of 10 years [20-29, 30-39, 40-49, 50+], by

splitting the data in two halves with an equal number of cases in each [24-41, 42-68], and by

splitting the data in approximate thirds with similar numbers of cases in each [24-35, 36-42, 43-

68]. Of these three recoding methods, splitting the data in halves came the closest to approaching

statistical significance, but was still far from the p=.05 threshold for significance. As

demonstrated by Table 7, 78.6% of participants (11) between the ages of 24 and 41 viewed

themselves as alcoholic as did 64.3% of participants (9) between ages 42 and 68. However, a

chi-square test revealed a p-value of .403, meaning any relationship between the variables is of

no statistical significance. Splitting the data into thirds yielded a p-value of .487, and splitting it

into groupings of 10 years yielded a p-value of .906. None of these values approaches

significance.

As a result of the missing values in the alcoholic identity variable, only 28 cases could be used for bivariate analysis from the full sample size of 50. This was true for the examination of every relationship involving the alcohol identity variable. While there was missing data on the age variable as well, almost all of the cases with alcoholic identity data also had age data. Mean imputation was only used for one case in the analysis of the age-alcoholic identity relationship.

Table 7: Age - Alcoholic Identity Crosstabulation

			Age	Group	
			24-41	42-68	Total
Do you view yourself as alcoholic?	No	Count	3	5	8
		% within Age Group	21.4%	35.7%	28.6%
		% of Total	10.7%	17.9%	28.6%
	Yes	Count	11	9	20
		% within Age Group	78.6%	64.3%	71.4%
		% of Total	39.3%	32.1%	71.4%
Total		Count	14	14	28
		% within Age Group	100.0%	100.0%	100.0%
		% of Total	50.0%	50.0%	100.0%

Table 8: Age - Alcoholic Identity Chi-Square Test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.700 [a]	1	.403
Likelihood Ratio	.706	1	.401
N of Valid Cases	28		

Gender – Alcoholic Identity Relationship

As Table 9 demonstrates, 66.7% of female clients in the DUI court program (6 of 9) and 73.7% of males (14 of 19) view themselves as alcoholic. These rates of alcoholic identity are quite similar for such a small sample, and the chi-square test's p-value of .701 confirms that any apparent relationship between gender and alcoholic identity in this sample is probably a coincidence.

Table 9: Gender - Alcoholic Identity Crosstabulation

			Client Gender		
			Female	Male	Total
Do you view yourself as alcoholic?	No	Count	3	5	8
		% within Client Gender	33.5%	26.3%	28.6%
		% of Total	10.7%	17.9%	28.6%
	Yes	Count	6	14	20
		% within Client Gender	66.7%	73.7%	71.4%
		% of Total	21.4%	50.0%	71.4%
Total		Count	9	19	28
		% within Client Gender	100.0%	100.0%	100.0%
		% of Total	32.1%	67.9%	100.0%

Table 10: Gender - Alcoholic Identity Chi-Square Test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.147 [a]	1	.701
Likelihood Ratio	.145	1	.703
N of Valid Cases	28		

Age, Gender, and Alcoholic Identity Relationship

The literature on the relationships among age, gender, and alcoholism suggests that alcohol abuse and dependence across the lifespan differs between men and women. To account for this, all three crosstabulations and chi-square tests for the age-alcoholic identity relationship were generated again with an added layer to control for gender. The crosstabulation and chi-square test for the gender-alcoholism identity relationship were also generated again to control for age, using each of the three methods of recoding age.

Some p-values in these re-generated chi-square tests approached or reached the threshold for significance, but these cannot be trusted as evidence of a relationship. In all instances where the p-value reached or approached .05, cell counts were between 0 and 2. There were not enough cases across the possible combinations of age, gender, and alcoholic identity to reliably indicate a relationship among the variables.

Alcoholic – Graduation Relationship

Of the 28 individuals with recorded data on the alcoholic identity question, only 2 did not

graduate from the Centre County DUI court program. One of the non-graduates did not view

themself as alcoholic while the other did. In total, 87.5% of those who did not view themselves

as alcoholic (7 of 8) and 95.0% of those who did view themselves as alcoholic (19 of 20)

graduated from DUI court. The p-value for this relationship was .486, so one cannot infer

statistical significance.

Table 11: Alcoholic Identity - Graduation Crosstabulation

			Do you view yourself as alcoholic?		
			No	Yes	Total
Did Client Graduate from DUI Court?	No (Eligible)	Count	1	1	2
		% within Do you view yourself as alcoholic?	12.5%	5.0%	7.1%
		% of Total	3.6%	3.6%	7.1%
	Yes	Count	7	19	26
		% within Do you view yourself as alcoholic?	87.5%	95.0%	92.9%
		% of Total	25.0%	67.9%	92.9%
Total		Count	8	20	28
		% within Do you view yourself as alcoholic?	100.0%	100.0%	100.0%
		% of Total	28.6%	71.4%	100.0%

Table 12: Alcoholic Identity - Graduation Chi-Square Test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.485 [a]	1	.486
Likelihood Ratio	.441	1	.507
N of Valid Cases	28		

Alcoholic Identity – Drinking Intentions Relationship

Of the 28 offenders with data on alcoholic identity, one offender was missing data on post-graduation drinking intentions. For this reason, analysis of the relationship between alcoholic identity and drinking intentions included the data of only 27 participants.

Only three individuals in the narrowed sample of 27 stated that they planned to drink once done with probation. These three individuals did not view themselves as alcoholic and accounted for 42.9% (3 of 7) of all individuals who did not view themselves as alcoholic. This indicates a negative association between viewing oneself as alcoholic and planning to drink after probation. All 20 individuals who *did* view themselves as alcoholic reported they did *not* intend to drink once done with probation. The p-value for this relationship was .002, indicating that the relationship is statistically and that there is only a small chance that the relationship was the result of a coincidence.

Table 13: Alcoholic Identity - Drinking Intentions Crosstabulation

| | | | Do you view yourself as alcoholic? | | |
			No	Yes	Total
Do you plan to drink once done with probation?	No	Count	4	20	24
		% within Do you view yourself as alcoholic?	57.1%	100.0%	88.9%
		% of Total	14.8%	74.1%	88.9%
	Yes	Count	3	0	3
		% within Do you view yourself as alcoholic?	42.9%	0.0%	11.1%
		% of Total	11.1%	0.0%	11.1%
Total		Count	7	20	27
		% within Do you view yourself as alcoholic?	100.0%	100.0%	100.0%
		% of Total	25.9%	74.1%	100.0%

Table 14: Alcoholic Identity - Drinking Intentions Chi-Square Test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.643 [a]	1	.002
Likelihood Ratio	9.276	1	.002
N of Valid Cases	27		

Other Findings

For the sake of thoroughness, crosstabulations were also generated to examine if there were any statistically significant relationships between age and graduation, gender and graduation, age and drinking intentions, and gender and drinking intentions.

The only relationship among these that approached statistical significance was the relationship between age and drinking intentions. When age was recoded into two groups with ages 24 to 41 and 42 to 68, the p-value of the chi-square test was .088, close to (but still above) the threshold for statistical significance. This is likely due to the small sample size, as all three individuals who intended to continue drinking but did not identify as alcoholic were age 42 or older. However when the data was coded using the other two methods described earlier, the statistical significance disappeared. Grouping the sample into thirds yielded a p-value of .106 and recoding into decade-wide groups brought the p-value up to .601.

The relationship between gender and drinking intentions had a p-value of .963. The relationship between gender and graduation had a p-value of .607. The relationship between age and graduation had a p-value of .493 when coded by decade.

Based on the results of these chi-square tests, one can conclude that the data does not support additional statistically significant relationships between any of these variables.

Chapter 4

Conclusion

Analysis of the Centre County DUI Court program's participants did not support a hypothesized relationship between age and alcoholic identity nor a relationship between gender and alcoholic identity. A connection between alcoholic identity and graduation was also not supported. Based on this sample of offenders, there is some evidence of a relationship between identifying as alcoholic and planning to continue drinking following the conclusion of drug court. The direction of this relationship was contrary to the direction hypothesized. In fact, those offenders who do not identify themselves as alcoholic are more likely to report intentions to resume drinking than those who do.

Limitations of the Data Set

This sample was vulnerable to several notable limitations. The first and most impactful limitation was the size of the sample and prevalence of missing data. Although there was information available on gender and graduation for all 50 offenders, information on alcoholic identity, drinking intentions, and age was missing for nearly half of cases. A sample with more cases would have allowed for greater certainty of statistical significance (or lack thereof) among variables of interest. The small sample size was especially detrimental when trying to generate a layered crosstabulation to examine how age, gender, and alcoholic identity interact.

The second major limitation of this research was the absence of certain relevant information on demographic and clinical characteristics that would have allowed for a better understanding of how the factors studied interacted. Previous research has suggested that

socioeconomic status is more closely associated to drug court success among women than men,

for example (Liang & Long, 2013). There may be individual-level factors, such as race, income,

education, or mental health history that are strong predictors of alcoholic identity, graduation,

and drinking intentions but that were not included in the data.

Finally, this sample of participants was unusually successful, with a graduation rate of

90%. A high graduation rate is, of course, ideal for participants and the court itself but limiting

for researchers. Little can be deduced about factors leading to drug court graduation from a

sample with only five non-graduates, as any similarities among them could be coincidental.

Furthermore, it may be that the Centre County DUI Court program is vulnerable to opt-in bias.

Like many DUI courts, Centre County's program is expensive. In addition to a $500 application

fee and $500 to $2,500 fine, participants must pay for daily electronic monitoring and alcohol

testing during some phases, monthly supervisions fees, and a judicial review fee every two

weeks ("Centre County DUI Court," 2007). Those who opt-in to the program may have

something in common (i.e. ability to afford DUI court) that makes them more likely to succeed

than the average repeat DUI offender. It is also possible that those who are granted entry into the

program are perceived as more likely to be successful than non-participants (selection bias).

<div align="center">

Limitations of Research on DUI Courts

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In addition to the particular limitations of *this* study, there are some more general

limitations when it comes to the study of drug courts. First, drug court data is *difficult* to access.

This project is the result of numerous email correspondences with drug court personnel, several

of which ended with polite rejections. Others had response times as long as two weeks or

stopped responding altogether. Many drug and DUI courts are hesitant to communicate and share data with researchers due to client confidentiality concerns. Some are also wary of findings that would indicate a demand for a change of policy or procedures.

The logistical limitations of accessing drug and DUI court data and participants are also substantial. Most courts meet at set hours once or twice per week or every two weeks. This narrow window of access, combined with the challenges of getting research permissions from both the courts and research approval authorities, make drug and DUI court research a demanding and time-consuming endeavor. This combination of circumstances may be at least partially responsible for the lack of research on drug and DUI courts, especially on factors relating to participants themselves.

Future Research

The results and limitations of this study indicate several potential directions for future research. One direction for further inquiry could be examining how various factors at the individual participant level relate to successful outcomes in DUI court programs, such as graduation and reduced recidivism. The impact of friends' and family's drinking behavior, strength of social bonds with alcohol abusers and non-abusers, and self-esteem could all be interesting avenues for exploration, for example.

The single statistically significant relationship in this study hints at another path for ongoing research. Future studies should investigate how self-perception of problematic alcohol and substance use influence drug and DUI court participants' expectations of and desired outcomes from programs.

Finally, all studies of DUI court effectiveness would benefit from a thorough investigation of opt-in bias and selection bias. Why are some court programs graduating almost all participants while others experience much lower success rates? Is this variation due to differences in the participants themselves, and if so, are these differences the result of opt-in or selection bias?

Policy Recommendations

In this study, a somewhat counterintuitive relationship was observed between self-identification as alcoholic and intention to drink alcohol following DUI court graduation. Those who come into DUI court recognizing their own alcoholic tendencies are more likely to pursue total abstinence from alcohol while those who do not believe the alcoholic label describes them are less likely to plan to stop drinking completely. DUI courts should focus significant attention and resources on those who do not recognize themselves as alcoholic because their actual or perceived lack of alcohol dependence does not necessarily predict a lack of continued alcohol use or abuse.

At last, acknowledging the compounding challenges involved in the study of drug and DUI courts, this researcher suggests facilitating cooperative relationships between drug court personnel and researchers, for the benefit of the courts themselves, the empirical body of knowledge surrounding them, and the participants and communities they aim to serve.

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ACADEMIC VITA

Robin Moussa

218 S Sparks St, Apt 308 ● State College, PA 16801 ● (443) 996-4014 ● rem5511@psu.edu

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EDUCATION

The Pennsylvania State University, University Park, PA   May 2019
College of the Liberal Arts
Bachelor of Arts in Criminology, Bachelor of Arts in Philosophy
Minor: French and Francophone Studies

Schreyer Honors College, The Pennsylvania State   January 2017 – Present

Paterno Fellows Program, College of the Liberal Arts   August 2015 - Present

Jabir Shibley Memorial Scholarship in Philosophy, College of the Liberal Arts   Spring 2019

Dotterer Award Recipient, College of the Liberal Arts   Spring 2018

POLITICAL EXPERIENCE

Planned Parenthood Pennsylvania Advocates   **State College, PA**
Intern, Canvassing Captain   March 2018 - Present
- Encourage student political engagement through voter registration, tabling, events, electoral work
- Organize and run trainings, canvasses, phone banks for candidates, emergency phone banks for issues

Penn State College Democrats   **State College, PA**
Philanthropy Chair   May 2017 - Present
- Coordinate and lead community service events, fundraising opportunities for organization members
- Broke organization fundraising record for THON, totaling $3,842.43 in 2018 and $3,156.000 in 2019

Planned Parenthood Generation Action   **State College, PA**
External Vice President   April 2018 - Present
- Promote sexual and reproductive health within student body and local community
- Plan campus and community events in conjunction with other progressive organizations

Pennsylvania Democratic Coordinated Campaign   **State College, PA**
Organizing Fellow, Visibility Captain   September 2016 – November 2016
- Recruited volunteers, led canvassing and phone bank trainings for GOTV
- Grew public presence of Democratic campaign through social media, tabling, community events

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ADDITIONAL LEADERSHIP EXPERIENCE

Research Methods in Criminal Justice   **University Park, PA**
Teaching Assistant   August 2017 - December 2017

Penn State IFC/Panhellenic Dance Marathon   **University Park, PA**
Rules and Regulations Committee Member   October 2016 - February 2017

STUDY ABROAD

Besançon, France, Study Abroad Program   **Besançon, France**
French Language Student at Centre Linguistique Appliqué   June 2018 - July 2018
- Course Level B1: 84/100
- Course Level B1.2: 86/100

TECHNICAL SKILLS
French Language: DELF Certificate B1
Proficient with Votebuilder/VAN/MiniVAN
Competent using SPSS software for data analysis