

**YOUNG DRIVERS AND THE EFFICACY OF THE TEXAS DRUG AND
ALCOHOL DRIVING AWARENESS PROGRAM**

A Thesis

by

RICHARD DARNELL

Submitted to the Office of Graduate Studies
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

August 2007

Major Subject: Health Education

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Approved by:

Chair of Committee, Maurice E. Dennis

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ABSTRACT

Young Drivers and the Efficacy of the Texas Drug and Alcohol Driving Awareness Program. (August 2007)

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Chair of Advisory Committee: Dr. Maurice E. Dennis

The purpose of this study was to examine the efficacy of the Texas Drug and Alcohol Driving Awareness Program (TDADAP) in relation to alcohol-related offenses among young drivers. Participants in this study were students in pre-license programs for young beginning drivers who either received or did not receive TDADAP instruction as part of their curriculum. Based on the examination and statistical analysis of Texas Department of Public Safety driving record data, findings indicate that TDADAP participation did positively influence subsequent alcohol-related traffic convictions. Participants that received TDADAP instruction had a total of 5601 records, 231 of which were alcohol-related convictions. Participants who did not receive TDADAP instruction had a total 5945 records with 376 alcohol-related convictions. Promising results came from findings associated with TDADAP participation and the total number of alcohol-related offenses attributed to a group, the number of ALR offenses, MIP offenses, PI offenses and DUI/DWI offenses attributed to a group. When adjusted for group size, participants who did not receive TDADAP instruction had 53% more convictions than the TDADAP participants. With regard to alcohol-related accidents, findings were mixed in that the test group had a higher-than-expected number of participants with at least one accident,

while the control group frequency was less than expected. The reverse was found when considering participants with two alcohol-related accidents. When taken as a whole, results from this study indicate that while TDADAP participation may influence alcohol-related traffic convictions and some alcohol-related accidents, it is a more accurate predictor of alcohol-related traffic convictions and a less accurate predictor of all alcohol-related accidents.

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CHAPTER I

INTRODUCTION

In 2005, 12.6% (7,460) of all the 59104 drivers involved in fatal crashes were young drivers age 15 to 20 years old (National Highway Traffic Safety Administration, 2006b). While the minimum drinking age is 21 in all 50 states, in 2005 there were 1,005 fatal alcohol-related motor vehicle crashes involving drivers in this age group (National Highway Traffic Safety Administration, 2006b). A motor vehicle crash is considered to be alcohol-related if at least one driver or non-occupant (such as a pedestrian or pedalcyclist) involved in the crash is determined to have had a blood alcohol concentration (BAC) of .01 grams per deciliter (g/dL) or higher. Thus, any fatality that occurs in an alcohol-related crash is considered an alcohol-related fatality. The term “alcohol-related” does not necessarily indicate that a crash or fatality resulting from a crash was caused by the presence of alcohol (National Highway Traffic Safety Administration, 2006a). In 2005, 16% of 16- to 20-year-old drivers involved in fatal crashes had BAC levels of .08 g/dL or higher (National Highway Traffic Safety Administration, 2006c). In 2005, there were 125 Texas drivers under age 21 involved in fatal alcohol-related motor vehicle crashes (National Highway Traffic Safety Administration, 2006d). This is down from 187 in 2003, but there is still a need to

This thesis follows the style of Accident Analysis and Prevention.

continue educating young drivers about the dangers of drinking and driving before they choose to do so (National Highway Traffic Safety Administration, 2004).

Young drivers are inexperienced both at drinking and at driving. The potential for harm is multiplied when these two activities are combined. Currently, all U.S. states have 'zero tolerance' laws. In most states, it is illegal for drivers under 21 to have a BAC of .02 g/dL or greater. In 45 states, it is illegal for persons over 21 to drive with a BAC of .08 g/dL or higher (National Highway Traffic Safety Administration, 2006a). Texas has an even more stringent standard for drivers under 21; any detectable amount of alcohol is illegal. Young drivers in violation of this standard face license suspension and other sanctions (National Highway Traffic Safety Administration, 2006e).

There are a number of programs in the United States aimed at reducing the alcohol-related crash involvement of young drivers. These efforts include traditional driver education courses taught to beginning drivers as well as the courses required of drivers convicted of an alcohol-related offense. One program that addresses alcohol-related crash involvement of young drivers is the Texas Drug and Alcohol Driving Awareness Program (TDADAP). Unlike Texas' Driving While Intoxicated (DWI), DWI Repeat Offender, Drug Offender, and Minor in Possession (MIP) programs, TDADAP is not punitive. It is a primary preventive intervention intended to reduce the probability that program participants will be involved in alcohol and drug-related driving situations.

TDADAP is a 6-hour drug and alcohol awareness course based on the State of Texas DWI education curriculum. The overall philosophy of the TDADAP is to educate persons on the risks associated with alcohol and other drug use/abuse and the personal

and public costs of such use (TDADAP, 2007). Course topics include background information on drug and alcohol problems in Texas, explanation of Texas laws as they relate to drug and alcohol offenses, physiological and psychological effects of alcohol and drugs, the effects of alcohol and drugs on the driving task, warning signs of an alcohol or drug problem, and actions a person can take to prevent alcohol and drug-related driving problems.

While the TDADAP curriculum is a complete, stand-alone program, it is most often offered during basic driver education courses in lieu of the alcohol and drug education portions of the State of Texas Driver Education curriculum. By becoming certified in the TDADAP and providing it as a component of a basic driver education program, driving instructors are able to market their programs with the financial incentive that accompanies the TDADAP – a 3-year, 5% discount on an insurance premium for the participating driver. The 5% insurance premium discount is available only to those who take TDADAP from a certified instructor in a traditional classroom setting. Internet, video, and other alternative delivery methods are not authorized by the state. Home-school driver education programs do not qualify unless the parent-instructor has been certified to teach TDADAP.

Statement of the Problem

The efficacy of TDADAP has not been examined. For this study, data on TDADAP participants was analyzed in an effort to investigate the effectiveness of the voluntary, prevention-based alcohol and drug education program by examining the relationship(s) between individuals who have participated in the TDADAP program and

subsequent alcohol-related offenses. The purpose of this study was to examine the efficacy of TDADAP in relation to alcohol-related offenses among young drivers.

Hypothesis

H₀: TDADAP participation will not influence subsequent alcohol-related traffic convictions.

H_a: TDADAP participation will influence subsequent alcohol-related traffic convictions.

CHAPTER II

REVIEW OF THE LITERATURE

As stated previously, TDADAP has not been studied in detail. There are a number of published studies that examine underage drinking and driving, crash rates of young drivers and the related factors (including alcohol use), and the effectiveness of driver education. In general, findings as they relate to primary prevention programs and their influence on subsequent alcohol-related driving occurrences show minimal effectiveness.

A review of studies with a focus on the primary prevention of alcohol misuse in young people (Foxcroft et al., 2006) found that of the interventions reviewed, 20 out of the 56 showed evidence of ineffectiveness. Of the remaining 36 interventions, 33 provided no clear evidence of effectiveness. This was attributed to their short-term, up to one year, follow-up period. Only one, a family-based intervention with a two-year and four-year follow-up period, was noted as showing clear evidence of effectiveness (Spoth et al., 2001).

A study by Waller indicates that inexperience and intentional risk-taking, including underage drinking and driving, contribute to the increased rate of motor vehicle crashes among beginning drivers (Waller, 2003). Another study of novice drivers and the behaviors attributed to the cause of their crash found young males are more likely than females to drive while impaired by alcohol (McKnight and McKnight, 2002). Begg and Langely (2004) investigated behavioral tendencies present in persistent risky

drivers, finding aggressive behavior and cannabis use to be predictors of risky driving behaviors, again, predominantly among young males. Biological impairment and fatal crash risk are higher among beginning drivers than more experienced drivers at low to moderate blood alcohol concentrations (Gonzalez, et al., 2005).

A 2006 study by Shope cites behavioral development as another factor that can influence decisions to drink and drive. As a group, young people who report early access to and use of tobacco, alcohol, and marijuana have more evidence of risky driving including alcohol-related driving offenses (Shope, 2006). A high school based alcohol misuse prevention program that included refusal skills practice had a positive effect on students' first year alcohol-related driving offenses, though the effects did diminish after the first year of licensure (Shope, et al, 2001).

Another primary intervention that has shown signs of effectiveness is graduated driver licensing. Like TDADAP, graduated driver licensing is not punitive in nature. Graduated licensing programs typically impose a set of restrictions on the novice driver that relate to when they can drive, where they can drive, as well as the number, age, and relationship of passengers. Assessments of graduated licensing programs in Ontario, Canada and the state of Ohio each found a 27% reduction in alcohol-related crashes over the life of the program (Simpson, 2003).

Parental involvement can also factor in to crash risk for young drivers. A study conducted by the National Institute of Child Health and Human Development found that parents tend to deal with their concerns about teen independent driving by emphasizing trip conditions so that they know where the teen is and when they will return, but often

set rather modest limits on risk conditions. The study goes on to explain that young drivers whose parents establish and maintain relatively strict limits on trip conditions as well as risky behavior and conditions during early independent driving are less likely to engage in risky driving or to have traffic violations or crashes during the first year of licensure (Simons-Morton and Ouimet, 2006).

CHAPTER III

METHODS

Texas Department of Public Safety (DPS) driving record data was analyzed for this study. The DPS is a state agency that administers the driver licensing program and maintains records on all drivers licensed in the State of Texas. In addition to their enforcement division, the Texas Highway Patrol, the DPS is also responsible for carrying out license revocation activities, specifically those associated with alcohol-related convictions.

Data Source and Analysis

Participants in this study who received the TDADAP training were students in pre-license programs for young beginning drivers. Study participants who did not receive the training were students in pre-license programs for young beginning drivers which do not utilize TDADAP as part of their curriculum. All training was administered and taught in commercial driving schools in Texas. The data were summarized and provided by a commercial provider of driver education courses. This provider had not conducted a formal analysis of the data.

In an effort to examine the efficacy of TDADAP, the various data elements were studied and compared. In addition to a basic statistical analysis and comparison of offenses within and between the two groups, the following were also examined: the number of convictions in the test and control groups, gender as it relates to convictions, and time between convictions. Age, as it relates to convictions, was compared within

and between groups. The interval between license date, TDADAP completion date, and conviction date was studied and expanded to include multiple convictions. When applicable, data on crash and degree of injury was examined. Both gender and age comparisons of crashes within and between the test and control groups were studied.

As provided, the data is quantitative in nature. Descriptive statistical analysis was used to highlight areas where more study would be appropriate. Correlations between program participation and the number of convictions, when compared to the control group, were investigated through inferential techniques. Chi-square analysis was used to test for statistical significance. Two-sided t-tests were performed for multiple comparisons. All data management, analysis, and graphing were performed with SAS[®] software version 9.1.3 (SAS, 2004). There was no direct contact with the participants and no personal identifying information associated with the data was included.

Sample

The sample data set includes over 12,500 records; 6010 test group records and 6555 control group records. The test group was comprised of driving records for individuals who received TDADAP training while the control group was comprised of individuals who did not receive TDADAP training. The following data elements were available for each record in the test group: year of birth, gender, original issue date of driver's license, TDADAP completion date, date of incident/arrest, date of crash, degree of injury, date of conviction, conviction. With the exception of TDADAP completion date, the same data elements were present in the control group. The date of incident/arrest, date of crash, degree of injury, date of conviction, conviction had no

values present if an individual had no reported crashes or convictions. Personal identifying information was not provided for any of the participants. With regard to the conviction data, only DPS alcohol-related offenses are associated with the conviction and date of conviction data fields. The offenses include alcohol-related traffic offenses and alcohol-related offenses that pertain to minors. For purposes of this study, these include the five MIP offenses: attempted purchase of alcohol, purchase of alcohol, possession of alcohol, consumption of alcohol, and misrepresentation of age. Minor driving under the influence and public intoxication were also analyzed along with the other alcohol-related traffic offenses. The various offenses are listed and described in greater detail with the results relating to those offenses.

Data Preparation

There were 288 records with no License Issue data; 149 in the test group and 139 in the control group. A subset of these, 3 records in the test group, also had no DADAP date. None of the 288 records contained values in the Date of Crash, Degree of Injury, Conviction, Date of Incident/Arrest, or Date of Conviction fields. With the License Issue data missing, date-related calculations were not possible with these records. These 288 records were not included in any further calculations.

A single record in the test group with a Year of Birth of 2002 and a License Issue date of 2002 was discarded.

Non-analyzed Data – Age-related

In an effort to focus findings on young drivers, the National Highway Traffic Safety Administration designation of ‘young drivers’ as those 20 years of age and

younger, was used to further focus the study data. With this in mind, considerable importance was placed on refining the given data by eliminating those records associated with individuals age 21 and over. The participant age at license was used as the criteria to determine which records were removed from the study.

While date of birth was not available in the data, the year of birth was given for each record. To facilitate age-related calculations, date of birth was approximated by associating the month and day of the license issue date with the given year of birth and adding this data element to each record. The calculated age was rounded down to the nearest integer and no effort was made to distinguish 'young' or 'old' individuals at a particular age. This approximated date of birth was used to determine age at license, age at crash, age at arrest, age at TDADAP participation and other variables. These elements were also added to all data records and used to refine the data by removing records for individuals who were age 21 and over.

Data records for drivers who were licensed at age 21 or after were removed. There were 119 test group records and 142 control group records that fit this criteria. These records were removed and were not considered in subsequent analyses.

Driving performance was reported via specific conviction and accident data. Some records reported behavior of drivers that were well over 30 years of age. While these individuals were licensed prior to age 21, they were not what the study parameters consider young beginning drivers. Data records for drivers who were convicted of an alcohol-related offense at age 21 or after were removed. There were 28 test group records and 112 control group records that fit this criteria. Data records for drivers who

were involved in an accident at age 21 or after were also removed. There were 81 test group records and 171 control group records that fit this criteria.

The earliest TDADAP program date found in the data was in 1998. In order to participate in the TDADAP program before age 21, an individual would need to have a year of birth of 1978 or later. This parameter was applied to both the test and control groups and records with a year of birth prior to 1978 were eliminated. When this parameter was applied to both groups, 28 records were removed from the test group and 46 were removed from the control group. There were 3 additional records removed from the test group that were attributed to participants who were licensed prior to age 21, but did not participate in TDADAP training until after they turned 21.

Data Preparation Summary

With the described adjustments, the test group retained approximately 94% and the control group retained over 91% of the original data. To summarize, the test group was reduced by 409 records for a total of 5601 useable records and the control group was reduced by 610 records for a total of 5945 useable records. There were participants in each group who had more than one record. Subsequent data analysis was conducted with a test group containing 5601 records attributed to 5017 participants and a control group containing 5945 records attributed to 5381 participants.

CHAPTER IV

RESULTS

Hypothesis Testing

When the two groups were examined as a whole, chi-square testing (with alpha set at $p = .05$) indicated a difference between the test and control groups, $X^2(1) = 28.03$, $p = .0001$.

H_0 : TDADAP participation will not influence subsequent alcohol-related traffic convictions.

H_a : TDADAP participation will influence subsequent alcohol-related traffic convictions.

Results support the rejection of the null hypothesis. Based on the examination and statistical analysis of the test and control group data, findings indicate that TDADAP participation did in fact influence subsequent alcohol-related traffic convictions. The test group's TDADAP participants had a frequency of conviction that was lower than expected while the control group participants that did not take part in the TDADAP program had a higher than expected frequency of conviction. Details are available in Table 1 of the Appendix.

There were 3343 test group participants and 3861 control group participants who had no record of an alcohol-related offense or an accident. Each of these individuals had a single record in the data set. The remaining 2258 test group records and 2084 control group records were attributed to 1674 individual test group and 1520 individual control

group participants.

Demographic Characteristics

With the described adjustments to the data, both the test and control groups each had slightly more males than females. The test group had 52.08% males, 47.92% females and the control had 53.22% males, 46.78% females. While chi-square testing (with alpha set at $p = .05$) does not indicate a difference between the two groups, female arrests in the test group were higher than expected with lower than expected male arrests $X^2(1) = .7240, p = .3948$). The opposite was true for the control group in that male arrests were higher and female arrests were lower than expected.

The legal driving age in Texas is 16 years old. Individuals can begin the licensing process by applying for an instruction permit at age 15 (DPS, 2004b). The license date given in the data is the date of first license, be it an instruction permit or a driver's license with full privileges. Those licensed at age 16 had the highest percentage licensees with 43.19% in the test group and 46.95% in the control group. They were followed by 15-year-olds and 17-year-olds respectively. Those licensed at age 18, 19, and 20 comprise approximately 6% of each group. Chi-square testing (with alpha set at $p = .05$) indicated a difference between the groups, $X^2(5) = 106.44, p = .0001$.

Given the age of the participants, there was an initial assumption that Texas' Graduated Driver License (GDL) program might be a factor in the data analysis. In Texas, the GDL program went into effect on January 1, 2002. Any individual who received either their instruction permit or provisional license before January 1, 2002 was not affected by the graduated system as they were grandfathered out of all phases of the

new graduated system (Texas Department of Public Safety, 2004a). Analysis of the data revealed that only 176, less than 2%, of the participants were required to participate in the GDL program while the remaining 10,222 were grandfathered out of all phases. Given that only 46 test group and 130 control group participants participated in the GDL program, GDL participation was not considered in further analyses.

Participants with Multiple Records

Both the test and control groups contain multiple records for a subset of the participants. The additional records were attributed to participants who were involved in more than one accident, had more than one conviction, or had a combination of accidents and convictions. Of the 5601 records in the test group, there were 5017 unique participants. Of the 5017 test group participants, there were 432 participants with multiple records. There were 1016 test group records attributed to the 432 participants with a maximum of 5 attributed to a single participant. There were 5381 unique participants in the control group of 5945 records. Of the 5381 control group participants, there were 412 participants with multiple records. There were 976 control group records attributed to the 412 participants with a maximum of 6 attributed to single participant.

In keeping with the stated purpose of the study, only alcohol-related offenses will be discussed in greater detail. The majority of participants in the study had no alcohol-related offenses on their record. There were 4832 or 96.31% of test group participants with no recorded alcohol-related offenses and 5099 or 94.76% control group participants with no alcohol-related offenses. In terms of a raw percentage, the control group shows as having 1.56% more individuals with alcohol-related offenses than the test group. All

of the offenses that were present in the data are described in detail in the TDADAP curriculum.

A chi-square statistic (with alpha set at $p = .05$) was used to compare the number of alcohol offenses attributed to each group. Findings indicated a different pattern of offenses for the two groups, $X^2(3) = 16.76, p = .0008$. The maximum number of alcohol-related offenses for an individual was 5 ($n = 1$) for the test group and 6 ($n = 1$) for the control group. For purposes of analysis, individuals with alcohol-related offenses were grouped into the following categories; no offenses, 1 offense, 2 offenses, and 3 or more offenses. Individuals who participated in the TDADAP had a lower than expected number of offenses across all offense categories while individuals not participating the TDADAP had a higher than expected number of alcohol-rated offenses across all offense categories. The no offenses category reported TDADAP participants as having a higher than expected and non-TDADAP participants as having a lower than expected number of individuals with no alcohol-related offenses. Details are available in Table 2 of the Appendix.

Alcohol-related Offenses

Of the 14 offenses that appear in the data, 10 were separated into groups to facilitate analysis. The groups included the five administrative license revocation offenses as well as the five MIP offenses. Driving under the influence (DUI), DWI, DWI-probated were also grouped. Public intoxication and intoxicated manslaughter were not grouped with other offenses. The Texas laws and implications related to these offenses are explained in detail as part of a 65-minute module of the 6-hour TDADAP

curriculum.

The Chi-square analysis (with alpha set at $p = .05$) of the offenses indicates that there was similar pattern in the test and control groups with relation to the distribution of the offenses, $X^2(4) = 5.3812$, $p = .2504$. Descriptions of the various offenses and specific findings are broken down herein. Details are available in Table 3 of the Appendix.

ALR Offenses

The Texas Administrative License Revocation (ALR) law took effect January 1, 1995. It is a civil, administrative process as opposed to criminal court proceedings. The goal of the law is to take intoxicated drivers off the road by revoking their driver license (Texas Department of Public Safety, 2004b). The license is suspended once a driver is arrested for DWI and either fails or refuses to submit to a test of BAC, usually a breath test. Underage offenders who fail the BAC test face a 60-day license suspension while those that refuse the test receive a 180-day suspension. Repeat offenders that fail the BAC test face a 120-day suspension for their second conviction and a 180-day suspension if they have two or more previous convictions. Repeat offenders that refuse the BAC test face a 2-year suspension. In terms of the data being examined, the various ALR offenses were often associated (individual was charged on the same date) with DWI offenses. Offenses related to Administrative License Revocation were the most prevalent of all the offenses in both groups with 164 ALR offenses attributed to the test group and 244 ALR offenses attributed to the control group. ALR offenses comprised 71.00% of test group's 231 total offenses and 64.89% of control group's 376 total offenses. The ALR offenses included in this analysis were ALR Notice Served – Refusal

(driver refused to submit to blood or breath test), ALR Under 21 – Refusal (minor refused to submit to blood or breath test), ALR Notice – Under .08 – Under 21 (specimen provided, tested below .08), ALR Notice – Detected – Under 21 (alcohol detected, no test required), and ALR Notice – Failure (specimen provided, tested .08 or over). Findings associated with the ALR offenses show a lower than expected number of ALR offenses for the test group and a higher than expected number for the control group.

MIP Offenses

In Texas, it is illegal for persons under the age of 21 to attempt to purchase, purchase, possess, or consume alcohol. It is also illegal to for an individual to misrepresent his or her age in order to buy alcohol (TDADAP, 2007). These minor in possession (MIP) offenses have penalties that include fines, loss of driver's license, participation in an alcohol awareness course, and possibly jail. Of the 5 MIP offenses, only purchase, consumption, and misrepresentation of age were present in the data. There were 28 MIP offenses attributed to the test group and 47 MIP offenses attributed to the control group. These offenses comprised 12.12% of test group's 231 total offenses and 19.26% of control group's 376 total offenses. MIP offenses followed ALR offenses as the second most common offense in the test group, and third most common in the control group. Findings associated with the MIP offenses show a lower than expected number of MIP offenses for the test group and a higher than expected number for the control group.

Public Intoxication

For persons under 21 years of age, public intoxication (PI) offenses carry the same penalties as MIP offenses. A person commits this offense if he or she appears in a public place while intoxicated to the degree that the person may endanger themselves or another (TDADAP, 2007). While an individual is not charged with public intoxication while driving, it is a topic covered in the TDADAP curriculum and its penalties do include loss of driver's license. Findings for the public intoxication offense were also nearly identical across the groups. While the test group had 13 and the control group had 20 PI offenses, the percentage of occurrences, at 5.63% in the test group and 5.32% in the control group, were approximately the same. Findings associated with the PI offenses show a lower than expected number of offenses for the test group and a higher than expected number for the control group.

DUI/DWI

With the understanding that all participants were under 21, the DWI and DUI offenses included in this analysis were; Driving While Intoxicated – Under 21, Driving While Intoxicated – Probated, and Driving Under the Influence – Minor. The majority of convictions, 76 of the 88, were Driving While Intoxicated – Under 21 convictions. Participants in the test group had 26 of these convictions with the remaining 62 in the control group. These offenses comprised 11.25% of test group's 231 total offenses and 16.48% of control group's 376 total offenses. Findings associated with DUI/DWI offenses show a lower than expected number of offenses for the test group and a higher than expected number for the control group.

Intoxication Manslaughter

Intoxication Manslaughter was only found 3 times in the data with each occurrence attributed to separate individuals in the control group. This offense comprised .08 % of the control group offenses and statistical findings indicated that it occurred more frequently than expected. There were no Intoxication Manslaughter offenses present in the test group data. While results associated with the extremely serious Intoxication Manslaughter offense reflect favorably with relation to TDADAP participation, they should be considered carefully due to the small number of occurrences.

Arrest Time

An independent samples t-test was performed to test whether the interval between license and the first arrest was affected by TDADAP participation. The t-test confirmed no significant difference in the test and control groups in terms of the number of years between license and first arrest, $t = .61$, $p = .5450$.

Alcohol-related Accidents

As a corollary to the stated purpose of the study, a cursory analysis of alcohol-related accidents was completed. In order to compare the alcohol-related accidents attributed to each group, a chi-square statistic (with alpha set at $p = .05$) was utilized. Findings from this analysis were mixed. Analysis of individual participants and the alcohol-related accidents associated with them indicated similar patterns for the TDADAP participants and non-participants with relation to the number of alcohol-related accidents, $X^2(2) = 3.10$, $p = .2125$. Details are available in Table 4 of the

Appendix.

Findings were mixed in that the test group had a higher-than-expected number of participants with at least one accident, while the control group frequency was less than expected. The reverse was found when considering participants with two alcohol-related accidents in that the test group frequency was lower than expected and the control group higher.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

Conclusion

The stated purpose of TDADAP is ‘To help drivers make responsible decisions about the use of alcohol or drugs, especially as they relate to operating a motor vehicle (TDADAP, 2007). The majority of participants, 96.31% in the test group participants and 94.76% in the control group, had no record of alcohol-related offenses. Based on the examination and statistical analysis of the test and control group data, findings indicate that TDADAP participation did in fact positively influence subsequent alcohol-related traffic convictions. When adjusted for group size, participants who did not receive TDADAP instruction had 53% more convictions than the TDADAP participants. Promising results came from findings associated with TDADAP participation and the total number of alcohol-related offenses attributed to a group, the number of ALR offenses, MIP offenses, PI offenses and DUI/DWI offenses attributed to a group.

Findings indicate there was not a difference between the test and control groups with relation to the interval between license and the first arrest. Consideration should be given to the fact that ALR offenses can be the direct result of a DUI/DWI offense. These items were not grouped and analyzed as the data provided did not associate the two offenses when they were found as part of an individual’s driving record. Analysis of alcohol-related accidents both within and between groups produced mixed results.

When taken as a whole, results from this study indicate that while TDADAP

participation may influence alcohol-related traffic convictions and some alcohol-related accidents, it is a more accurate predictor of alcohol-related traffic convictions and a less accurate predictor of all alcohol-related accidents.

Recommendations

Further research related to the TDADAP program and the effects on subsequent alcohol-related traffic offenses should include:

- a) Comparisons with punitive programs. TDADAP is a primary preventive intervention. An in-depth comparison of the driving records of TDADAP participants with the driving records of individuals who have participated in a punitive program with similar content should be conducted. The Texas MIP and DWI courses should be studied in this respect.
- b) Correlation of pre-test and post-test scores. All TDADAP participants are administered a both a pre and post test as part of the curriculum. These scores should be analyzed and compared with individual driving records and their value as a possible predictor studied in greater detail.
- c) Graduated driver licensing. Because of their age, less than 2% of the individuals included in this study participated in the Texas GDL program. Like data from younger participants should be analyzed using the methods described herein.

Completion of some or all of the suggested research could provide definitive results related to the effectiveness TDADAP as well as the other programs.

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APPENDIX

APPENDIX

Table 1
Chi-square analysis of all records and alcohol-related offenses

	No TDADAP	TDADAP
No Offenses	5569	5370
Expected Records	5632.5	5306.5
Column Percent	93.68	95.88
Offenses	376	231
Expected Records	312.54	294.46
Column Percent	6.32	4.12
Total Records	5945	5601

Statistic	DF	Value	Probability
Chi-Square	1	28.0335	< .0001

Table 2
Chi-square analysis of unique participants and alcohol-related offenses

	No TDADAP	TDADAP
Participants with No Offenses	5099	4832
Expected Participants	5139.3	4791.7
Column Percent	94.76	96.31
Participants with One Offense	207	146
Expected Participants	182.68	170.32
Column Percent	3.85	2.91
Participants with Two Offenses	64	35
Expected Participants	51.23	47.77
Column Percent	1.19	0.70
Participants with Three or More Offenses	11	4
Expected Participants	7.76	7.24
Column Percent	0.20	0.08
Total Participants	5381	5017
Participants with Offenses	282	185

Statistic	DF	Value	Probability
Chi-Square	3	16.76	.0008

Table 3
Chi-square analysis of grouped alcohol-related offenses

	No TDADAP	TDADAP
No Offenses	5569	5370
Expected Records	5632.5	5306.5
Column Percent	93.68	95.88
ALR Offenses	244	164
Expected Records	210.08	197.92
Column Percent	4.10	2.93
MIP Offenses	47	28
Expected Records	38.617	36.383
Column Percent	0.79	0.50
PI Offenses	20	13
Expected Records	16.992	16.008
Column Percent	0.34	0.23
DUI/DWI Offenses	62	26
Expected Participants	45.311	42.689
Column Percent	1.04	0.46
Intoxicated Manslaughter Offenses	3	0
Expected Records	1.5447	1.4553
Column Percent	0.05	0.00
Total Records	5945	5601
Total Offenses	376	231

Statistic	DF	Value	Probability
Chi-Square	4	5.3812	.2504

Table 4
Chi-square analysis of unique participants and alcohol-related accidents

	No TDADAP	TDADAP
Participants with No Alcohol-related Accidents	5355	4994
Expected Participants	5355.6	4993.4
Column Percent	99.52	99.54
Participants with One Alcohol-related Accident	17	20
Expected Participants	19.148	17.852
Column Percent	0.32	0.40
Participants with Two or More Alcohol-related Accidents	9	3
Expected Participants	6.21	5.76
Column Percent	0.17	0.06
Total Participants	5381	5017

Statistic	DF	Value	Probability
Chi-Square	2	3.10	.2125

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