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ATTACHMENT, LOCUS OF CONTROL, AND ROMANTIC INTIMACY IN ADULT CHILDREN OF ALCOHOLICS: A CORRELATIONAL INVESTIGATION

by

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This dissertation was prepared under the direction of the candidate’s dissertation advisor, Dr. Paul Ryan Peluso, Department of Counselor Education, and has been approved by the members of her supervisory committee. It was submitted to the faculty of the College of Education and was accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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indebted to all participants whose devotion made this study come to life.
This study examined the relationships of adult attachment, locus of control, and fear of intimacy between Adult Children of Alcoholics (ACOAs) and Non Adult Children of Alcoholics (NACOAs). A convenience sample of 224 participants, specifically 108 ACOAs and 116 NACOAs, completed the Experiences in Close Relationships-Revised Questionnaire (ECR-R), Rotter’s Locus of Control Scale (LOC), and the Fear of Intimacy Scale (FIS). Participants were drawn from self-help groups, gatherings, and a health fair held in Palm Beach County, Florida. Data were analyzed utilizing multivariate analysis of variance (MANOVA), series of analysis of variance (ANOVA), stepwise regression analyses, discriminant function analysis, in addition to correlational analyses. An alpha level of .05 was set to test for statistical significance. The MANOVA showed a statistically significant difference between ACOAs and NACOAs [Wilks’ $\lambda$ = .60, $F$(4,
219) = 36.40, p = .00, $\eta_p^2 = .36$] with a large effect size ($d = 1.49$). ANOVAs demonstrated a statistically significant difference between the groups for all constructs. This indicates that ACOAs and NACOAs differ significantly between adult attachment, locus of control, and intimacy. Specifically, ACOAs demonstrated insecure, fearful avoidant attachment patterns, an external locus of control, and greater fear of intimacy. In contrast, NACOAs exhibited secure adult attachment, an internal locus of control, and lower fear of intimacy. This study lends empirical support to clinical practice pertaining to the constructs of adult attachment, locus of control, and fear of intimacy in ACOAs and NACOAs.
DEDICATION

This dissertation is dedicated to my late father, Klaus-Dieter Peter, who was the most creative and fun-loving spirit whom I have ever encountered. A man with tremendous talents who has taught me the meaning of perseverance. A son who loved his parents and strived to appease them whenever possible. A husband who was a hard worker ensuring that his family was provided for at the cost of his own desires and life goals. A father who thought outside of the box with a vision for many. I hope that I have made you as proud as you have made your parents.
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I. Introduction

Alcohol is one of Western society’s most accepted recreational substances. It is readily available, legal, culturally tolerated, and is the focus of many social gatherings. Despite of its popularity and broad acceptance, the consumption of alcohol can quickly become excessive and maladaptive. Alcohol dependence is a common occurrence that affects the family as a system, not the addict alone. There are approximately 26.8 million adult children of alcoholics (ACOAs) living in the United States; of that, there are about 11 million who are just above the age of 18 (National Association for Children of Alcoholics [NACOA], 2004). The Adult Children of Alcoholics World Service Organization, Inc. (2010) defines ACOAs as “adult men and women who grew up in alcoholic and otherwise dysfunctional homes” (intro, para. 1). Additionally, about 46% of the U.S. population has reportedly been exposed to alcohol dependence in their extended family system at some point in their lives (NACA, 2004). Despite this large percentage, the short- and long-term consequences of growing up in an alcoholic household have often been minimized or disregarded by society, but pervasive problems in ACOAs prompted researchers to focus on how alcohol dependence affects the child in the family system (Hall & Webster, 2002). Children who stem from an alcoholic household oftentimes exhibit cognitive and affective shortcomings, pointing to disruptive development (Hall & Webster, 2002). Resulting from earlier trauma, connected to living in an alcoholic family, the individual, either a child or adult, can then come in contact
with mental health professionals to develop coping skills or to target behavior modification in relation to childhood trauma.

**Statement of the Problem**

A child growing up in an alcoholic household may develop intimacy issues later on in life. Having meaningful, fulfilling relationships with a romantic partner is central to overall life satisfaction; however, high rates of divorce persist (Twenge & King, 2005). According to the National Center for Health Statistics (NCHS) in 2010, which utilized data from 2008 for 44 U.S. states, reported that 2,162,000 marriages existed with a marriage rate of 7.1 per 1,000 total population and a divorce rate of 3.5 per 1,000 population. With a divorce rate of close to 50%, it is inevitable for mental health professionals to address this issue in a proactive fashion, by identifying and addressing early signs of maladaptive intimacy development, particularly in the ACOA population.

Researchers have focused on how being raised with at least one alcoholic parent affects the ACOA’s level of intimacy in romantic and platonic relationships. Kearns-Bodkin and Leonard (2008), for example, examined the impact of both maternal and paternal alcoholism on the relationship functioning of ACOA husbands and wives in the early years of marriage. Kearns-Bodkin and Leonard (2008) found that the quality of the ACOAs’ marital relationship was associated with alcoholism in the opposite gender parent. For husbands, maternal alcoholism was associated with lower marital satisfaction and paternal alcoholism was associated with lower marital intimacy in wives. Kearns-Bodkin and Leonard (2008) concluded that their findings suggest that “children raised in alcoholic families may carry the problematic effects of their early family environment into their adult romantic relationships” (p. 941). Additionally, Watt (2002) examined a
longitudinal survey and analyzed the effect of growing up in an alcoholic family on adult marital and cohabiting relationships. Watt (2002) stated that ACOAs are less likely to marry, and have lower levels of marital quality and stability than non-adult children of alcoholics (NACOAs). Watt (2002) also found relationships that contradicted the standing assumption that female ACOAs are commonly profiled as women exhibiting excessive dependency. The researcher, instead, revealed evidence for relational patterns in female ACOAs that are characterized by distance rather than dependence (Watt, 2002).

One of the reasons why ACOAs have difficulties with intimate relationships relates to their fear of abandonment (Kelley et al., 2005). Woititz (1983) found that inconsistencies, lies, and fear of the unknown within the family system, experienced as a child, contribute to the approach-avoidance view that ACOAs oftentimes exhibit. They express the desire and need to be close while at the same time, desire is also seen as terror, as it is unfamiliar and is a potentially negative experience. These ambiguous feelings can be traced to the basic fear of abandonment, stemming from childhood memories when one or both parents were emotionally and possibly physically unavailable to care for the growing child (Woititz, 1983). As a consequence, basic unfulfilled needs arise and, in turn, can be linked to another occurrence that takes place between the child and the dysfunctional parent, the phenomenon of insecure attachment (Byng-Hall, 2002).

An infant learning to crawl uses parental attachment figures as a secure base to explore from and return to, but this process is oftentimes disturbed when growing up in an alcoholic household. O’Connor, Marvin, Rutter, Olrick, and Britner (2003) found that children who experienced early, severe caregiver deprivation were less likely to securely
attach and more likely to show atypical patterns of attachment behavior. Rees (2008) pointed out that unsatisfactory childhood attachment is costly, affects long-term physical and mental health inclusive of depression and anxiety, heightens biological causes of mortality, and is an important factor underlying intergenerational parenting problems.

Ainsworth and Bowlby (1991) argued that attachment styles remain relatively constant over time and carry over into adulthood when the individual’s romantic intimacy and relationships will be affected by the ACOA’s style. Rholes and Simpson (2004) noted that even though an individual may exhibit a secure or insecure style, it is the relationship between the caregiver and the child, and later the relationship between romantic partners that are classified as reciprocal. Within the romantic relationship, a securely attached person expresses more optimistic expectations, interprets events in a less threatening manner, and exhibits an internal locus of control compared to insecurely attached adults (Mikulincer & Shaver, 2007).

Locus of control refers to the attributions individuals make regarding outcomes of personal consequence (Rotter, 1966). Individuals with an internal locus of control believe that their actions influence outcomes that are relevant to them. On the other hand, individuals with an external locus of control believe that their actions have nothing to do with the actual outcome, and that consequences happen by chance. Parallel to the construct of attachment, Rotter (1966) stated that locus of control also results from a person’s broad expectations of the world. Pistole and Arricale (2003) found that an internal locus of control correlated with being securely attached while an external locus of control correlated with anxious or avoidant attached individuals. Held (2007) reported that attachment offers an explanation for the relational pathologies found among ACOAs.
and identified parenting behaviors that were precursors to the development of insecure patterns of attachment in alcoholic family systems.

ACOAs face long-term consequences even after they leave their parental household as adult attachment and locus of control influence choices that they will make in romantic relationships. Alcohol dependence is a systemic issue and affects family members to various degrees. It is often the case that the needs of ACOAs go undetected and are not adequately addressed. ACOAs, who often experience many years of therapy, report better results when alcoholic family issues have been adequately addressed by utilizing developmental, existential, and systems approaches, as well as non-verbal modalities (Johnson, 2002). Recognizing relevant factors that can contribute to better treatment outcome for this population will aid ACOAs in navigating through intimate relationships.

Analyzing the relationship between romantic intimacy and attachment, as well as locus of control, will assist in clarifying where deficits lie and strengths exist in order to bring awareness to counseling professionals. Attachment of the ACOA has mostly been assessed during childhood (Schroeder et al., 2010) and the concept of locus of control during adulthood (Jacobs-Lawson, Waddell & Webb, 2011). Recognizing and treating maladaptive patterns that can arise from both constructs is important for all phases of life but is integral during mate selection in adulthood.

The present study investigated ACOAs’ and NACOAs’ relationship patterns to examine differences between both groups in regards to the influence of attachment and locus of control on romantic intimacy. At the basis of this study lies attachment theory as
first described by Bowlby (1969) and Ainsworth (1978) and was carried into adult attachment theory by Hazan and Shaver (1987).

**Theoretical Framework**

Attachment and locus of control can contribute to the ACOA’s experience in romantic relationships. Bowlby (1969) described attachment theory as the desire of humans to innately bond, physically and psychologically, with their primary caregiver, which he described as adaptive as well as biologically based. Bowlby’s (1969) research encompassed infants and their mothers, and he identified four stages of attachment: the child’s orientation toward people, discrimination of the caregiver from others, preference for proximity toward the identified caregiver, and the development of a relationship between the child and the caregiver. Bowlby (1969) expressed that the relationship(s) infants have with their primary caregiver aid in the formation of cognitive-affective structures about the self and others as well as expectations about interactions with others, which he coined the “working models.” Shomaker and Furman (2009) described the working models as the basis for attachment styles which relate to expectations, needs, affect, and behavior.

Picking up on Bowlby’s (1969) work, Ainsworth (1978) created the Strange Situation Scenario during which infants were separated from their primary caregiver and reunited shortly after. Depending on the infant’s reaction to the test, the relationship between the child and caregiver was classified as either secure or insecure attachment (i.e., anxious-ambivalent or avoidant). Both Ainsworth (1978) and Bowlby (1969) saw attachment as a pervasive phenomenon that expands over an individual’s lifespan, an occurrence which they coined “attachment stability” (Lopez, 2006).
Hazan and Shaver (1987) investigated adult attachment as it relates to romantic love since they saw romantic love as an attachment process. The researchers pointed out that an adult’s attachment to a romantic partner is different than that of a child to the primary caregiver but acknowledged that the adult attachment process is likely influenced by the individual’s early attachment experiences (Hazan & Shaver, 1987). Resulting from their research, Hazan and Shaver (1987) identified attachment-related anxiety and attachment-related avoidance as insecure attachment patterns. Bartholomew and Horowitz (1991) further expanded Hazan’s and Shaver’s (1987) original definitions and pointed out that securely attached individuals positively evaluate self- and world-view and express only low levels of anxiety and avoidance. As ACOAs tend to exhibit insecure attachment patterns (Jaeger, Becker Hahn, & Weinraub, 2000), their adult romantic connections often suffer as a consequence. Feeney (2002) reiterated that ACOAs who exhibit an anxious or avoidant attachment pattern experience dissatisfying romantic relationships, which contrasts with the experience of NACOAs. Recognizing early attachment patterns that can form the basis for insecure adult attachment is thus crucial and a necessary step to explore in the mental health field.

One approach in understanding the development of unhealthy romantic relationships in ACOAs draws a relationship between attachment and locus of control because both constructs are a function of stability over time. Healthy romantic intimacy improves quality of life in ACOAs and can foster new experiences. Mental health professionals can guide ACOAs through the process of change while utilizing current empirical findings and tools. Awareness of underlying concepts and their significance can
guide the healthcare field toward prevention and wellness while increasing the ACOA’s understanding of innate and adaptive concepts.

Statement of the Purpose

The current mental health literature on ACOAs lacks studies exploring adult attachment and locus of control as functions of romantic intimacy expression in this population. This study examined the relationship between adult attachment and expression of romantic intimacy, locus of control and expression of romantic intimacy, and drew comparisons between the groups of ACOAs and NACOAs. The goals of this study were to promote awareness of intimacy and its consequences on relationship functioning, improve and contribute to an eventual modification of current treatment modalities, and expand the knowledge of mental health professionals who work with ACOAs as this group’s needs often go unmet. In addition, this research adds to existing literature pertaining to romantic intimacy, adult attachment, locus of control, and the ACOA population.

The results of this study contribute to the field of counseling and mental health professionals’ awareness and subsequent choice of treatment modalities when serving ACOAs. The therapeutic process is enhanced by the therapeutic alliance between therapist and client and plays a definite but analogous role (Meissner, 2007). Throughout treatment, the ACOA can learn new adaptive skills that the individual can utilize to positively modify previously expressed shortcomings in romantic relationships. The new behavior changes can lead to improved interpersonal functioning, and it is hoped that long-term consequences will be supported, that is, there will be a reduction of the current divorce rate for the ACOA population. In addition, the study supports adult attachment
theory in that a convenience sample of ACOAs and NACOAs were compared on their capabilities of expressing romantic intimacy in regards to attachment and locus of control.

The purpose of the current study was to support mental health counseling literature as well as to promote understanding in the therapeutic alliance between therapists and ACOAs. Studies are needed to examine the impact of parental alcoholism and its relationship to attachment and locus of control on ACOAs relationship functioning (Kearns-Bodkin & Leonard, 2008). The lack of intimacy in romantic relationships is costly as it impacts the individual, and the romantic partner, in affective, cognitive, social, and often in physiological ways. In order to strengthen intimacy in ACOAs’ relationships, studies exploring underlying constructs that contribute to intimacy expression are needed. These findings can be utilized by ACOAs, with the help of the mental health professional, to identify shortcomings and improve interpersonal relationships and hence intimacy expression.

**Research Questions**

The following questions guided this study:

1. Is there a difference in locus of control, romantic intimacy expression, and adult attachment between Adult Children of Alcoholics and Non-Adult Children of Alcoholics?

2. What is the relationship between insecure adult attachment and romantic intimacy expression, or fear of intimacy, in Adult Children of Alcoholics?

3. What is the relationship between external locus of control and romantic intimacy expression, or fear of intimacy, in Adult Children of Alcoholics?
4. What is the relationship between secure adult attachment and romantic intimacy expression, or fear of intimacy, in Non-Adult Children of Alcoholics?

5. What is the relationship between internal locus of control and romantic intimacy expression, or fear of intimacy, in Non-Adult Children of Alcoholics?

Hypotheses

The following hypotheses were examined in the study:

Hypothesis 1.

H1: There will be a difference in locus of control, romantic intimacy expression, and adult attachment between Adult Children of Alcoholics and Non-Adult Children of Alcoholics.

H01: There will not be a difference in locus of control, romantic intimacy expression, and adult attachment between Adult Children of Alcoholics and Non-Adult Children of Alcoholics.

Hypothesis 2.

H2: There will be a positive relationship between insecure adult attachment and romantic intimacy expression, or fear of intimacy, in Adult Children of Alcoholics.

H02: There will not be a positive relationship between insecure adult attachment and romantic intimacy expression, or fear of intimacy, in Adult Children of Alcoholics.

Hypothesis 3.

H3: There will be a relationship between external locus of control and romantic intimacy expression, or fear of intimacy, in Adult Children of Alcoholics.
Ho3: There will not be a relationship between external locus of control and romantic intimacy expression, or fear of intimacy, in Adult Children of Alcoholics.

Hypothesis 4.

H4: There will be a relationship between secure adult attachment and romantic intimacy expression, or fear of intimacy, in Non-Adult Children of Alcoholics. 
Ho4: There will not be a relationship between secure adult attachment and romantic intimacy expression, or fear of intimacy, in Non-Adult Children of Alcoholics.

Hypothesis 5.

H5: There will be a relationship between internal locus of control and romantic intimacy expression, or fear of intimacy, in Non-Adult Children of Alcoholics.
Ho5: There will not be a relationship between internal locus of control and romantic intimacy expression, or fear of intimacy, in Non-Adult Children of Alcoholics.

Definitions

Adult Child(ren) of Alcoholics: An individual who, as a child in the household, was exposed to and been raised by at least one alcoholic parent (Hussong et al., 2007).

Non Adult Child(ren) of Alcoholics: An individual who, as a child in the household, was not exposed to and been raised by an alcoholic parent.

Adult Attachment: Adult attachment can be grouped into four categories. The secure style of attachment is characterized by low anxiety and low avoidance; the preoccupied style of attachment is characterized by high anxiety and low
avoidance; the dismissive avoidant style of attachment is characterized by low anxiety and high avoidance; and the fearful avoidant style of attachment is characterized by high anxiety and high avoidance (Fraley, Waller, & Brennan, 2000).

**Locus of control:** Locus of control is a generalized belief concerning who or what influences things along a bipolar dimension from internal to external control. Internal control is the term used to describe the belief that control of future outcomes resides primarily in oneself while external control refers to the expectancy that control is outside of oneself, either in the hands of powerful other people or due to fate or chance (Rotter, 1966).

**Romantic Intimacy:** “A person’s ability, and the choice, to be close, loving, and vulnerable” (Carlson & Sperry, 2010, p. 4).

**Adult Romantic Relationship:** A bond between two people, inclusive of same sex and different sex constellations, which leads to a period of dating, cohabitating, or in which the individuals are engaged or married (Mollen & Domingue, 2009).

**Family System:** “Family can be viewed as a social group with various tasks to achieve such as socializing children, maintaining a household, and producing responsible citizens” (Peluso & Kern, 1999, p. 237).

**Mental Health Counselors:** Mental health service providers with a masters degree, trained to work with individuals, families, and groups in treating mental, behavioral, and emotional problems and disorders (Substance Abuse and Mental Health Services Administration [SAMHSA], 2010).
**Delimitations**

The literature review and research design are delimited as follows:

1. Participants must be over the age of 18.
2. Participants must have resided and been raised in a household with at least one alcoholic parent as a child (ACOAs).
3. Participants must not have resided and been raised in a household with an alcoholic parent as a child (NACOAs).
4. Participants must have the cognitive capabilities to complete a condensed measurement of approximately 30 minutes in length.

**Limitations**

Limitations to the study are as follows:

1. A correlational design will be utilized and causality cannot be inferred.
2. The population will consist of a convenience, non-randomized sample of attendees of local self-help group meetings and gatherings in South Florida’s Palm Beach County, thus the sample may not be representative of the population as participants actively sought help through the group setting.
3. Self-report measurements reflect the view of the participants’ perception of constructs measured.
4. Participants may report social desirability responses due to the nature of the topic.
5. Exploration of within-group differences is not given.
6. Assumption that participants stem from a traditional family system.
7. Lack of collateral information contributes to bias.
Summary

Alcohol dependence is an addiction that impacts not only the individual but other systems, specifically the family unit, in physical, affective, and behavioral ways. The ACOA oftentimes exhibits long-term consequences that include difficulties in romantic relationships and challenges in expressing intimacy. This study examined the relationships between capabilities to convey intimacy and adult attachment as well as locus of control in ACOAs and NACOAs. Gaining knowledge about factors that add to intimacy expression will aid mental health professionals in tailoring their treatment modalities and techniques toward the client’s needs. Additionally, the study’s outcome can bring awareness to the ACOA who struggles in romantic relationships and may promote early problem recognition for the therapist. It is hoped that, with increased knowledge and preventative methods, the client and the mental health counselor may achieve improved treatment outcomes that contribute to marital or relationship satisfaction. The following chapter addresses literature that pertains to romantic intimacy, attachment, and locus of control. Furthermore, it outlines the study’s relevance to the field as well as its implications.
II. Literature Review

This chapter will review the literature on (a) adult children of alcoholics (ACOAs), alcohol dependence, and the family system; (b) intimacy and relationship satisfaction; (c) (adult) attachment; and (d) general locus of control. This study examined whether relationships exist between the capability to engage in intimacy and the degree of locus of control as well as intimacy and attachment in ACOAs and Non-Adult Children of Alcoholics (NACOAs).

The Adult Child

Currently, about 28 million children live in alcoholic households (Grant, 2000), and around 22 million Americans are ACOAs (Martin, 1995). The Adult Children of Alcoholics World Service Organization, Inc. (2010) defined ACOAs as “adult men and women who grew up in alcoholic and otherwise dysfunctional homes” (intro, para. 1). In the late 1970s and early 1980s, when poly-substance dependence demonstrated a significant increase within the North American culture, researchers started examining the problems that the post-alcoholic generation faced. Societal distress and demands became evident, and the need for further research arose.

The short- and long-term consequences of poly-substance dependence, specifically alcohol dependence, remain predominant in today’s society. For example, alcoholics negatively affect productivity and are prone to experience chronic medical illnesses such as stroke, diabetes, and heart attacks (Hawkins, Wang, Goetzel, &
Ozminkowski, 2003). Negative outcomes for ACOAs include depression (Chermack, Stoltenberg, Fuller & Blow, 2000), the need for control, exhibiting an external locus of control, as well as expressing relationship dissatisfaction (Beesley & Stoltenberg, 2002). Black (1983) stated that ACOAs experience increased distress, anxiety, somatization, and dysfunctional personality traits as well as maladaptive behavioral patterns, and tend to engage in relationships with chemically dependent partners. Additionally, ACOAs demonstrate atypical intimacy development (Held, 2007). Consequently, this population often carries the maladaptive patterns of intimacy development into their adult romantic relationships (Held, 2007). Beginning in the 1980s, researchers recognized traits that were unique to ACOAs.

**Characteristics of ACOAs.** Woititz (1983) extracted 13 unique characteristics for ACOAs from her clinical interviews and expertise which are outlined in Table 1.

### Table 1

**List of ACOA Characteristics**

<table>
<thead>
<tr>
<th>Characteristics of ACOAs</th>
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<tbody>
<tr>
<td>1. ACOAs guess at what normal behavior is</td>
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<tr>
<td>2. ACOAs have difficulty following a project through from beginning to end</td>
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<tr>
<td>3. ACOAs lie when it would be just as easy to tell the truth</td>
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<tr>
<td>4. ACOAs judge themselves without mercy</td>
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<tr>
<td>5. ACOAs have difficulty having fun</td>
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<tr>
<td>6. ACOAs take themselves very seriously</td>
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<td>7. ACOAs have difficulty with intimate relationships</td>
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<td>8. ACOAs overreact to changes over which they have no control</td>
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<td>9. ACOAs constantly seek approval and affirmation</td>
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<tr>
<td>10. ACOAs usually feel they are different from other people</td>
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<td>11. ACOAs are super responsible or super irresponsible</td>
</tr>
<tr>
<td>12. ACOAs are extremely loyal, even in the face of evidence that loyalty is undeserved</td>
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<tr>
<td>13. ACOAs are impulsive</td>
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</table>
Woititz (1983) found that ACOAs face challenges starting at an early age and that extend into adulthood. Hall and Webster (2002) found that ACOAs had more self-reported stress, more difficulty initiating the use of mediating factors in response to life events, and more symptoms of interpersonal dysfunction than NACOAs. Consequently, ACOAs may develop less effective stress management strategies and present more clinically at-risk patterns of responses than NACOAs (Hall & Webster, 2002). Schroeder and Kelley (2008) discovered that ACOAs may be at greater risk for experiencing difficulty in formulating higher order processes related to behavioral regulation.

Additionally, Ruben (2001) identified the functional and behavioral characteristics that make up the ACOA syndrome which he defined as an enduring pattern and precursor of disorders evident in this patient population. Ruben (2001) furthermore stated that, with adequate usage of treatment modalities, ACOA patterns are predictable, measurable, and treatable in a short amount of time. There are long- and short-term consequences of parental alcohol dependence in this population, ranging from affective and cognitive to behavioral maladjustments. It is therefore necessary to examine the underlying root of these long and short term consequences, alcohol dependence.

Alcohol dependence. It is estimated, that nearly 18 million adults in the United States are alcohol dependent (National Institute on Alcohol Abuse and Alcoholism [NIAAA], 2007). In addition, the numbers of adults and teenagers who engage in risky drinking that could lead to alcohol problems are steadily rising (Walton, 2006). Furthermore, about 53% of men and women in the United States mentioned that one of their close relatives has a drinking problem (NIAAA, 2007). Alcohol dependence is detrimental to societies as the long-term consequences cannot be dismissed. When it
comes to defining alcohol dependence, constructs can culturally vary as populations view alcohol dependence as either a disease process or in a holistic, biopsychosocial context.

**Definition of alcohol dependence.** The Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, text revised (DSM-IV TR) defined substance dependence, inclusive of alcohol dependence, as “a maladaptive pattern of substance use, leading to clinically significant impairment or distress” (American Psychiatric Association [APA], 2000, p. 197). The criteria for diagnosis must be met by three or more of the following, as summarized in Table 2, occurring at any time in the same 12-month period.

Table 2

**DSM IV TR Diagnostic Criteria to Establish Substance/Alcohol Dependence**

<table>
<thead>
<tr>
<th>Three or more of the following must be met:</th>
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<tr>
<td>1. Tolerance as defined by either a need for markedly increased amounts of alcohol to achieve intoxication or markedly diminished effect with continued use of the same amount of alcohol.</td>
</tr>
<tr>
<td>2. Withdrawal as manifested by either the characteristic withdrawal syndrome for alcohol or alcohol is taken to relieve or avoid withdrawal symptoms.</td>
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<tr>
<td>3. Alcohol is often taken in larger amounts or over a longer period than was intended.</td>
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<tr>
<td>4. Persistent desire or unsuccessful efforts to cut down or control use.</td>
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<tr>
<td>5. A great deal of time spent in activities necessary to obtain alcohol.</td>
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<tr>
<td>6. Important social, occupational, or recreational activities are given up or reduced because of alcohol use.</td>
</tr>
<tr>
<td>7. Alcohol is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol.</td>
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The DSM-IV TR utilized a medical model approach in defining alcohol dependence. This model of medicine suggests that every disease process can be explained in terms of an underlying deviation from normal function such as a pathogen, genetic or
developmental abnormality, or injury (Meador, 2005). Miller (1993) challenged the medical or disease perspective, which is commonly used to describe and identify alcohol dependence, and stated that the disease model construes alcohol dependence as a single, incurable, all-or-none disorder caused by biological abnormalities. He proposed an alternative to the disease model that draws its etiologic framework from a public health perspective and coined it an interdisciplinary model (Miller, 1993). Engel (1977) first theorized on the idea of developing a new theoretical framework. Others continued to propose a holistic explanation of alcohol dependence and introduced a bio-psycho-social approach, such as Levin (1989), who was one of the first to expand this idea. The comprehensive approach consists of viewing the alcohol dependent person on a spectrum and in relationship to other components that are integral to life, such as physiological, affective, cognitive, and social domains (Levin, 1989). Nonetheless, the medical model is most often utilized in descriptive data, possibly due to the adherence to and predominance of the disease model in the North American culture. Regardless of which definition cultures utilize, consequences of alcohol dependence are present in all levels of societal structure.

Consequences and costs of alcohol dependence. Alcohol dependence is a phenomenon that affects societies globally and it is known as one of the major societal detriments due to its negative effects on communal resources and impact on economic productivity. Researchers in numerous countries have conducted analyses of alcohol consumption to ascertain the level and consequences of alcohol dependence (Bloomfield, Stockwell, Gmel & Rehn, 2003). Negative outcomes affect society, the family system, and the legal system. For instance, of the total arrests for all crimes in the United States in
2004, nearly 12.5% (1,745,712) were for alcohol-related violations (Hayes & Queler, 2007). Other outcomes are physiological in nature such as the Wernicke-Korsakoff syndrome, which Zubaran, Fernandes, and Rodnight (1997) called “one of the gravest consequences of alcohol as its pathology is often undiagnosed in its less evident presentations” (p. 30). Another domain affected is the systemic level since rising health care costs in recent years have increased financial pressures on the individual and forced policymakers to monitor the costs of health care services, inclusive of alcohol-related treatment, which resulted in many insurance companies excluding mental health and substance abuse benefits from their policies (Bray & Zarkin, 2006).

Independent of the theoretical context or definition, alcohol dependence negatively affects societies across time. Additionally, it influences the interpersonal relationship level, as the societal structure is undergoing a transition due to a marked increase in the number of people addicted to alcohol; consequently, alcohol dependence creates stress on individual family members and the entire family system (Ranganathan, 2004).

**The family system.** With its current societal detrimental outcomes on the systemic level, alcohol dependence is an omnipotent occurrence that affects not only the alcoholic but the immediate surroundings as well. Ranganathan (2004) considered alcohol dependence as a family disease, stating that drinking behavior can interrupt normal family tasks, cause conflict, and create a series of escalating crises in family structure and function. Ackerman and Gondolf (1991), in accordance with the National Association for Children of Alcoholics, reported that about 43% of the U.S. adult population has been exposed to alcohol in the family. Results of national epidemiologic
surveys on alcohol use and related conditions indicated that there has been a significant increase in the number of American adults with alcohol dependence over the past 10 years (Grant, 2000).

The family of the alcoholic is often caught up in the consequences of the disease and also becomes emotionally affected (Woititz, 1983). Family dynamics in terms of boundaries, decision making, and external social networks are less constructive in alcoholic families than in nonalcoholic families (Minuchin, 1974). In order to thrive within the dysfunctional family system, ACOAs develop both adaptive and maladaptive coping patterns to fulfill their basic needs.

**Coping within the alcoholic family.** Compas, Connor-Smith, Saltzman, Thomsen, and Wadsworth (2001) defined coping as “conscious volitional efforts to regulate emotion, cognition, behavior, physiology, and the environment in response to stressful events or circumstances” (p. 89). Coping styles differ as they can be maladaptive or adaptive and are broadly categorized into three areas: task-oriented, emotion-oriented, and avoidance coping (Avero, Corace, Endler, & Calvo, 2003). For example, Klostermann et al. (2011) reported that ACOAs oftentimes use maladaptive, avoidance coping strategies such as behavior disengagement, denial, and substance use. On the other hand, NACOAs more often utilize humor, positive reinterpretation, growth, and planning in order to cope. Additionally, Scavnicky-Mylant (1990) pointed out that ACOAs exhibit a developmental delay in expressing coping strategies compared to NACOAs. Kalra and Baruah (2010) stated that people can unlearn maladaptive coping patterns, and substitute them with positive skills, such as positive reappraisal (reassessing the problem in a positive light), putting in perspective (making a rational assessment of
the impact of the problem), positive refocusing (shifting one's thoughts to pleasant matters), and focusing on planning (using one’s energy to plan for the future, and make the best of the situation).

Within the coping research, another common approach has been to classify coping according to two broad dimensions, such as problem-focused versus emotion-focused coping (Lazarus & Folkman, 1984 as found in Smith et al., 2006). Lazarus and Folkman’s (1984) stress and coping paradigm named coping as cognitive and behavioral responses to events perceived as taxing or harmful to an individual’s well-being. The paradigm entailed two crucial processes: the primary and secondary appraisal. During primary appraisal, the individual examines the need for change and its significance. Secondary appraisal challenges the individual’s beliefs about self-efficacy (Bandura, 1997) and locus of control (Rotter, 1966). The construct of locus of control is the predominant link between an individual’s concept of coping and actual change. It has been shown to be a significant factor in the confidence, and capacity, of individuals to respond to their external environment (Crocker & Sheppard, 2008).

O’Brien and DeLongis (1996) expanded on this idea and examined the roles of situational and personality factors on problem, emotion, and relationship focused responses. The researchers found that situational factors were mostly linked with problem focused and relationship focused coping. Moreover, they found that coping responses were associated with personality dimension of the five-factor model: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness (O’Brien & DeLongis, 1996). An individual’s characteristics are believed to influence the inability or ability to appraise situations realistically, to select the appropriate coping strategy, and to
use it effectively (Folkman & Greer, 2000). Other researchers found that a biopsychosocial model of coping offers a more integrative perspective as it is an expansion of the stress and coping paradigm and incorporates aspects of psychosocial functioning and personality (Lau-Walker, 2004). Regardless of what coping style the individual within the family system exhibits, it is evident that the alcoholic family structure differs from a non-alcoholic structure. Family members within the dysfunctional setting tend to take on distinct roles as part of the coping process.

**Family member roles.** Some researchers developed labels for positions that certain family members would take on as a consequence of living in an alcoholic household. Wegschneider (1981) proposed that the children, in relation to their coping styles, can be categorized as the hero, scapegoat, lost child, or mascot. According to Wegschneider (1981), the hero is usually the oldest child who strives to be the perfectionist of the family. A common belief that this child holds is that if he is perfect, the substance abuser will be cured or will abstain from the alcohol. The hero is frequently an excellent student and caretaker. Superficially, the hero appears to be highly successful, self-sufficient, and well-adjusted but internally feels inadequate as despite the efforts, the alcoholic continues to drink. Typically, the hero’s self-worth requires the approval of others, and he consequently internalizes the family’s shortcomings as a personal failure.

Wegschneider (1981) described the scapegoat as a child who acts out for attention and someone who internalizes the blame. Scapegoats act upon their feelings of anger, hurt, and rejection. The lost child is pictured as quiet, withdrawn and aloof. Lost children do not draw attention and are often overlooked. As a consequence they feel lonely, depressed and rejected. They prefer to be alone, have difficulties maintaining or
establishing interpersonal relationships and are often perceived by others as anti-social. The mascot is usually the youngest child of birth order and is typically the most protected member of the system. The mascot brings fun and humor to the family, and his behavior is rewarded with attention, which creates positive feelings. Often described as a clown, the mascot may remain immature into adulthood and can exhibit difficulties expressing emotions to others.

Lease (2002) found that the coping styles, originally outlined by Wegschneider (1981), seemed to contribute to the development of depressive symptoms in the ACOA through association with rigid or unrealistic beliefs about self-worth and consequent lower levels of self-esteem. Veronie and Fruehstorfer (2001) reported that the process of adapting to one of the coping roles was a childhood effort of the ACOA to satisfy the survival needs of the family system; nonetheless difficulties arise for ACOAs when they strictly adhere to their roles. The ACOA frequently portrays the adapted role inside and outside of the home and carries the learned, maladaptive behavior into adulthood where it will create interpersonal problems in romantic relationships (Veronie & Fruehstorfer, 2001). Another concept that explains ACOAs’ responses to the dysfunctional family setting is the construct of differentiation.

**Differentiation versus fusion.** According to Bowen (1978) family members influence each other, striving to keep a balance and act in a compensatory manner if needed. If one family member functions below the acceptable level, another family member will compensate for the shortcoming. These concepts are especially true for alcoholic families. Researchers found lower overall family health and competence, higher divorce rates, and an association between parental alcoholism and increased levels of
certain types of family dysfunction, inclusive of neglect, domestic violence, and poor communication (Johnson, 2002).

Despite the detrimental affective exposure, some family members are resilient to the maladaptive level of family functioning and competence. Bowen (1978) pointed out that some families are fostering healthy development while others display dysfunction resultant from a process he coined individuation or differentiation. According to Bowen (1978), and as described in his Family Systems Theory model, a well-differentiated individual can establish a sense of self and affective regulation independent of being involved in a relationship. As the first relationship an individual encounters is the family system, the development of differentiation can begin at an early age, but if the individual fails to establish a sense of individuation, difficulties arise in the development of affect regulation (Bowen, 1978). The opposite of individuation, coined as fusion, is the extent to which a person operates in a non-individualized way with another person (Harkins-Craven, 1987). The concept of fusion implies that boundaries are lacking within the system and that it operates on an enmeshed level.

The phenomenon of fusion parallels the dimension of family style as outlined by the Beaver’s Systems model of family functioning. Fusion resembles the centripetal style as “centripetal families view most relationship satisfactions as coming from within the family rather than from the outside world” (Beavers & Hampson, 2000, p. 22). The alcoholic family system displays the inability to balance separateness and togetherness, which are necessary key components in healthy family functioning (Sandau-Beckler, Devall, & De la Rosa, 2002). In her study, Dehn (2010) found that the alcoholic family becomes enmeshed in its need to keep the family’s secret, which teaches the ACOA to
not talk about family affairs and to distrust others while compromising instinct
development and self-trust. In a dysfunctional family system, the child forms the self-
image through emotionally distorted perceptions, influenced by anxiety and high levels of
unpredictability that exist in an alcoholic household (Kerr & Bowen, 1988). The child,
consequently, does not think independently but reacts to the actions of others (Kerr &
Bowen, 1988).

Harter (2000) conducted a review of recent, empirical literature and found that
ACOAs are at increased risk for a variety of negative outcomes, including antisocial or
under-controlled behaviors, depressive symptoms, anxiety disorders, low self-esteem,
difficulties in interpersonal relationships, and generalized distress as well as
maladjustment. For example, ACOAs appeared more likely to report depressive
symptoms than NACOAs across clinical, community, and college samples (Harter,
2000). Additionally, co-morbid parental pathology contributed to the relationship
between parental alcoholism and anxiety. Harter (2000) concluded that studies suggested
an increase in generalized distress and maladjustment among ACOAs, across symptom
and personality dimensions.

Given the nature and multiple negative consequences of alcohol dependence on
the family, and individuals growing up in an alcoholic household, researchers need to
consider components that can affect ACOAs. Interpersonal constructs, such as intimacy
development and attachment, could impact ACOAs long term. Thus, a look at intimacy
style and attachment pattern is warranted.
Intimacy

Intimacy is part of the foundation of adult romantic relationships and a vital component that sustains longevity of the relationship. Gottman and Notarius (2002) emphasized that intimacy is an integral part in marital relationships, and its absence can lead to problems with physical health, separation, and divorce (Dennis, 2006). Having meaningful, fulfilling relationships with a romantic partner is central to overall life satisfaction; however, high rates of divorce persist (Twenge & King, 2005). According to the National Center for Health Statistics (NCHS) in 2010, which utilized data from 2008 for 44 U.S. states, reported that 2,162,000 marriages existed with a marriage rate of 7.1 per 1,000 total population and a divorce rate of 3.5 per 1,000 population. Families and society are affected by this divorce rate of nearly 50% on an affective and economic level. Additionally, not only heterosexual couples are suffering consequences from the lack of intimacy expression. The Department of Health and Human Services (2002) found in a recent study on cohabitation that after 5 to 7 years of intact couples, only 21% of same and different-sex couples were still living together. Intimacy is a predictor of relationship satisfaction for different-sex as well as same-sex couples as the roots of romantic relationships are similar (Mollen & Domingue, 2009). Consequently, negative outcomes of intimacy deficits can exist in all adult romantic relationships.

Some definitions of intimacy are general and vast in nature and are based on the author’s personal interpretation of the meaning of intimacy. Hinde (1978) coined romantic intimacy as “the number of different facets of the personality which are revealed to the partner and to what depth” (p. 378). Others view intimacy as part of a larger theoretical model. Berne (1964) drew his definition from Transactional Analysis.
and called it “the spontaneous game-free candidness of an aware person” (p. 180).

Carlson and Sperry (2010) stated that researchers, as well as clinicians, have difficulty defining intimacy because operational definitions are challenging to formulate. Carlson and Sperry (2010) asserted that intimacy is a dynamic process that evolves over time and promotes self-differentiation, which is defined as the capability of being together as well as separate in an intimate relationship (p. 4). Since there is not a unified description of the construct, intimacy can be viewed as “the ability, and the choice, to be close, loving, and vulnerable” (Carlson & Sperry, 2010, p. 4).

For the purpose of this study, a multidimensional and holistic definition was utilized. Moss and Schwebel (1993) stated that intimacy, in enduring romantic relationships, is “determined by the level of commitment and positive affective, cognitive, and physical closeness one experiences with a partner in a reciprocal, although not necessarily symmetrical, relationship” (p. 42). The researchers’ definition specifies five components of intimacy: commitment, affective intimacy, cognitive intimacy, physical intimacy, and mutuality (Moss & Schwebel, 1993). Thus, this definition encompasses most major components of identification and definitions that have been outlined by researchers in the past, which are thought to be inherent to themes of cognitive, affective, and physical intimacy.

A closer look at what constitutes romantic intimacy is warranted as the level of intimacy that individuals experience within relationships exerts a profound influence on their social development, personal adjustment, and physical health (Moss & Schwebel, 1993). Erikson (1963) stated that intimacy plays an integral role in individuals’ successful passage through developmental stages, solidification of friendships, attainment
of marital happiness, and success in psychotherapeutic encounters. Erikson (1963) additionally stressed that the conflict resolution stage of intimacy versus isolation rests upon the success of sequential advancement through earlier developmental tasks of trust and autonomy. Individuals can fail to proceed through these stages as they are often inhibited by their environment. One unsupportive environment is the alcoholic household which can hinder the ACOA to advance through the stages and potentially suffer intimacy deficiencies in adult romantic relationships.

**Intimacy struggles in ACOAs.** Interpersonal problems have been considered the most critical for ACOAs as difficulty trusting people, fear of abandonment, and fear of being vulnerable has been associated with this population (Woititz, 1985). Lambie and Sias (2005) found, through their research in school settings, that children of alcoholics’ (COAs) dysfunctionality places them at high risk for adverse academic, physiological, emotional, and social consequences. The ACOA exhibits distrust and fear of abandonment early in life, when the COA is encouraged to keep family affairs private and consequently distances oneself from others. As alcohol dependence is a family illness, the COA is consistently exposed to dysfunctional relationship patterns and views those as normal, thus contributing to COAs oftentimes remaining unidentified (Lambie & Sias, 2005).

Martin (1995) reported that ACOAs exhibit intimacy problems, such as getting into early marriages, displaying clinging dependency behaviors, or engaging in sexual promiscuity. Eiden, Edwards, and Leonard (2002) concluded that a predominant proportion of insecure attachment styles exists among ACOAs, resembling findings of infant children of alcoholics. Rutter (1998) stated that the attachment working models of
relationships between the infant and the caretaker are internalized early on in life and result in differential patterns of specific representations regarding the self and others in their adult relationships. Altogether, researchers suggest that ACOAs may carry the problematic effects of their early family environment into their adult romantic relationships.

**ACOAs’ adult romantic relationships.** Martin (1995) examined the relationship between intimacy, loneliness, and openness and related it to ACOAs’ affective functioning. Martin (1995) found that this population experiences significantly less romantic intimacy in relationships than the control group of NACOAs. Watt (2002) analyzed data from the National Survey of Families and Households (NSFH) and found that ACOAs are less likely to marry and, if married, have lower levels of marital quality as well as stability due to distancing themselves from the partner, compared to adults who were not exposed to alcohol problems in their family of origin. Watt (2002) further concluded that ACOAs have characteristics, such as low self-esteem and heightened risk for substance abuse that reflect psychological and behavioral deficiencies. Contrary to some researchers who propose that ACOAs are experiencing relational deficiencies due to over involvement and codependency issues, Watt (2002) found that ACOAs have a tendency to distance themselves from their respective partners and alternatively suggested that codependents are simultaneously enmeshed and disengaged. He defined codependency as “a lack of definition of the self and the tendency to define the self in terms of one’s relationship to others with enmeshed relationships and dysfunctional partners” (Watt, 2002, p. 23).
Kearns-Bodkin and Leonard (2008) worked in collaboration with the National Institute on Alcohol Abuse and Alcoholism in their longitudinal study that encompassed 634 participants. They investigated the impact of both maternal and paternal alcoholism on attachment representations, intimacy, and relationship functioning of both ACOA husbands and wives over the early years of marriage. Collection of data started at the onset of marriage and continued annually until the sixth wedding anniversary. Out of the 634 participants, 379 met the criterion for having been raised in an alcoholic household. The researchers concluded that for both ACOA wives and husbands, marital satisfaction and marital intimacy declined significantly from the time of marriage to the first anniversary but then remained stable across time (Kearns-Bodkin & Leonard, 2008). Additionally, the appraisal of the marital relationship was associated with alcoholism in the opposite gender parent. Kinsfogel and Grych (2004) reported that the results are consistent with the social learning perspective in that researchers argue that the parental relationship is one way adolescents learn about romantic relationships, and they often imitate the behaviors that they see their parents demonstrate in their own romantic relationships. Consequently, adult romantic relationships, and the individual’s satisfaction within the relationship, are oftentimes compromised.

**Relationship satisfaction and intimacy.** ACOAs experience a multitude of affective and interpersonal deficits, such as lower levels of locus of control, depression, and a decline in intimacy, relationship, as well as life satisfaction, which oftentimes lead to separation, divorce, and domestic violence (Hall, Bolen & Webster, 1994). Swett and Marcus (2002) concluded from their empirical findings that specific, emotional components, such as positive affective tone, listening, and understanding serve as
protectors against dyadic violence, yet the researchers asserted that these components are frequently missing in ACOAs’ relationships. One of the reasons why ACOAs are lacking positive factors of interpersonal interaction in their relationship relates to attachment, locus of control, and dysfunctional household patterns, which stem from the family of origin. Taggart-Reedy, Larson, and Wilson (2001) measured dysfunctional family of origin rules in regards to current dating behaviors, dating anxiety, relationship satisfaction, and commitment. The researchers found that dysfunctional family of origin rules were positively related to dating anxiety and negatively related to advancement in dating stages, relationship satisfaction, and commitment in the dating relationships of young adults (Taggart-Reedy et al., 2001). Larson and Reedy (2004) found that young ACOAs, whose family process was negatively affected by parental alcoholism, were likely to report lower dating relationship quality and intimacy than NACOAs whose family process was not negatively affected by parental alcoholism. Additionally, ACOAs’ perceptions of attachments to mothers and fathers, and their later attachments to romantic partners, were consistent predictors of behavioral, cognitive, and social problems, inclusive of less relationship satisfaction (Buckhalt & El-Sheikh, 2003). Greeff and Malherbe (2001) found a positive correlation for both husbands and wives between all the components of experienced intimacy and marital satisfaction. Conclusively, relationship satisfaction and intimacy are simultaneously basic components and key needs that have to be fulfilled in order to sustain a healthy relationship. If unmet, detrimental outcomes, such as divorce and mental as well as physical ailments, affect both the individual and society in form of loss of production, financial burden, and overall decline in collective growth and functioning.
Intimacy originates at a time when the ACOA first develops a bond with the primary caregiver. At this point, the infant learns to build relationships and gains a feeling of trust and reliance on others. If this bond between caregiver and infant is underdeveloped, the ACOA can suffer long term consequences. Thus, the bonding time that occurs at an early age, attachment, has an impact on the ACOA as it is an enduring construct.

Attachment

Bowlby (1969) coined the term attachment to illustrate affect driven bonds that individuals form and maintain because “they are fundamental to feelings of belonging, security, and protection from fear” (p. 31). The researcher described the target persons as attachment figures and stated that the stability of these attachments correlates with one’s mental and physical well-being throughout the entire life cycle (Bowlby, 1969). Ainsworth and Bowlby (1991) reported that the attachment figure forms a secure base from which the individual can freely experience the world, while being assured that a return is possible and comfortable, should this be needed. Bowlby (1969, 1973) outlined that attachment begins in infancy, when the infant needs to be cared for by the primary caregiver who will shape the child’s personality and character, and lasts throughout the lifetime. The primary caregiver, usually the mother, forms a strong bond with the child within minutes of giving birth. Bowlby (1969, 1973, 1980) stated that human beings have a natural instinct and inclination to form and maintain attachments for security reasons as this helps the growing individuals explore the world from a secure base, develop confidence in themselves and their ability to encounter and deal with challenges. Bowlby’s (1969, 1973, 1980) main premise was that attachment developed from the
natural selection process as a protective factor from external dangers and is additionally shaped by experiences and extraneous variables.

In the 1960s and 1970s, Bowlby and Ainsworth developed attachment theory on grounds of clinical situations and observations, namely the strange situation test. Hazan and Shaver (1987), as well as Bretherton (1992), expanded on Bowlby’s and Ainworth’s findings and stated that attachment theory is based on three types: secure, avoidant, and resistant/anxious. The secure type describes an infant who seeks protection or comfort from the mother and receives care consistently. The mother is usually rated as loving and affectionate. The avoidant type of infant tends to pull away from the mother or ignores her as the mother is usually rejecting of the child’s attachment behavior. The resistant/anxious type tends to stay close to the mother who is usually rated as being inconsistent in her care (Fraley & Spieker, 2003). In the 1980s, the disorganized type was identified which characterizes the infant to display mixed behaviors, mirroring the mother’s actions. As life progresses, attachment behaviors, which are originally geared toward the primary caregiver, become directed to people beyond the family. Bowlby (1973) reported that adults will seek proximity to attachment figures at times of adversity and that secure attachment “is a capacity to rely trustingly on others when occasion demands” (p. 359).

**Adult attachment.** The 1980s were the decade during which infant attachment theory was extended to attachment in adults. Thompson (2008) pointed out that “Bowlby’s concept of mental working models of self, attachment figures and the social world has been theoretically generative as a bridge between early relational experience and the beliefs and expectations that color later relationships” (p. 10). Berscheid (2006)
stated that, in adult attachment, marital figures or committed heterosexual and homosexual relationships are perceived as the prototypical indication of adult attachments. Sable (2008) reported that pair-bonds are the most common characterization of adult attachment.

Generally, ACOAs reported more anxious and avoidant behavior in romantic relationships and a more fearful style of general adult attachment (Kelley et al., 2005). Cassidy and Shaver (2008) explained that the secure attachment style results from positive and caring interactions with partners, which fosters the individual’s positive view of self and others and results in ease with intimacy. The anxious-preoccupied type seeks high levels of intimacy and approval to the point that the individual becomes overly dependent on the partner, consequently the view of self is often negative, but the view of others positive. The dismissive-avoidant type desires independence and seeks less intimacy with partners; the view of self is positive and the view of others negative. The fearful-avoidant type wants close relationships, yet has difficulties with trust and emotional closeness, seeks less intimacy as a consequence, and views self and others as negative. The disorganized type presents with inconsistent and confused relationship behavior. ACOAs reported more anxiety and greater avoidance in romantic relationships and a more fearful style of general adult attachment (Kelley, Cash, Grant, Miles, & Santos, 2004).

Sable (2008) explored the concept of adult attachment by integrating Bowlby’s (1980) ethological, evolutionary perspective with new findings from neurobiology and attachment research, and proposed that there exists an attachment behavioral system that operates throughout the lifespan. Other researchers measured similar constructs to adult
attachment but also found that those are enduring concepts. For example, Peluso, Peluso, Buckner, Kern, and Curlette (2009) found that attachment style, and the Adlerian personality construct known as lifestyle, are similar constructs and hence operate similarly. Regardless of which construct is utilized, Sable (2008) expressed that exploration and identification of adult attachment patterns can facilitate identifying maladaptive tendencies, which brings awareness to the helping professional in clinical practice. In order to evaluate the individual’s attachment pattern, it is necessary to analyze the construct more closely. Adult attachment can be measured applying qualitative or quantitative techniques.

**Measuring adult attachment.** Measurement of adult attachment began in the late 1980s and developed into two lines of research (Shaver & Fraley, 2000). One line deals with assessing family of origin dynamics of attachment and utilizes interview procedures. The other line focuses on romantic attachment and employs self-report questionnaires (Rholes & Simpson, 1998). To support the first line, the Adult Attachment Questionnaire (AAQ) was developed (Mikulincer & Shaver, 2007). Additionally, Main, Kaplan, and Cassidy (1985) developed the Adult Attachment Interview (AAI) which served as an extension to Ainsworth’s (1978) strange situation paradigm. The researchers were able to classify adult attachment styles into four categories: secure, preoccupied, dismissing, and fearful (Main et al., 1985). These styles paralleled the infant attachment styles of secure, anxious-ambivalent, anxious-avoidant, and disorganized. The second line was supported by researchers such as Hazan and Shaver (1987) who employed a “three choice” measure. The researchers related the infant attachment styles of secure, ambivalent, and avoidant to romantic relationships of adults and concluded that secure attachments are...
associated with happier relations (Hazan & Shaver, 1987). Both lines were an attempt to first conceptualize and measure adult attachments, yet researchers were improving the existing methods to create a more comprehensive measure. Bartholomew (1990) produced a classification model of adult attachment that he classified dimensionally rather than categorically. The model of self was represented by the anxiety dimension and the model of others by the avoidance dimension. Brennan, Clark and Shaver (1998) based their research on the dimensional model and created the Experiences in Close Relationships Questionnaire (ECR). Fraley et al. (2000) improved on the ECR and created the Experiences in Close Relationships Questionnaire-Revised (ECR-R) to measure adult attachment in adult relationships more precisely. Being able to dimensionally label adult attachment will bring awareness to ACOAs and relationships between adult attachment, intimacy expression, and consequent level of relationship satisfaction can be explored.

**Attachment in ACOAs.** Parallel to attachment theory, Brown (1988) proposed that parental alcoholism, and the degree of family dysfunction in the family of origin, negatively impact the development of positive parental attachments. ACOAs have a less secure attachment organization than NACOAs (Jaeger et al., 2000). Furthermore, ACOAs reported higher needs for control and significantly lower relationship satisfaction (Beesley & Stoltenberg, 2002). Lindgaard (2005) found that ACOAs reported a greater degree of impairment in their families of origin than did NACOAs. In addition, the level of social support was lower or entirely absent in families with an alcoholic parent. The researcher stated that ACOAs were characterized by an increased risk of developing psychological and social distress, exhibited anxiety, depression, eating disorders, suicidal
ideation, low self-esteem and expressed difficulties with intimacy, dependence on others, and exhibited a higher incidence in neuroticism and introversion (Lindgaard, 2005). ACOAs were also more prone to use maladaptive coping strategies and had unstable defense mechanisms. Lindgaard (2005) stated that those relationships indicated that parental alcohol dependence increased the psychological malfunctioning of ACOAs.

Adult attachment style refers to the ability and way the individual relates to other people in intimate relationships. The person operates in accordance with internal working models that depict thoughts about self and others. The working models in turn influence the individual’s appraisal in the coping process which is linked to locus of control. Interpersonal problems in adulthood are predictive and related to the quality of the parental attachment experience. If the individual experiences attachment as a lifelong, developmental phenomenon, which shapes relationships, or the lack thereof, the level of intimacy consequently depends on the person’s ability to trust and rely. When growing up in an alcoholic household, and developing insecure attachments, the level of intimacy is resultantlly compromised. Another construct that relates to coping, locus of control, can influence ACOAs expression of intimacy.

**General Locus of Control**

One of the mediating factors that can influence an ACOA’s perception and experience of intimacy is the concept of general locus of control. Wang, Bowling, and Eschleman (2010) referred to general locus of control as the extent to which one generally attributes rewards to one’s own behavior rather than external occurrences. Rotter (1966) was the first researcher who developed the construct while expanding on social learning theory. Through his paradigm, Rotter (1966) attempted to predict the
likelihood that a person will exhibit a certain behavior. He was one of the first to incorporate a cognitive component to this model and theorized that the extent to which a person believed that his or her behavior could affect the outcome of an event would also contribute to whether the person executed the behavior (Steele & Benson, 2006).

Meyerhoff (2005) described general locus of control as a “matter of placing the responsibility for one's success or failure” (p. 21). If one has a strong internal locus of control, one believes that success or failure is a result of personal sufficient or insufficient efforts (Meyerhoff, 2005). A person with a strong external locus of control, on the other hand, believes that success or failure depends on factors such as luck, fate, circumstances, and the actions of other people (Meyerhoff, 2005). Locus of control has been formulated as a hierarchical construct, while placing general locus of control at the highest level within that order (Chen, Goddard, & Casper, 2004). Underlying construct are components such as health, political, work, and financial locus of control (Chen et al., 2004). General locus of control is chosen as the primary construct for this study as it encompasses multiple components and does not make reference to a specific context.

Researchers support the idea that locus of control can be taught, as well as influenced, by the family system in childhood. Post and Robinson (1998) stated that COAs, ages 9 to 15, report an external locus of control more often than children who are raised in non-alcoholic households, as they generally feel less personal responsibility for, and less control over, the events that shape their daily lives. This feeling of being under the control of others generally leads to a lack of initiative and achievement in maneuvering the world to one’s advantage (Post & Robinson, 1998). A person’s locus of control can influence the individual’s choices and life decisions. Locus of control is not a
fixed or invariant construct, but rather a component that is responsive to an individual’s experiences, circumstances, and level of development (Steele & Benson, 2006). Locus of control is related to a variety of variables, which include quality of parent-child relationships (Campis, Lyman, & Prentice-Dunn, 1986), marital problem solving, and functioning in general personal relationships (Miller, Lefcourt, & Ware, 1983).

**Locus of control and interpersonal functioning.** Locus of control may influence interpersonal relationships since people with an internal locus of control usually possess better social skills (Ringer & Boss, 2000) and seek instrumental social support (Ng, Sorensen, & Eby, 2006). Ashby, Kottman, and Draper (2002) stated that an external locus of control was a significant inverse predictor of Adler’s (1937) concept of social interest. Pannells and Claxton (2008) found a significant difference on the happiness measure for those individuals with internal locus of control versus those with external locus of control, as participants with an internal locus of control were significantly happier with their lives. Hexel (2003) found that subjects with an internal locus of control reported more confidence, which was positively correlated with a secure attachment style. Exhibiting an internal locus of control was additionally positively associated with different components of interpersonal functioning, such as physical functioning and general health as well as returning to work after vocational rehabilitation (Selander, Marnetoft, Asell, Selander, & Millet, 2008).

Another domain that is oftentimes influenced by a person’s locus of control is the component of friendship and relationship satisfaction. Morry (2003), for example, examined same sex friendships and found that for female friendships, perceptions of the friend’s external locus of control predicted dissatisfaction. Morry and Harasymchuk
(2005) expanded on these findings and found that women’s perceptions of their same-sex friend's external locus of control predicted higher reports of their own and perceptions of the friend’s use of destructive problem-solving behaviors. Goodarzi, Farahani, and Farzad (2004) investigated how locus of control influenced participants’ marital satisfaction. The researchers found that, for both husbands and wives, marital satisfaction increased if both partners exhibited an internal locus of control (Goodarzi et al., 2004). Myers and Booth (1999) argued that an internal locus of control is a personal resource, and coping style, that buffers the deleterious effects of marital problems and may locate individuals in strong or weak marriages.

**Locus of control and coping.** When people are confronted with stress they face two challenges: meeting the requirements of the stress situation and protecting the self from psychological disorganization (Lazarus, 2000). When people feel competent to handle stress, they may opt for problem-focused coping, but when they doubt their own competencies, emotion-focused coping may prevail (Lauer, de Man, Marquez, & Ades, 2008). Those who use problem-focused coping likely approach stress as a problem to be solved and consequently move from merely thinking and worrying about their difficulties to actively taking steps to deal with them, thereby reducing stress (Lauer et al., 2008). This paradigm of problem focused versus emotion focused coping, created by Lazarus and Folkman (1984), entailed the process of primary and secondary appraisal. The individual examines the need for change and its significance in the primary appraisal process. During secondary appraisal, the individual takes action toward change which challenges the individual’s beliefs about self-efficacy (Bandura, 1997) and locus of control (Rotter, 1966). The construct of locus of control is the predominant link between
an individual’s concept of coping and actual change. It has been shown to be a significant factor in the confidence, and capacity, of individuals to respond to their external environment (Crocker & Sheppard, 2008).

Individuals can express an internal or external locus of control in relation to coping style. Exhibiting an external locus of control oftentimes limits the individual’s coping. External individuals use fewer problem-solving methods when dealing with stress (Liu et al., 2000). For example, Mulhern, Joseph, and Brown (2002) found that among 248 male firefighters, greater psychological distress was associated with greater frequency of incident-related negative emotions, external locus of control, less problem- and emotion-focused coping, and greater avoidance coping. Additionally, an external locus of control has been found to be associated with higher levels of suicidal risk (Evans, Owens, & Marsh, 2005). Researchers found that ACOAs oftentimes exhibit an external locus of control and that avoidance coping is frequent in this population (Johnson, 2002). Parental alcohol dependence is a form of child maltreatment and contributes to adult adjustment problems, such as fostering an external locus of control (Melchert, 2000). Conclusively, several researchers have reported that COAs, as well as ACOAs, are more likely to have an external locus of control (Bowers, 1988; Clair & Genest, 1987; Kern et al., 1981).

Exhibiting tendencies of the intrapersonal construct of external locus of control negatively impacts the individual’s concept of coping and actual change. The individual is less adaptive and responsive to the external environment and other people, specifically to romantic partners. Hence, the person’s intimacy expression and behavior in the romantic relationship is negatively affected, leading to relationship dissatisfaction and
increased dissolution as well as divorce rates. Investigating the relationship between adult attachment and locus of control on romantic intimacy is necessary to promote awareness for mental health professionals and ACOAs alike.

Summary

Alcohol dependence is a disease that is marked by consuming extensive amounts of alcohol over a prolonged period of time. It can be viewed as a systemic disease as its effects extend well beyond the individual. The alcoholic, through behavior, impacts the family, especially the children, negatively, which alters the family dynamic. As the children grow up in this detrimental and neglectful environment, difficulties forming bonds with others arise. They have learned to distance themselves emotionally and intimacy development is, consequently, compromised.

It is necessary to explore underlying constructs that are contributing to the formation of intimacy, namely adult attachment and locus of control. Comparing results for ACOAs and NACOAs will aid with the clarification of the differentiation process for both populations. This study aids in the elucidation of the relationship between mediating variables and development and expression of intimacy.

The following chapter introduces the research methodology that was applied to the proposed study inclusive of research design, participants, instrumentation, procedures and data collection, as well as data analysis.
III. Methodology

This study explored intimacy expression in adult children of alcoholics (ACOAs) as it relates to attachment and locus of control. Additionally, the results of the study can contribute to the mental health counseling literature to foster awareness of contributing factors, such as attachment and locus of control that can affect intimacy development in ACOAs and non-adult children of alcoholics (NACOAs). Although there exists research on constructs that can impact intimacy development for these populations, specific variables (i.e., attachment and locus of control), have yet to be assessed (Crowell, Olmsted, & Waters, 2003). Furthermore, the outcomes of the study can guide the therapeutic alliance, of client and therapist, into awareness of the dynamic between the ACOA’s intimacy expression in relationship to attachment and locus of control. Given this knowledge, the mental health counselor can tailor the treatment approach toward ACOAs’ needs to improve relationship satisfaction. In order to provide a description of the participants and the sample chosen, demographics were collected which included some identifying data such as sex, ethnic background, age, and relationship status.

Further research is needed to improve treatment modalities for specific needs of ACOAs. With new knowledge resulting from this study, mental health professionals can promote healthy intimacy expression and relationship functioning in this population. This chapter addresses the methods used in this study to measure relationships between attachment, locus of control, and intimacy. Areas discussed in the chapter include
participants, research design, instrumentation, demographic and socioeconomic information, data collection procedures, research questions and hypotheses, as well as data analysis.

**Participants**

The sample of interest for this study stems from populations of adults who have either been raised in an alcoholic household, the ACOA sample, and adults who have not been raised in an alcoholic household, the NACOA sample. To qualify for the study, participants must have met the following criteria: (a) 18 + years of age, and (b) either have been raised in an alcoholic household with at least one parent having been an active alcoholic during upbringing, or not have been raised in an alcoholic household during upbringing. G*Power 3 analysis revealed that a sample size of 107 participants for both ACOA and NACOA populations (total 214) were needed, given the two predictor variables of adult attachment and locus of control as well as an effect size of 0.15, alpha of 0.05, and power of 0.95 (Faul, Erdfelder, Lang, & Buchner, 2007). The actual total sample size was 224, with 108 ACOAs and 116 NACOAs.

A convenience, non-randomized sample was utilized to conduct the study. Participants were drawn from local Palm Beach County self-help group meetings, gatherings, workshops, and health fairs sponsored by a nonprofit organization, the Mental Health Association of Palm Beach County. Some gatherings, namely Al-Anon meetings, were designed for people who have been affected by alcoholism in a variety of settings but most often within the family system. Groups were composed of ACOAs, siblings, parents, grandparents of the alcoholic as well as advocates who were not affected by an alcoholic individual but who lend support to others. As both populations that are of
relevance for this study were represented in the meetings, the samples were drawn from group attendees as well as individuals attending workshops and health fairs. Support groups organized for teenagers (Alateen) were excluded from sampling due their not meeting age criteria for study participation. Al-Anon meetings are nonprofit, not led by a professional, and services are given by members voluntarily. Al-Anon was established in 1951 and is internationally recognized (Roth & Tan, 2007). Both ACOA and NACOA samples consisted of diverse participants.

State Health Facts (2010) reported that Floridians are composed of 15% African American/Black, 60% Caucasian/White, 21% Latino/Hispanic, and 4% Other. Specifically, South Florida’s Palm Beach County is characterized by the following ethnic data as outlined by the U.S. Census Bureau (2010): Palm Beach County has a population of 1,320,134 (73.5% White, 17.3% Black, and 19.0% of Hispanic or Latino origin). The ethnicity distribution for the sample in this study resembled the one for the statewide norm for Florida. Participants were categorized as 18.8% African American/Black, 51.8% Caucasian/White, 23.7% Latino/Hispanic, 0.9% Asian, and 4.9% Other.

Additionally, the total sample of 224 participants included 132 female, 91 male, and 1 transgender individual. Participants’ ages ranged from 19 to 75 years with a mean age of 43.59 years ($SD=13.58$). Specifically, NACOAs mean age was 43.68 years ($SD=13.26$) and ACOAs mean age averaged 43.49 years ($SD=13.98$). Overall participants’ longest relationships ranged from 1 to 46 years with a mean length of 11.42 years ($SD=8.81$). Table 3 outlines the results for this study’s demographics.
Once FAU IRB approval was received, data collection began shortly thereafter.

Support groups differed in size by location, but on average group attendance ranged from...
6-15 people. Meetings were held on a daily basis, depending on location, and group times as well as length of meetings were determined by the group on a collective basis. Workshops were held once weekly and the health fair took place once during the data collection phase.

**Research Design**

This study utilized a correlational design. The participants completed a 134-item survey that inquired about respondents’ demographics (specifically sex, relationship status, cohabitation status, length of longest relationship, age, and ethnic background), adult attachment style, level of locus of control, and capacity of intimacy expression. Consequently, the variables for the study are listed below.

**Independent variables.**

1. Level of locus of control which ranges on a spectrum from external to internal.
2. Adult attachment style which ranges from insecure to secure.

**Dependent variable.**

1. Level of intimacy expression in adult romantic relationships.

**Instrumentation**

To differentiate between ACOAs and NACOAs, all participants initially completed a demographic questionnaire to obtain general data (sex, relationship status, cohabitation status, length of longest relationship, age, and ethnic background) as well as the Children of Alcoholics Screening Test (CAST) to decide into which category each individual fell. Additionally, participants were asked to complete three instruments which included the Experiences in Close Relationships – Revised (ECR-R) questionnaire, Rotter’s Locus of Control Scale (LOC), as well as the Fear of Intimacy Scale (FIS). All
measurements were synthesized into one questionnaire with a total of 134 questions, which took the subjects about 20-30 minutes to complete. The following section will describe information relating to each instrument utilized.

The Children of Alcoholics Screening Test (CAST). The CAST is a 30-item instrument that was developed by Pilat and Jones (1984) in order to facilitate the identification of ACOAs. Scores are interpreted by total number of “yes” answers whereby a combined number of 0-1 demonstrates that the parent is most likely not an alcoholic but might suggest problem drinking (Pilat & Jones, 1984). Scores of 2-5 “yes” answers point to problematic parental drinking behavior, while the person completing the questionnaire could be categorized as an adult child of a drinker or potentially an alcoholic. Answers marked with 6 “yes” responses indicate that the individual is more than likely the child of an alcoholic (Pilat & Jones, 1984). For the purpose of this study, individuals with a score of 6+ were included in the ACOAs group and individuals with scores of 0-1 were included in the NACOAs group. Participants who answered with 2-5 “yes” responses were excluded from the study.

Sheridan (1995) conducted a study to investigate if there were significant differences of CAST scores between clinical (ACOAs) and non-clinical (NACOAs) participants. Sheridan (1995) did not find significant differences in his population of 214 (140 ACOAs and 74 NACOAs), composed of 149 women and 65 men, with a mean age of 35.16 +/- 8.17 years. The researcher stated that he found a Cronbach’s alpha of .98 and discriminant validity of .82 (Sheridan, 1995). Clair and Genest (1992), who utilized the CAST in their studies with children of alcoholics, reported high internal consistency (.88 and .90) and test-retest reliability (.88).
The Experiences in Close Relationships – Revised (ECR-R). The Experiences in Close Relationships-Revised (ECR-R) Questionnaire was developed by Fraley et al. (2000). The ECR-R is a 36-item self-report attachment measure whose items were derived from an item response theory (IRT) analysis of most of the existing self-report measures of adult romantic attachment anxiety (model of self) and avoidance (model of others). Like the ECR, the ECR-R yields scores on two subscales, avoidance (or discomfort with closeness and discomfort with depending on others) and anxiety (or fear of rejection and abandonment). Instructions for participants include that the statements demonstrated in the questionnaire relate to how they feel in emotionally intimate relationships and that the items pertain to general experiences, not necessarily happenings in a current romantic relationship.

The first 18 items of the instrument pertain to the attachment-related anxiety scale, whereas the last 18 items relate to the attachment-related avoidance scale. Some researchers have randomized the order in which the items are presented, but this study kept the questions of the survey in the original order. Each of the 36 questions was rated on a 7-point scale where a score of 1 indicates “strongly disagree” and a score of 7 demonstrates “strongly agree.” In order to calculate an overall score for the attachment-related anxiety scale, one averages a participant’s responses for items 1 – 18. Two items, questions 9 and 11, are reverse scored indicating that less anxiety is expressed through higher scores which stands in contrast to all other questions of the scale. Hence, one needs to reverse the answers to those two questions before averaging the responses. To obtain a total score for the attachment-related avoidance scale, one averages a participant’s responses for items 19 – 36, whereby questions 20, 22, 26, 27, 28, 29, 30,
31, 33, 34, 35, and 36 are reverse-scored. Peluso et al. (2009) as well as Sibley and Liu (2004) found that the estimate of internal consistency reliability tends to be .90 or higher for the two ECR-R scales.

Rotter’s Locus of Control Scale (LOC). The most commonly used measures of locus of control are Rotter's Locus of Control Scale (LOC) and Nowicki and Strickland’s Internality-Externality Scale (NSIE). Beretvas, Suizzo, Durham, and Yarnell (2008) conducted a reliability generalization study to explore variability in LOC and NSIE score reliability and found that results indicated no statistically significant difference in the predicted internal consistency estimate for LOC versus NSIE scores of 0.71. Rotter (1966) reported test-retest reliability of 0.83 and internal consistency of 0.79. Generally, researchers have supported Rotter’s norm sample, but Gross and Nerviano (1972), for example, found mean LOC scores of 7.35 +/- 3.72 in their population of 266 White alcoholic males with a mean age of 42.0. These mean scores were lower than Rotter’s norms which pointed to slightly higher internalization (Gross & Nerviano, 1972).

The LOC is chosen for this study as the questionnaire has fewer items than the NSIE but is as comprehensive. The LOC is a 29-item, unidimensional questionnaire developed by Rotter (1966). It measures responses pertaining to internal (internal scale) versus external (external scale) control of reinforcement. Participants with an internal locus of control believe that their own actions determine the rewards that they obtain, while those with an external locus of control believe that their own behavior does not matter much and that rewards in life are generally outside of their control. Scores can range from 0 to 23, whereby scores in the lower spectrum manifest an external control while scores in the higher range indicate internal control. This version of the LOC, and its
scoring pattern, was utilized in the study. Additional, modified versions of the LOC score the items in the reverse order, whereas a low score points to internal control and a high score suggests external control.

The LOC questionnaire utilized in this study has 29 items with either “a” or “b” choices but only 23 of the items are actually scored thus leaving 6 filler items. The filler items were incorporated to disguise the scale’s purpose and to guard against social desirability. Forte (2005) reiterated that there are six filler items used to mask the intent of the questionnaire, thus a score of 23 represents being extremely internal in nature and a score of zero means extremely external in nature.

**Fear of Intimacy Scale (FIS).** The Fear of Intimacy Scale (FIS), developed by Descutner and Thelen (1991), is a 35-item self-evaluation that assesses an individual’s level of fear of intimacy. This test can measure this level even if the individual is not currently in a relationship. A high score represents a high level of fear of intimacy. The instructions ask the participant to imagine that he/she is in a close, dating relationship (Questions 1-30). The participant will need to respond to the statements as he/she would if he/she was in that close relationship, with “O” referring to the person who would be in the close relationship with the participant. Answers are rated on a Likert-type scale, from 1-5, with 1 being “not at all characteristic of me” and 5 being “extremely characteristic of me”. Questions 31-35 pertain to past relationships that the participant experienced.

Ingersoll, Norvilitis, Zhang, Jia, and Tetewsky (2008) conducted a study with participants in China ($n = 343$) and the United States ($n = 283$) to assess the reliability and validity of the FIS with a Chinese population. Internal consistency was strong in both cultures (Chinese sample .88 and American sample .92), and the factor structure was also
similar between cultures, with confirmatory factor analysis (CFA) supporting a three-factor model in both samples. Descutner and Thelen (1991) viewed fear of intimacy as being composed of a three-factor model: content (disclosure of personal information), emotional valence (the strong feelings about the personal data communicated), and vulnerability. Ingersoll et al. (2008) supported the three-factor model and Hook, Gerstein, Detterich, and Gridley (2003) stated that the FIS is a valid and reliable measure that targets an all-encompassing definition of intimacy. Descutner and Thelen (1991) reiterated that the construct of fear of intimacy is comprised of three factors, but the researchers argued that the FIS is nonetheless unidimensional. Descutner and Thelen (1991) stated that test-retest reliability and internal consistency for the FIS were 0.89 and 0.93 respectively. Doi and Thelen (1993) found that scores in their study ranged from 35 to 136, with a mean score of 79.58 and a standard deviation of 21.57. Additionally, the researchers stated that there were no gender differences on the FIS and they also reported high internal consistency of .92.

**Procedure**

Post FAU IRB approval, ACOAs and NACOAs were asked to complete the 134-item questionnaire to aid in raising clinical awareness as to what the relationship is between the constructs of attachment and locus of control and intimacy expression in adult romantic partnerships. The investigator approached potential participants who came to the Mental Health Association of Palm Beach County to attend self-help groups, gatherings, or a health fair. Potential participants were provided with a written outline and explanation of the study. The same information, in form of a flyer (Appendix A), was placed at the various meeting locations and offices of the Mental Health Association of
Palm Beach County. The instrument was distributed in person, by the investigator, at local meetings, gatherings, and a health fair in South Florida’s Palm Beach County. The survey consisted of the consent form, the demographic section, the Children of Alcoholics Screening Test (CAST), the Experiences in Close Relationships-Revised questionnaire (ECR-R), the Rotter’s Locus of Control scale (LOC), and the Fear of Intimacy scale (FIS) (Appendices B-G).

Three meeting locations were utilized to collect data for this study. The support staff who worked in all of the three locations were briefed about the study. Personnel did not answer potential participants’ specific questions in regards to the study but rather referred inquiries, as indicated in the flyer, directly to the investigator. When a potential, voluntary participant acknowledged willingness to participate in the study, the investigator discussed the procedures and explained the nature of the consent form, including participant’s right to withdraw without consequences, to the participant. The participant would then sign the consent form and receive an additional copy for his records. It was estimated that each participant required 20-30 minutes to complete the survey. Some participants took longer than the estimated time to complete the survey, depending on their level of reading comprehension, eye sight, and understanding of the questions.

Treatment fidelity was maintained in that solely the researcher handled the data collection and distributed the questionnaires personally. This procedure was implemented to monitor and enhance the reliability and validity of the study. Participants were placed in a separate room, away from the general meeting areas, to ensure privacy and confidentiality. The participants were made aware that the researcher was available for
further clarification, if needed, in the office adjacent to the participant’s office. After survey completion, the participant would return the surveys to the researchers at which point the researcher, once again, acknowledged the privacy and confidentiality of the information obtained. IRB guidelines were upheld and each participant was assigned a number for identification in the computer spreadsheet. The individual paper records are stored in a locked cabinet, whereas electronic data is stored on a password-protected computer. During the 2-month data collection phase, participants were made aware that results of the study would be made available to them via flyers at the local meetings once data compilation ceased. Additionally, due to the sensitive nature of the study, participants were informed of options for follow up care (referral to community agencies were given), if desired, as well as implications for future research. Monetary or material compensations were not given to participants.

Research Questions

The following questions guided this study:

1. Is there a difference in locus of control, romantic intimacy expression, and adult attachment between Adult Children of Alcoholics and Non-Adult Children of Alcoholics?

2. What is the relationship between insecure adult attachment and romantic intimacy expression, or fear of intimacy, in Adult Children of Alcoholics?

3. What is the relationship between external locus of control and romantic intimacy expression, or fear of intimacy, in Adult Children of Alcoholics?

4. What is the relationship between secure adult attachment and romantic intimacy expression, or fear of intimacy, in Non-Adult Children of Alcoholics?
5. What is the relationship between internal locus of control and romantic intimacy expression, or fear of intimacy, in Non-Adult Children of Alcoholics?

Hypotheses

The following hypotheses will be examined in the study:

**Hypothesis 1.**

H1: There will be a difference in locus of control, romantic intimacy expression, and adult attachment between Adult Children of Alcoholics and Non-Adult Children of Alcoholics.

Ho1: There will not be a difference in locus of control, romantic intimacy expression, and adult attachment between Adult Children of Alcoholics and Non-Adult Children of Alcoholics.

**Hypothesis 2.**

H2: There will be a positive relationship between insecure adult attachment and romantic intimacy expression (measured by high scores on the FIS), or fear of intimacy, in Adult Children of Alcoholics.

Ho2: There will not be a positive relationship between insecure adult attachment and romantic intimacy expression (measured by high scores on the FIS), or fear of intimacy, in Adult Children of Alcoholics.

**Hypothesis 3.**

H3: There will be a relationship between external locus of control (low scores on the LOC) and romantic intimacy expression (high scores on the FIS), or fear of intimacy, in Adult Children of Alcoholics.
Ho3: There will not be a relationship between external locus of control (low scores on the LOC) and romantic intimacy expression (high scores on the FIS), or fear of intimacy, in Adult Children of Alcoholics.

**Hypothesis 4.**

H4: There will be a relationship between secure adult attachment and romantic intimacy expression (low scores on the FIS), or fear of intimacy, in Non-Adult Children of Alcoholics.

Ho4: There will not be a relationship between secure adult attachment and romantic intimacy expression (low scores on the FIS), or fear of intimacy, in Non-Adult Children of Alcoholics.

**Hypothesis 5.**

H5: There will be a relationship between internal locus of control (high scores on the LOC) and romantic intimacy expression (low scores on the FIS), or fear of intimacy, in Non-Adult Children of Alcoholics.

Ho5: There will be a relationship between internal locus of control (high scores on the LOC) and romantic intimacy expression (low scores on the FIS), or fear of intimacy, in Non-Adult Children of Alcoholics.

**Data Analysis**

The present correlational study examined outcomes of adult attachment and locus of control on intimacy expression in ACOAs as well as NACOAs. Demographic data were collected from the participants. An analysis of the demographic data was conducted to derive standard deviations and means of both sample groups. In addition the study utilized a multivariate analysis of variance (MANOVA) and analyses of variance
(ANOVAs) to explore the relationships between the constructs as well as between both groups. Thereafter, correlation analyses, specifically stepwise regression analyses were performed to investigate the study hypotheses. Thus, a MANOVA, a series of ANOVAs, and stepwise regression analyses were performed to answer the research hypotheses. Specifically, the independent variables of attachment and locus of control were tested against the dependent variable of intimacy expression in both the ACOA and NACOA sample. To conclude, a post hoc analysis, in form of a discriminant function analysis, was performed to investigate if locus of control and fear of intimacy can adequately predict adult attachment group membership.

Five potential participants were not included in the data collection as they decided against survey completion after having read the consent form or completed the demographic section. This study did not include missing data as all participants completed the questionnaires in their entirety. If there would have been missing data, which reduces the representativeness of the sample, two methods would have been utilized depending on the amount and nature of the gaps. If the sample size would be been larger, missing data would have been handled through listwise deletion. Even though this method decreases the sample size and power, it also leads to unbiased parameter estimates (Van Ginkel, Sijtsma, Vermunt, & Van der Ark, 2010). Since the sample size was adequate, with 224 participants, the method of mean substitution would have been utilized.

**Summary**

Participants were asked to complete a 134-item survey that investigated the relationship between adult attachment, locus of control, and intimacy expression in adult
romantic relationships. The results can bring awareness to ACOAs and NACOAS and benefit their relationship functioning. In the therapeutic alliance with the mental health professional, ACOAs can explore skills on how to improve romantic intimacy and experience more satisfying romantic relationships in adulthood. Chapter 4 summarizes the results from the data collected as well as a description of statistical applications utilized.
IV. Results

The purpose of this study was to investigate the relationships of adult attachment, locus of control, and romantic intimacy in Adult Children of Alcoholics (ACOAs) and Non-Adult Children of Alcoholics (NACOAs). This chapter reports demographic data for participants, descriptive statistics for each instrument with mean scores, standard deviations, validity measures, and correlations between the variables. Furthermore, the outcome for the multivariate analysis of variance (MANOVA), and the series of the analysis of variance (ANOVAs) with accompanying boxplots attend to the first hypothesis. Thereafter, the results for stepwise regression analyses address the latter four hypotheses. Finally, a post hoc analysis in the form of a discriminant function analysis, in combination with mean splits, outlines identified patterns of the predominant adult attachment styles, while the demographic analytic section illuminates commonalities and differences between participants.

Demographic Data of Participants

At the onset of analyses conductions, the data set was scrutinized for missing values and precision of values entered. The sample consisted of 224 participants, 116 NACOAs and 108 ACOAs. Out of the 224 participants, 132 were female, 91 were male, and 1 was transgender. Participants completed a short demographic questionnaire, the Children of Alcoholics Screening Test (CAST) developed by Pilat and Jones (1984), the Experiences in Close Romantic Relationships Questionnaire – Revised (ECR-R) created
by Fraley et al. (2000), Rotter’s Internality-Externality Questionnaire (LOC) established by Rotter (1966), and the Fear of Intimacy Scale (FIS) developed by Descutner and Thelen (1991). Two potential participants read the consent form and viewed the questionnaire but decided against participation in addition to three potential participants who started to complete the survey but aborted questionnaire completion after the demographic portion. Hence, these five potential participants were not included in the data collection. Consequently, 224 participants were included in the analyses of this study.

Descriptive Statistics for Instruments

Descriptive statistics were calculated for each instrument utilized in this study. All analyses were conducted with the PASW 18 (2010) statistical package. The alpha level was set at .05, resulting in a confidence interval of 95% for all analyses. The scoring protocol, as previously outlined in Chapter 3, was upheld and arithmetic mean scores were calculated for each instrument. Results for the descriptive statistics for the Experiences in Close Romantic Relationships – Revised questionnaire (ECR-R) subscales of anxiety and avoidance, Rotter’s Locus of Control scale (LOC), and the Fear of Intimacy scale (FIS) are outlined (see Table 4). Higher scores indicate an increased level of the construct measured with the exception of the LOC whose higher scores indicate an internal locus of control and lower scores demonstrate an external locus of control.
Table 4

*Central Tendency Measures of Adult Attachment, Locus of Control, and Fear of Intimacy for ACOAs and NACOAs*

<table>
<thead>
<tr>
<th>(N)ACOA</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECR-R Anxiety</td>
<td>NACOA</td>
<td>116</td>
<td>41.18</td>
</tr>
<tr>
<td>ACOA</td>
<td>108</td>
<td>71.40</td>
<td>28.97</td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>55.75</td>
<td>30.14</td>
</tr>
<tr>
<td>ECR-R Avoidance</td>
<td>NACOA</td>
<td>116</td>
<td>39.47</td>
</tr>
<tr>
<td>ACOA</td>
<td>108</td>
<td>75.60</td>
<td>29.53</td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>56.89</td>
<td>30.10</td>
</tr>
<tr>
<td>LOC</td>
<td>NACOA</td>
<td>116</td>
<td>14.68</td>
</tr>
<tr>
<td>ACOA</td>
<td>108</td>
<td>10.50</td>
<td>5.30</td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>12.67</td>
<td>5.30</td>
</tr>
<tr>
<td>FIS</td>
<td>NACOA</td>
<td>116</td>
<td>166.89</td>
</tr>
<tr>
<td>ACOA</td>
<td>108</td>
<td>209.86</td>
<td>36.07</td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>187.61</td>
<td>36.77</td>
</tr>
</tbody>
</table>

*Note. N* = number; *M* = mean; *SD* = standard deviation.

Correlations for the instruments and the combined sample of the 224 participants were also drawn, and Table 5 displays the results.
Table 5

*Correlations and Significance Levels Between Instrument Variables*

<table>
<thead>
<tr>
<th></th>
<th>ECR-R Anxiety</th>
<th>ECR-R Avoidance</th>
<th>LOC</th>
<th>FIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiences in Close Romantic Relationships-Revised Anxiety (ECR-R Anxiety)</td>
<td>1.00</td>
<td>.65**</td>
<td>-.48**</td>
<td>.61**</td>
</tr>
<tr>
<td>Experiences in Close Romantic Relationships-Revised Avoidance (ECR-R Avoidance)</td>
<td></td>
<td>1.00</td>
<td>-.49**</td>
<td>.87**</td>
</tr>
<tr>
<td>Rotter’s Locus of Control Scale (LOC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear of Intimacy Scale (FIS)</td>
<td></td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note.** Correlation is significant at the .01 level (2-tailed).*

As an estimate of internal consistency, Cronbach’s alpha was determined to demonstrate reliability of the individual instruments utilized in this study. The alpha coefficient for the ECR-R anxiety scale was .96, for the ECR-R avoidance scale .97, the Rotter’s Locus of Control scale .85, and the Fear of Intimacy scale .98. Previously reported internal consistency ranges were .90 or higher for the two ECR-R scales (Peluso et al., 2009; Sibley & Liu, 2004), 0.79 for Rotter’s Locus of Control scale (Rotter, 1966), and between .88 to .92 for the Fear of Intimacy scale (Ingersoll et al., 2008).
Helms, Henze, Sass, and Mifsud (2006) stressed that Cronbach’s alpha does not test individual scores within a sample but instead the sample’s responses as a group. Scores can range from 0 to 1.00, whereas scores that are nearing 1.00 indicating greater pattern of internal consistency (Helms et al., 2006). Internal consistency scores for this study ranged from .85 to .98, demonstrating adequate to high internal consistency for instruments utilized. Table 6 summarizes the values of internal consistency.

Table 6

*Cronbach’s Alpha Coefficients for Study Instruments*

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Cronbach’s Alpha</th>
<th>Items in scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECR-R Anxiety</td>
<td>.96</td>
<td>18</td>
</tr>
<tr>
<td>ECR-R Avoidance</td>
<td>.97</td>
<td>18</td>
</tr>
<tr>
<td>Locus of Control</td>
<td>.85</td>
<td>23 (plus 6 filler items)</td>
</tr>
<tr>
<td>Fear of Intimacy</td>
<td>.98</td>
<td>35</td>
</tr>
</tbody>
</table>

**Test of Hypotheses**

This section outlines the results for the five hypotheses. The first hypothesis was answered by conducting a multivariate analysis of variance (MANOVA), followed by a series of analysis of variance (ANOVA) whereby ACOAs and NACOAs represent the independent variable and adult attachment, locus of control, as well as fear of intimacy demonstrate the dependent variables. The second and third hypotheses were analyzed using a stepwise regression analysis with ACOAs, and the fourth and fifth hypotheses were tested utilizing a stepwise regression analysis with NACOAs.
**Hypothesis 1.** The first hypothesis identified that there would be a difference in locus of control, romantic intimacy expression, and adult attachment between ACOAs and NACOAs. A MANOVA was conducted to examine group means, showing a statistically significant difference between groups [Wilks’ $\lambda = .60$, $F (4, 219) = 36.40$, $p = .00$, $\eta^2_p = .36$]. To go beyond statistical significance, practical significance was addressed through the measure of effect size. To address the distinction, yet interrelated meaning of these two constructs, Sink and Mvududu (2010) indicated that “without a measure of practical significance, the real world importance of the statistical findings may be lost” (p. 9). The concept of effect size, a measure to calculate the strength between variables, is related to statistical power and accompanies statistical significance in terms of practical significance (Sink & Mvududu, 2010). Effect size can be measured by various indicators. Cohen (1988) outlined that, in the case of the indicator eta squared ($\eta^2$), effect sizes are bounded between 0 to 1, with .0099 indicating a small effect size, .0588 a medium effect size, and .1379 a large effect size. The PASW 18 (2010) statistical package reports only partial eta squared values and researchers have pointed out that the clear distinction between classical eta squared values and partial eta squared values is oftentimes disregarded and consequently erroneous and inaccurate results are reported (Pierce, Block, & Aguinis, 2004). Even when eta squared results are reported, it is a “biased estimate of the population strength of association between an independent variable and a dependent variable, particularly when total sample size is small” (Pierce et al., 2004, p. 917). For these reasons, Cohen’s $d$ (1988), derived from the means and standard deviations for both groups, is listed in addition to partial eta squared to report more accurate results. Cohen (1988, 1992) stated that, within Cohen’s $d$, effect sizes are points
that can be distributed between $-\infty$ to $+\infty$ with .20 indicating a small effect size, .50 outlining a medium effect size, and .80 demonstrating a large effect size. When calculating the effect size for the first analysis, a large effect size emerges ($d = 1.49$). As a result of statistically significant results for the MANOVA, a series of follow up ANOVAs was conducted to investigate the dependent variables separately.

The first one-way ANOVA analyzed if there were statistically significant differences between ACOAs and NACOAs in regards to locus of control. Results showed a statistically significant difference between the groups [$F (1, 222) = 41.11, p=.00, \eta_p^2 = .16$]. In the sample, 16% of the variance between subjects is related to locus of control, as indicated by the effect size measured by partial eta squared. The effect size found relating to locus of control between NACOAs and ACOAs falls into the large range ($d = .85$).

Table 7 displays the results for the ANOVA.

**Table 7**

*Summary Table for One-Way Analysis of Variance for Locus of Control Between Groups*

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1</td>
<td>977.69</td>
<td>977.69</td>
<td>41.11*</td>
</tr>
<tr>
<td>Within groups</td>
<td>222</td>
<td>5280.20</td>
<td>23.79</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>42189.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. df= degrees of freedom, SS= Sum of squares, F= F distribution. * p <.05.*

Figure 1 displays the results for the construct of locus of control between ACOAs (labeled second on the x axis) and NACOAs (labeled first on the x axis). The differences between the groups are visible in that NACOAs exhibit higher scores and thus an internal locus of control, whereas ACOAs demonstrate lower scores, indicating an external locus
of control. Nonetheless, there is some overlap between the groups in the NACOAs 25th percentile and the ACOAs 75th percentile data range, indicating some commonalities.

Figure 1. Between group results of locus of control for ACOAs and NACOAs.

As shown above, two outliers (participants # 117 and #136) were detected for the NACOA dataset. A re-analysis was run which excluded these two participants to check if the outliers impacted the results of the analysis. Results continue to be statistically significant between the groups with a large effect size of $d = .95$ [$F(1,220) = 49.16, p = .00, \eta^2_p = .18$]. Table 8 outlines the results of the re-analysis.
Table 8

Summary Table for One-Way Re-Analysis of Variance for Locus of Control Between Groups

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>1</td>
<td>1088.30</td>
<td>1088.30</td>
<td>49.16*</td>
</tr>
<tr>
<td>Within groups</td>
<td>220</td>
<td>4870.44</td>
<td>22.14</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>222</td>
<td>42188.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. df= degrees of freedom, SS= Sum of squares, F= F distribution. *p <.05.

Figure 2 unfolds the results without the two outliers.

![Box plot comparing locus of control for ACOAs and NACOAs](image)

*Figure 2. Re-analysis of between group results of locus of control for ACOAs and NACOAs.

Caution needs to be exercised when interpreting data that omits outliers.

Researchers express differing opinions in regards to outlier omission. Esbensen, Guyot, and Westad (2002) for example, indicated that outliers can be removed if they represent
abnormal data or are the result of incorrect measurement, yet also can be kept as they are representative of the data. It is the researcher’s decision to either include or exclude outliers, but in either case it is important to be cautious when interpreting the consequential results as “the model creation might be false” (Esbensen et al., 2002, p. 78). In this case, the outliers were removed to investigate how the results would be impacted and both analyses, with or without outliers, remained statistically significant.

The second one-way ANOVA analyzed whether there were statistically significant differences between ACOAs and NACOAs in regards to romantic intimacy expression or fear of intimacy. Results showed a statistically significant difference between the groups \[ F (1, 222) = 115.66, p = .00, \eta_p^2 = .34 \]. In the sample, 34% of the variance between subjects is related to locus of control as indicated by partial eta squared and a large effect size of \( d = 1.43 \). Table 9 displays the results for the ANOVA.

Table 9

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>103282.97</td>
<td>103282.97</td>
<td>115.66*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>222</td>
<td>198242.46</td>
<td>892.98</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>8185528.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. df= degrees of freedom, SS= Sum of squares, F= F distribution. *p < .05.

Figure 3 outlines the results for the construct of fear of intimacy between ACOAs and NACOAs. The differences between the groups are visible in that NACOAs exhibit
lower scores and thus less fear of intimacy, whereas ACOAs demonstrate higher scores, indicating greater fear of intimacy.

Figure 3. Between group results of fear of intimacy for ACOAs and NACOAs.

Finally, the third and fourth one-way ANOVAs analyzed if there were statistically significant differences between ACOAs and NACOAs in regards to adult attachment scales. For the attachment anxiety sub-scale, results showed a statistically significant difference between the groups \( F (1, 222) = 74.85, p = .00, \eta_p^2 = .25 \). In the sample, 25% of the variance between subjects is related to the anxious attachment scale as indicated by partial eta squared and a large effect size of \( d = 1.15 \). Table 10 displays the results for the ANOVA.
Table 10

Summary Table for One-Way Analysis of Variance for Attachment Anxiety Between Groups

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>51066.92</td>
<td>51066.92</td>
<td>74.85*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>222</td>
<td>151453.08</td>
<td>682.22</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>898726.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. df= degrees of freedom, SS= Sum of squares, F= F distribution. *p < .05.

Figure 4 outlines the results for the attachment anxiety scale between ACOAs and NACOAs. The differences between the groups are visible in that NACOAs exhibit lower scores and thus less attachment anxiety, whereas ACOAs demonstrate higher scores, indicating greater attachment anxiety.

![Figure 4. Between groups results of attachment anxiety for ACOAs and NACOAs.](image-url)
The boxplot revealed three outliers (participants # 25, # 136, and # 166) which prompted a re-analysis of the ANOVA, excluding the three outliers in the NACOA sample. Results remained significant after removing the outliers \([F (1, 219) = 92.83, p = .00, \eta^2_p = .30]\) with a large effect size of \(d = 1.30\). Nonetheless, as Figure 5 demonstrates, new outliers emerged after the removal of the initial outliers. New outliers can appear as “they could have been masked by the original outliers” or for reasons of data change after the removal of the outliers that first developed (Mason & Young, 2010, p. 58). As the re-analysis was performed to check for significant differences in results obtained, the procedure was ceased at the point of re-analysis.

*Figure 5.* Re-analysis of between group results of attachment anxiety for ACOAs and NACOAs.
For the attachment avoidance sub-scale, results showed a statistically significant difference between the groups \[ F(1, 222) = 125.65, p = .00, \eta_p^2 = .36 \]. In the sample, 36% of the variance between subjects is related to the avoidant attachment scale as demonstrated by partial eta squared and a large effect size of \( d = 1.49 \). Table 11 displays the results for the ANOVA.

Table 11

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>df</th>
<th>SS</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>72998.63</td>
<td>72998.63</td>
<td>125.65*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>222</td>
<td>128978.80</td>
<td>580.99</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>927020.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. df = degrees of freedom, SS = Sum of squares, \( F \) = \( F \) distribution. *\( p < .05 \).

Figure 6 presents a boxplot of scores for the construct of the attachment avoidance scale between ACOAs and NACOAs. The differences between the groups are visible in that NACOAs exhibit lower scores and thus less attachment avoidance, whereas ACOAs demonstrate higher scores, indicating greater attachment avoidance.
As results from the initial MANOVA, as well as results from the individual ANOVAs, were statistically significant, and all study variables for the first hypothesis relate to each other as predicted, the null hypothesis was rejected.

**Hypotheses 2 and 3.** Concerning the second hypothesis, it was hypothesized that a positive relationship between insecure adult attachment and romantic intimacy expression, or fear of intimacy, in Adult Children of Alcoholics (ACOAs) would emerge. The third hypothesis outlined that there would be a relationship between external locus of control and romantic intimacy expression, or fear of intimacy, in ACOAs. To answer the two hypotheses, a stepwise regression analysis was performed in addition to calculating correlations. Table 12 shows the results of the correlational analysis.

Figure 6. Between group results of attachment avoidance for ACOAs and NACOAs.
Table 12

*Correlations and Significance Levels Between Study Variables for ACOAs*

<table>
<thead>
<tr>
<th></th>
<th>FIS</th>
<th>ECR-R Anxiety</th>
<th>ECR-R Avoidance</th>
<th>LOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of Intimacy</td>
<td>1.00</td>
<td>.45**</td>
<td>.86**</td>
<td>-.41**</td>
</tr>
<tr>
<td>Scale (FIS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiences in</td>
<td>1.00</td>
<td>.43**</td>
<td></td>
<td>-.33**</td>
</tr>
<tr>
<td>Close Romantic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationships-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revised Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ECR-R Anxiety)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiences in</td>
<td>1.00</td>
<td></td>
<td>-.34**</td>
<td></td>
</tr>
<tr>
<td>Close Romantic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relationships-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revised Avoidance</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ECR-R Avoidance)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotter’s Locus of</td>
<td></td>
<td></td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Control Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(LOC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.** Correlation is significant at the .05 level (1-tailed).

Pearson’s correlation was used to identify relationships between the study variables amongst ACOAs. Insecure adult attachment and romantic intimacy expression, or fear of intimacy, were predicted to correlate positively in ACOAs \( (n=108) \) whereas the construct of locus of control was expected to correlate negatively. The correlational investigation showed that adult attachment, measured by anxiety and avoidance, was positively correlated with romantic intimacy expression, or fear of intimacy. Additionally, the results were statistically significant as both the attachment anxiety scale
(r = .45) and the attachment avoidance scale (r = .86) correlate positively with expression of intimacy, or fear of intimacy. Furthermore, the results pointed to a negative relationship between locus of control and intimacy expression in ACOAs. This inverse relationship is also significant (r = -.41), indicating that an increased expression in fear of intimacy relates to lower scores for locus of control and hence points to an external locus of control.

In the first stepwise regression, all three variables, namely anxious adult attachment, avoidant adult attachment, and locus of control, entered the model as a predictor for fear of intimacy \[ F(3, 104) = 105.25, \ p < .05 \], indicating that the model fits well as \( p = .00 \). Furthermore, the stepwise regression model summary showed, by the function of \( R^2 \), that 20.2% of variance in fear of intimacy can be predicted by the anxious adult attachment scale, 74.1% of variance in fear of intimacy can be predicted by the anxious and the avoidant adult attachment scales, and 75.2 % of variance in fear of intimacy can be predicted by the anxious and avoidant adult attachment scales in addition to locus of control. Furthermore, results from the coefficients table showed that the avoidant attachment scale has the greatest relative effect on fear of intimacy as \( \beta = .81 \). As all study variables for Hypotheses 2 and 3 were shown to have a significant relationship with each other, and relate to each other as predicted, both null hypotheses were rejected.

Multicollinearity issues that arise when predictor variables are highly correlated were monitored during the analyses of adult attachment, locus of control, and fear of intimacy in ACOAs. Despite the fact that only one variable, insecure avoidant adult attachment, correlated highly with fear of intimacy, multicollinearity was monitored. A
tolerance level of less than .20 and a Variance Inflation Factor (VIF) of 10 and higher indicate a multicollinearity problem (O’Brien, 2007). Results for the regression analyses for tolerance levels ranged from .77 to 1.00 and the VIF from 1.00 to 1.30, indicating no cause for multicollinearity concerns.

**Hypotheses 4 and 5.** The fourth hypothesis stated that there would be a positive relationship between secure adult attachment and romantic intimacy expression, or fear of intimacy, in Non-Adult Children of Alcoholics (NACOAs). The fifth hypothesis proposed that there would be a relationship between internal locus of control and romantic intimacy expression, or fear of intimacy, in NACOAs. To answer the last two hypotheses, another stepwise regression analysis was performed in addition to a correlational analysis. Table 13 shows the results of the correlational investigation.

Table 13

*Correlations and Significance Levels Between Study Variables for NACOAs*

<table>
<thead>
<tr>
<th></th>
<th>FIS</th>
<th>ECR-R Anxiety</th>
<th>ECR-R Avoidance</th>
<th>LOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of Intimacy Scale (FIS)</td>
<td>1.00</td>
<td>.46**</td>
<td>.65**</td>
<td>-.40**</td>
</tr>
<tr>
<td>Experiences in Close Romantic Relationships-Revised Anxiety (ECR-R Anxiety)</td>
<td>1.00</td>
<td>.64**</td>
<td>-.38**</td>
<td></td>
</tr>
<tr>
<td>Experiences in Close Romantic Relationships-Revised Avoidance (ECR-R Avoidance)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotter’s Locus of Control Scale (LOC)</td>
<td></td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* **Correlation is significant at the .05 level (1-tailed).
Pearson’s correlation was used to identify relationships between the study variables. Secure adult attachment and high romantic intimacy expression, or low fear of intimacy, were expected to positively correlate in NACOAs \((n=116)\) whereas the construct of locus of control was predicted to correlate negatively. The correlational analysis showed that adult attachment, measured by anxiety and avoidance, was positively correlated with romantic intimacy expression, or fear of intimacy. Additionally, the results were statistically significant as both the attachment anxiety scale \((r = .46)\) and the attachment avoidance scale \((r = .65)\) correlate positively with expression of intimacy, or fear of intimacy. Furthermore, the results pointed to a negative relationship between locus of control and intimacy expression in NACOAs. This inverse relationship is also significant \((r=-.40)\), indicating that a decreased expression in fear of intimacy relates to higher scores for locus of control and hence points to an internal locus of control.

In addition, and all three study variables, namely anxious adult attachment, avoidant adult attachment, and locus of control, entered the model as a predictor for fear of intimacy \([F (3, 112) = 31.01, p < .05]\) for NACOAs, indicating that the model fits well as \(p=.00\). Furthermore, the model summary showed, by the function of \(R^2\), that 21.1% of variance in fear of intimacy can be predicted by the anxious adult attachment scale, 42.3% of variance in fear of intimacy can be predicted by the anxious and avoidant adult attachment scales, and 45.4 % of variance in fear of intimacy can be predicted by the anxious and avoidant adult attachment scales as well as locus of control. Results from the coefficients table showed that the avoidant and anxious attachment scales have a similarly equal effect on fear of intimacy as \(\beta=.60\) and \(.46\), respectively. Study variables
for both Hypotheses 4 and 5 have significant relationships with each other, thus both null hypotheses were rejected. For both hypotheses and their results, multicollinearity was not a concern as tolerance levels ranged from .56 to 1.00 and the VIF from 1.00 to 1.78.

Post Hoc Analyses

In this study, a post hoc analysis was utilized to identify patterns and to determine if both locus of control as well as fear of intimacy can correctly predict adult attachment group membership. Hence, a discriminant analysis was performed to conclude the study. The construct of adult attachment, as utilized in this study, is a dimensional model, and can be further broken down into secure attachment, preoccupied, dismissing-avoidant, and fearful avoidant attachment styles (Fraley et al., 2000). As the Experience in Close Relationships-Revised (ECR-R) is divided into the two sub-scales, results for such were reported. In order to obtain a thorough understanding and to be able to distinguish between all dimensional adult attachments styles, both sub-scales were re-coded and mean splits were performed.

Fraley et al. (2000) emphasized the attachment dimensional model which is based on the two subscales of the ECR-R. The anxiety and avoidance scales are plotted in a two-dimensional graph which results into four categories of secure attachment (low anxiety, low avoidance), dismissing (low anxiety, high avoidance), preoccupied (high anxiety, low avoidance), and fearful (high anxiety, high avoidance) attachment dimensions (Fraley et al., 2000). Figure 7 illustrates the dimensional graph first outlined by Bartholomew (1990) and expanded by Fraley et al. (2000).
For the total population of 224 participants, 99 fell into the secure, 13 into the preoccupied, 27 in the dismissing-avoidant, and 85 into the fearful-avoidant dimensions. For the 108 ACOAs specifically, 17 were secure, 8 preoccupied, 19 dismissing-avoidant, and 64 fearful-avoidant participants. Hence, 59.3% of the total ACOA sample expressed an insecure, fearful adult attachment style. Results indicated that of 116 NACOAs, 82 included secure, 5 preoccupied, 8 dismissing-avoidant, and 21 fearful-avoidant adult attachment styles. Consequently, 71% of NACOAs exhibited a secure attachment style. Table 14 outlines the frequency table for adult attachment styles for both NACOAs and ACOAs.
Table 14

*Frequency Table of Adult Attachment Styles for NACOAs and ACOAs*

<table>
<thead>
<tr>
<th>Frequency Total</th>
<th>NACOAs</th>
<th>ACOAs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure</td>
<td>99</td>
<td>82</td>
</tr>
<tr>
<td>Dismissing</td>
<td>27</td>
<td>8</td>
</tr>
<tr>
<td>Preoccupied</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Fearful</td>
<td>85</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>116</td>
</tr>
</tbody>
</table>

*Note.* NACOAs= Non Adult Children of Alcoholics. ACOAs= Adult Children of Alcoholics.

A discriminant analysis was performed to test if fear of intimacy and locus of control can predict group membership and discriminate between the four attachment styles in both samples. The participants were placed into one of the four adult attachment dimensions after a mean split was performed. Table 15 shows the means and standard deviations for all participants in regards to adult attachment, locus of control, and fear of intimacy.

Table 15

*Discriminant Analysis Means and Standard Deviations for Adult Attachment, Locus of Control, and Fear of Intimacy*

<table>
<thead>
<tr>
<th>Attachment Style</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure</td>
<td>LOC</td>
<td>15.15</td>
</tr>
<tr>
<td></td>
<td>FIS</td>
<td>161.87</td>
</tr>
<tr>
<td>Dismissing</td>
<td>LOC</td>
<td>12.11</td>
</tr>
<tr>
<td></td>
<td>FIS</td>
<td>205.11</td>
</tr>
<tr>
<td>Preoccupied</td>
<td>LOC</td>
<td>13.92</td>
</tr>
<tr>
<td></td>
<td>FIS</td>
<td>173.08</td>
</tr>
<tr>
<td>Fearful</td>
<td>LOC</td>
<td>9.75</td>
</tr>
<tr>
<td></td>
<td>FIS</td>
<td>214.25</td>
</tr>
<tr>
<td>Total</td>
<td>LOC</td>
<td>12.67</td>
</tr>
<tr>
<td></td>
<td>FIS</td>
<td>187.61</td>
</tr>
</tbody>
</table>

*Note.* LOC= Locus of Control. FIS= Fear of Intimacy.
Figure 8 demonstrates how the means and standard deviations translate into the dimensional model of adult attachment.

Three of the adult attachment styles in this model interrelated with an internal locus of control while the fearful avoidant style indicates an external locus of control. The secure and preoccupied exhibit lower fear of intimacy scores while the dismissing avoidant as well as the fearful avoidant styles show higher scores in regards to fear of intimacy. The finding that dismissing avoidant adults exhibit greater fear of intimacy may seem counterintuitive as this population is described to be indifferent toward others and relationships in addition to insisting on independence (Silverman, 2011). Despite this portrayal, Carvallo and Gabriel (2006) found that their high dismissive avoidant participants inadvertently expressed a desire and need to belong, felt better about themselves, and expressed a more positive affect when accepted by others. This finding exposes the divergence of expressed outward and inward characteristics of dismissive
avoidant adults and stresses that their basic human needs, inclusive of the need to belong, align with the desires of adults with differing attachment styles.

In addition, the test of equality of group means indicates that there is a statistically significant difference among adult attachment for each locus of control and fear of intimacy ($p=.00$). The discriminant function that was generated from the two samples shows a canonical correlation of .67. The classification results table revealed that secure attachment style dimensions were more accurately classified for 66.7%. For insecure attachment styles, 52.9% of the cases were correctly classified. Overall, 54.5% of the original cases, and four dimensional styles, as determined by the group classification and chi-square analysis, were correctly classified. Results revealed that the attachment styles classified were significantly different than chance [$\chi^2(1) = 133.48$, $df = 3$, $p < .001$] and an index of discrimination [Wilks’ $\lambda = .55$, $F(1, 3, 221) = 61.00$, $p < .001$]. Table 16 highlights the classification results for adult attachment style dimensions.

Table 16

<table>
<thead>
<tr>
<th>Predicted Group Membership</th>
<th>Attachment Style</th>
<th>Secure (66.7)</th>
<th>Dismissing (11.1)</th>
<th>Preoccupied (20.2)</th>
<th>Fearful (2.0)</th>
<th>Total (100.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secure</td>
<td>66</td>
<td>11</td>
<td>20</td>
<td>2</td>
<td>99</td>
<td>(100.0)</td>
</tr>
<tr>
<td>Dismissing</td>
<td>5 (18.5)</td>
<td>6 (22.2)</td>
<td>6 (22.2)</td>
<td>10 (37.0)</td>
<td>27</td>
<td>(100.0)</td>
</tr>
<tr>
<td>Preoccupied</td>
<td>6 (46.2)</td>
<td>1 (7.7)</td>
<td>5 (38.5)</td>
<td>1 (7.7)</td>
<td>13</td>
<td>(100.0)</td>
</tr>
<tr>
<td>Fearful</td>
<td>7 (8.2)</td>
<td>23 (27.1)</td>
<td>10 (11.8)</td>
<td>45 (52.9)</td>
<td>85</td>
<td>(100.0)</td>
</tr>
</tbody>
</table>

*Note. Percentages are noted in parentheses; 54.5% of original cases correctly classified.*
Demographic Analytics

The demographic analytic section highlights results obtained from additional analyses that do not relate to hypothesis testing. Specifically, participants’ sex, ethnicity, relationship status, and cohabitating status were explored further. NACOAs and ACOAs in this study were comprised of 58.9% female, 40.6% male, and 0.4% transgender. For the purpose of this study, a broad 60/40 split between female and male participants was adopted and the one transgender participant was excluded from the analyses as the individual did not indicate with which sex he or she identifies. Roen (2001) pointed out that it proves difficult to categorize transgender individuals when no additional information is revealed. Hence, without identifying data and the knowledge of the individual’s view and perceived developmental stage, the implied request of the participant for anonymity was respected. The individual was not categorized as either sex but rather excluded from the study’s analyses.

A multivariate analysis of variance (MANOVA) and independent t tests failed to reveal a statistically significant difference between participants’ sex and scores on the ECR-R anxiety \(F(2, 221) = .46, p=.63, \eta^2_p = .00\) and ECR-R avoidance \(F(2, 221) = 1.79, p=.17, \eta^2_p = .02\) scales in addition to the locus of control scores \(F(2, 221) = .96, p=.38, \eta^2_p = .01\). The fourth independent t test, as well as the MANOVA showed statistically significant results between participants’ sex and fear of intimacy scores \(F(2, 221) = 4.29, p=.02, \eta^2_p = .04\).

Generally, men yielded higher scores on the ECR-R anxiety and ECR-R avoidance scales as well as on the fear of intimacy scale compared to women (see Table 17). Interestingly, both men and women held almost identical scores on the Rotter’s
Locus of Control scale. Additionally, men obtained higher scores on the overall mean scores relating to the ECR-R anxiety and avoidance scales as well as the fear of intimacy scale, yet independent \( t \) tests revealed that only the fear of intimacy scores were statistically significant \( (p = .03) \) in comparison with participants’ sex. Consequently, men in this study expressed a higher degree of fear of intimacy than women while both sexes demonstrated an equal degree of locus of control.

Table 17

*Comparisons of Means of Participants’ Sex With Adult Attachment, Locus of Control, and Fear of Intimacy*

<table>
<thead>
<tr>
<th>Gender</th>
<th>ECR-R Anxiety</th>
<th>ECR-R Avoidance</th>
<th>LOC</th>
<th>FIS*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men N=91</td>
<td>Mean 58.04 (28.60)</td>
<td>60.58 (31.88)</td>
<td>12.63 (5.22)</td>
<td>193.69 (37.93)</td>
</tr>
<tr>
<td>Women N=132</td>
<td>Mean 54.22 (31.27)</td>
<td>54.11 (28.62)</td>
<td>12.64 (5.35)</td>
<td>182.89 (35.02)</td>
</tr>
</tbody>
</table>

*Note. ECR-R Anxiety= Experiences in Close Relationships Anxiety; ECR-R Avoidance= Experience in Close Relationships Avoidance; LOC= Locus of Control; and FIS= Fear of Intimacy. \(^*p<.05\), standard deviations in parentheses.*

An ethnicity distribution was outlined in Chapter 3 indicating that the three main ethnicities in this study were African American/Black (18.8%), Caucasian/White (51.8%), and Latino/Hispanic (23.7%). Analyses involving ethnic background and participants’ sex were conducted, but no statistical differences were found. Table 18 separates the predominant study ethnicities according to ACOA and NACOA status.
Table 18

*Ethnicities Divided by ACOA and NACOA Status*

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>ACOA</th>
<th>NACOA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American/Black</td>
<td>21 (50.0)</td>
<td>21 (50.0)</td>
<td>42 (100.0)</td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>57 (49.0)</td>
<td>59 (51.0)</td>
<td>116 (100.0)</td>
</tr>
<tr>
<td>Latino/Hispanic</td>
<td>25 (47.0)</td>
<td>28 (53.0)</td>
<td>53 (100.0)</td>
</tr>
</tbody>
</table>

*Note.* Percentages in parentheses.

In order to investigate differences in NACOAs and ACOAs as they pertain to relationship status and cohabitation, cross-tabulations were performed. For the total 116 NACOAs, 22 were single, 44 were married, 10 divorced, 32 in a relationship, 7 widowed, and 1 indicated “other” as relationship status. In contrast, for the total 108 ACOAs, 36 were single, 22 were married, 22 divorced, 22 in a relationship, and 6 widowed. In addition, a chi-square analysis was performed to explore if the results between the two groups were significantly different. The chi-square test revealed that there is a statistically significant difference between the groups \( \chi^2(5) = 17.88, p = .00 \). Table 19 outlines the cross-tabulation for relationship status.

Table 19

*Cross-tabulation for Relationship Status Between NACOAs and ACOAs*

<table>
<thead>
<tr>
<th>Relationship Status</th>
<th>Single</th>
<th>Married</th>
<th>Divorced</th>
<th>In a relationship</th>
<th>Widowed</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NACOAs</td>
<td>22</td>
<td>44</td>
<td>10</td>
<td>32</td>
<td>7</td>
<td>1</td>
<td>116</td>
</tr>
<tr>
<td>ACOAs</td>
<td>36</td>
<td>22</td>
<td>22</td>
<td>22</td>
<td>6</td>
<td>0</td>
<td>108</td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>66</td>
<td>32</td>
<td>54</td>
<td>13</td>
<td>1</td>
<td>224</td>
</tr>
</tbody>
</table>
To examine differences between the groups in cohabitation, another cross-tabulation was created. For the total 116 NACOA sample, 45 reportedly do not cohabitate while 71 stated that they did cohabitate. In contrast, for the total 108 ACOA sample, 67 do not cohabitate while 41 acknowledged that they did cohabitate. These differences were statistically significant as indicated by the chi-square analysis $\chi^2(1) = 12.09, p = .00$. Results possibly align with the findings of adult attachment in that the NACOA, secure population is more likely to cohabitate than the insecure, fearful ACOA population.

**Summary of Results**

Five hypotheses were tested in this chapter. The first hypothesis which was answered by conducting a multivariate analysis of variance (MANOVA), followed by a series of analysis of variance (ANOVA), stated that there would be a difference in locus of control, romantic intimacy expression, and adult attachment between Adult Children of Alcoholics (ACOAs) and Non-Adult Children of Alcoholics (NACOAs). The null hypothesis was rejected and the alternative hypothesis was accepted. The second hypothesis stated that there would be a positive relationship between insecure adult attachment and romantic intimacy expression, or fear of intimacy, in ACOAs. The third hypothesis outlined that there would be a relationship between external locus of control and romantic intimacy expression, or fear of intimacy, in ACOAs. To answer the two hypotheses, a stepwise regression analysis was performed in addition to calculating correlations. As all study variables for Hypotheses 2 and 3 were shown to have a significant relationship with each other, and relate to each other as predicted, both null hypotheses were rejected and both alternative hypotheses were accepted. The fourth
hypothesis stated that there would be a positive relationship between secure adult attachment and romantic intimacy expression, or fear of intimacy, in NACOAs. The fifth hypothesis proposed that there would be a relationship between internal locus of control and romantic intimacy expression, or fear of intimacy, in NACOAs. To answer the last two hypotheses, another stepwise regression analysis was performed in addition to a correlational analysis. Study variables for both Hypotheses 4 and 5 have significant relationships with each other, thus both null hypotheses were rejected and both alternative hypotheses were accepted. Chapter 5 examines the results found in this study, explores the relationship between the outcomes and counseling literature, discusses limitations of the study, and makes suggestions for future research.
V. Discussion

This chapter discusses the findings and results which were outlined in Chapter 4, connects them with current counseling literature and summarizes contributions as well as implications. A discussion of the limitations of the present study, suggestions for future research, and a brief summary conclude this chapter. To date, the current mental health literature on Adult Children of Alcoholics (ACOAs) lacks studies exploring adult attachment and locus of control as functions of romantic intimacy expression, making this the first study to investigate this combination of constructs.

The purpose of the current investigation was to support mental health counseling literature and to promote an improved understanding for therapists and ACOAs in regards to their potential behavioral patterns. Specifically, ACOAs exhibited insecure, fearful-avoidant adult attachment styles, an external locus of control, and greater fear of intimacy. In contrast, Non-Adult Children of Alcoholics (NACOAs) demonstrated secure adult attachment styles, an internal locus of control, and lesser fear of intimacy.

The findings can be utilized by ACOAs, with the help of the mental health professional, to identify individual areas for growth, improve interpersonal relationships and hence intimacy expression. Increased insight, in combination with behavior modification, can lead to enhanced interpersonal functioning, and it is hoped that long-term consequences will be supported (i.e., a reduction of the current divorce rate for the
ACOA population). The results of the analyses are discussed according to the hypotheses.

**Discussion of the Results of the Hypotheses**

The first hypothesis analyzed and explored the concepts of locus of control, romantic intimacy expression, as well as adult attachment and illuminated differences between ACOAs and NACOAs. The alternative hypothesis which stated that there would be a difference in locus of control, romantic intimacy expression, and adult attachment between ACOAs and NACOAs was accepted. There was a statistically significant difference between the two groups for all constructs inclusive of locus of control, fear of intimacy, and the adult attachment anxiety and avoidance sub scales. Consequently, the results supported that there exist differences between ACOAs and NACOAs in regards to locus of control, fear of intimacy, and adult attachment.

This differentiation proves useful for mental health professionals who work with ACOAs, as their needs, if unfulfilled, can hinder the therapeutic alliance and progress (Ruben, 2001). ACOAs were oftentimes deprived of an upbringing that fostered possibilities for learning about personal responsibility as well as internalizing and externalizing occurrences (Hall, 2007). They frequently were not exposed to, or developed, secure, intimate relationships and attachments due to their impaired emotional functioning that grew its roots in the alcoholic household (Hall, 2007). ACOAs live with consequences from parental alcohol dependence that extend into adulthood and affect communication and intimacy expressed toward others (Johnson, 2001).

For these reasons it might be difficult for the ACOA to connect with the mental health provider or avoid seeking treatment altogether. It then becomes necessary for the professional to be culturally sensitive and aware of these possible behavioral patterns.
when working with ACOAs. For example, as discussed in Chapter 2, locus of control can act as a mediating factor that can influence an ACOA’s perception and experience of intimacy within relationships. In addition, the outcomes found in this study support that ACOAs tend to exhibit an external locus of control (Bowers, 1988) which in turn relates to avoidance coping. Consequently, the therapist needs to engage in a comprehensive biopsychosocial assessment to explore the client’s affect and behavior.

To analyze the behavioral patterns in depth, the second hypothesis stated that there would be a positive relationship between insecure adult attachment and romantic intimacy expression, or fear of intimacy, in ACOAs. The third hypothesis outlined that there would be a relationship between external locus of control and romantic intimacy expression, or fear of intimacy, in ACOAs. Both the attachment anxiety scale ($r = .45$) and the attachment avoidance scale ($r = .86$) correlate positively with expression of intimacy, or fear of intimacy. This finding outlines that ACOAs expressed an insecure adult attachment style in addition to greater fear of intimacy.

Furthermore, the results pointed to a negative relationship between locus of control and intimacy expression in ACOAs. This inverse relationship is also significant ($r = -.41$), indicating that an increased expression in fear of intimacy relates to lower scores for locus of control and hence points to an external locus of control. Consequently, ACOAs exhibited an external locus of control and high fear of intimacy. Both alternative hypotheses were accepted as results indicated statistically significant outcomes for the anxiety and avoidant adult attachment scales and fear of intimacy as well as the expression of an external locus of control and fear of intimacy. Additionally, 20.2% of variance in fear of intimacy can be predicted by the anxious adult attachment scale,
74.1% of variance in fear of intimacy can be predicted by the anxious and avoidant adult attachment scale, and 75.2% of variance in fear of intimacy can be predicted by the anxious and avoidant adult attachment scale in addition to locus of control. The results supported predictions originally made and additionally pointed to the avoidant attachment scale as to having had the greatest relative effect on fear of intimacy.

The finding that the avoidant attachment scale has an effect on intimacy expression is also important for therapists working with ACOAs. Meyer and Pilkonis (2001) stated that “attachment theory offers a conceptual framework that helps illuminate how past experiences with caregivers might influence current transactions between therapist and patient who may form internal working models that are based, in part, on early experiences of interpersonal responsiveness” (p. 466). The individual’s attachment style then shapes the nature of relationships, such as the therapeutic alliance, and is grounded in a secure or insecure basis. This pattern also carries into the ACOA’s life and influences relationships with partners. For example, Del Giudice (2009) stated that attachment-avoidant men favor short-term mating instead of engaging in long-term relationships and pointed to adaptation as a contributing factor.

Furthermore, this study’s finding extends current literature that outlines that ACOAs display insecure attachment patterns (Eiden et al., 2002) and have a tendency to distance themselves from their partners (Watt, 2002). Equipped with an understanding of this underlying concept, a marriage and family therapist can utilize this knowledge in targeting systemic issues. The counselor and client can, for example, track the client’s responses to others in addition to completing an attachment style inventory such as the Experiences in Close Relationships-Revised (ECR-R) questionnaire. Afterwards, the
client creates a journal in which interpersonal responses and interactions are notated. The patterns are discussed in the session which in turn can promote self awareness and insight. Thereafter, role plays can help to facilitate focused and positive alternatives to former behavioral patterns. Therapists have the opportunity to draw from various techniques that fit the client and the situation. Independent of the approach utilized, it is necessary to uncover and address maladaptive styles to foster growth.

In addition to the attachment scales, locus of control also showed a significant relationship with intimacy expression in ACOAs. Specifically, an external locus of control correlated with elevated fear of intimacy. Morry and Harasymchuk (2005) investigated how locus of control influences relationship judgment and found that women expressed lower relationship satisfaction when paired with an individual who exhibits an external locus of control. As the concept of locus of control is dynamic, and influences how ACOAs deal with stressors, exhibiting an external locus of control can impact interpersonal relationships (Youngman, 1999). For example, Goodarzi et al. (2004) found that, for both husbands and wives, marital satisfaction increased if both partners exhibited an internal locus of control. As ACOAs generally express an external locus of control (Bowers, 1988), and are hence less adaptive and responsive to their environment and partners, intimacy and relationship satisfaction are compromised. The results of this study support the concept of ACOAs’ expressed external locus of control connection with fear of intimacy and subsequent impact on their relationship functioning.

On the other hand, adults who were not raised by an alcohol dependent adult, the Non-Adult Children of Alcoholics (NACOAs), were predicted to score significantly different compared to ACOAs. Unlike ACOAs, NACOAs were expected to express a
secure attachment style in addition to an internal locus of control, leading to more stable, lasting, and successful romantic relationships. Therefore, the fourth hypothesis stated that there would be a positive relationship between secure adult attachment and romantic intimacy expression, or fear of intimacy, in NACOAs. The fifth hypothesis proposed that there would be a relationship between internal locus of control and romantic intimacy expression, or fear of intimacy, in NACOAs.

For fear of intimacy, 21.1% of variance can be predicted by the anxious adult attachment scale, 42.3% of variance in fear of intimacy can be predicted by the anxious and avoidant adult attachment scales, and 45.4% of variance in fear of intimacy can be predicted by the anxious and avoidant adult attachment scales as well as locus of control in NACOAs. Furthermore, the outcomes were statistically significant as both the attachment anxiety scale ($r = .46$) and the attachment avoidance scale ($r = .65$) correlate positively with expression of intimacy, or fear of intimacy. Additionally, the results pointed to a negative relationship between locus of control and intimacy expression in NACOAs. This inverse relationship is also significant ($r = -.40$), indicating that a decreased expression in fear of intimacy relates to higher scores for locus of control and hence points to an internal locus of control. Consequently, NACOAs demonstrated an internal locus of control and lesser fear of intimacy. Based on the findings, the alternative hypotheses were accepted.

The results support current literature that outlines differences investigated between NACOAs and ACOAs, such as Kelley et al. (2010) who found that NACOAs reported to experience more positive interpersonal relationships compared to ACOAs. To understand the differences between the two groups’ attachment styles in depth, and to
distinguish the results from both the anxiety and avoidance scales obtained for both samples, a frequency table was created. The table revealed that for the 108 ACOAs, 17 were comprised of secure, 8 preoccupied, 19 dismissing-avoidant, and 64 fearful-avoidant participants. Hence, 59.3% of the total ACOA sample expressed an insecure, fearful adult attachment style. For the 116 NACOAs, 82 included secure, 5 preoccupied, 8 dismissing-avoidant, and 21 fearful-avoidant adult attachment styles. Consequently, 71% of NACOAs exhibited a secure attachment style. Again, results from this study extend current literature that outlines that ACOAs exhibit more anxious and avoidant behaviors in romantic relationships and a more fearful style of adult attachment (Kelley et al., 2005).

**Group Membership Prediction**

Finally, this study found that fear of intimacy and locus of control can predict group membership and discriminate between the four attachment styles in both samples. Out of the 224 participants, 99 were predicted to be classified as secure, 27 dismissing, 13 preoccupied, and 85 fearful. In the general population, the secure attachment style is the most common, placing fearful avoidant as well as preoccupied attached people in the minority range, possibly due to “inconsistent findings with low statistical power” (Mashek & Aron, 2004, p. 177). Regardless of their predominance in society, fearful avoidant adults range high within both anxiety and avoidance, tend to exhibit a mix of fear of rejection and abandonment, a negative working model of self, in addition to a fear of intimacy and dependency as well as a negative working model of others (Knoke, Burau, & Roehrle, 2010). These opposing and conflicting views lead the fearful avoidant individual to distrust others and themselves, seek less intimacy and suppress their
feelings (Mashek & Aron, 2004). As fearful avoidant individuals have a tendency to isolate, they can experience increased problems once they enter a relationship.

In this study, fearful avoidant participants were found to exhibit an external locus of control, the tendency to attribute occurrences to outside forces. The combination of distrust of self and others, fear of intimacy, and externalizing events as well as avoiding responsibility, makes it difficult to establish rapport with the fearful avoidant individual in treatment. Additionally, if the client presents with a long standing history of parental neglect or abuse stemming from an alcohol dependent attachment figure and household, treatment is further complicated. Therapist awareness and intervention is pertinent to the therapeutic alliance as well as advancement and poses a contribution to the field.

**Contributions**

The present study illuminated several contributions to the field of counseling. First, results indicated that there exist differences in locus of control, romantic intimacy expression, and adult attachment between ACOAs and NACOAs. Second, a positive relationship between insecure adult attachment and romantic intimacy expression, or fear of intimacy, in ACOAs and a positive relationship between external locus of control and romantic intimacy expression, or fear of intimacy, was found. Third, a positive relationship between secure adult attachment and romantic intimacy expression, or fear of intimacy, in NACOAs and a positive relationship between internal locus of control and romantic intimacy expression, or fear of intimacy, was detected. Finally, results revealed that the fearful avoidant attachment type was the most common insecure attachment style.
Additionally, the fearful avoidant style correlated with an external locus of control. This finding ties in with current literature which outlines that adults who experienced childhood dysfunction and trauma, such as ACOAs growing up in an alcoholic household, demonstrated an external locus of control associated with learned helplessness (McKeever, McWirther & Huff, 2006). Consequently, ACOAs tend to avoid taking on responsibility for occurrences in their life and remain embedded in a pattern of powerlessness and dependency. This in turn feeds into the ACOAs fearful attachment style which leads the individual to avoid intimacy and distrust others and “become dependent on a partner and then withdraw because of fear of rejection” (Carranza & Kilmann, 2000, p. 295).

The results expand the counseling literature and raise counselor awareness. This is the first study to address the three constructs in combination, concepts that only have been investigated separately previously. Being able to distinguish between the dimensions of adult attachment, locus of control, and fear of intimacy in ACOAs will aid the mental health professional in addressing these underlying concepts that can contribute to the presenting problems.

**Implications for Clinical Practice**

The results of this study revealed that ACOAs differ from NACOAs in terms of adult attachment, locus of control, and fear of intimacy. Consequently, counselors could explore these underlying constructs through discussion and the administration of inventories. Recognizing patterns of adult attachment and their effects on relationships and behavior can also strengthen the working alliance between client and therapist (Mallinckrodt, 2000) as well as treatment outcome such as improved interpersonal and
relationship functioning (Shorey & Snyder, 2006). Knowledge of one’s locus of control can help identify patterns in decision making, and awareness of fear of intimacy can highlight choices made regarding partners and relationships (Swett & Marcus, 2002).

Additionally, a positive relationship between insecure adult attachment and romantic intimacy expression, or fear of intimacy, in ACOAs and a positive relationship between external locus of control and romantic intimacy expression, or fear of intimacy was detected. In contrast, a positive relationship between secure adult attachment and romantic intimacy expression, or fear of intimacy, in NACOAs and a positive relationship between internal locus of control and romantic intimacy expression, or fear of intimacy, was found. Counselors can assess an ACOA’s adult attachment style and spectrum of locus and control to monitor what impact these two constructs have on the client’s intimacy expression. Alperin (2006) stated that factors that influence intimacy, are best understood and investigated within the therapeutic relationship due to the affective connection between therapist and client. This indicates that the counselor and client therapeutic alliance can aid in restructuring the client’s views and schemas in regards to relationship functioning. The investigated constructs can influence each other as well as the client’s view of self and others, hence working in the counseling relationship can be the first catalyst for change.

Lastly, the fearful avoidant attachment type was the most common insecure attachment style and correlated with an external locus of control. Even though the fearful avoidant attachment style is less common in the general population, the therapist can evaluate the ACOA’s patterns in combination with the locus of control. Modifying the
affective and behavioral components, the therapist and client can monitor the changes achieved throughout treatment and target the desired outcome.

**Implications for Future Research**

In addition to implications for clinical practice, this study makes reference to research. This study was limited to ACOAs and NACOAs but could be expanded to adults who experienced neglect or abuse in other contexts than alcohol dependent households. For example, adult survivors of incest could exhibit an insecure attachment style, an external locus of control, and increased fear of intimacy due to the traumatic events experienced in childhood, but additional research is needed to test this hypothesis. Additionally, the demographic section could be expanded on to show differences between male and female ACOAs or dissect dissimilarities between ACOAs in regards to age in decades to investigate generational patterns. Replication of this study with a sample of ACOAs who seek treatment both voluntarily and involuntarily from diverse backgrounds and geographic locations can add to generalizability. Longitudinal research that incorporates interventions could compare and highlight outcomes of treatment and control groups related to possible change and enhancement of care. Protective factors that lead to resiliency from traumatic events in childhood could be explored and compared to outcomes of this study. Exploring mediating components in resilient individuals could lead to an increased understanding in individual differences and improved interventions. Additional studies exploring the validity of the Experiences in Close Relationships – Revised Questionnaire (ECR-R), the Rotter’s Locus of Control Scale (LOC), and the Fear of Intimacy Scale (FIS) could add to these instruments’ properties.
Limitations of the Study

The results of this study are beneficial for ACOAs and clinicians, nonetheless limitations exist and are as follows:

1. The study encompassed a correlational design, therefore causality cannot be inferred.
2. Self report measurements reflect the view of the participants’ perceptions of constructs measured.
3. The surveys utilized in this study were only available in English, hence this study was limited to participants fluent in English.
4. Social desirability, which can impact the validity of the data collected, might have affected the responses of participants due to the nature of the study’s topic.
5. Exploration of within-group differences is limited as this study primarily focused on between group differences.
6. It was assumed that participants stem from traditional family systems.
7. The study lacked collateral information which can contribute to bias.

Additionally, the non-randomized sample included participants attending local self-help group meetings, gatherings, and events in South Florida’s Palm Beach County. Thus the sample may not be representative of the population as participants actively sought help through the group setting or from a third party. Utilizing a convenience sample minimizes the ability to generalize results to the entire ACOA and NACOA populations. Furthermore, the study sampled voluntary participants, limiting data to ACOAs and NACOAs who were willing to participate without compensation.
Consequently, the study was limited to proactive participants who exhibited interest in the topics studied and a desire to contribute to counseling research.

In the future, researchers can minimize these limitations by including a diverse sample of participants who actively sought help and participants who were, for example, involuntarily hospitalized. Katsakou and Priebe (2006) found that most involuntarily admitted psychiatric patients showed significant clinical improvement over time, addressing treatment’s potential impact on participants and their responses. Thus, sampling participants who have not yet been exposed to comprehensive treatment could expand the depth of counseling literature and identify needs of underrepresented ACOAs and NACOAs. Furthermore, the instruments could be made available in different language other than English to strengthen a cultural sample. Lastly, compensation or incentives could be offered in return for the participants’ time in order to attract ACOAs and NACOAs who are less interested in partaking in counseling research. The last section of this chapter summarizes the study and offers concluding thoughts.

Conclusion

In this study, adult attachment, locus of control, and fear of intimacy were significantly related to each other in both the ACOA and NACOA sample. ACOAs were found to exhibit an insecure adult attachment with a mostly fearful avoidant style and they more frequently displayed an external locus of control and greater fear of intimacy. NACOAs were found to form secure adult attachments and demonstrated an internal locus of control as well as lower fear of intimacy. The findings between the groups were significant and both locus of control and fear of intimacy were able to categorize and predict adult attachment membership accurately. This study was the first to investigate
the relationships between adult attachment, locus of control, and fear of intimacy in ACOAs and NACOAs.

The results from this study incorporated correlational investigations and by nature, causations cannot be drawn between the constructs of adult attachment, locus of control, and fear of intimacy in the two samples. Regardless, mental health providers can utilize the statistically and practically significant findings of this study and incorporate the knowledge of the potential impact of adult attachment, locus of control, and fear of intimacy on ACOAs in their practice and treatment. Additional research investigating these constructs can expand on the initial findings and possibly draw connections and correlations to other domains that in turn augment clinical services. An improved understanding of these underlying concepts will enhance mental health professionals’ practice and contribute to its research basis to advance treatment outcomes in ACOAs.

Growing up in an alcohol dependent household can affect the ACOA negatively and leave emotional scars that carry into adulthood. As one potential consequence, affective intimate relationships are often compromised stemming from the ACOA’s attachment and fostered by the individual’s locus of control and fear of intimacy. Bringing awareness to maladaptive patterns of behavior and cognition can positively contribute to the ACOAs clinical treatment and understanding of self. Interrupting a systemic pattern that might have been a legacy for generations can change their relationships if they desire. To conclude, this study addresses both research and practice, hoping that the obtained results will aid researchers, mental health professionals, clients, and future clients alike.
Appendix A

Recruitment Flyer
Calling all persons interested in participating in a research study concerning experiences while having been raised in an alcoholic household!

If you are an adult (18 years old or over) who, as a child and teenager, has been raised by one or more alcoholic parent(s), or if you are interested in the topic of parental alcohol dependence and its effects on minors in the household, we are interested in your participation in a survey. We are looking for two groups of participants, one who was and one who wasn’t raised in an alcoholic household, as we want to examine the differences and similarities between both groups. The survey will help identifying ways that individuals, who were and weren’t raised in alcoholic households, are impacted. The survey can be completed by hand and takes approximately 20 to 30 minutes to complete. For information you can call or email researcher Raffaela Peter at 561.297.3601 or rpeter@fau.edu.

Thank you for your interest.
Appendix B

Participant Consent Form
ADULT CONSENT FORM.

1) Title of Research Study: Attachment, Locus of Control, and Romantic Intimacy in Adult Children of Alcoholics: A correlational Investigation.

2) Investigator(s): Dissertation Chair and Principle Investigator: Paul R. Peluso, PhD, College of Education, Department of Counselor Education. Co-Investigator/Personnel/Student: Raffaela Peter

3) Purpose: The purpose of this research study is to examine the relationships between components of attachment, locus of control, and romantic intimacy in adult children of alcoholics and non adult children of alcoholics. Specifically, we are interested in if and how these two groups differ in adult behavior pertaining to relationship choices and views.

4) Procedures: Participation in this study will require completion of a survey consisting of 134 items, which will be administered in person to willing participants. Estimated time of completion for the entire survey is 20 to 30 minutes. There will be no limit on time as long as the survey is completed. Adult children of alcoholics and non-adult children of alcoholics will be asked to complete the survey. Participants must be at least 18 years of age. The subjects in this study will be asked to answer a number of questions about demographics, attachment, locus of control, and romantic intimacy. Rewards or compensation will not be offered for participation.

5) Risks: The intent of this research is to examine if there exist differences and similarities in adult behavior when having been raised, and not having been raised, in an alcoholic household. Limiting any risks associated with participation in the study is of primary concern. This research carries more than minimal risk due to the personal nature of the questions asked. Therefore, should an adverse reaction or event occur, the participant will receive referrals for appropriate treatment from the researcher. The entity who will provide counseling services, should these be needed, is the Mental Health Association of Palm Beach County, Inc. that can be reached at 561.832.3755. Because the survey is lengthy, breaks from answering questions are allowed to be taken at the subject’s convenience.

The researcher and primary investigator will uphold the highest level of confidentiality by not recording the names of participants. Each individual will be coded to safeguard individual identity. ID numbers will be used to keep track of the responses of each research participant and all collected information will remain amongst the researcher and the primary investigator of this study. We intend to uphold the highest level of confidentiality by not recording the names of participants. Instead participants will be assigned a code to safeguard their identity. These codes, or IDs, will be used to keep track of the responses of each research participant and all collected information will remain amongst the researcher and the primary investigator for this study. All participants will be recruited on a voluntary basis. There is more than minimal risk associated with this study. If for any reason a participant is incapable of completing the survey in one sitting, arrangements will be made to provide extra time. All information and results will be used for the purpose of this research study. No information will be used for profit or for non-mentioned purposes.
6) Benefits: We do not know if participants will receive any direct benefits by taking part in this study. However, this research will contribute to a greater understanding of the relationships between attachment, locus of control, and romantic intimacy in adult children of alcoholics and non adult children of alcoholics. It is hoped that the results will contribute to current mental health counseling literature and add knowledge to the therapeutic alliance of therapist and client. Upon conclusion of the study, a summary of the outcome with specific data will be made available to participants, if they desire. At this point, the participants will be able to track how their participation impacted and contributed to the mental health counseling literature.

7) Data Collection & Storage: All of the results will be kept confidential and secure and only the people working with the study will see your information, unless required by law. The data will be kept for 10 years in a locked cabinet in the investigator’s office and then destroyed by shredding. A spreadsheet of the data collected will also after 10 years be kept on a password protected computer in the investigator’s office. The electronic data will be deleted after 10 years.

8) Contact Information:
*For questions or problems regarding your rights as a research subject, you can contact the Florida Atlantic University Division of Research at 561.297.0777. For other questions about the study, you should call the principal investigator, Paul R. Peluso and the main investigator Raffaela Peter at 561.297.3601.

9) Consent Statement:
*I have read or had read to me the preceding information describing this study. All my questions have been answered to my satisfaction. I am 18 years of age or older and freely consent to participate. I understand that I am free to withdraw from the study at any time without penalty. I have received a copy of this consent form.

Signature of Subject: ____________________________ Date: ________________

Printed name of Subject:
First Name ____________________________ Last Name ______________________

Signature of Investigator: ________________________________

Date: ____________________________

4/25/11 Version
Appendix C

Demographic Questionnaire
Demographic Questionnaire

Please read the following questions and circle or fill in the blanks as they apply to you:

Please indicate your sex:

a. Female___
b. Male___
c. Other (explain):___

Please describe your relationship status:

a. Single___
b. Married___
c. Divorced___
d. In a relationship___ Cohabiting: Yes____ No_____ 
e. Widowed___
f. Other (explain):___
g. If ever involved in a relationship, what was your longest relationship?_____

What is your age in years? ___

Would you describe yourself as:

a. African American/Black 
b. Caucasian/White 
c. Latino/Hispanic 
d. Native American/American Indian 
e. Asian 
f. Pacific Islander 
g. Other
Appendix D

Children of Alcoholics Screening Test (CAST)
Children of Alcoholics Screening Test (CAST)

Please only mark, in the space provided, the answers below that best describe your feelings, behaviors and experiences related to a parent's alcohol use during your upbringing. Take your time and be as accurate as possible.

1. ___ Have you ever thought that one of your parents had a drinking problem?
2. ___ Have you ever lost sleep because of a parent's drinking?
3. ___ Did you ever encourage one of your parents to quit drinking?
4. ___ Did you ever feel alone, scared, nervous, angry, or frustrated because a parent was not able to stop drinking?
5. ___ Did you ever argue or fight with a parent when he or she was drinking?
6. ___ Did you ever threaten to run away from home because of a parent's drinking?
7. ___ Has a parent ever yelled at or hit you or other family members when drinking?
8. ___ Have you ever heard your parents fight when one of them was drunk?
9. ___ Did you ever protect another family member from a parent who was drinking?
10. ___ Did you ever feel like hiding or emptying a parent's bottle of liquor?
11. ___ Do many of your thoughts revolve around a problem drinking parent or difficulties that arise because of his or her drinking?
12. ___ Did you ever wish that a parent would stop drinking?
13. ___ Did you ever feel responsible for or guilty about a parent's drinking?
14. ___ Did you ever fear that your parents would get divorced due to alcohol misuse?
15. ___ Have you ever withdrawn from and avoided outside activities and friends because of embarrassment and shame over a parent's drinking problem?
16. ___ Did you ever feel caught in the middle of an argument or fight between a problem drinking parent and your other parent?
17. ___ Did you ever feel that you made a parent drink alcohol?
18. ___ Have you ever felt that a problem drinking parent did not really love you?
19. ___ Did you ever resent a parent's drinking?
20. ___ Have you ever worried about a parent's health because of his or her alcohol use?
21. ___ Have you ever been blamed for a parent's drinking?
22. ___ Did you ever think your father was an alcoholic?
23. ___ Did you ever wish you home could be more like the homes of your friends who did not have a parent with a drinking problem?
24. ___ Did a parent ever make promises to you that he or she did not keep because of drinking?
25. ___ Did you ever think your mother was an alcoholic?
26. ___ Did you ever wish that you could talk to someone who could understand and help the alcohol-related problems in your family?
27. ___ Did you ever fight with your brothers and sisters about a parent's drinking?
28. ___ Did you ever stay away from home to avoid the drinking parent or your other parent's reaction to the drinking?
29. ___ Have you ever felt sick, cried, or had a "knot" in your stomach after worrying about a parent's drinking?
30. Did you ever take over any chores and duties at home that were usually done by a parent before he or she developed a drinking problem?
Appendix E

Experiences in Close Relationships-Revised Questionnaire (ECR-R)
Experiences in Close Relationships-Revised Questionnaire

The following statements concern how you feel in romantic relationships. We are interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Write the number in the space provided, using the following rating scale:

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Disagree</td>
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<td>2</td>
<td>Neutral</td>
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<td>3</td>
<td>Agree</td>
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<tr>
<td>4</td>
<td>Strongly Disagree</td>
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<tr>
<td>5</td>
<td>Strongly Neutral</td>
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<td>6</td>
<td>Strongly Agree</td>
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<td>7</td>
<td>Strongly Strongly Disagree</td>
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31. ___ I'm afraid that I will lose my partner's love.
32. ___ I often worry that my partner will not want to stay with me.
33. ___ I often worry that my partner doesn't really love me.
34. ___ I worry that romantic partners won't care about me as much as I care about them.
35. ___ I often wish that my partner's feelings for me were as strong as my feelings for him or her.
36. ___ I worry a lot about my relationships.
37. ___ When my partner is out of sight, I worry that he or she might become interested in someone else.
38. ___ When I show my feelings for romantic partners, I'm afraid they will not feel the same about me.
39. ___ I rarely worry about my partner leaving me.
40. ___ My romantic partner makes me doubt myself.
41. ___ I do not often worry about being abandoned.
42. ___ I find that my partner(s) don't want to get as close as I would like.
43. ___ Sometimes romantic partners change their feelings about me for no apparent reason.
44. ___ My desire to be very close sometimes scares people away.
45. ___ I'm afraid that once a romantic partner gets to know me, he or she won't like who I really am.
46. ___ It makes me mad that I don't get the affection and support I need from my partner.
47. ___ I worry that I won't measure up to other people.
48. ___ My partner only seems to notice me when I’m angry.
49. ___ I prefer not to show a partner how I feel deep down.
50. ___ I feel comfortable sharing my private thoughts and feelings with my partner.
51. ___ I find it difficult to allow myself to depend on romantic partners.
52. ___ I am very comfortable being close to romantic partners.
53. ___ I don't feel comfortable opening up to romantic partners.
54. ___ I prefer not to be too close to romantic partners.
55. ___ I get uncomfortable when a romantic partner wants to be very close.
56. ___ I find it relatively easy to get close to my partner.
57. ___ It's not difficult for me to get close to my partner.
58. ___ I usually discuss my problems and concerns with my partner.
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<td>59. It helps to turn to my romantic partner in times of need.</td>
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<tr>
<td>Disagree</td>
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<td>Agree</td>
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<td>Strongly</td>
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60. I tell my partner just about everything.
61. I talk things over with my partner.
62. I am nervous when partners get too close to me.
63. I feel comfortable depending on romantic partners.
64. I find it easy to depend on romantic partners.
65. It’s easy for me to be affectionate with my partner.
66. My partner really understands me and my needs.
Appendix F

Rotter’s Locus of Control Scale (LOC)
Rotter’s Locus of Control Scale (LOC)

Each number below has an “a” part and a “b” statement. Circle either “a” or “b” depending on which one most accurately reflects your view.

67. a. Children get into trouble because their parents punish them too much.
   b. The trouble with most children nowadays is that their parents are too easy with them.

68. a. Many of the unhappy things in people's lives are partly due to bad luck.
   b. People's misfortunes result from the mistakes they make.

69. a. One of the major reasons why we have wars is because people don't take enough interest in politics.
   b. There will always be wars, no matter how hard people try to prevent them.

70. a. In the long run people get the respect they deserve in this world.
   b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

71. a. The idea that teachers are unfair to students is nonsense.
   b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

72. a. Without the right breaks one cannot be an effective leader.
   b. Capable people who fail to become leaders have not taken advantage of their opportunities.

73. a. No matter how hard you try some people just don't like you.
   b. People who can't get others to like them don't understand how to get along with others.

74. a. Heredity plays the major role in determining one's personality.
   b. It is one's experiences in life which determine what they're like.

75. a. I have often found that what is going to happen will happen.
   b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.

76. a. In the case of the well prepared student there is rarely if ever such a thing as an unfair test.
   b. Many times exam questions tend to be so unrelated to course work that studying is really useless.

77. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
   b. Getting a good job depends mainly on being in the right place at the right time.

78. a. The average citizen can have an influence in government decisions.
   b. This world is run by the few people in power, and there is not much the little guy can do about it.
Each number below has an “a” part and a “b” statement. Circle either “a” or “b” depending on which one most accurately reflects your view.

79. a. When I make plans, I am almost certain that I can make them work.
    b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

80. a. There are certain people who are just no good.
    b. There is some good in everybody.

81. a. In my case getting what I want has little or nothing to do with luck.
    b. Many times we might just as well decide what to do by flipping a coin.

82. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
    b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.

83. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
    b. By taking an active part in political and social affairs the people can control world events.

84. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
    b. There really is no such thing as "luck."

85. a. One should always be willing to admit mistakes.
    b. It is usually best to cover up one's mistakes.

86. a. It is hard to know whether or not a person really likes you.
    b. How many friends you have depends upon how nice a person you are.

87. a. In the long run the bad things that happen to us are balanced by the good ones.
    b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

88. a. With enough effort we can wipe out political corruption.
    b. It is difficult for people to have much control over the things politicians do in office.

89. a. Sometimes I can't understand how teachers arrive at the grades they give.
    b. There is a direct connection between how hard I study and the grades I get.

90. a. A good leader expects people to decide for themselves what they should do.
    b. A good leader makes it clear to everybody what their jobs are.
Each number below has an “a” part and a “b” statement. Circle either “a” or “b” depending on which one most accurately reflects your view.

91. a. Many times I feel that I have little influence over the things that happen to me.
   b. It is impossible for me to believe that chance or luck plays an important role in my life.

92. a. People are lonely because they don't try to be friendly.
   b. There's not much use in trying too hard to please people, if they like you, they like you.

93. a. There is too much emphasis on athletics in high school.
   b. Team sports are an excellent way to build character.

94. a. What happens to me is my own doing.
   b. Sometimes I feel that I don't have enough control over the direction my life is taking.

95. a. Most of the time I can't understand why politicians behave the way they do.
   b. In the long run the people are responsible for bad government on a national as well as on a local level.
Appendix G

Fear of Intimacy Scale (FIS)
Imagine you are in a close, dating relationship. Respond to the following statements as you would if you were in that close relationship. Rate how characteristic each statement is of you on a scale of 1 to 5 as described below, and put your responses on the answer sheet.

*Note.* In each statement "O" refers to the person who would be in the close relationship with you.

1. I would feel uncomfortable telling “O” about things in the past that I have felt ashamed of.

2. I would feel uneasy talking with “O” about something that has hurt me deeply.

3. I would feel comfortable expressing my true feelings to “O”.

4. If “O” were upset I would sometimes be afraid of showing that I care.

5. I might be afraid to confide my innermost feelings to “O”.

6. I would feel at ease telling “O” that I care about him/her.

7. I would have a feeling of complete togetherness with “O”.

8. I would be comfortable discussing significant problems with “O”.

1
2
3
4
5

not at all characteristic of me
slightly characteristic of me
moderately characteristic of me
very characteristic of me
extremely characteristic of me
Note. In each statement "O" refers to the person who would be in the close relationship with you.

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<tr>
<th>Q</th>
<th>Description</th>
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<tbody>
<tr>
<td>104</td>
<td>A part of me would be afraid to make a long-term commitment to “O”.</td>
</tr>
<tr>
<td>105</td>
<td>I would feel comfortable telling my experiences, even sad ones, to “O”.</td>
</tr>
<tr>
<td>106</td>
<td>I would probably feel nervous showing “O” strong feelings of affection.</td>
</tr>
<tr>
<td>107</td>
<td>I would find it difficult being open with “O” about my personal thoughts.</td>
</tr>
<tr>
<td>108</td>
<td>I would feel uneasy with “O” depending on me for emotional support.</td>
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<tr>
<td>109</td>
<td>I would not be afraid to share with “O” what I dislike about myself.</td>
</tr>
<tr>
<td>110</td>
<td>I would be afraid to take the risk of being hurt in order to establish a closer relationship with “O”.</td>
</tr>
<tr>
<td>111</td>
<td>I would feel comfortable keeping very personal information to myself.</td>
</tr>
<tr>
<td>112</td>
<td>I would not be nervous about being spontaneous with “O”.</td>
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<th>not at all characteristic of me</th>
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</table>

122
Note. In each statement "O" refers to the person who would be in the close relationship with you.

1  2  3  4  5
not at all  slightly  moderately  very  extremely
characteristic characteristic characteristic characteristic characteristic
of me of me of me of me of me

113. _____ I would feel comfortable telling “O” things that I do not tell other people.

114. _____ I would feel comfortable trusting “O” with my deepest thoughts and feelings.

115. _____ I would sometimes feel uneasy if “O” told me about very personal matters.

116. _____ I would be comfortable revealing to “O” what I feel are my shortcomings and handicaps.

117. _____ I would be comfortable with having a close emotional tie between us.

118. _____ I would be afraid of sharing my private thoughts with “O”.

119. _____ I would be afraid that I might not always feel close to “O”.

120. _____ I would be comfortable telling “O” what my needs are.

121. _____ I would be afraid that “O” would be more invested in the relationship than

123
Note. In each statement "O" refers to the person who would be in the close relationship with you.

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<tr>
<td></td>
<td>not at all characteristic of me</td>
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<td>very characteristic of me</td>
<td>extremely characteristic of me</td>
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</table>

122. _____ I would feel comfortable about having open and honest communication with “O”.

123. _____ I would sometimes feel uncomfortable listening to “O’s” personal problems.

124. _____ I would feel at ease to completely be myself around “O”.

125. _____ I would feel relaxed being together and talking about our personal goals.
Respond to the following statements as they apply to your past relationships. Rate how characteristic each statement is of you on a scale of 1 to 5.

1   2   3   4   5

not at all slightly moderately very extremely
characteristic of characteristic of characteristic of characteristic of characteristic of me me me me me

126. ____ I have shied away from opportunities to be close to someone.

127. ____ I have held back my feelings in previous relationships.

128. ____ There are people who think that I am afraid to get close to them.

129. ______ There are people who think that I am not an easy person to get to know.

130. ______ I have done things in previous relationships to keep me from developing closeness.
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*Postgraduate Medical Journal, 73*, 27–31. doi:10.1136/pgmj.73.855.27