

EFFECTS OF RELIGIOSITY AND REBT ON SUBSTANCE ABUSE AND  
MENTAL HEALTH

by

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ABSTRACT

SUBSTANCE ABUSE, MENTAL HEALTH, AND RELIGIOSITY

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The purpose of this thesis is to explore the impact of a Rational Emotive Behavior Therapy (REBT)-based treatment program on subjects levels of risk for alcohol and drug abuse as measured by the Substance Abuse Questionnaire (SAQ). This will be done while controlling for level of religiosity. The researcher will identify any association between different mental disorders as measured by the Millon Clinical Multi-axial Inventory-III (MCMI-III) and levels of religiosity. This study will focus on two dimensions of religiosity importance of religion and frequency of religious service attendance as reported by the participants.

## TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	iii
ABSTRACT .....	iv
1. LITERATURE REVIEW .....	1
1.1 An Overview of Religiosity .....	1
1.2 Religious Attitudes Impacting Attitudes Toward Substance Use .....	1
1.3 Religious Activity and Substance Use.....	2
1.4 Substance Use and Mental Health .....	3
1.5 Religiosity and Mental Health.....	4
1.6 Cognitive Behavior Therapy and REBT .....	5
1.7 CBT (REBT) Efficacy for Treatment of Personality Disorder and Substance Use .....	7
2. METHODS .....	9
2.1 Brief Description of Study .....	9
2.2 Participants .....	9
2.3 Substance Abuse Program.....	10
2.4 Procedures and Data Collection .....	10
2.5 Instruments .....	11
2.5.1 Millon Clinical Multiaxial Inventory (MCMI-III).....	11
2.5.2 Substance Abuse Questionnaire (SAQ).....	13

2.6 Operational Definitions for Religiosity.....	14
2.7 Controlling for Religiosity .....	15
2.8 Sample Size and Significance Level.....	15
3. RESULTS .....	17
4. DISCUSSION .....	20
4.1 Findings.....	20
4.1.1 Does REBT interact with religiosity in the area of substance abuse and mental health? .....	20
4.1.2 Are indicators of religiosity associated with risk factors for substance abuse? .....	22
4.1.3 Are indicators of religiosity associated with specific mental health disorders? .....	22
4.1.4 Did completion of the REBT program change SAQ and MCMI-III scores regardless of religiosity?.....	22
4.2 Conclusion.....	23
4.2.1 Limitations .....	23
4.2.2 Implications for Social Work.....	25
 Appendix	
A. MEANS COMPARISONS (RELIGIOUS) .....	26
B. MEANS COMPARISONS (NON-RELIGIOUS) .....	29
C. MEANS COMPARIOSNS (HIGH ATTENDANCE) .....	32
D. MEANS COMPARISONS (LOW ATTENDANCE).....	34
E. PRE TEST COMPARISONS (IMPORTANCE OF RELIGION) .....	36

F. PRE TEST COMPARISONS (FREQUENCY OF ATTENDANCE).....	38
G. MEANS COMPARISONS (ALL PARTICIPANTS).....	40
REFERENCES .....	42
BIOGRAPHICAL INFORMATION .....	50

## CHAPTER 1

### LITERATURE REVIEW

#### 1.1 An Overview of Religiosity

The United States has a unique tradition of religious commitment. Almost all our people profess a belief in God and 92% affiliate with a particular religion (Califano, 2002).

Religion, a complex, multidimensional construct, (Hill & Hood, 1999) has been suggested to have numerous dimensions of religious beliefs, attitudes, and behavior that might relate in different ways to the risk for psychiatric and substance abuse disorders (Kendler, Xiao-Qing Liu, Gardner, McCullough, Larson, & Prescott, 2003).

#### 1.2 Religious Attitudes Impacting Attitudes Toward Substance Use

Religiosity, particularly an individual's religious beliefs, impacts people's attitudes toward certain social behaviors. Stylianou (2001) suggested that religiosity is one of the most important attitudinal correlates of serious perception- the perception and attitudes about the social desirability of certain behavior including drug use. The results of his study concluded that religiosity, defined as an individual's religious beliefs, plays a role in opposing drug use by perceiving it as an immoral behavior. This suggests that religious beliefs thus influence a person's decision-making process regarding drug use. A report released by the National Survey on Drug Use and Health (NSDUH) found that

69% of youth surveyed reported that their religious beliefs influenced how they made decisions about substance use (2004).

A report released by The National Center on Addiction and Substance Abuse (CASA) at Columbia University, reported that adults who do not consider religious beliefs important are more than one and a half times more likely to smoke, three times more likely to binge-drink, almost four times more likely to use an illicit drug other than marijuana and more than six times likely to smoke pot than adults who believe that religion is important (2001).

Others have also suggested that attitudinal research should help in understanding the nature and cause of drug use (Hardaway, Elifson, & Petersen, 1984); Skiffington & Brown, 1981). Over recent years various studies have concluded that religiosity affects attitudes towards drug use and that various measures of religiosity (belief vs. practice) affect attitudes towards different substances differently (Stylianou, 2004; Bilal, Makhawi, Al-Fayez, and Shaltout, 1990; Francis & Mullen, 1993; Francis & Mullen 1995, Larson, Larson, & Koenig, 2000). Califano (2002) expresses his view that many recovering alcoholics and addicts attribute their motivation to seek treatment and their ability to maintain sobriety to their religious beliefs and the support of a community of believers.

### 1.3 Religious Activity and Substance Use

The examination of the relationship between religious activity and drug/alcohol use found that higher levels of religious activity, belief, salience, and orthodoxy are associated with lower levels of drug alcohol use (Hardaway, Elifson, & Petersen, 1984).

Continued research among youth agrees with this inverse relationship suggesting that higher levels of religiosity are associated with lower levels of substance use (NSDUH, 2004; Petraitis, Flay, Miller, Torpy, & Greiner, 1998; Cochran, 1992).

The CASA report also reported that adults who never attend religious services were three times more likely to smoke, more than five times more likely to use an illicit drug other than marijuana, almost seven times more likely to binge-drink and almost eight times more likely to smoke pot than those who attend religious services at least weekly (2001).

The current literature supports an inversed correlation for religious importance and activity in relation to substance use or abuse (Miller, 1998; Christo & Franey, 1995).

Greater religious importance and higher frequency of religious involvement are associated with lower risk of substance use (Hardesty & Kirby, 1995; Gartner, Larson, & Allen, 1991; Benson, 1992).

#### 1.4 Substance Use and Mental Health

Several studies also suggest an association between certain psychopathologies and substance abuse. Findings from epidemiologic and clinical studies provide strong evidence that substance abuse and personality disorders tend to co-occur (Sutker, Bugg & West, 1993). For example, it has been found that antisocial psychopathology is elevated among men who abuse opioids (Kosten, Rounsaville, & Kleber, 1982) and alcohol (Hesselbrock, Meyer, & Keener, 1985). The prevalence of borderline personality disorder has been found to be elevated among women who abuse alcohol and drugs (Widiger & Trull, 1993; Flynn, McCann & Fairbank, 1995).

Several studies of substance abuse have shown prevalence estimates for personality disorder ranging between 40% and 100% (Sievwright & Daly 1997; Nadeau *et al.* 1999; George & Krystal 2000). One specific study aiming at comparing the prevalence of personality disorder in alcohol and drug populations found that the overall prevalence of personality disorder was 37% in the drug service sample and 53% in the alcohol service sample (Jones, Iqbal, Tyrer, Seivewright, Cooper, Judd & Weaver, 2004).

### 1.5 Religiosity and Mental Health

The extent to which religiosity impacts mental illness remains understudied. Most prior investigations of this relationship have used measures of religiosity that do not reflect its complexity and/or have examined a small number of psychiatric outcomes (Kendler, Xiao-Qing Liu, Gardner, McCullough, Larson, & Prescott, 2003). However, some research findings support substantial associations between religiosity and mental health. One study found that some dimensions of religiosity were related to reduced risk specifically for internalizing disorders (anxiety, depression, etc.) while other dimensions were found to reduce risk specifically for externalizing disorders (i.e. antisocial disorders) (Kendler, Xiao-Qing Liu, Gardner, McCullough, Larson, & Prescott, 2003). Another study by of 1,900 female twins found significantly lower rates of major depression, smoking and alcohol abuse among those who were more religious (Kendler, Gardener, & Prescott, 1997). A study involving 2,676 participants from 16-75 years of age in 1965, who survived to 1994, found that weekly religious attendance was associated with maintaining good mental health. Several research studies (Bergin, 1983, 1991; Donahue, 1985; Ferrano & Albrecht-Jensen, 1991; Garner, Larson, & Allen,

1991; Johnson, 1992) have supported many physical and mental health benefits to religious commitment (et.al, Ridley, & Nielsen, 2000).

### 1.6 Cognitive Behavioral Therapy and REBT

CBT is a treatment approach that assumes a relationship between events, thoughts, feelings and behaviors and that maladaptive thought patterns lead to dysfunctional feelings and destructive actions such as substance use and abuse (Hall, 2003). For example, the underlying assumption has been that drinking problems, or other substance abuse problems for that matter, arise or continue because the individual lacks important coping skills for sober living (Morgenstern, 2000). In addition to developing coping skills Kooijman (1992) suggested that one of the primary objectives of treatment of drug abuse patients is to instill changes in thinking and behavior, most specifically to have patients change their attitude toward various aspects of life's challenges.

The aim of cognitive therapy is to prevent excessive emotional reactions and self-defeating behavior by modifying maladaptive beliefs by emphasizing what clients have learned from their experiences to believe about themselves, their life situations, and their futures (Harvard, 1995).

Rational Emotive Behavior Therapy is a theory of personality and a method of psychotherapy developed in the 1950's by Albert Ellis, a clinical psychologist (Corsini, 2000). The basic tenet of REBT is that emotional upsets stem largely from irrational beliefs and emphasizes that people nonetheless have the choice of changing their dysfunctional behaviors by empowering individuals to change their thinking and

feelings to act differently (Corsini, 2000). The theory of REBT holds that core irrational beliefs are the most efficient points and therefore usually the first points at which to intervene during psychotherapy (Nielsen, Johnson, & Ridley, 2000; Walen, DiGiuseppe, & Dryden, 1992).

Although Ellis at one time contended that dogmatic and absolutistic religiousness-or what he called “devout religiosity”-tended to be emotionally harmful (1983), however, he has been able to restate some of the basic REBT philosophies to account for religious belief systems(Ellis, 2000). He concluded that anyone who takes this kind of religious outlook can be “rational” in the sense that REBT defines rational, that is, as having self-helping beliefs, feelings and behaviors. This seems to imply that REBT theory and methodologies can be successful in impacting attitudes and beliefs in religiously oriented clients. Nielsen (1994) suggested that REBT is an excellent treatment modality for clients with strong adherence to religious beliefs because it is a belief-focused therapy. REBT is adaptable to the traditions of organized religion being that both share a philosophical nature and place significant emphasis on teaching and education (Nielsen, Johnson, & Ridley, 2000).

Furthermore, Nielsen et al. (2000) stated that religious doctrine and rational emotive psychology both endorse the centrality of belief in the emotional, behavioral, and cognitive lives of human beings.

### 1.7 CBT (REBT) Efficacy for Treatment of Personality Disorders and Substance Abuse

CBT is the most widely used cognitive therapy in the mental health field (McInnes, 2004) and is fast gaining support as the therapy of choice among the research

community for its efficacy in the treatment of substance use and abuse. Morgenstern and Longabaugh (2000) believed that a strong theoretical base, impressive efficacy data and weak evidence for effective alternative treatments have led to the ascendancy of CBT as a dominant therapeutic approach for alcohol dependence within the research community. However, Morgenstern's study concluded that insufficient evidence existed to establish why CBT is an effective treatment for alcohol dependence and not enough support for the hypothesis that CBT works through its effect on coping (2000).

Research conducted over the past few years aimed at establishing as much empirical data as possible as to the efficacy of CBT, particularly REBT. One particular study gathered and reviewed research articles published between 1985 and 2003 based on the theoretical principles of REBT and was concerned with examining the proposed causal relationship between beliefs and emotional and/or inferential consequences (McInnes, 2004). Although the study concluded that support for this relationship is limited, McInnes (2004) stated that the results do not exclude the possibility that the hypotheses are true but that the evidence from these studies is weak and that in order to be able to state more clearly whether the REBT hypotheses have empirical support, more extensive studies would need to be undertaken.

One study evaluating the effectiveness of CBT and contingency management interventions among cocaine-dependent clients with and without antisocial personality disorder, concluded that CBT, as a stand alone treatment approach, was less effective with both antisocial personality disorder (ASPD) clients and those without (Messina, Farabee, & Rawson, 2003). Although several studies have measured the long-term

effects of psychotherapeutic treatment on personality disorders (PD's), very few studies have measured change in PD's during the course of treatment (Groot, Franken, Meer, & Hendriks, 2003; Perry, 1993). Although Vallis (2000) noted clear evidence for the efficacy of CBT for depression and anxiety disorders and encouraging evidence of its efficacy for specific problems such as non-assertiveness, marital difficulties, and post-traumatic stress, there is lack of clear empirical data to support its efficacy in treating personality disorders. Vallis' study suggested that a cognitive approach to treating PD's may not be entirely inappropriate, but may need to be modified if it is to be used successfully to treat personality dysfunction (2000).

The research suggests that in cases where PD is not the prevalent diagnosis, there is more readily an impact on attitudes and/or thought processes through CBT approaches, thus empowering the client to be more active in changing maladaptive thought patterns, dysfunctional feelings, and destructive actions.

## CHAPTER 2

### METHODS

#### 2.1 Brief Description of Study

The aim of this study will be to explore the following four research questions: 1) Does REBT interact with religiosity in the area of substance abuse and mental health? 2) Are indicators of religiosity associated with risk factors for substance abuse? 3) Are indicators of religiosity associated with specific mental health disorders? 4) Did completion of the REBT program change SAQ and MCMI-III scores for the whole group regardless of religiosity?

#### 2.2 Participants

Data for the study were collected from group members participating in a 23 week REBT oriented substance abuse treatment program located at Family Assessment Consultation and Therapy Services (FACTS) in Fort Worth, Texas. Participants included both voluntary clients and court ordered probationers mandated by a court of law to attend the program to comply with their terms of probation. Substance abuse related problems among participants ranged from mild to severe. All of the participants in this study were over 18 years of age. Education levels range from partial high school completed to degrees attained. To be eligible participants must successfully enroll in the

program following thorough assessment and successfully complete the 6 month program. The sample for this study is not a random sample but rather a sample of convenience. Participants do not reflect a general population or cross-section of individuals.

### 2.3 Substance Abuse Program

The substance abuse course is divided into 6 phases. All group members are required to do homework from a designated workbook, composed by Dick Brockman (FACTS program Director), and present their assignments every week at group meetings. A qualified facilitator specializing in REBT methodology is present to assist group members in processing homework and ensuring that group members are able to apply REBT concepts to their experiences with substance abuse. At the end of each phase, group members are tested on knowledge and application of REBT concepts as related to substance abuse. Phases 5 and 6 of the program are dedicated to helping the members develop a relapse prevention plan.

### 2.4 Procedures and Data Collection

All of the participants in the study were required to complete a demographic survey, an MCMI-III, and an SAQ at intake. Participants willing to partake in the research study signed a consent form granting the researcher permission to gain access to demographic information, MCMI-III, and SAQ test results. Demographic information included: Years of education, date of birth, religious affiliation, religious attendance, and importance of religion.

Participants are required to complete the MCMI and SAQ post-test at the conclusion of phase 5 of the program. At this point group members have already processed much of the REBT material and will utilize the last phase of the program for planning relapse prevention.

Data collection procedures were approved and in compliance with the IRB committee of the University of Texas at Arlington. The staff at FACTS was responsible for administering and collecting surveys and test results. Each file utilized for the compilation of data was coded and any identifying information deleted to ensure anonymity. Only demographic surveys and pre/post MCMI/SAQ test scores were accessed for data analysis.

## 2.5 Instruments

### *2.5.1 Millon Clinical Multiaxial Inventory (MCMI-III)*

Assessing personality disorders requires specific assessment and the Millon Clinical Multiaxial Inventory (MCMI-III) is specifically designed to compliment the DSM-IV to assess personality disorders (Retzlaff, Stoner, & Kleinsasser, 2002; Craig & Olson, 2001). The MCMI assessment scale is frequently used in research on drug abuse patients (Craig & Weinberg, 1992; Flynn & McMahon, 1997).

The MCMI-III consisted of a 175-item true-false inventory based on Millon's theory of personality and psychopathology. More specifically, the MCMI-III (Millon, 1997) measures 11 Clinical Personality Disorders: Schizoid, Avoidant, Depressive, Dependent, Histrionic, Narcissistic, Antisocial, Sadistic, Compulsive, Negativistic (Passive-Aggressive), and Self-Defeating. There are three scales of Severe Personality

Disorders: Schizotypal, Borderline, and Paranoid. The Basic Clinical Syndrome scales include: Anxiety, Somatoform, Bipolar: Manic, Dysthymia, Alcohol Dependence, Drug Dependence, and Posttraumatic Stress Disorder. Finally, the three Severe Clinical Syndromes are Thought Disorder, Major Depression, and Delusional Disorder.

The assessment measures the presence or absence of a personality disorder depending on base-rate score (BR). For statistical purposes Groot, Franken, Meer, and Hendriks (2002) recommend analysis of the raw score data since BR scores are non-linear. BR scores ranging from 0-74 suggests no pathology of that type. Scores from 75-84 reflect that pathology at a “features” level. Finally, scores of 85 or higher suggest that that pathology is primary and most likely diagnosed as severe. Additional assessments and evaluations should be conducted in collaboration with the MCMI-III to ensure a more accurate diagnostic formulation.

According to Millon’s recommendations (Millon, 1987), profiles were invalid if the participant responded affirmatively to two or more ‘validity items’ or if the participant produced very low (<145) or very high (>590) scores on the disclosure scale (Groot, Franken, Meer, & Hendriks, 2002).

In regard to whether substantiated empirical validity to personality disorder descriptors exists, Craig and Olsen suggested that very little research has been done. However, according to Craig & Olson a substantial literature on previous editions of the MCMI has found good convergent validity for most of the MCMI scales except for the Paranoid scale (Craig, 1993, 1997; Craig & Olson, 2001). Results from Craig’s research about the validity of the MCMI-III suggest good convergent validity for the

interpersonal descriptive domain for the MCMI-III scales especially for the Histrionic scale (2001).

Several studies (Groot, Franken, Meer, & Hendriks, 2002; Vallis, Howes, & Standage, 2002; Pretzer, 1994) have incorporated the use of the MCMI-III in diagnostic formulation, determining effective approaches to treatment, discharge, and after care planning (Flynn, McCann, & Fairbank, 1995).

### *2.5.2 Substance Abuse Questionnaire (SAQ)*

The Substance Abuse Questionnaire (SAQ) is a self administered self report test designed to assess alcohol or drug problems in patients. The SAQ consists of 153 true/false statements and is computer-scored using appropriate software. In addition the instrument also assesses aggressiveness, resistance and stress handling abilities. The SAQ has six scales: 1. Truthfulness scale, 2. Alcohol Scale, 3. Drugs Scale, 4. Aggressive Scale, 5. Resistance Scale, and 6. Stress Coping Abilities Scale. A problem is not identified until a scale score is at or above the 70<sup>th</sup> percentile.

The SAQ has been shown to be a valid, reliable, and accurate assessment for both men and women and has been used in screening regular patients, defendants, and probationers. All SAQ scales have alpha coefficients well above the professionally accepted standard of .75 and all coefficient alphas are significant at the  $p < .001$  level. A study conducted by Davignon (2003) of Behavioral Data Systems standardized the SAQ on a sample of 3,184 adults. Reliability analysis showed that all SAQ scales had reliability coefficient alphas between .85 and .95. The Alcohol and Drug scales identified respondents who had admitted drinking or drug problems, 96% and 97%,

respectively. Furthermore, the Aggressiveness Scale correctly identified 96% of respondents who admitted aggression problems. Both predictive validity and discriminant validity methods were utilized for the purpose of the study. Other studies used criterion measures and were validated with other tests like the Minnesota Multiphasic Personality Inventory (MMPI), L-Scale and F-Scale, 16PF, SAQ-Adult Probation III, Defendant Questionnaire, Taylor Manifest Anxiety among others.

### 2.6 Operational Definitions for Religiosity

For the purpose of this study religiosity was defined as importance of religion and frequency of attending religious services. These definitions were operationally defined using a Likert-Scale format.

Importance of Religion was defined on a scale from 1-4.

1 = Not at all

2 = Slightly important

3 = Important

4 = Very important

Frequency of Attendance was defined on a scale from 1-10.

1 = More than once per week

2 = Weekly

3 = Periodically during the month

4 = One time per month

5 = More than one time per month during a six month period

6 = Less than one time per month during a six month period

7 = More than one time per month during a year period

8 = Less than one time per month during a year period

9 = Holidays only

10 = Never

### 2.7 Controlling for Religiosity

To compare changes in pre and post scores controlling for importance of religion, cases were categorized into two groups, religious (Group 1) and non-religious (Group 0). Participants who ranked importance of religion as either “not at all” or “slightly important” were categorized as “non-religious” while those who ranked importance of religion as either “important” or “very important” were categorized as “religious.”

For religious attendance, groups were categorized as “high attendance” and “low attendance.” Participants who ranked attendance between 1-5 were categorized as “high attendance” (Group 0) and those who ranked attendance between 6-10 were categorized as “low attendance” (Group 1).

### 2.8 Sample Size and Significance Level

Sample size can have an impact on the statistical results of a study. Rubin and Babbey (2001) point out that the smaller the sample size the larger the sampling error and the more likely that any relationships observed will be statistically weak thus making findings difficult to generalize. For example, a study with a sample size of 100 will yield significant results than a sample size of 10. The higher sample size allows for a wider distribution of data than the smaller one increasing the likelihood that once the

data has been analyzed it will yield statistically significant results. Generally speaking social work researchers have used .05 as the cutoff point to separate findings that are significant from those that are not. However, Rubin and Babbie (2001) stated that a strong case can be made for using a higher significance level such as .10 when sample sizes are small in order to compensate for the limited distribution.

This particular study is divided into two groups composed of 6 participants each. Because the sample size in this study is small it has been determined that it would be appropriate and within research guidelines to use .10 as the significance level to determine whether results are significant or not.

## CHAPTER 3

### RESULTS

A paired samples t-test was used to compare mean scores of pre and post scores for each group. Pre and post scores were compared for alcohol and drugs from the SAQ and pre and post scores were compared for antisocial, borderline, and major depression from the MCMI controlling for “religious” and “non religious” and for “low attendance” and “high attendance”.

Among “non-religious” participants ( $n= 6$ ) mean scores showed a decrease for alcohol, drugs, and major depression; however, none of these changes were significant at the .10 level. The mean score for antisocial increased (17.83) with  $p= .104$ . The scores for Borderline showed the smallest increase (1.17) with  $p= .897$  (See Appendix B).

In the “religious” group ( $n= 6$ ) mean scores for alcohol and Borderline showed the largest increase (17.34) and (10.66) respectively. Mean scores for antisocial also showed slightly higher changes. The mean scores for drugs and major depression showed a decrease. Both major depression and borderline showed ( $p$ ) values of .159 and .129 respectively (See Appendix A).

In controlling for frequency of attendance mean scores among “high attendance” participants ( $n =6$ ) showed an increase in alcohol, antisocial, and borderline (.83, 11.00,

and 10.16) and (p) values of (.53, .24, and .15) respectively. Both drugs and major depression showed a decrease (8.16) and (11.83). Results did not prove to be significant at the .10 level (See Appendix C).

Among “low attendance” participants ( $n=6$ ) mean scores increased for alcohol, drugs, antisocial, and borderline (7.33, 3.66, 10.00, and 1.66). Major depression showed a decrease in mean scores (9.33). Again, results did not prove to be significant at the .10 level (See Appendix D).

An independent samples t-test compared group mean differences for alcohol, drugs, antisocial, major depression, and borderline controlling for importance of religion at the pre stage (See Appendix E). The largest mean difference in the means scores between the two groups in the pre stage were for major depression (20.5) and Borderline (18.6). The pre stage means differences for alcohol, drugs, and antisocial were (6.17, 7.16, 2.17) respectively. There was no significant difference between the groups at the pre stage.

For the attendance groups the largest means difference was between major depression (19.17) and borderline (-12.83) in the pre stage. The means differences for alcohol, drugs, and antisocial were (-1.17, 4.17, and -7.5) respectively. There were no significant differences between groups controlling for frequency of attendance (See Appendix F).

A paired samples t-test was used to compare pre and post scores for all participants in the group regardless of religiosity (See Appendix G). Results showed

that the scores for alcohol, antisocial, and borderline increased (-7.83, -10.50, and -5.92) respectively. The change in antisocial scores proved to be significant at ( $p$ ) = .06.

Results showed that the scores for drugs and major depression decreased (2.25 and 10.58) respectively. The change in major depression proved to be significant at ( $p$ ) = .09.

## CHAPTER 4

### DISCUSSION

#### 4.1 Findings

##### *4.1.1 Does REBT interact with religiosity in the area of substance abuse and mental health?*

Results within the REBT program indicated that “non-religious” participants in decreased their means scores in alcohol, drugs, and major depression while “religious” participants saw decreases in means scores most noticeably for major depression. Also “non-religious” participants saw an increase in antisocial scores while borderline and alcohol means scores increased in the “religious” group. This indicates that the “non-religious” participants benefited more in the most positive changes than the “religious” participants.

Current literature does support the positive role that religion plays a part in recovering from major depression, however, more changes had been anticipated within the “religious” participants in regards to alcohol and drugs which was also supported by the literature. It is important to note that the literature suggested a stronger prevalence of borderline personality disorder among women who abuse alcohol and personality disorders may require more intensive therapeutic approaches to be effective. This may account for the increase in borderline and alcohol among even “religious” participants

assuming that there were more women in the group who suffered from borderline personality disorder.

The increase in anti-social scores among “non-religious” participants, which proved to be significant, may serve as an indicator that this particular dimension of religiosity may have an impact on this particular externalizing disorder as suggested by the literature. However, among “religious” participants the anti-social scores also increased but it was not shown to be significant.

Among “high attendance” participants means scores increased for alcohol, antisocial, and borderline and decreased for major depression and drugs which indicates that “high attendance” did not have a positive impact on changes for alcohol, antisocial, and borderline. However, this dimension of religiosity seemed to have contributed the most positive changes to depression scores and drugs. The literature does support a relationship between frequency of attendance and drug use and supports again the role of religion in treatment of depression. Among “low attendance” participants mean scores increased for alcohol, drugs, antisocial and borderline but only saw a decrease for depression. It was anticipated that other scores would have decreased for “high attendance” participants but the analysis does not support this.

The results in this study indicated that changes did take place between pre and post stages controlling for religiosity as defined by importance and attendance. However, these changes did not prove to be significant at the .10 level and therefore cannot be counted as significant by research standards. In the final analysis there were

no significant differences in group outcomes as a result of participating in the REBT treatment program controlling for dimensions of religiosity in this particular study.

#### *4.1.2 Are indicators of religiosity associated with risk factors for substance abuse?*

The independent t-test controlling for importance of religion in the pre stage found no significant differences in alcohol and drug means scores between “religious” and “non-religious” participants that would indicate that religiosity is associated with risk factors for substance abuse. The same proved to be true controlling for “high attendance” and “low attendance” participants. Neither dimensions of religiosity proved to be associated with levels of risk for substance abuse prior to participation in treatment.

#### *4.1.3 Are indicators of religiosity associated with specific mental health disorders?*

The independent t-test controlling for importance of religion in the pre stage found no significant difference in means scores between “religious” and “non religious” participants associated with antisocial, borderline and major depression. The same proved to be true for frequency of attendance to religious services. Neither dimension of religiosity proved to be associated significantly with mental health disorders prior to participation in treatment.

#### *4.1.4 Did completion of the REBT program change SAQ and MCMI-III scores regardless of religiosity?*

The paired samples t-test conducted for all participants showed that there were more significant changes in the pre and post (SAQ) and (MCMI-III) scores regardless of religiosity. Both antisocial and major depression showed significant changes. Antisocial scores increased while major depression scores decreased.

Current literature suggests that a cognitive style treatment approach as a stand alone intervention seems to be less effective in the treatment of personality disorders including antisocial personality disorder especially when (ASPD) is the prevalent diagnosis. The fact that antisocial scores increased significantly seems may serve as an indicator to support this relationship. The literature does suggest, however, that there is clear evidence to support the efficacy of cognitive treatment for depression. Again, this study seems to reinforce this relationship.

This study showed that completion of the REBT program did yield more significant results regardless of religiosity compared to when controlling for dimensions of religiosity. This study may benefit from further research to explore the interaction between REBT and religiosity and the effects on substance abuse and mental health.

## 4.2 Conclusion

### *4.2.1 Limitations*

One of the obvious limitations of this study is the sample size. As noted earlier it is more difficult to generalize findings and make a strong case for relationships when sample size is small. This study would benefit from the gathering of more data to determine any stronger relationships between religiosity, REBT, substance abuse, and mental health. As noted earlier this is not a random sample or representation of a larger population therefore the results from this study are not externally valid. Because of the small sample size and the study's exploratory nature normal distribution is affected and results reflect a rough approximation.

Another limitation of this study may be that treatment model was not faith-based. Although REBT, a form of cognitive therapy, focuses primarily on belief systems and is philosophical in nature, the treatment program did not provide any instruction as to how religiosity and REBT may be compatible. Whether faith-based programming has any bearing on the final outcome remains unclear. This would require further research to determine the impact of faith-based treatment models versus non-faith-based treatment models.

As noted earlier in the literature review, religion is a complex multi-dimensional construct. Some researchers have used specific standardized instruments that measure different dimensions of religiosity regarding beliefs, attitudes and behaviors. For the purpose of this study religiosity was operationally defined using a self report Likert Scale questionnaire to determine “importance of religion” and “frequency of attendance.” Anytime research involves self report methods from one source there is the possibility of gathering inaccurate information. This may be due to the participant wanting to show positive results either to please themselves or to project a socially desirable image to others. Typically Likert-Scales type questionnaires do not provide any safeguards against this like other standardized scales that are more in-depth. Another limitation is the extent to which severe personality disorders are present among participants. The literature suggests that severe personality disorders may require more intensive or modified treatment and that CBT alone may not be effective in treating severe personality disorders. This particular treatment program utilized CBT (REBT) as a stand-alone method of treatment.

#### *4.2.2 Implications for Social Work*

Historically, social workers have been reluctant to address religion or spirituality with clients. This may be due to biases, certain sensitivities or fear of talking about something that they may not fully understand, or simply to avoid the appearance of proselytizing. However, it is important to recognize that for many clients religion is an real dimension in their lives. Understanding how religion impacts attitudes, feelings and behaviors can help practitioners provide the best quality of services for those who seek help. Practicing social workers should take every opportunity to utilize as many strength-based approaches as available when working with individuals who seek professional help with mental health and substance abuse needs. Clinical social workers may do a great deal for their clients by assessing the extent to which religion plays a role in their lives and using empirically based studies to develop an effective religious-based treatment approach if deemed appropriate. It is also helpful to note that, for many, belonging to a religious group offers a positive support system that is a crucial ingredient for clients recovering from mental health and substance abuse problems. It also provides a way for them to become integrated into the community and provides a structure for contributing to society in a constructive manner.

APPENDIX A

MEANS COMPARISONS (RELIGIOUS)

## Means Comparisons (Religious)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1 (SAQ)	Alcohol	53.83	6	39.997	16.329
	Post Alcohol	71.17	6	20.390	8.324
Pair 2 (SAQ)	Drugs	60.33	6	14.010	5.719
	Post Drugs	58.17	6	26.784	10.934
Pair 3 (MCMI)	Antisocial	45.67	6	16.609	6.781
	Post Antisocial	48.83	6	12.024	4.909
Pair 4 (MCMI)	Major Depression	15.67	6	26.250	10.717
	Major Depression	10.33	6	24.345	9.939
Pair 5 (MCMI)	Borderline	16.17	6	11.737	4.792
	Post Borderline	26.83	6	9.475	3.868

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Alcohol & Post Alcohol	6	.557	.250
Pair 2	Drugs & Post Drugs	6	.311	.549
Pair 3	Antisocial & Post Antisocial	6	.881	.020
Pair 4	Major Depression & Major Depression	6	.954	.003
Pair 5	Borderline & Post Borderline	6	.096	.857

**Paired Samples Test**

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Alcohol - Post Alcohol	17.333	33.261	13.579	52.238	17.572	-1.277	5	.258
Pair 2	Drugs - Post Drugs	2.167	26.088	10.650	25.211	29.544	.203	5	.847
Pair 3	Antisocial - Post Antisocial	-3.167	8.280	3.380	11.857	5.523	-.937	5	.392
Pair 4	Major Depression - Major Depression	5.333	7.891	3.221	-2.948	13.614	1.656	5	.159
Pair 5	Borderline - Post Borderline	10.667	14.362	5.863	25.739	4.405	-1.819	5	.129

APPENDIX B

MEANS COMPARISONS (NON-RELIGIOUS)

## Means Comparisons (Non-Religious)

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1 (SAQ)	Alcohol	60.00	6	24.364	9.947
	Post Alcohol	58.33	6	30.904	12.617
Pair 2 (SAQ)	Drugs	53.17	6	32.787	13.385
	Post Drugs	50.83	6	31.562	12.885
Pair 3 (MCMI)	Antisocial	43.50	6	9.894	4.039
	Post Antisocial	61.33	6	22.349	9.124
Pair 4 (MCMI)	Major Depression	36.17	6	25.119	10.255
	Major Depression	20.33	6	22.642	9.244
Pair 5 (MCMI)	Borderline	34.33	6	34.720	14.174
	Post Borderline	35.50	6	30.012	12.252

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	Alcohol & Post Alcohol	6	-.406	.425
Pair 2	Drugs & Post Drugs	6	.921	.009
Pair 3	Antisocial & Post Antisocial	6	.259	.621
Pair 4	Major Depression & Major Depression	6	.375	.463
Pair 5	Borderline & Post Borderline	6	.797	.057

**Paired Samples Test**

		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				Sig. (2-
					Lower	Upper			
Pair 1	Alcohol - Post Alcohol	1.667	46.474	18.973	-47.105	50.439	.088	5	.933
Pair 2	Drugs - Post Drugs	2.333	12.879	5.258	11.182	15.849	.444	5	.676
Pair 3	Antisocial - Post Antisocial	17.833	21.977	8.972	40.896	5.230	-1.988	5	.104
Pair 4	Major Depression - Major Depression	15.833	26.769	10.928	12.259	43.925	1.449	5	.207
Pair 5	Borderline - Post Borderline	-1.167	21.085	8.608	23.294	20.960	-.136	5	.897

APPENDIX C  
MEANS COMPARISONS (HIGH ATTENDANCE)

## Means Comparisons (High Attendance)

### Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1 (SAQ)	Alcohol	56.33	6	34.703	14.167
	Post Alcohol	64.67	6	20.461	8.353
Pair 2 (SAQ)	Drugs	58.83	6	22.684	9.261
	Post Drugs	50.67	6	26.666	10.886
Pair 3 (MCMI-III)	Antisocial	40.83	6	10.265	4.191
	Post Antisocial	51.83	6	22.212	9.068
Pair 4 (MCMI-III)	Major Depression	35.50	6	26.174	10.686
	Major Depression	23.67	6	29.944	12.225
Pair 5 (MCMI-III)	Borderline	18.83	6	19.364	7.905
	Post Borderline	29.00	6	24.739	10.100

### Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Alcohol & Post Alcohol	6	.489	.324
Pair 2	Drugs & Post Drugs	6	.589	.218
Pair 3	Antisocial & Post Antisocial	6	.436	.388
Pair 4	Major Depression & Major Depression	6	.694	.126
Pair 5	Borderline & Post Borderline	6	.802	.055

### Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Alcohol - Post Alcohol	-8.333	30.461	12.436	-40.300	23.633	-.670	5	.532
Pair 2	Drugs - Post Drugs	8.167	22.640	9.243	-15.592	31.926	.884	5	.417
Pair 3	Antisocial - Post Antisocial	-11.000	20.000	8.165	-31.989	9.989	-1.347	5	.236
Pair 4	Major Depression - Major Depression	11.833	22.230	9.075	-11.495	35.162	1.304	5	.249
Pair 5	Borderline - Post Borderline	-10.167	14.770	6.030	-25.667	5.334	-1.686	5	.153

APPENDIX D

MEANS COMPARISONS (LOW ATTENDANCE)

## Means Comparisons (Low Attendance)

### Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1 (SAQ)	Alcohol	57.50	6	31.798	12.981
	Post Alcohol	64.83	6	32.419	13.235
Pair 2 (SAQ)	Drugs	54.67	6	27.876	11.380
	Post Drugs	58.33	6	31.614	12.907
Pair 3 (MCMI-III)	Antisocial	48.33	6	15.410	6.291
	Post Antisocial	58.33	6	14.801	6.042
Pair 4 (MCMI-III)	Major Depression	16.33	6	25.820	10.541
	Major Depression	7.00	6	10.100	4.123
Pair 5 (MCMI-III)	Borderline	31.67	6	32.672	13.338
	Post Borderline	33.33	6	20.304	8.289

### Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Alcohol & Post Alcohol	6	-.239	.649
Pair 2	Drugs & Post Drugs	6	.866	.026
Pair 3	Antisocial & Post Antisocial	6	.387	.448
Pair 4	Major Depression & Major Depression	6	.808	.052
Pair 5	Borderline & Post Borderline	6	.781	.067

### Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Alcohol - Post Alcohol	-7.333	50.540	20.633	-60.372	45.705	-.355	5	.737
Pair 2	Drugs - Post Drugs	-3.667	15.807	6.453	-20.255	12.922	-.568	5	.594
Pair 3	Antisocial - Post Antisocial	-10.000	16.733	6.831	-27.560	7.560	-1.464	5	.203
Pair 4	Major Depression - Major Depression	9.333	18.630	7.606	-10.217	28.884	1.227	5	.274
Pair 5	Borderline - Post Borderline	-1.667	21.059	8.597	-23.766	20.433	-.194	5	.854

## APPENDIX E

### PRE TEST COMPARISONS (IMPORTANCE OF RELIGION)

## Pre Test Comparisons (Importance of Religion)

### Group Statistics

	group data of importance of religion	N	Mean	Std. Deviation	Std. Error Mean
(SAQ) Alcohol	1.00	6	53.83	39.997	16.329
	.00	6	60.00	24.364	9.947
(SAQ) Drugs	1.00	6	60.33	14.010	5.719
	.00	6	53.17	32.787	13.385
(MCMI-III) Antisocial	1.00	6	45.67	16.609	6.781
	.00	6	43.50	9.894	4.039
(MCMI-III) Borderline	1.00	6	16.17	11.737	4.792
	.00	6	34.33	34.720	14.174
(MCMI-III) Major Depression	1.00	6	15.67	26.250	10.717
	.00	6	36.17	25.119	10.255

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
(SAQ) Alcohol	Equal variances assumed	1.807	.209	-.323	10	.754	-6.167	19.120	-48.768	36.435
	Equal variances not assumed			-.323	8.261	.755	-6.167	19.120	-50.015	37.682
(SAQ) Drugs	Equal variances assumed	4.012	.073	.492	10	.633	7.167	14.556	-25.266	39.599
	Equal variances not assumed			.492	6.767	.638	7.167	14.556	-27.494	41.828
(MCMI-III) Antisocial	Equal variances assumed	2.108	.177	.275	10	.789	2.167	7.893	-15.419	19.753
	Equal variances not assumed			.275	8.152	.791	2.167	7.893	-15.975	20.308
(MCMI-III) Borderline	Equal variances assumed	5.102	.047	-1.214	10	.253	-18.167	14.962	-51.505	15.172
	Equal variances not assumed			-1.214	6.128	.269	-18.167	14.962	-54.594	18.260
(MCMI-III) Major Depression	Equal variances assumed	.056	.817	-1.382	10	.197	-20.500	14.833	-53.549	12.549
	Equal variances not assumed			-1.382	9.981	.197	-20.500	14.833	-53.558	12.558

APPENDIX F

PRE TEST COMPARISONS (FREQUENCY OF ATTENDANCE)

## Pre Test Comparisons (Frequency of Attendance)

### Group Statistics

group data of frequency of attendance		N	Mean	Std. Deviation	Std. Error Mean
(SAQ) Alcohol	.00	6	56.33	34.703	14.167
	1.00	6	57.50	31.798	12.981
(SAQ) Drugs	.00	6	58.83	22.684	9.261
	1.00	6	54.67	27.876	11.380
(MCMII-III) Antisocial	.00	6	40.83	10.265	4.191
	1.00	6	48.33	15.410	6.291
(MCMII-III) Borderline	.00	6	18.83	19.364	7.905
	1.00	6	31.67	32.672	13.338
(MCMII-III) Major Depression	.00	6	35.50	26.174	10.686
	1.00	6	16.33	25.820	10.541

### Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
(SAQ) Alcohol	Equal variances assumed	.000	.986	-.061	10	.953	-1.167	19.215	-43.981	41.648
	Equal variances not assumed			-.061	9.925	.953	-1.167	19.215	-44.025	41.692
(SAQ) Drugs	Equal variances assumed	.028	.870	.284	10	.782	4.167	14.672	-28.525	36.858
	Equal variances not assumed			.284	9.603	.782	4.167	14.672	-28.709	37.042
(MCMII-III) Antisocial	Equal variances assumed	2.586	.139	-.992	10	.345	-7.500	7.559	-24.343	9.343
	Equal variances not assumed			-.992	8.707	.348	-7.500	7.559	-24.688	9.688
(MCMII-III) Borderline	Equal variances assumed	.757	.405	-.828	10	.427	-12.833	15.505	-47.381	21.714
	Equal variances not assumed			-.828	8.127	.431	-12.833	15.505	-48.491	22.824
(MCMII-III) Major Depression	Equal variances assumed	.133	.723	1.277	10	.230	19.167	15.010	-14.277	52.611
	Equal variances not assumed			1.277	9.998	.230	19.167	15.010	-14.278	52.611

APPENDIX G  
MEANS COMPARISONS (ALL PARTICIPANTS)

## Means Comparisons (All Participants)

**Paired Samples Statistics**

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1 (SAQ)	Alcohol	56.92	12	31.739	9.162
	Post Alcohol	64.75	12	25.846	7.461
Pair 2 (SAQ)	Drugs	56.75	12	24.328	7.023
	Post Drugs	54.50	12	28.170	8.132
Pair 3 (MCMI-III)	Antisocial	44.58	12	13.083	3.777
	Post Antisocial	55.08	12	18.313	5.286
Pair 4 (MCMI-III)	Borderline	25.25	12	26.468	7.641
	Post Borderline	31.17	12	21.696	6.263
Pair 5 (MCMI-III)	Major Depression	25.92	12	26.733	7.717
	Major Depression	15.33	12	23.015	6.644

**Paired Samples Correlations**

		N	Correlation	Sig.
Pair 1	Alcohol & Post Alcohol	12	.056	.862
Pair 2	Drugs & Post Drugs	12	.730	.007
Pair 3	Antisocial & Post Antisocial	12	.411	.184
Pair 4	Borderline & Post Borderline	12	.741	.006
Pair 5	Major Depression & Major Depression	12	.699	.011

**Paired Samples Test**

		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	Alcohol - Post Alcohol	-7.833	39.788	11.486	-33.113	17.447	-.682	11	.509
Pair 2	Drugs - Post Drugs	2.250	19.615	5.662	-10.213	14.713	.397	11	.699
Pair 3	Antisocial - Post Antisocial	-10.500	17.589	5.077	-21.675	.675	-2.068	11	.063
Pair 4	Borderline - Post Borderline	-5.917	17.901	5.168	-17.290	5.457	-1.145	11	.277
Pair 5	Major Depression - Major Depression	10.583	19.598	5.657	-1.869	23.035	1.871	11	.088

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## BIOGRAPHICAL INFORMATION

Jesse Sias graduated from Southwestern Adventist University (SWAU) with an undergraduate degree in Social Work. During his time at SWAU he committed himself for one year to volunteer with Americorps establishing literacy centers in the Dallas/Fort Worth region. Upon graduating from SWAU he enrolled at the University of Texas at Arlington to pursue his Masters degree in Social Work. He has worked as a counselor in the mental health field for 4 years working primarily with children and families. Currently he is working as an adolescent group counselor in an after school program in the Dallas area with a non-profit organization. His future plans are to continue helping low income families and adolescents meet their needs by encouraging strengths, building successful relationships, and teaching them to utilize their resources.