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Emotional Empathy And Reasons For Living In Substance-Using College Students

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A thesis

presented to

the faculty of the Department of Psychology

East Tennessee State University

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In partial fulfillment

of the requirements for the degree

Masters of Arts in Psychology

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by

Daniel S. Merwin

August 2003

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Dr. Peggy Cantrell, Chair

Dr. Jon Ellis

Dr. Russ Brown

Keywords: substance abuse, suicide, reasons for living, emotional empathy

## ABSTRACT

Emotional Empathy and Reasons For Living in Substance-Using College Students

by

Daniel S. Merwin

This study examined emotional empathy and reasons for living in substance using college students. Participants included 49 males and 120 females, ages 18 to 54 years ( $M = 21.95$ ) from undergraduate psychology classes. A packet containing a substance abuse scale, a short demographic, Balanced Emotional Empathy Scale (BEES), and Reasons for Living Inventory (RFL) was administered. The independent variables were gender and levels of substance use. The dependent variables were reasons for living scores and emotional empathy scores.

A 2 (gender) X 3 (level of substance use) Analysis of Variance was used. For empathy, a main effect was found for gender but not for substance use. For RFL, no effects were found. Significant relationships between two demographics and dependent variables were non-hypothesized findings. Being arrested for a crime other than a minor traffic violation was related to low emotional empathy. Suicidal ideation was significantly related to fewer reasons for living.

## DEDICATION

This thesis is dedicated to the person in my life whose patience and understanding has taught me the important lesson from which all individuals can benefit. That interest, kindness, and understanding in other human beings is essential for a value filled existence. Thank you, mom, for all that you have given me and I miss you with all of my heart.

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Several individuals have played a tremendous role in furthering my professional development and in my completing this thesis. First I would like to thank Dr. Peggy Cantrell and Dr. Jon Ellis for giving me the opportunity to be in the position of obtaining this degree and fulfilling my goal of helping others. I also extend my deepest gratitude to them and Dr. Russ Brown for their patience and efforts in guiding and helping me down the path of my career. To my family and friends, I appreciate being reminded each time I said I had to work on this paper, that I have been saying the same thing for a year. This was instrumental in inducing motivation when I did not want to work. To Rhonda, I extend my love forever. The patience, acceptance, understanding, balance, and love you've given is my foundation in all that I do.

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## CHAPTER 1

### INTRODUCTION

#### Substance Abuse

Substance abuse is a problem that affects millions of Americans a year. The Substance Abuse and Mental Health Services Administration (SAMSHA) (2001) reported 60 million Americans were affected in the year 2000. Substance abuse is generally defined as “a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of substances” (American Psychiatric Association, 1994, p. 182). The most commonly abused substances are alcohol and illicit drugs.

Illicit drugs refer to the use of cocaine, marijuana, hallucinogens, heroin, inhalants, and non-medical use of psychotherapeutics (i.e., prescription pain relievers, tranquilizers, sedatives, and stimulants). The 2000 National Household Survey on Drug Abuse (NHSDA) reported 14 million Americans 12 years old and older engaged in illicit drug use indicating that they had used an illicit drug 30 days prior to the survey. Marijuana was by far the most commonly used illicit drug; used by 76% of all current drug users with 59% of these individuals only using marijuana. When considering the other specific drugs of abuse, 3.8 million people reported using psychotherapeutics non-medically, 3.7 million were current cocaine users, 1 million were hallucinogen users, and 130,000 were current heroin users. Furthermore, the NHSDA reported that 6.4 million persons in the United States had tried ecstasy at least one time in their life (SAMSHA, 2001).

In the year 2000, almost half of the population of the United States 12 years and older reported being current users of alcohol, with current use being defined as at least one alcoholic beverage in the last 30 days. Approximately 12.6 million Americans 12 years old and older reported engaging in heavy drinking. The NHSDA defines heavy drinking as having at least five drinks on a single occasion for a period of five days or more in the past 30 days. Furthermore, 46 million people 12 years old and older reported engaging in binge drinking which is represented by 5 or more drinks on the same occasion at least once in the past 30 days (SAMHSA, 2001).

The misuse and subsequent addiction to alcohol and drugs result in substantial cost to society. In 1995 approximately 590,000 deaths were attributed to the use of alcohol, drugs, and tobacco. In addition, estimated costs to society are reflected in deaths and sickness, societal costs, and economic expenses. When all are combined, the total economic cost of drug and alcohol abuse to society is estimated to be \$400 billion each year. Specifically, these economic costs reflect direct medical expenses, morbidity costs (lost employee productivity), mortality costs, and other related expenses that result from crime, social welfare expenses, motor vehicle accidents, and destruction of property by fire credited to drug and alcohol use (Association of American Physicians, 1995).

### Demographics of Substance Abusers

#### Education

The rate for alcohol use has been shown to increase with increasing levels of education. However, when considering problem drinking, education emerges as a protective factor. For adults with less than a high school diploma, 33.9% reported being mild to moderate drinkers in 2000. Comparatively, 63.2% of adults who were college

graduates reported to be non-problematic drinkers in 2000. In addition, almost half of the students enrolled in college full time report heavy and binge drinking compared to 16.4% of their counterparts who were not enrolled full time. However, among adults who actually obtain a college degree, heavy drinking and binge drinking was less common. This suggests that although college students tend to heavy and binge drink more during college; education remains a protective factor against future substance abuse (SAMHSA, 2001). Further supporting this, a study by Wehr and Bauer (1999) recruited 122 persons from residential treatment programs to examine factors that contributed to relapse. The overall Intelligence Quotient and the Verbal Ability subscales from the Shipley Institute of Living Scale were the only factors found to predict successful abstinence. Other variables in the study that were not predictive of abstinence included: times in substance abuse treatment, trait anxiety, and the Abstraction subscale on the Shipley Institute of Living Scale.

The apparent benefit of education on alcohol abuse is also evident in the use of illicit drugs. The rate of illicit drug use was much lower for adults who were college graduates than adults who had not completed high school. This is true despite the fact that adults who attended college were much more likely to experiment with illicit drugs than adults who had not attended college (SAMHSA, 2001).

### Age

Rates of mild to moderate alcohol use during adolescence has been shown to increase with age and peak at age 21. This is followed by a steady decrease in use with age. For heavy drinking and binge drinking the highest rate was for users ages 18-25 years with the peak rate present at age 21years. Rates for binge drinking and heavy

drinking appeared to decrease more rapidly with increasing age than moderate to mild alcohol use. For instance, half the population ages 40 to 49 reported to be mild to moderate alcohol users while only 1 in 5 reported binge drinking, and 1 in 20 reported heavy drinking (SAMSHA, 2001).

Patterns of illicit drug use are similar to alcohol use. In persons aged 12 to 20 years, current illicit drug use increased with age and peaked at 19.6 years. After age 20 illicit drug use steadily declined with increasing age. Some variability was evident for persons aged 40 to 44 whose use was reportedly higher than the previous age group. This may be due to this age group being at the peak substance abuse age during the 1970s. This decade was characterized by a dramatic increase in substance use. For persons 44 and older, rates continued to decline steadily (SAMHSA, 2001).

### Gender Differences

Many surveys and studies have shown differences in drug and alcohol abuse rates between men and women. The 2000 National Household Survey on Drug and Alcohol abuse indicated that males 18 and older were more likely to report past month alcohol use than females. In addition, binge drinking was slightly higher among male adolescents than it was female adolescents (SAMHSA, 2001). In a study of high school students, it was found that boys reported higher scores than girls on the MacAndrew's alcohol scale (Workman & Beer, 1990). A study by Vanicelli and Nash (1984) reported that of the 64,000 subjects participating in alcohol treatment outcome studies, only 5,120 were women. Furthermore, statistics from the 1992 National Longitudinal Alcohol Epidemiological Survey indicated gender differences in Alcohol Dependence and Abuse diagnosis with 4.2% of males and 1.4% of females (Swift, Copeland, & Hall, 1996). This

trend is also presents with illicit drug use. Johnston, O'Malley, and Bachman (1991) found that a higher number of men engaged in illicit drug use than did women. In the year 2000, as in prior years, men continued having higher rates of illicit drug use than women, 7.7 % and 5.0% respectively (SAMSHA, 2001).

Although it is supported that men abuse both alcohol and illicit drugs more than women, it is unclear whether this represents a real gender difference or is the product of sample bias or other confounding variables. In addition, qualitative differences such as reasons for using and severity of abuse have been found between men and women's substance abuse patterns. However, results remain inconclusive and contradictory. (e.g., Chermack, Stoltenberg, Fuller, & Blow, 2000; Davis & DiNitto, 1996; McCance-Katz, Carrol, & Rounsaville, 1999).

### Parenting and Family

Many studies have indicated that parenting and family dynamics strongly affect the development of substance abuse in adolescents (e.g., Barnes, Farrell, & Banerjee, 1994; Stice & Barrera, 1995). Substance abuse has been shown to be intergenerational and develops within a family context that contains identifiable risk factors that perpetuate the cycle of addiction (Plasse, 1995). Situational factors experienced in families of abusers include: preoccupation with obtaining drugs, poor social support, stressful conditions, and the stress of attending to a child's demands. Each of these factors may interfere with an affectionate relationship between the parent and the child (Belsky, 1984). Family characteristics identified within parenting groups for recovering addicts include: educational deficits, poverty, and a disruption in parenting and poor health (Plasse, 1995). Other studies have indicated that families of drug users are characterized

by high levels of parental aggression, antisocial behavior, depression, a lack of attachment, cohesion, and affect, and shared experiences (Berlin & Davis, 1989; Fitzgerald et al., 1993; Kumpfer & Turner, 1991). Further, it is reported that the adolescent and middle school children in families of drug users demonstrate high levels of antisocial behavior combined with poor cognitive functioning (Fitzgerald et al., 1993). Descriptions of children of alcoholics that were developed from clinical and empirical studies include: Antisocial, uncontrolled, impulsive, rebellious, aggressive, disobedient, high levels of insecurity, fear, guilt, shame and anger (Seilhamer & Jacob, 1990; West & Prinz, 1987). These descriptions are all risk factors for the development of substance abuse.

Research consistently indicates that deficits in parental social support and control are associated with adolescent antisocial behavior and substance use. Parental social support refers to parents' intimacy, affection, aid, expression of admiration, and provisions of companionship. Parental control refers to consistency of discipline, monitoring of activities, and enforcement of consequences (Stice & Gonzales, 1998). Children with parents who lack interest and involvement and who display inadequate or inconsistent discipline are at a significantly higher risk for substance abuse (Lang, 1985). Furthermore, it has been shown that in families where the father is absent the risk for drug and alcohol use in children increases significantly (Stern, Northman, & Van Slyck, 1984).

The violence present in addicted households is especially alarming. In the child neglect and abuse caseloads of many states, substance abuse is the defining characteristic of the abuser. Empirical studies provide further support. Physical abuse rates have been

found to be higher in families with alcoholic parents (Besharov, 1989; Fitzgerald et al., 1993; Tarter, Hegedus, Goldstein, Shelley, & Alterman, 1984). Parental alcoholism has been linked to child maltreatment, marital conflict, domestic violence, and elevated risk for long-term psychiatric and social dysfunction for children brought up in alcoholic homes (Black, Bucky & Wilder-Padilla, 1986; Famularo, Stone, Barnum, & Wharton, 1986; Fitch & Papantonio, 1983; Reich, Earls, & Possell, 1988).

### Depression and Suicide

#### Depression

The diagnosis of depressive disorders as well as symptoms of depression are often present in alcohol or drug dependent persons (Deykin, Levy, & Wells, 1986; Hatsukami & Pickens, 1982). In a study of alcoholic subjects, slightly over half of the persons questioned showed evidence of depression (Cadoret & Winokur, 1974). Among substance users who relapsed after treatment, symptoms of depression were much higher than the population base rate with 22%- 33% versus 7.5%- 13.4% respectively. In contrast, rates of depressive symptoms in substance abusers that remained abstinent after treatment were comparable to the rates within the general population (Hatsukami & Pickens, 1982). This relationship between depression and substance abuse remains consistent. More recent data continues to support past findings. For instance, investigators recruited 126 male individuals enrolled in a detoxification program and upon treatment entry administered the Beck Depression Inventory. A mean score of 21.3 was reported which is considered indicative of severe depression. When considering symptomology for Major Depressive Disorder, 67% of the participants met criteria for major depression (Curran, Kirchner, Worley, Rookey, & Booth, 2002). A study

conducted by Aharonovich, Nguyen, & Nunes (2001) administered the Beck Depression Inventory-II to 60 participants seeking treatment for heroin, cocaine, or marijuana abuse. A mean score of 23.5 was identified in these substance abusers indicating severe depression.

Heape (1980) found that on the MMPI drug abusers were significantly different from a normative population on Scale 2 Depression. In attempts to develop typologies of alcoholics based on the MMPI, depressed –psychophysiological typology has been identified (Cannon, Bell, & Fowler, 1990). MMPI scores of drug abusers have resulted in the following trait descriptions: pessimistic, insecure, self-conscious, and depressed (Dewinne & Johnson, 1976). Furthermore, in a study of MMPI characteristics of substance abusers with and without a history of suicide attempts, it was found that depression is a central component of drug users affective patterns whom attempt or think about suicide (Craig & Olson, 1990). Data collected from psychiatric outpatients suggest that drug and alcohol abuse may be an attempt to self-medicate for depression and other psychological distress (Aharonovich et al., 2001; Fava et al., 1997; Goodwin & Hasin, 2002).

### Suicide

In the year 2000, there were 29,350 suicides in the United States alone (Minino, Arias, Kochanek, Murphy, & Smith, 2002). Suicide has been defined as the extinction of a person's own existence as a purposeful act that prevents survival and is identified by an individual as the perceived best solution for a personal problem. (Ellis & Range, 1989). Mental and addictive disorders are considered to be key risk factors for suicide and suicidal behavior (Mos'cicki, 1995). Many studies have shown links between substance

abuse, suicide, and/or suicidal ideation (Crumley, 1990; O'Boyle & Brandon, 1998; Vega, Zimmerman, Gil, Warheit, & Apospori, 1993). Data from the Treatment Oriented Outcome Prospective Study (TOPS), which covered 41 drug treatment programs in the United States, indicates 5%-14% of patients reported at least one suicide attempt (Allison, Hubbard, & Ginzburg, 1986). Psychological autopsy studies in adolescents and young adults from Finland, and the United States identified that 90% or more of all completed suicides are associated with mental or addictive disorders (Brent et al., 1993a; Marttunen, Aro, & Henricksson, 1991; Shaffer, Gould, & Fisher, 1996). A study assessing drug use and suicide ideation and attempts among African American, Hispanic, and White male adolescents showed that illicit drug use is a major factor associated with suicide ideation and attempts, and that drug use is an important predictor of suicide attempts (Vega, Gil, Warheit, Apospori, & Zimmerman, 1993). In a review of eight studies, Kosten and Rounsaville (1988) reported the prevalence of suicide attempts in substance abusers ranged from 8% to 17%, which is five times greater than the age adjusted rate for the general population. In psychological autopsy studies of completed adolescent suicides, Brent (1995) found Conduct Disorder or Antisocial Personality Disorder, substance abuse disorders, and affective disorders to be the most commonly found psychopathological disorders.

Currently, there are two problems in determining independent roles of depression, and substance abuse on suicidal ideation and behavior. The first is that major depression and substance abuse often coexist making it difficult to assess which is primary. Second, previous studies draw from clinically treated patients who are more likely to have more than one disorder. This makes untangling depression, substance abuse, and suicidal

ideation and behaviors difficult. Despite this, a study of suicidality, substance abuse, and depression in adolescents found substance abuse and depression to be independent indicators of suicide ideation and behavior (Levy & Deykin, 1989).

### Reasons for Living

A scale to measure beliefs that distinguish non-suicidal from suicidal individuals by identifying reasons why a person would not commit suicide was developed by Linehan, Goldstein, Nielsen, and Chiles (1983). Two studies done by Des Prez (1976) and Frankl (1959) provide the theoretical basis for the Reasons For Living Inventory (RFL). These studies focused on Nazi concentration camps and adaptive characteristics the prisoners possessed to keep them alive. Survivors of the camps reported that hope for the future, the belief that life is worth living in the face of hardships, and having a sense of meaning and purpose in life were key in their strong will to survive. The RFL has been found to differentiate suicidal individuals from non-suicidal individuals. Several studies have demonstrated a negative correlation between suicidality and total reasons for living score and it has been shown that individuals who possess few reasons for living are likely to be ideators (e.g., Beylotte, 2000; Linehan et al., 1983; Rich, Kirkpatrick-Smith, Bonner, & Jans, 1992).

A factor analysis of the inventory revealed six main reasons for living, and, therefore, six subscales. The RFL subscales include: Survival and Coping Beliefs, Responsibility to Family, Child-Related Concerns, Fear of Suicide, Fear of Social Disapproval, and Moral Objections. High scores on the Survival and Coping subscale are particularly indicative of adaptive beliefs concerning surviving and coping with life events. Low scores on the Responsibility to Family and Child-Related Concerns subscales

significantly relate to prior and current suicidal behavior. Non-suicidal individuals place more importance on fear of suicide and fear of social disapproval, with persons who endorse fewer moral concerns being more likely to have past history of parasuicides. Deficiencies in each of these factors are evident in substance abusing populations (Linehan et al., 1983). The literature review did not reveal a study analyzing a direct relationship between reasons for living and substance abuse, indicating a gap in the literature.

### Personality Disorders

Further complicating the issue of substance abuse, depression, and suicide, personality disorders are also prevalent in substance abusers. This especially holds true for comorbid diagnosis of depression and cluster B personality disorders (Mirin, Weiss, Griffin, & Michael, 1991; Rounsaville et al., 1991). It has been found that personality disorders are usually three times higher in substance abusers than in non-clinical samples (Rounsaville et al., 1998). Verheul, Van Den Brink, and Hartgers (1995) assert that 30% to 75% of substance abusers are estimated to possess personality disorders. Antisocial Personality Disorder and Borderline Personality Disorder are especially frequent in persons who abuse drugs (Rounsaville et al., 1998; Verheul et al., 2000). In a study of 370 persons diagnosed with substance use disorders, 57% possessed comorbid Axis II diagnoses with 45.7% of them being cluster B personality disorders, particularly Antisocial and Borderline Personality Disorder (Rounsaville et al., 1998). Psychological autopsy studies provide further support. A study by Brent and colleagues (1993b) indicate 2 of the 3 most frequently diagnosed personality disorders in the substance abuse population are Antisocial Personality Disorder and Borderline Personality Disorder.

Gerstley, Alterman, McLellan, and Woody (1990) reported that several researchers (e.g., Hesselbrock, Meyer, & Keener, 1985; Penick, Powell, & Othmer, 1984; Woody, McLellan, & Luborsky, 1985) have found an incidence rate of 40-50% of male alcoholic and opiate addicts met criteria for Antisocial Personality Disorder

The high number of personality disorders among substance abusers is difficult to interpret because the criteria for personality disorders includes substance abuse, particularly cluster B personality disorders. This interpretive difficulty may be inconsequential with substance abuse possibly being the best behavioral marker for many personality disorders, especially Antisocial and Borderline. This is supported by that fact that when substance related criteria are excluded in diagnosing cluster B personality disorders, the diagnosis for these disorders is sharply lowered and the diagnostic reliability for Antisocial Personality Disorder is weakened (Rounsaville et al., 1998). An alternative explanation may be that substance abuse acts as a catalyst for the development of personality disorder characteristics.

Individuals with personality disorders have a high risk for suicide attempts and ideation (e.g., Brent et al., 1993b; Isometsae, Henriksson, Heikkinen, & Aro, 1996; Peterson & Bongar, 1990). Personality disorders have been found to be present in 9-28% of people who completed suicide and follow depression, alcoholism, and schizophrenia as major risk factors (Soloff, Lis, Kelly, Cornelius, & Ulrich, 1994). A review article written by Frances, Fyer, and Clarkin (1986) summarized the literature on personality disorders and suicidal behavior. They indicated that Antisocial Personality Disorder and Borderline Personality Disorder are the most common Axis II diagnoses associated with suicide.

Borderline Personality Disorder is highly correlated to attempted suicide as well as substance abuse (e.g., Brent et al., 1994; Paris, 2002). In a study of 40 adolescent suicide attempters, 22 were found to possess borderline personality characteristics with a large percentage also being substance abusers (Crumley, 1979). Globally, a Finnish study found that 11% of adolescent and young adult persons who completed suicide had borderline personality disorder (Marttunen et al., 1991). A study in Sweden indicated a suicide rate of 33% in this population (Runeson & Beskow, 1991). Furthermore, a study conducted in Norway examined 64 patients admitted to inpatient care after a parasuicide attempt. It was found that slightly over half of them possessed Borderline Personality Disorder (Soederberg, 2001). In a reanalysis of data collected by Rich, Young, and Fowler (1986) on suicides younger than 30 years, Rich and Runeson (1992) found 41% of respondents possessing borderline personality disorder. A study conducted by O'Boyle and Brandon (1998) identified that suicide attempters enrolled in a substance abuse program indicated significantly higher borderline scores on the Personality Diagnostic Questionnaire revised.

This risk for suicide also is present in individuals with Antisocial Personality Disorder. Conduct disorder, which is a precursor to antisocial personality disorder, has been associated with higher suicidal risk in boys (Pfeffer, Solomon, Plutchik, Mizcruchi, & Weiner, 1982). A five-year follow-up study of untreated psychopaths found that almost half the individuals with antisocial personality disorder had attempted suicide (Maddocks, 1970). Verona, Edelyn, Patrick, and Joiner (2001) established that history of suicide attempts was significantly related to Antisocial Personality disorder diagnoses, and the antisocial deviance factor on the Psychopathy Checklist-Revised (PCL-R).

Furthermore, an analysis of data from the Baltimore Epidemiologic Catchment Area Program indicated that Antisocial Personality Disorder is associated with attempted and completed suicides (Kuo, 1999).

### Theories of Substance Abuse

Several theories of substance abuse include social and family variables as major contributors to the development of addiction and other delinquent behaviors. Social Control Theory, and Self-Control Theory are two of the most applicable in understanding this maladaptive behavior. Different factors are purported by each as contributors to the development of substance abuse.

#### Self-Control Theory

Hirschi and Gottfredson's (1988) *General Theory of Crime*, better known as Self-Control Theory, views human behavior as consisting of the desire to gain pleasure and avoid pain. Characterizing substance abusers as people with low self-control, they are described as risk takers with low tolerance for complicated tasks and decisions, seeking short-term immediate rewards being interested more in material rather than spiritual concerns, having a tendency to emphasize their wants over the needs of others and resorting to aggressive coping techniques when confronted with frustrating situations. Parental management and child rearing practices are hypothesized to be responsible for individuals with low self-control. Self Control Theory states that adequate parenting includes; appropriate punishment when a child engages in an inappropriate behavior, well developed care giver affect that refers to the emotional bond between the parent and child, and effective parental recognition and monitoring of a child's inappropriate behavior. When inadequate parenting is present, a person is more likely to develop low-

self control. Many studies have indicated that substance-abusing parents generally lack adequate parenting skills (Winfrey & Bernat, 1998). Several studies provide support for self-control theory. Keane, Maxim, and Teevan (1993), conducted a study to test the general theory of crime, and establish a relationship between self-control and driving under the influence. Data from a Canadian roadside traffic survey was analyzed. Results identified that low self-control was present in both men and women on several indicators (e.g. not wearing a seatbelt and number of drinks consumed in the past 7 days).

### Social Learning Theory

According to Social Learning Theory, individuals develop substance abuse via the basic learning principles of classical and operant conditioning. Substance-using behavior is strengthened by social and physiological reinforcement obtained from the use of the substance. Drug using behavior is less likely to be repeated when immediately followed by punishment. However, for contingencies to be effective in altering behavior they must be experienced in close temporal proximity to the behavior. In case of substance abuse, punishment is infrequently experienced directly after alcohol and drug use occurs thus substance use continues. Bandura (1977) asserted that observational learning is also important in gaining information and learning new behaviors. That is, in addition to direct learning experiences, individuals learn by watching the consequences of others' behavior. Children who witness family members engaging in alcohol or drug use may learn substance use through observation. Bandura (1973) also noted that if behaviors that are considered criminal or socially unacceptable are observed as having no unpleasant consequences, they are treated as if they were rewarded.

## Empathy

The American Psychiatric Association (1987) asserted that caring for others is a sign of mental health and disturbances in empathy are evident in emotional and mental problems (Zahn-Waxler & Radke-Yarrow, 1990). Furthermore, Rogers (1957) contended that empathy was one of several conditions necessary for therapeutic personality change. E.B. Titchener introduced the word “empathy” into modern vocabulary in the 1920s. Titchener noticed that infants cry when they hear another infant cry. Upon realizing this, he used the word “empathy” which was derived from the greek word *empathia* that means “feeling into”. Some people see this motor mimicry response as the predecessor to empathy (Eisenberg & Strayer, 1987). Since this first use of the word empathy, several components and definitions have been identified and developed.

### Definitions of Empathy

Empathy research has been beset by definitional controversy regarding whether cognitive processes or affective experiences constitute the basis of empathic responding. Cognitive empathy has been defined as the ability to cognitively understand situations from another person’s perspective (Hogan, 1969). Mehrabian (1997) defined cognitive empathy somewhat differently, asserting it consists of intellectual processes that involve social skills and social perceptiveness. Affective empathy is considered by Mehrabian and colleagues as involving a more primitive interpersonal process in which a person responds with emotions similar to those of other people present (Mehrabian, Young, & Sato, 1988). Other researchers (e.g., Aderman & Berkowitz 1970; Stotland, 1969) define emotional empathy as “a vicarious emotional response to perceived or anticipated emotional experience of another” (Aderman, Archer, Harris, 1975, p. 157). Rogers

incorporated both definitions of empathy. He stated that being empathic is the ability to perceive another person's internal frame of reference with accuracy and with the affective components as if the responder were the person without ever losing oneself (as cited in Gallo, 1989). Researchers today generally agree that empathy consists of both definitions and is a multidimensional construct.

Davis (1980), using factor analysis, identified four factors of empathy. Of the four factors, two are affective components (Empathic Concern and Personal Distress) and two are cognitive components (Perspective Taking and Fantasy). This factor analysis resulted in the development of the Interpersonal Reactivity Index (IRI). Carey, Fox, and Spraggins (1988) replicated the factor structure using dietitians and dietetic interns. In 1983, Davis investigated two samples of college students and established evidence of convergent and discriminant validity. More recently, Atkins and Steitz (1999) identified the IRI as a psychometrically sound multi-dimensional measure of empathy.

In a study that analyzed volunteer ex-convicts answers to open-ended questions relating to empathic experience, Young (2000) identified that these individuals lacked affective more than cognitive empathic understanding in their replies. Interestingly, in persons diagnosed with Borderline Personality Disorder, the opposite has been identified with these individual possessing heightened affective empathy (Golomb et al., 1994). These studies indicate persons diagnosed with Antisocial and Borderline Personality Disorders misunderstand and/or have deficiencies in the different components of empathy.

### Empathy, Altruism, and Prosociality

Research has indicated that as empathy increases, prosociality and altruistic behavior also increases. A study of 5, 9, and 13 year olds demonstrated that boys' empathy was a strong predictor of prosocial behavior, and girls' empathy was a predictor of prosocial behavior for friends (Roberts & Strayer, 1996). A study analyzing the effects of two developmental programs on empathy development in preschool children, found that as empathy increased, prosociality also increased (Kalliopuska & Tiitinen, 1991). A longitudinal study by Eisenberg et al. (1987) indicated that empathy is related more to prosocial behaviors in children as age increases. Furthermore, Mueller and Waas (2002) identified that 18 and 19 year old college students who were high in empathy had an increased likelihood of assisting a suicidal peer, as well as perceiving behavioral and affective symptoms as more serious than students possessing lower levels of empathy.

### Gender Differences

Many studies have found significant differences in empathy between men and women; women being more empathic than men (Adams, Jones, Schvaneveldt, & Jenson, 1982; Kalliopuska, 1983; Mehrabian & O'Reilly, 1980; Mehrabian et al., 1988). In a study of 32 girls and 32 boys using the Feshbach and Roe Affective Situation Test for Empathy, it was found that girls were more empathic than boys (Hayes, 1987). Furthermore, a study conducted by Davis (1980) reported mean scores on all four factors of the Interpersonal Reactivity Index to be significantly higher for females. Another study using the IRI using Master level counseling students also indicated that females are more empathic than males (Carol, 1990).

## Development of Empathy

Even though there is evidence to suggest that the presence of empathy in parents promotes empathic development in children, there has only been modest consideration given to the normal development of empathy and the role of upbringing (Eisenberg & McNally, 1993; Feshbach, 1987; Koestner, Franz, & Weinberger, 1990). Despite this, many studies have contributed to the research of empathy development. Several studies have revealed that abused children had an increased rate of aggressing or withdrawing from other children in distress, and were not as likely to offer help indicating lower levels of empathy (Charbonneau & Nicol, 2002; Klimes-Dougan & Kistner, 1990; Litvack-Miller, McDougall, & Romney, 1997). Although emotional neglect appears to dampen empathy, some children who experience severe emotional abuse can become hyperalert to the emotions of others, actually perceiving other distress as their own. Some researchers assert that these intense up and downs emotionally neglected children experience, are sometimes diagnosed as Borderline Personality Disorder. For example, Golomb et al. (1994) reported that mothers of women with borderline personality disorder, which is characterized by heightened emotional empathy, lacked empathic understanding towards their daughters and raised them in a chaotic, socially isolated environment with little resources. Furthermore, studies identified that women with borderline personality reported their parents to be uncaring and their families often possessing verbal, physical, and sexual abuse (Zanarini et al., 1997; Zweig-Frank & Paris, 1991). In addition, a study of criminals who committed violent crimes, which suggests lack empathy, found that their developmental years consisted of moving to different foster homes, and/or being raised in orphanages (Prentky & Knight, 1991).

Zahn-Waxler and Radke-Yarrow (1990) identified several studies that identified parents' discipline style of their children contributing greatly to the development of empathic concern. In a study by Eisenberg-Berg and Mussen (1978), it was found that boys who were highly empathic were raised by mothers who were non-punitive, nonrestrictive, open, and maintained affective relationships with their sons. In addition, a study of parental discipline history, current empathy levels, and moral reasoning in college students found that young adult children of parents who used corporal punishment resulted in lower levels of empathy (Lopez, Bonenberger, & Schneider, 2001).

Studies have also indicated attachment styles impacting empathy development. Seventy-eight adolescents from a private school were assessed using the IRI and the Inventory of Peer and Parent Attachment (IPPA). A positive correlation was found between the affective component of empathy and parent attachment (Gelb, 2002). In addition, Joireman, Needham, and Cummings (2002) found that higher attachment scores on the Adult Attachment Scale were positively correlated with Empathic Concern and Perspective Taking factors of the IRI in college students. Furthermore, a study using school psychologists, social workers, and undergraduate psychology students revealed participants who were identified as securely attached were also more likely to score higher on the Balanced Emotional Empathy Measure and the Combined Empathy Scale (Andersen, 2001).

## Theories of the Importance of Empathy

### Attunement

Stern (1985) asserts that attunement is a basic lesson in a child's emotional life. Attunement refers to the process of indicating to infants that their feelings are met with empathy. This process occurs through the caregiver mirroring the infants affect and the infant begins to sense that people can and will share in his or her emotions. When attunement is absent, or parents are misattuned, the infant avoids expressing emotions, and may stop feeling them. When this occurs, emotions needed for intimate relationships are lacking. Furthermore, a child and infant can begin to mirror and favor more adverse emotions such as depressive symptomology like anger and sadness when the mother is herself depressed. The emotional cost during an individuals lifetime due to lack of attunement during formative years may lead to destructive adult interpersonal relationships (Spiegel, Severino, & Morrison, 2000).

### Role Taking

Mead (1934) conceptualizes empathy as a component of sympathy. Within this framework, sympathy is defined as an action of assistance that one person engages in toward another person. Empathy is the emotion an assistor experiences that mirrors the emotion the person being assisted is displaying. This has been commonly described as putting oneself in the other's place or position. According to this perspective, the developing child accumulates a number of interpersonal experiences and it is within these interpersonal contacts that a child learns various roles that allow him/her to understand and turn toward another person. For example, through role-playing and imitation in the context of play, a basic understanding of parental roles are developed and are always

open to revision through the daily experiences of the child. Role-playing allows empathic responses to change through increased observations of the role model and via feedback received from playing the role. Furthermore, through multiple observations the child internalizes and identifies with important aspects of the role, resulting in an increase in the complexity of empathic response and a better understanding of the role model (as cited by Cooper, 1970).

### Statement of the Problem

Substance abuse is a problem that affected 60 million Americans in the year 2000. This use, and subsequent addiction, has great costs to society. These costs are reflected in direct medical costs, morbidity costs (lost employee productivity), mortality costs, and other related costs which include crime, motor vehicle accidents, destruction of property by fire credited to drug and alcohol use, and social welfare expenses that includes mental health treatment. Alcohol and drug dependent persons often have diagnoses of depressive disorders as well as symptoms of depression. Furthermore, antisocial personality disorder and borderline personality disorders are prevalent in this population.

Research has demonstrated that addiction, depressive symptomology, and these personality disorders are key risk factors for suicide and suicidal behavior. An alternative way to examine suicidal ideation and behavior is to identify individuals' reasons for not committing suicide. The Reasons For Living Inventory was developed for this purpose. However, research of reasons for living in substance using populations remains minimal.

It is widely asserted that caring for others is a sign of mental health, and disturbances in empathy are evident in emotional and mental problems. Empathy has been linked with prosocial behaviors and individuals with antisocial and borderline

personality disorders demonstrate deficits in empathic understanding. A common link also exists between the development of substance abuse and empathy. Studies have indicated parenting and family dynamics strongly effect the development of both.

Although many efforts have been made to develop successful intervention and prevention programs, the problem of drug addiction remains profound. Additional research examining drug users reasons for living and empathy would likely enhance program effectiveness. In addition, such information would allow the individual clinician to identify characterological deficits and adaptive beliefs in drug using clients. The purpose of this study was to examine emotional empathy and reasons for living in college students with different levels of substance-use. Emotional empathy was measured using the Balanced Emotional Empathy Scale. Reasons for living was examined using the Reasons For Living Inventory. Gender was included as an independent variable due to previous literature finding gender differences in empathy, addiction, and suicidal behavior. Based on the literature review, the following hypotheses are proposed:

H1: Men will have lower emotional empathy scores than women.

H2: Men will have a lower total reasons for living scores than women.

H3: Both men and women in the high substance use group will have lower reasons for living than the men and women in the moderate and low substance use groups.

H4: Men in the high substance use group will have lower emotional empathy scores than the men in the moderate and low substance use groups.

H5: Women in the high substance use group will have higher emotional empathy scores than women in the moderate and low substance use groups.

H6: Men and women in corresponding substance use groups will differ in levels of emotional empathy with men consistently scoring lower on the emotional empathy measure.

H7: Men and women in corresponding substance use groups will differ in total reasons for living scores with men consistently scoring lower on the total reasons for living scores

H8: The dependent variables of emotional empathy scores and reason for living scores will be positively correlated.

## CHAPTER 2

### METHOD

#### Participants

Participants in this study are (120) women and (49) men volunteer undergraduate students enrolled in psychology classes at East Tennessee State University. Their ages ranged from 18 to 54 years of age with a mean age of approximately 22. Participants who agreed to take part in the study received extra credit. Consistent with current psychology department policies, students who chose not to take part in the study were offered alternative means of obtaining extra credit.

#### Measures

All participants were presented with a packet containing the following: instruction sheet (Appendix A), demographic questionnaire (Appendix B), substance abuse questionnaire (Appendix C), Balanced Emotional Empathy Scale, (Appendix D), and the Reasons for Living Inventory, (Appendix E). The questionnaires in each packet were randomly ordered.

Substance abuse was measured using a questionnaire designed specifically for this study. Participants were placed into three categories: low, moderate, and heavy substance use. The questionnaire consisted of three choices. Each choice had several statements describing patterns of use. The participants were given directions to choose the group of statements that best applied to their pattern of drug or alcohol use. This questionnaire was developed due to existing measures of substance abuse measuring drug and alcohol use separately or being much too long for the needs of this study. The questionnaire was based loosely on the National Household Survey of Drug Abuse. Each

set of statements was an attempt to identify a clear separation of levels of substance use, taking into consideration individuals who socially drink never to intoxication, or have tried drugs experimentally.

The Balanced Emotional Empathy Scale (Mehrabian, 2000) was developed as a continuation of the original Emotional Empathic Tendency Scale (Mehrabian & Epstein, 1972). Much data regarding individual differences have been collected since that time, and a new measure was needed to incorporate the more important components of empathy. This change resulted in a more balanced measure of empathy. It consists of a 30-item self-report questionnaire with participants responding via a 9-point likert scale to report agreement or disagreement with each item. The usual time for participants to respond to all 30 items is 10 minutes. The scale was designed to reduce acquiescence bias, which is the tendency for people to agree with most statements, or to disagree with most statements. This is done by one half of the questionnaire consisting of items where agreement indicates higher emotional empathy, and one half consisting of disagreement indicating higher emotional empathy.

The internal consistency of the Balanced Emotional Empathy Scale using Cronbachs coefficient alpha is .87. The validity of the Balanced Emotional Empathy Scale is indicated indirectly through the high positive correlation of .77 with the original Emotional Empathy Tendency Scale. Initial studies by Mehrabian and Epstein (1972) presented preliminary validity for the Emotional Empathy Tendency Scale with subsequent reviews of the literature indicating strong support for the validity of the scale (Chlopan, McCain, Carbonell, & Hagen, 1985; Mehrabian et al., 1988).

The Reasons For Living Inventory is a 48-item inventory that evaluates differences in beliefs of suicidal and nonsuicidal individuals. The respondents rate statements on a 6-point agreement-disagreement scale. The Reasons For Living Inventory considers adaptive coping skills that a suicidal persons lack rather than negative traits they possess. It is made up of six short subscales that include: Suicidal and Coping Beliefs (SCB), Responsibility to Family (RF), Child-related Concerns (CRC), Fear of Suicide (FS), Fear of Social Disapproval (FSD), and Moral Objections (MO) (Linehan et al., 1983).

Internal consistency of the Reasons for Living Inventory was based on a variety of samples and estimated using the Cronbach coefficient alpha. Correlations ranged from .72 to .89 indicating high internal consistency. Due to the nature of suicide, predictive validity is difficult to achieve in suicide measures. Despite this limitation, several subscales have correlated with suicidal ideation, likelihood of suicide, suicidal threats, and suicidal solutions. Evidence of the known-groups validity further supports the Reasons For Living Inventory.

#### Procedure

Upon receiving approval and exemption status from the East Tennessee State University Institutional Review Board volunteers were recruited. Each volunteer class consisted of approximately 20-75 students. Before handing out packets, the general purpose of the study to measure emotional empathy levels and reasons for living in drug and alcohol using college students was explained and instructions were given (Appendix F). Students were offered the opportunity to refuse participation. All students agreeing to participate were given verbal instructions before receiving materials. Basic guidelines

regarding how to properly complete the packet were presented, and participants were asked to raise their hand if they do not understand items, or if they had questions concerning completion of the packets. Confidentiality was stressed. Once all packets were completed and collected, the researcher debriefed the participants stating, “You have just participated in a study conducted by East Tennessee State University. The purpose of the study was to evaluate emotional empathy levels and reasons for living in drug using college students to investigate the relationship between these variables. We hope the information gathered will facilitate future prevention and intervention efforts. Are there any questions at this time?” Questions were answered.

### Research Design

The two independent variables in this study were the degree of substance-use and gender. The dependent variables were empathy scores obtained on the Balanced Emotional Empathy Scale and total reason for living score obtained on the RFL. The study was a 2 (gender) X 3 (degree of substance use) between factorial design with unequal cell size. The alpha level was set at  $p < .05$  for each hypothesis. A correlation matrix was run between men and women among all continuous variables to generate hypotheses for future research. A Pearson Product Moment Coefficient was computed to test whether the dependent variables were inversely related.

## CHAPTER 3

### RESULTS

A variety of statistical methods were used to analyze data. RFL total score and emotional empathy score were analyzed with separate analyses of variance (ANOVAs). RFL scores were analyzed using a 2 (Gender) X 3 (Degree of substance use) ANOVA. Emotional empathy scores were analyzed using a 2 (Gender) X 3 (Degree of substance use) ANOVA. A Pearson Product Moment coefficient was computed to establish whether emotional empathy and reasons for living were positively correlated. Thirteen questionnaire packets were excluded due to incomplete and/or incorrectly filled out surveys.

Hypothesis one, which predicted that men would have lower emotional empathy scores than women, was confirmed,  $F(1, 163) = 31.31, p < .0001$  (See Table 1 for mean scores of emotional empathy; See Table 2 for ANOVA).

Hypothesis two, which predicted that men would have a lower total reasons for living scores than women, was not confirmed (mean RFL score for men = 4.12; mean RFL score for women = 4.18).

Hypothesis three, which purported that both men and women in the high substance use group would have lower reasons for living than the men and women in the moderate and low substance use groups, was not confirmed (See Table 3).

Hypothesis four, which stated that men in the high substance use group would have lower emotional empathy scores than the men in the moderate and low substance use groups, was not confirmed.

Hypothesis five, which predicted that women in the high substance use group would have higher emotional empathy scores than women in the moderate and low substance use groups, was not confirmed.

Hypothesis six, which stated that men and women in corresponding substance use groups would differ in levels of emotional empathy with men consistently scoring lower on the emotional empathy measure, was not confirmed.

Hypothesis seven, which purported that men and women in corresponding substance use groups would differ in total reasons for living scores with men consistently scoring lower on the total reasons for living scores, was not confirmed.

Hypothesis eight, which predicted that the dependent variables of emotional empathy scores and reason for living scores would be positively correlated, was not confirmed.

Two non-hypothesized findings were found and are of interest. One-way ANOVAs revealed significant differences between two of the demographic variables and the dependent variables. Specifically, individuals who reported past suicidal ideation or attempts scored lower on the Reasons For Living Inventory  $F(2, 165) = 14.82$   $p < .0001$  (See Table 4). Also, individuals who endorsed being charged with a crime other than a minor traffic violation were found to possess less emotional empathy  $F(1, 167) = 6.47$   $p < .05$  (See Table 5).

TABLE 1

Mean And SD Scores For The Balanced Emotional Empathy Scale For Men And Women

MEN	( $n = 49$ )	21.14 (30.12)
WOMEN	( $n = 120$ )	51.87 (28.61)*

\* $p < .0001$

Note: Higher scores indicate more emotional empathy

TABLE 2

ANOVA

Emotional Empathy As A Function Of Gender And Degree Of Substance-Use For Men And Women

	SS	df	MS	F	Sig of F
Corrected Model					
Main effects					
Sex	26009.33	1	26009.33	31.31	.000*
Substance	2675.15	2	1337.57	1.61	.203
2-way Interaction					
Sex x Substance	1105.10	2	552.55	.665	.516
Residual	135397.76	163	830.66		

\* $p < .0001$

TABLE 3

Cell Means And Sample Size For Reasons For Living, Gender, And Degree Of Substance-Use

	HIGH	MODERATE	LOW
MEN	n = 12 R = 3.88	n = 14 R = 4.27	n = 23 R = 4.15
WOMEN	n = 27 R = 4.17	n = 30 R = 4.19	n = 63 R = 4.19

R = reasons for living as measured by the RFL inventory

TABLE 4

ANOVA

Reasons For Living As A Function Of Suicidal Ideation Or Attempt

	SS	df	MS	F	Sig of F
RFL					
Between groups	12.33	2	6.17	14.82	.0001*
Within groups	68.66	165	.42		
Total	80.99	167			

\*p < .001

TABLE 5

ANOVA

Emotional Empathy As A Function Of Criminal Charges Other Than Minor Traffic Violations

	SS	df	MS	F	Sig of F
<b>EMPATHY</b>					
Between groups	6482.51	1	6482.51	6.47	.012*
Within groups	167375.27	167	1002.25		
Total	173857.79	168			

\*p < .05

TABLE 6

Cell Means And Sample Size For Empathy, Gender, And Degree Of Substance-Use

	HIGH	MODERATE	LOW
<b>MEN</b>	n = 12 E = 15.50	n = 14 E = 25.57	n = 23 E = 21.39
<b>WOMEN</b>	n = 27 E = 41.70	n = 30 E = 49.33	n = 63 E = 57.44

E = emotional empathy scores as measured by the BEES

## CHAPTER 4

### DISCUSSION

This study was conducted to examine emotional empathy and reasons for living in substance using college students. Several factors were considered in the development of hypotheses. For instance, the development of substance abuse and the poor development of empathy involve many of the same factors (e.g. Charbonneau & Nicol, 2002; Fitzgerald et al., 1993; Kumpfer & Turner, 1991; Prentky & Knight, 1991). These include family and social factors. Furthermore, the high rate of cluster B personality disorders in addicted populations also brought into question the relationship between substance use and empathy (Rounsaville et al., 1998; Verheul et al., 2000). Specifically, individuals diagnosed with a Cluster B personality disorder have been shown to possess deficiencies in empathy (Golomb et al., 1994; Zanarini et al., 1997).

One main hypothesis was confirmed. Hypothesis one, stating that men will have lower emotional empathy scores than women was confirmed. This supports previous findings that women are more empathic than men (Carol, 1990; Hayes, 1987; Mehrabian & O'Reilly, 1980; Mehabrian et al., 1988). This finding has implications for treatment. For instance, focusing attention on the effects of substance abuse on loved ones may better motivate change behavior in women than in men. Furthermore, women may benefit more from 12-step support groups such as Alcoholics Anonymous or Narcotics Anonymous due to the empathic understanding inherent in this recovery medium. This finding also suggests guidelines for research. Previous literature has indicated men possess more substance abuse problems than women (e.g. Johnston et al., 1991; SAMHSA, 2001); this was taken into consideration when designing the present study.

The fact that gender emerged as a significant main effect supports the future incorporation of gender in investigations of substance abuse. It is unclear whether this finding represents actual biological differences between men and women or is the result of social and cultural influences.

The rest of the hypotheses were not confirmed. One interpretation of these results is that the self-centeredness and behaviors indicative of low empathy demonstrated by the substance abuser may be a function of cognitive factors such as intense cravings for the substance rather than underlying traits such as empathy. These cognitive factors may decrease empathic understanding or inhibit prosocial behavioral responses typically associated with empathic concern. Empirical investigations in the realm of social psychology may provide another possible explanation for the results. Research has been demonstrated that many factors effect behavior based on attitudes (e.g. Fazio, 1995; Jaccard & Becker, 1985). This demonstrates that self-report measures often do not predict behavior. This suggests that conducting this study using experimental methods, rather than relying on self-report measures, may have resulted in substance abusers behaviorally demonstrating low empathy. Alternatively, it may be that despite the similarities in the development of empathy and substance abuse, differences in empathy are not characteristic of a substance user.

Despite a past study (e.g., Ellis & Range, 1988) identifying that femininity is positively correlated with reasons for living, no gender differences in reasons for living were found in this study. This suggests the gap between the adaptive characteristics of men and women is no longer present. However, it is unclear whether this is due to women decreasing in adaptive characteristics or men increasing. Changes in the adaptive

coping skills of men and women may have implications for the substance use in future generations. This should be taken into consideration when designing treatment and subsequent research.

Degree of substance-use was not related to reasons for living scores. This may be due to suicidal ideation being present in substance abusers only after the use of substances and all other attempts to cope have failed and substance abuse disorders are diagnosed. Suicidal ideation may have arisen before diagnosis, but individuals were still able to identify other ways to cope, creating differences in reasons for living. Individuals may possess fewer reasons for living when diagnosed with substance use disorders, more specifically, when first admitted to a residential treatment center. It is presumed that these persons would have exhausted all avenues of coping resulting in residential treatment. This would lower the reasons they would have for living.

Experimental analyses did reveal that two demographic variables were predictive of the dependent variables. First, "being charged with a crime other than a minor traffic violation" was found significantly predictive of lower emotional empathy. However, specific crimes were not reported making interpretation difficult. Type of crime may have implications for interpretation. For instance, if the crime the individual was charged for is drug related; this would support this study's rationale and establish a direct connection between substance use and emotional empathy. If the crime were of an aggressive nature such as assault, this would be supported by previous findings that aggressiveness is related to lower emotional empathy (Prentky & Knight, 1991).

Consideration of past suicide attempt was found significantly related to reasons for living. This is consistent with previous literature. This measure has been shown to be

significantly related to past suicide attempts and suicidal ideation since is development (Beylotte, 2000; Linehan et al., 1983). It also is able to identify areas where low levels of adaptive coping exist. This allows clinicians the use of the RFL to screen for risk of suicide and to identify specific values to use a motivator to want to continue living and begin recovery.

### Limitations

Many factors may have contributed to the insignificant finding. First, the number of men (N = 49) and women (N = 120) who filled out surveys was very disproportionate (see Table 6). This may have been due to the surveys being completed in undergraduate psychology classes, a field known to currently possess more women. This inadequate sample of men is especially important given that literature demonstrates that men use more than women, and that men are known to possess lower empathy.

Second, some of the cells of the factorial were lower than what is recommended to detect effects. There were only 12 men who reported to be high users, and only 14 men who reported to be moderate users. Even if a large effect was present, it may not be detected due to these small cell sizes. Furthermore, these two cells were of the most interest because it was hypothesized that men who reported to be high users would possess the least amount of emotional empathy and reasons for living.

Third, the use of an experimental substance abuse questionnaire represents a weakness of this study. The absence of reliability or validity data makes it unclear whether different levels of substance use were accurately delineated. Improper grouping of participants into substance use categories may have confounded this study.

Fourth, the use of a college population in this study used may have introduced unique problems. A sample bias may exist in that all students who were present are functioning adaptively on some level. This is evidenced by the fact that they were present in class. This behavior is not consistent with substance abusers who are known to be irresponsible and often absent from their required duties. Also, individuals who are currently in college may not have developed a clear substance abuse pattern. This is supported by previous data that individuals who attended college were more likely to try illicit drugs or alcohol but not develop a substance abuse problem (SAMSHA, 2001). This substance use in college students and the college age population is often only experimental (SAMSHA, 2001). It is impossible to determine for which participants education will function for as a protective factor. Finally, a clinical population may be especially important in detecting differences in empathy, specifically because the standard deviation of the BEES is so large. Individuals on the extreme end of the continuum of substance abuse are likely needed to see an effect.

Fifth, the anticipated time to complete the survey packet was 15-20 minutes. It was noted that several participants completed the questionnaire well under this anticipated time, suggesting that persons were rushing through the surveys possibly not reading directions or items thoroughly. Furthermore, it was observed that many participants were distracted by engaging in conversation with friends. Additional evidence for this claim was that 13 packets were incomplete and/or filled out incorrectly. In addition, due to the sensitive nature of the requested information, participants may have not been truthful.

## Future Research

Future research should examine empathy and reasons for living in a clinical population of substance abusers, more specifically, a residential drug and alcohol treatment center. This will allow the researcher to explore reasons for living and emotional empathy when substance use has very obviously become maladaptive. Furthermore, additional data from a clinical population will allow for comparisons to be made between a clinical and non-clinical population.

A valid and reliable measure to assess level of substance abuse is needed. For example, the Addiction Severity Index may be used to obtain a complete overview of the effect substance abuse has on an individual's life. Also, in-depth interviews to better classify the severity of substance abuse of an individual may be used.

The demographic questionnaire should be elaborated, especially those items found to be significant in the present study. Increased specificity would allow for more thorough interpretation. For example, specific crimes participants were charged with should be included.

Other methods to measure empathy should be explored. For instance, short video clips with an actor experiencing distinct and measurable emotions can be shown to a participant. The participant's empathic understanding would be measured using self-report and behavioral observation. Also, experimental methods other than self-report methods can be developed and used. This may include putting a participant in a situation where helping is an option and prosocial behaviors are measured.

The current study explored a number of relationships relevant to the development of, choice of treatment strategies, and interventions for substance abusers. It is intended

to help develop a clearer picture of emotional empathy, reasons for living, and substance abuse and the interactions of these. Its ultimate goal is to add to the development of more effective treatment for substance abusers and should act as a catalyst for future research.

## REFERENCES

- Adams, G. R., Jones, R. M., Schvaneveldt, J. D., & Jenson, G. O. (1982). Antecedents of affective role-taking behaviour: Adolescent perception of parental socialization styles. *Journal of Adolescence*, *5*, 259-265.
- Aderman, D., Archer, R. L., & Harris, J. L. (1975). Effect of emotional empathy on attribution of responsibility. *Journal of Personality*, *43* (1), 156-167.
- Aderman, D. & Berkowitz, L. (1970). Observational set, empathy, and helping. *Journal of Personality and Social Psychology*, *14* (2), 141-148.
- Aharonovich, E, Nguyen, H. T., & Nunes, E. V. (2001). Anger and depressive states among treatment seeking drug abusers: Testing the psychopharmacological specificity hypothesis. *The American Journal on Addictions*, *10*, 327-334.
- Allison, M., Hubbard, R. L., & Ginzburg, H. M. (1986). Validation of a three-item measure of depressive and suicidal symptoms. *Hospital & Community Psychiatry*, *37* (7), 738-740.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4<sup>th</sup> ed.). Washington DC: American Psychiatric Association.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3<sup>rd</sup> ed., revised). Washington DC: American Psychiatric Association.
- Andersen, D. T. (2001). Empathy, attachment, meditation, and mental health. *Dissertation Abstracts International: Section B: The Sciences & Engineering*, *61* (10-B), 5549.

- Atkins, M. W., & Steitz, J. A. (1999). The assessment of empathy: An evaluation of the interpersonal reactivity index [On-line]. Available:  
[www.edu/union/academ/tep/research/atkins/htm](http://www.edu/union/academ/tep/research/atkins/htm)
- Association of American Physicians, V. (1995). *Mortality and morbidity attributable to use of addictive substances in the United States and economic costs of substance abuse.*
- Bandura, A. (1973). *Aggression: A social learning analysis.* Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1977). *Social learning theory.* Englewood Cliffs, NJ: Prentice-Hall.
- Barnes, G. M., Farrell, M. P., & Banerjee, S. (1994). Family influences on alcohol abuse and other problem behaviors among black and white adolescents in a general population sample. *Journal of Research on Adolescence, 4*, 183-201.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child development, 55*, 83-96.
- Berlin, R. & Davis, R. B. (1989). Children from alcoholic families: Vulnerability and resilience. In T. F. Dugan & R. Coles (Eds.), *The child in our times: Studies in the development of resiliency.* New York: Brunner/Mazel, 81-105.
- Beylotte, S. C. (2000). Suicidal ideation in substance abusing veterans : Biopsychosocial risk factors. *Dissertation Abstracts International: Section B: The Sciences & Engineering, 61* (4-B). 1866.
- Black, C., Bucky, S. F., & Wilder-Padilla, S. (1986). The interpersonal and emotional consequences of being an adult child of an alcoholic, *International Journal of Addiction, 21*, 213-231.

- Brent, D. A. (1995). Risk factors for adolescent suicide and suicidal behavior: Mental and substance abuse disorders, family environmental factors, and life stress. *Suicide and Life-Threatening Behavior Suppl.*, 25, 52-63.
- Brent, D. A., Johnson, B. A., Perper, J., Connolly, J., Bridge, J., Bartle, S., & Rather, C. (1994). Personality disorder, personality traits, impulsive violence, and completed suicide in adolescents. *Journal of American Academy of Adolescent Psychiatry*, 33, 1080-1086.
- Brent, D. A., Johnson, B., Bartle, S., Bridge, J., Rather, C., Matta, J., Connolly, J., & Constantine D. (1993a). Personality disorder, tendency to impulsive violence, and suicidal behavior in adolescents. *Journal of American Academy of Adolescent Psychiatry*, 32, 69-75.
- Brent, D. A., Perper, J. A., Moritz, G., Allman, C., Roth, C., Schweers, J., Balach, L., & Baugher, M. (1993b). Psychiatric risk for adolescent suicide: A case control study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 32, 494-500.
- Cadoret, R. Y., & Winokur, G. (1974). Depression in alcoholism. *Annual of New York Academy of Science*, 233, 34-49.
- Cannon, D. S., Bell, W. E., & Fowler, D. R. (1990). MMPI differences between alcoholics and drug abusers: effect of age and race. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 2 (1), 51-55.
- Carey, J. C., Fox, E. A., & Spraggins, E. F. (1988). Replication of structure findings regarding the Interpersonal Reactivity Index. *Measurement & Evaluation in Counseling & Development*, 21, 102-105.

- Carol, C. S. (1990). Gender differences and training effects on empathy. Dissertation Abstracts International, 50 (8-B), 3700.
- Charbonneau, D., & Nicol, A. A. M. (2002). Emotional intelligence and prosocial behaviors in adolescents. *Psychological Reports, 90*, 361-370.
- Chermack, S. T., Stoltenberg, S. F., Fuller, B. E., & Blow, F. C. (2000). Gender differences in the development of substance-related problems: The impact history of alcoholism, family history of violence and childhood conduct problems. *Journal of Studies of Alcohol, 61*, 845-852.
- Chlopan, B. E., McCain, M. L., Carbonell, J. L., & Hagen, R. L. (1985). Empathy: Review of available measures. *Journal of Personality and Social Psychology, 48*, 635-653.
- Cooper, L. (1970). Empathy: A developmental model. *Journal of Nervous and Mental Disease, 151*, 169-178.
- Craig, R. J., & Olson, R. E. (1990). MMPI characteristics of drug abusers with and without histories of suicide attempts. *Journal of Personality Assessment, 55* (3,4), 717-728.
- Crumley, F. E. (1990) Substance abuse and adolescent suicidal behavior. *Journal of the American Medical Association, 82*, 495-507.
- Crumley, R. E. (1979). Adolescent suicide attempts. *JAMA 241*, 2404-2407.
- Curran, G. M., Kirchner, J. E., Worley, M, Rookey, C., & Booth, B. M. (2002). Depressive symptomology and early attrition from intensive outpatient substance abuse treatment. *The Journal of Behavioral Health Services & Research, 29* (2), 138-143.

- Davis, D. R. & DiNitto, D. M. (1996). Gender differences in social and psychological problems of substance abusers: A comparison to non-substance abusers. *Journal of Psychoactive Drugs*, 28 (2), 1996. 135-145.
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology*, 10, 85.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality & Social Psychology*, 44(1), 113-126.
- Des Prez, T. (1976). *The survivor: An anatomy of life in the death camps*. New York: Oxford University Press.
- Dewinne, R., & Johnson R. W. (1976). Extraversion-introversion: the personality characteristics of drug abusers. *Journal of Clinical Psychology*, 32 (3), 744-747.
- Deykin, E. Y., Levy, J. C., & Wells, V. (1986). Adolescent depression, alcohol and drug abuse. *American Journal of Public Health*, 76, 178-182.
- Eisenberg, N., Shell, R., Pasternack, J., Beller, R., Lennon, R., & Mathy, R. M. (1987). Prosocial development in middle childhood: A longitudinal study. *Developmental Psychology*, 23 (5), 712-718.
- Eisenberg, N. & McNally, S. (1993). Socialization and mothers' and adolescents' empathy-related characteristics. *Journal of Research on Adolescence*, 3(2), 171-191.
- Eisenberg, N., & Strayer, J. (Eds); (1987). Empathy and its development. *Cambridge studies in social and emotional development*, Cambridge: Cambridge University Press, 17-37.

- Eisenberg-Berg, N., & Mussen, P. (1978). Empathy and moral development in adolescence. *Developmental Psychology, 14* (2), 185-186.
- Ellis, J. B., & Range, L. M. (1988). Femininity and the reasons for living. *Educational and Psychological Research, 8*, 19-24.
- Ellis, J. B., & Range, L. M. (1989). Characteristics of suicidal individuals: A review. *Death studies, 13*, 485-500.
- Famularo, R. A., Stone, K., Barnum, R., & Wharton, R. (1986). Alcoholism and severe child maltreatment. *American Journal of Orthopsychiatry, 56*, 481-485.
- Fava, M., Abraham, M., Clancy-Colecchi, K., Pava, J. A., Mathews, J., & Rosenbaum, J. F. (1997). Eating disorder symptomology in major depression. *Journal of Nervous and Mental Disease, 185*, 140-144.
- Fazio, R. H. (1995). Attitudes as object-evaluation associations: Determinants, consequences, and correlates of attitude accessibility. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences*. Hillsdale, NJ: Erlbaum.
- Feshbach, N. D. (1987). Parental empathy and child adjustment/maladjustment. In: Eisenberg, N., & Strayer, J. (Eds); 1987. *Empathy and its development*. Cambridge: Cambridge University Press, 271-291.
- Fitch, F. J., & Papantonio, A. (1983). Men who batter: Some pertinent characteristics. *Journal of Nervous & Mental Disease, 171*(3), 190-192.
- Fitzgerald, H. E., Sullivan, L. A., Ham, H. P., Zucker, R. A., Bruckel, S., & Schneider, A. M. (1993). Predictors of behavior problems in three-year-old sons of alcoholics: early evidence for the onset of risk. *Child Development, 64*, 110-123.

- Frances, A., Fyer, M., & Clarkin, J. (1986). Personality and suicide. *Annals of the New York Academy of Sciences*, 487, 281-289.
- Frankl, V. E. (1959). From death- camp to existentialism. Boston: Beacon. Friedman, H. S., & Schustack, M. W. (1999). *Personality: Classic theories and modern research*. Needham Heights, MD: Allyn & Bacon.
- Gallo, D. (1989). Educating for empathy, reason and imagination. *The Journal of Creative Behavior*, 23 (2), 98-115.
- Gelb, C. M. (2002). The relationship between empathy and attachment in the adolescent population. *Dissertation Abstracts International: Section B: The Sciences & Engineering*, 62 (9-B), 4252.
- Gerstley, L. J., Alterman, A. I., McLellan, A. T., & Woody, G. E. (1990). Antisocial personality disorder in patients with substance abuse disorders: A problematic diagnosis? *American Journal of Psychiatry*, 147 (2). 173-178.
- Golomb, A., Ludolph, P., Westen, D., Block, M.J., Maurer, P. & Wiss, F. C. (1994). Maternal empathy, family chaos, and the etiology of borderline personality disorder. *Journal of the American Psychoanalytic Association*, 42, 525-548.
- Goodwin, R. D., & Hasin, D. S. (2002). Sedative use and misuse in the United States. *Addiction*, 97, 555-562.
- Hatsukami, D., & Pickens, R. W. (1982). Posttreatment depression in an alcohol and drug abuse population. *American Journal of Psychiatry*, 139 (12), 1563-1566.
- Hayes, C. W. (1987). Gender differences in the development of empathy in children. *Dissertation Abstracts International*, 48 (3-B), 897-898.

- Heape, S. E. (1980). An analysis of MMPI-defined personality characteristics of drug abusers. *Dissertation Abstracts International*, 41 (4), 1558-B.
- Hesselbrock, V., Meyer, R., & Keener, J. (1985). Psychopathology in hospitalized alcoholics. *Archives of Genetic Psychiatry*, 42, 1050-1055.
- Hirschi, T., & Gottfredson, M. (1988). *Towards a General Theory of Crime*, Buikhuisen, Wouter., & Mednick, Sarnoff A. (eds.), Explaining criminal behavior: Interdisciplinary approaches, Stanford: Stanford University Press. 8-26.
- Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology*, 33, 307-316.
- Isometsae, E. T., Henriksson, M. M., Heikkinen, M. E., & Aro, H. M. (1996). Suicide among subjects with personality disorders. *American Journal of Psychiatry*, 153 (5) 667-673.
- Jaccard, J., & Becker, M. A. (1985). Attitudes and behavior: An information integration perspective. *Journal of Experimental Social Psychology*, 21, 440-465.
- Johnston, L. D., O'Malley, P. M., & Bachman, J. G. (1991). *Drug use among American high school seniors, college students, and young adults, 1975-1990. Volume 1: High school seniors*. (Report No. DHHS-ADM-91-1813). Rockville, MD: National Institute on Drug Abuse.
- Joireman, J. A., Needham, T. L., & Cummings, A. L. (2002). Relationships between dimensions of attachment and empathy. *North American Journal Of Psychology*. 4 (1), 63-80.
- Kalliopuska, M. (1983). Relationship between moral judgement and empathy. *Psychological Reports*, 53, 575-578.

- Kalliopuska, M., & Tiitinen, U. (1991). Influence of two developmental programmes on the empathy and prosociability of preschool children. *Perceptual and Motor Skills, 72*, 232-328.
- Keane, C., Maxim, P. S., & Teevan, J. J. (1993). Drinking and driving, self-control, and gender: Testing a general theory of crime. *Journal of Research in Crime & Delinquency, 30*(1), 30-46.
- Klimes-Dougan, B., & Kistner, J. (1990). Physically abused preschoolers' responses to peers' distress. *Developmental Psychology, 26*, 599-602.
- Koestner, R., Franz, C., & Weinberger, J. (1990). The family origins of empathic concern: A 26-year longitudinal study. *Journal of Personality and Social Psychology, 58*, 709-717.
- Kosten, R. R. & Rounsaville, B. J. (1988). Suicidality among opiate addicts: 2.5 year follow-up. *American Journal of Drug and Alcohol Abuse, 14*, 357-369.
- Kumpfer, K. L., & Turner, C. W. (1991). The social ecology model of adolescent substance abuse: Implications for prevention. *International Journal of Addictions, 25*, 435-464.
- Kuo, W. H. (1999). Mortality and risk factors of suicidal behaviors in the Baltimore ECA program: 1981-1996. *Dissertation Abstracts International: Section B: The Sciences & Engineering, 60* (4-B), 1525.
- Lang, A. R. (1985). Alcohol, teenage drinking: *The encyclopedia of psychoactive drugs*. New York: Chelsea House.
- Levy, J. C., & Deykin, E. Y. (1989). Suicidality, depression, and substance use in adolescence. *American Journal of Psychiatry, 146* (11), 1462-1467.

- Linehan, M. M., Goodstein, J. L., Nielsen, S. L., & Chiles, J. A. (1983). Reasons for staying alive when you are thinking of killing yourself: The Reasons For Living Inventory. *Journal of Consulting and Clinical Psychology, 51* (2), 276-286.
- Litvack-Miller, W., McDougall, D., & Romney, D. M. (1997). The structure of empathy during the middle childhood and its relationship to prosocial behavior. *Genetic, Social, & General Psychology Monographs, 123* (3), 303-324.
- Lopez, N.L., Bonenberger, J. L., & Schneider, H.G. (2001). Parental Disciplinary history, current levels of empathy, and moral reasoning in young adults. *North American Journal of Psychology, 3* (2) 193-204.
- Maddocks, P.D. (1970). A five year follow-up of untreated psychopaths. *British Journal of Psychiatry, 116* (534), 511-515.
- Marttunen, M. J., Aro, H. M., & Henricksson, M. M. (1991). Mental disorders in adolescent suicides: DSM-III-R axes I and II diagnoses in suicides among 13- to 19-year-olds in Finland. *Archives of General Psychiatry, 48* (9), 834-839.
- McCance-Katz, E. F., Carrol, K. M., & Rounsaville, B. J. (1999). Gender differences in treatment-seeking cocaine abusers: Implications for treatment prognosis. *American Journal of Addictions, 8* (4), 300-311.
- Mead, G. H. (1934). *Mind, self, and society from a standpoint of a social psychologist*. Chicago, University of Chicago Press.
- Mehrabian, A. (1997). Relations among personality scales of aggression, violence, and empathy: Validation evidence bearing on the risk of eruptive violence scale. *Aggressive Behavior, 23*, 433-445.

- Mehrabian, A. (2000). Manual for the Balanced Emotional Empathy Scale (BEES).  
(Available from Albert Mehrabian, 1130 Alta Mesa Road, Monterey, CA 93940)
- Mehrabian, A., & Epstein, N. (1972). A measure of emotional empathy. *Journal of Personality, 40*, 525-543.
- Mehrabian, A., & O'Reilly, E. (1980). Analysis of personality measures in terms of basic dimensions of temperament. *Journal of Personality and Social Psychology, 38*, 492-503.
- Mehrabian, A., Young, A. L., & Sato, S. (1988). Emotional empathy and associated individual differences. *Current Psychology: Research & Reviews, 7* (3), 221-240.
- Minino, A. M., Arias, E., Kochanek, K. D., Murphy, S. L., & Smith, B. L. (2002). Deaths: Final data for 2002. *National Vital Statistics Reports, 50* (15).
- Mirin, S. M., Weiss, R. D., Griffin, M. L., & Michael, J. L. (1991). Psychopathology in drug abusers and their families. *Comprehensive Psychiatry, 32*, 36-51.
- Mos'cicki, E. K. (1995). Epidemiology of suicidal behavior. *Suicide and Life-Threatening Behavior, 25* (1), 22-34.
- Mueller, M. A., & Waas, G. A. (2002). College students' perceptions of suicide: The role of empathy on attitudes, evaluation, and responsiveness. *Death Studies, 26*, 325-341.
- O'Boyle, M., & Brandon, E. A. A. (1998). Suicide attempts, substance abuse, and personality. *Journal of Substance Abuse Treatment, 15* (4), 353-356.
- Paris, J. (2002). Chronic suicidality among patients with borderline personality disorder. *Psychiatric Services, 53* (6), 738-742.

- Penick, E., Powell, J., & Othmer, E. (1984). Subtyping alcoholics by co-existing psychiatric syndromes: Course, family history, outcome. In *Longitudinal Research in Alcoholism*. Goodwin, D. W., Van Dusen, R. T., & Mednick, S. A., (Eds). Hingham, MA, Kluwer-Nijhoff.
- Peterson, L. G., & Bongar, B. (1990). Repetitive suicidal crises: Characteristics of repeating versus nonrepeating suicidal visitors to a psychiatric emergency service. *Psychopathology*, 23 (3), 136-135.
- Pfeffer, C. R., Solomon, G., Plutchik, R., Mizcruchi, M., & Weiner, A. (1982). Suicidal behavior in latency-age psychiatric inpatients: A replication and cross validation. *Journal of the American Academy of Child Psychiatry*, 21, 564-569.
- Plasse, B. R. (1995). Parenting groups for recovering addicts in a day treatment center. *Social Work*, 40 (1), 65-73.
- Prentky, R. A., & Knight, R. A. (1991). Identifying critical dimensions for discriminating among rapist. *Journal of Consulting and Clinical Psychology*, 59 (5), 643-661.
- Reich, W., Earls, F., & Possell, J. (1988). A comparison of the home and social environments of children of alcoholic and non-alcoholic parents. *British Journal of Addiction*, 83, 831-839.
- Rich, A. R., Kirkpatrick-Smith, J., Bonner, R. L., & Jans, F. (1992). Gender differences in the psychosocial correlates of suicidal ideation among adolescents. *Suicide and Life-Threatening Behavior*, 22 (3). 364-373.

- Rich, C. L., & Runeson, B. S. (1992). Similarities in diagnostic comorbidity between suicide among young people in Sweden and the United States. *Acta Psychiatrica Scandinavica*, *101*, 86, 335-339.
- Rich, C. L., Young, D., & Fowler, R. C. (1986). San Diego suicide study. I. Young vs. old subjects. *Archives of General Psychiatry*, *43*, 577-582.
- Roberts, W., & Strayer, J. (1996). Empathy, emotional expressiveness, and prosocial behavior. *Child Development*, *67*, 449-470.
- Rogers, C. R. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, *21*, 95-103.
- Rounsaville, B. J., Kranzler, H. R., Ball, S., Tennen, H., Poling, J., & Triffleman, E. (1998). Personality disorders in substance abusers: Relation to substance use. *Journal of Nervous and Mental Disease*, *186* (2), 87-95.
- Rounsaville, B. J., Kosten, T. R., Weissman, M. M., Prusoff, B., Pauls, D., Foley, S., & Marikaugas, K. (1991). Psychiatric disorders in the relatives of probands with opiate addiction. *Archives of General Psychiatry*, *48*, 33-42.
- Runeson, B., & Beskow, J. (1991). Borderline personality disorder in Swedish suicides. *Journal of Nervous and Mental Diseases*, *179*, 153-156.
- Seilhamer, R. A. & Jacob, T. (1990). Family factors and adjustment of children of alcoholics. In M. Windles & J. S. Searles (Eds.), *Children of alcoholics: Critical perspective*, 168-186. New York: Guild.
- Shaffer, D., Gould, M. S., & Fisher, P. (1996). Psychiatric diagnosis in child and adolescent suicide. *Archives of General Psychiatry*, *53*(4), 339-348.

- Soederberg, S. (2001). Personality disorders in parasuicides. *Nordic Journal of Psychiatry*, 55 (3), 163-167.
- Soloff, P. H., Lis, J. A., Kelly, T., Cornelius, J., & Ulrich, R. (1994). Risk factors for suicidal behavior in borderline personality disorder. *American Journal of Psychiatry*, 151 (9), 1316-1324.
- Spiegel, J., Severino, S. K., & Morrison, N. K. (2000). The role of attachment functions in psychotherapy. *Journal of Psychotherapy Practice & Research*. 9 (1), 25-32.
- Stern, D. (1985). *The interpersonal world of the infant*. New York: Basic Books.
- Stern, M., Northman, J. E., & Van Slyck, M. R. (1984). Father absence and adolescent “problem behaviors”: Alcohol consumption, drug use, and sexual activity. *Adolescence*, 19 (74), 301-312.
- Stice, E., & Barrera, J. Jr. (1995). A longitudinal examination of the reciprocal relations between parenting and adolescents’ substance use and externalizing symptomology. *Developmental Psychology*, 31, 322-334.
- Stice, E., & Gonzales, N. (1998). Adolescent Temperament moderates the relation of parenting to antisocial behavior and substance abuse. *Journal of Adolescent Research*, 13 (1), 5-31.
- Stotland, E. (1969). Experimental investigation of empathy. In L. Berkowitz (Ed.), *Advances in experimental social psychology*, New York: Academic Press, 532-534.
- Substance Abuse and Mental Health Services Administration, Office of Applied Studies (2001). *2000 National household survey on drug abuse*. [on-line]. Available: <http://www.samhsa.gov/oas/p0000016.htm>.

- Swift, W., Copeland, J., & Hall, W. (1996). Characteristics of women with alcohol and other drug problems: Findings of an Australian national survey. *Addiction, 91* (8), 1141-1150.
- Tarter R. E., Hegedus, A. M., Goldstein, F., Shelly, C., & Alterman, A. I. (1984). Adolescent sons of alcoholics: Neuropsychological and personality characteristics. *Alcoholism: Clinical and Experimental Research, 8*, 216-222.
- Vannicelli, M., & Nash, L. (1984). Effecto of sex bias on woment's studies on alcoholism. *Alcoholism: Clinical and Experimental Research, 8*, 334-336.
- Vega, W. A., Gil, A., Warheit, G., Apospori, E., & Zimmerman, R. (1993). The relationship of drug use to suicide ideation and attempts among african-american, hispanic, and white non-hispanic male adolescents. *Suicide and Life-Threatening Behavior 23* (2), 111-119.
- Vega, W. A., Zimmerman, R., Gil, A., Warheit, G. J., & Apospori, E. (1993). Acculturative strain theory: Its application in explaining drug use behavior among Cuban and other Hispanic youth. In M. De La Rosa & J. L. Recio (Eds.), *Drug abuse among minority youth: Advances in research and methodology*. Rockville, MD: National Institute of Drug Abuse.
- Verheul, R., Kranzler, H. R., Poling, J., Tenne, H., Ball, S., & Rounsaville, B. J. (2000). Co-occurrence of Axis I and Axis II disorders in substance abusers. *Acta Psychiatrica Scandinavica, 101*, 110-118.
- Verheul, R., Van Den Brink, W., & Hartgers, C. (1995). Prevalence of personality disorders among alcoholics and drug addicts: An overview. *European Addiction Research, 1*, 166-177.

- Verona, E., Patrick, C. J., & Joiner, T. E. (2001). Psychopathy, antisocial personality, and suicide risk. *Journal of Abnormal Psychology, 110* (3), 462-470.
- Wehr, A., & Bauer, L. O. (1999). Verbal ability predicts abstinence from drugs and alcohol in a residential treatment population. *Psychological Reports, 84*, 1354-1360.
- West, M. O., & Prinz, R. J. (1987). Parental alcoholism and childhood psychopathology. *Psychological Bulletin, 102*, 204-218.
- Winfrey Jr., L. T., & Bernat, R. P. (1998). Social learning, self-control, and substance abuse by eighth grade students: A tale of two cities. *Journal of Drug Issues, 28* (2), 539-559.
- Woody, G. McLellan, A. T., & Luborsky, L. (1985). Sociopathy and Psychotherapy outcome. *Archives of Genetic Psychiatry, 42*, 1081-1086.
- Workman, M., & Beer, J. (1990). Relationship between alcohol dependency and suicide ideation among high school students. *Psychological Reports, 66*, 1363-1366.
- Young, U. H. (2000). The experience of empathy in antisocial personality. *Dissertation Abstracts International: Section B: The Sciences and Engineering, 60* (7-B), 3584.
- Zahn-Waxler, C., & Radke-Yarrow, M. (1990). The origins of empathic concern. *Motivation and Emotion, 14* (2), 107-130.
- Zanarini, M. C., Williams, A. A., Lewis, E. W., Reich, R. B., Vera, S. C., Marino, M. F., Levin, A., Yong, L., & Frankenburg, F. R. (1997). Reported pathological childhood experiences associated with the development of borderline personality disorder. *American Journal of Psychiatry, 154*, 1101-1106.

Zweig-Frank, H., & Paris, J. (1991). Parents' emotional neglect and overprotection according to the recollections of patients with borderline personality disorder. *American Journal of Psychiatry*, 148, 648-651.

APPENDICES

Appendix A

Instruction Sheet

All surveys are confidential and anonymous, so DO NOT put your name on any of these sheets.

Read the instructions on EACH page CAREFULLY. Use the scale provided on each sheet to answer.

Take your time. Answer ALL questions.

Answer truthfully. There are no wrong answers.

Appendix B

Demographic questionnaire

**Please circle each item that applies to you or fill in the blank.**

**Age:** \_\_\_\_\_

**Sex:** 1. Male  
2. Female

**College Classification:** 1. Freshmen  
2. Sophomore  
3. Junior  
4. Senior

**Race:** 1. African American  
2. Asian American  
3. Caucasian  
4. Native American  
5. Other

**Marital Status:** 1. Single  
2. Married  
3. Separated  
4. Divorced  
5. Widowed

**Have you been charged with a crime other than minor traffic violations?** 1. Yes  
2. No

**Have you ever considered or attempted suicide?** 1. Yes  
2. No

**Choose the item that best describes your childhood living arrangements:**

1. I was raised by both biological parents
2. I was raised by 1 biological parent and a step parent
3. I was raised by 1 biological parent
4. I was raised by foster parents or adopted parents
5. I was raised by relatives
6. I was moved from caregiver to caregiver

**Choose the item that best describes the substance use by your primary caregiver(s):**

1. Never used alcohol and/or drugs
2. Occasionally used alcohol and/or drugs
3. Often used alcohol and/or drugs
4. Used alcohol and/or drugs daily

Appendix C

Substance Abuse Questionnaire

Check the box with the statements that **best** describe your pattern of illicit drug or alcohol use. Alcohol use is defined as consumption of any alcohol containing beverages. Illicit drug use is defined as the use of cocaine, marijuana, hallucinogens, heroin, inhalants, and non-medical use of prescription medications such as pain relievers, tranquilizers, sedatives, and stimulants. **Please read each statement carefully selecting only one.**

Check here if you.....use alcohol more than 9 times a month  
never to intoxication

**OR**

use alcohol 5 times or more a month  
sometimes or always to intoxication

**OR**

use drugs 5 times or more a month

Check here if you.....use alcohol 5 to 8 times a month never to  
intoxication

**OR**

use alcohol 3 to 4 times a month sometimes  
to intoxication

**OR**

use drugs 3 to 4 times a month

Check here if you.....have never tried drugs or alcohol

**OR**

use alcohol 1 to 2 times a month never to  
intoxication

**OR**

use drugs 1 to 2 times a month

## Appendix D

### Balanced Emotional Empathy Scale (BEES)

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## Appendix E

### Reasons for Living Inventory (RFL)

Many people have thought of suicide at least once. Others have never considered it. Whether you have considered it or not, we are interested in the reasons you would have for *not* committing suicide if the thought were to occur to you or if someone were to suggest it to you.

Below are reasons people sometimes give for not committing suicide. We would like to know how important each of these possible reasons would be to you at this time in your life as a reason to *not* kill yourself. Please rate this in the space at the left on each question.

Each reason can be rated from 1 (not at all important) to 6 (extremely important). If a reason does not apply to you or if you do not believe the statement is true, then it is not likely important and you should put a 1. Please use the whole range of choices so as not to rate only at the middle (2,3,4,5) or only at the extremes (1,6).

Even if you never have considered suicide or firmly believe you never would seriously consider killing yourself, it is still important that you rate each reason. In this case, rate on the basis of why killing yourself is not or would never be an alternative for you.

In each space put a number to indicate the importance to you of each for *not* killing yourself.

- 1 = Not at all important
- 2 = Quite unimportant
- 3 = Somewhat unimportant
- 4 = Somewhat important
- 5 = Quite important
- 6 = Extremely important

- \_\_\_\_\_ 1. I have a responsibility and commitment to my family.
- \_\_\_\_\_ 2. I believe I can learn to adjust or cope with my problems.
- \_\_\_\_\_ 3. I believe I have control over my life and destiny.
- \_\_\_\_\_ 4. I have a desire to live.
- \_\_\_\_\_ 5. I believe only God has the right to end a life.
- \_\_\_\_\_ 6. I am afraid of death.
- \_\_\_\_\_ 7. My family might believe I did not love them.
- \_\_\_\_\_ 8. I do not believe that things get miserable or hopeless enough that I would rather be dead.
- \_\_\_\_\_ 9. My family depends upon me and needs me.
- \_\_\_\_\_ 10. I do not want to die.
- \_\_\_\_\_ 11. I want to watch my children as they grow.
- \_\_\_\_\_ 12. Life is all we have and is better than nothing.

Appendix E (cont.)

- \_\_\_\_\_ 13. I have future plans I am looking forward to carrying out.
- \_\_\_\_\_ 14. No matter how badly I feel, I know that it will not last.
- \_\_\_\_\_ 15. I am afraid of the unknown.
- \_\_\_\_\_ 16. I love and enjoy my family too much and could not leave them.
- \_\_\_\_\_ 17. I want to experience all that life has to offer and there are many experiences I haven't had yet which I want to have.
- \_\_\_\_\_ 18. I am afraid that my method of killing myself would fail.
- \_\_\_\_\_ 19. I care enough about myself to live.
- \_\_\_\_\_ 20. Life is too beautiful and precious to end it.
- \_\_\_\_\_ 21. It would not be fair to leave the children for others to take care of.
- \_\_\_\_\_ 22. I believe I can find other solutions to my problems.
- \_\_\_\_\_ 23. I am afraid of going to hell.
- \_\_\_\_\_ 24. I have a love of life.
- \_\_\_\_\_ 25. I am too stable to kill myself.
- \_\_\_\_\_ 26. I am a coward and do not have the guts to do it.
- \_\_\_\_\_ 27. My religious beliefs forbid it.
- \_\_\_\_\_ 28. The effect on my children could be harmful.
- \_\_\_\_\_ 29. I am curious about what will happen in the future.
- \_\_\_\_\_ 30. It would hurt my family too much and I would not want them to suffer.
- \_\_\_\_\_ 31. I am concerned about what others would think of me.
- \_\_\_\_\_ 32. I believe everything has a way of working out for the best.
- \_\_\_\_\_ 33. I could not decide where, when, and how to do it.
- \_\_\_\_\_ 34. I consider it morally wrong.
- \_\_\_\_\_ 35. I still have many things left to do.
- \_\_\_\_\_ 36. I have the courage to face life.
- \_\_\_\_\_ 37. I am so inept that my method would not work.
- \_\_\_\_\_ 38. I am afraid of the actual "act" of killing myself (the pain, blood, violence).
- \_\_\_\_\_ 39. I believe killing myself would not really accomplish or solve anything.
- \_\_\_\_\_ 40. I have hope that things will improve and the future will be happier.
- \_\_\_\_\_ 41. Other people would think I am weak and selfish.
- \_\_\_\_\_ 42. I have an inner drive to survive.
- \_\_\_\_\_ 43. I would not want people to think I did not have control over my life.
- \_\_\_\_\_ 44. I believe I can find a purpose in life, a reason to live.
- \_\_\_\_\_ 45. I see no reason to hurry death along.
- \_\_\_\_\_ 46. I am so inept that my method would not work.
- \_\_\_\_\_ 47. I would not want my family to feel guilty afterwards.
- \_\_\_\_\_ 48. I would not want my family to think I was selfish or a coward.

## Appendix F

### Verbatim Instructions to Participants

“You have the opportunity to participate in a study investigating emotional empathy and reasons for living in drug and alcohol using college students. Extra credit will be given for participation in this study. Participation is not required and is available to persons 18 years of age and older. If you choose not to participate or are under 18 years of age, please inform the facilitator and see your instructor for alternative extra credit opportunities that are offered as a substitute for study participation. Several questions may be of a sensitive nature to some of you. These questions address your use of drugs and alcohol, criminal history, consideration and attempt of suicide, childhood living arrangements, and childhood care giver substance abuse. It should take about 15 to 20 minutes to complete all surveys within each packet. The information gathered will be presented as grouped data considering all information as a whole and will only be accessible to research personnel in the clinical psychology department, Institutional Review Board personnel, and the Department of Health and Human Services. Please do not write your name on any of the packet material in that all information is confidential. You may want to shield your answers to further protect your responses. If at any time survey questions are uncomfortable, you may withdraw from the study with no repercussions and request the alternative extra credit opportunities available. Please read the instructions on each survey carefully and answer all items truthfully. Each survey will ask you to rate your level of agreement with certain statements or to check the statement you agree with most. If you have questions at any time, raise your hand and a facilitator will respond. Are there any questions at this time?”

VITA

DANIEL S. MERWIN

Personal:

Date of Birth: July 12, 1974  
Place of Birth: Rockford, IL  
Marital Status: Married

Education:

Corinth High School,  
Corinth, MS  
Diploma, 1992

University of North Alabama  
Florence, AL  
B. S. Psychology, 1997

East Tennessee State University  
Johnson City, Tennessee  
M. A. Clinical Psychology, 2003

Professional  
Experience:

Counselor, Shoals Treatment Center, 1998-2000

Case Manager, Magnolia Ridge, Frontier Health, 2001-  
2002

Therapist, Timber Hills Mental Health, 2002-present