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Parental alcoholism and coping: A comparison of female children of alcoholics with female children of non-alcoholics

Kelly, Virginia Ann, Ph.D.

The University of North Carolina at Greensboro, 1993

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PARENTAL ALCOHOLISM AND COPING: A COMPARISON OF FEMALE CHILDREN OF ALCOHOLICS WITH FEMALE CHILDREN OF NON-ALCOHOLICS

by

Virginia Ann Kelly

A Dissertation Submitted to
the Faculty of the Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
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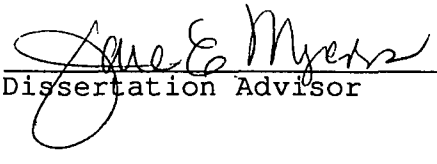

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The purpose of this research was; 1. to assess differences in level of depression between female children of alcoholics (COAs) and female children of non-alcoholics, 2. to assess potential differences in choice of coping strategies between COAs and children of non-alcoholics, and 3. to determine the extent to which the eight coping strategies under study were useful in predicting group (COA group or children of non-alcoholic group) placement. A sample of 103 (76 children of non-alcoholics and 27 COAs) traditional-aged undergraduate college students comprised the sample.

An independent two-sample t-test revealed statistically significant differences in level of depression between the COAs and the children of non-alcoholics, with the children of alcoholics exhibiting a higher level of depression. However, the mean depression scores for both groups were within the no depression range.

A multivariate analysis of covariance revealed an overall difference in the use of the eight coping strategies under study in response to a stressful encounter reported by subjects. However, no overall difference was detected in the use of the coping strategies in response to a prepared

vignette. Follow-up univariate tests showed no significant differences in the use of the eight coping strategies under study.

A discriminant function analysis applied to the coping inventory scores derived in response to the actual stressful encounter reported by subjects yielded a model using depression and self-isolation to predict parental alcoholism. The same statistical procedure applied to the coping inventory scores derived in response to the prepared vignette yielded a model comprised of depression. In both cases, the models did a good job of correctly predicting group placement for the children of non-alcoholics and a poor job of correctly predicting group placement for the COAs.

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CHAPTER I

INTRODUCTION

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) estimates that 28,000,000 Americans have at least one alcoholic parent. Consequently, one in every six Americans is being, or has been, raised by at least one alcoholic parent (NIAAA, 1985). The findings of numerous research studies support this statistic (Black, 1981; Cloninger, Hecht, 1973; Schulsinger & Sigvardsson, 1981; Russell et al., 1985). In addition, studies to date indicate that this population is likely to be at increased risk for a variety of social and psychological problems (Russell et al., 1985). With 28,000,000 children of alcoholics (COAs) nationwide at an increased risk for social and psychological problems, it is likely that professional counselors will come into contact with a substantial number of these individuals. Consequently, clinicians and researchers have begun the task of attempting to accurately describe this population and provide a theoretical basis for their treatment.

The remainder of this chapter will be primarily devoted to providing a rationale for the proposed study. Pertinent background information will be presented first. This is followed by the purpose of and need for the proposed study. The research questions and an overview of the organization of

the study will then be presented. Finally, a definition of terms section has been added to aid the reader in understanding key terms as they are meant to apply to the proposed research.

Background Information

Research on COAs to date is primarily descriptive and focuses on the investigation of characteristics associated with the incidence of parental alcoholism. Although findings are somewhat inconsistent, the evidence presented throughout the literature suggests that certain psychological symptomatology may be more prevalent among COAs. For example, increased incidence of substance-abuse (Cotton, 1979; Drake & Vaillant, 1988; Svanum & McAdoo, 1991), a lower level of cognitive function (Ervin, Little, Streissguth, & Beck, 1984; Marcus, 1986; Plescia-Pikus, Long-Sutter, & Wilson, 1988), lower levels of overall psychological well-being (Baker & Williamson, 1989; McKenna & Pickens, 1982; Plescia-Pikus et al., 1988; Reich, Earls & Powell, 1988; Rubio-Stipec, Bird, Canino, Bravo, & Alegria, 1991; Svanum & McAdoo, 1991), decreased levels of self-esteem (Bagara, 1977; Berkowitz & Perkins, 1988; Cork, 1969; Davis, 1983; O'Gorman, 1975; Prewett, Spence, & Chaknis, 1981; Reardon & Markwell, 1989; Roosa, Sandler, Beals, & Short, 1988; Russell et al., 1985), poor sociability (Calder & Kostiniuk, 1989; Udayakumar, 1984), and an external locus of

control orientation (Kern, Hassett, Collipp, Bridges, Solomon, & Condren, 1971; O'Gorman, 1975; Prewett et al., 1981) have all been associated with the presence of parental alcoholism. However, the findings from available studies addressing differences between COAs and children of non-alcoholics on these characteristics are equivocal.

For example, Wilson and Blocher (1990) found that COAs were able to identify feelings, express feelings spontaneously, and develop intimate relationships as well as children of non-alcoholics. Additionally, this same study reported no discernible differences between the two groups on level of self-esteem as measured by the Personal Orientation Inventory (POI). Likewise, in two other studies, no differences between adult COAs and children of non-alcoholics were detected on measures of self-esteem or locus of control orientation (Churchill, Broida, & Nicholson, 1990; Werner & Broida, 1991). Tweed and Ryff (1991) found no significant differences on scores obtained from the Affect Balance Scale (ABS), the Purpose in Life Test (PLT), or the Self-Esteem Scale (SES). Finally, Berkowitz and Perkins (1988) found no differences between COAs and children of non-alcoholics on measures of sociability and other-directedness.

Thus far, the only psychological characteristic unequivocally linked to the presence of parental alcoholism is clinical depression. Studies have consistently demonstrated that the incidence of clinical depression is

more prevalent among COAs than among matched cohort groups (Baker & Williamson, 1989; Calder & Kostiniuk, 1989; Goglia, 1986; Gross & McCaul, 1990; Rolf, Johnson, Isreal, Baldwin, & Chandra, 1988; Tweed & Ryff, 1991). For example, Rolf et al. (1988), in a study examining the depressive affect of school-aged children of alcoholics, found that the COAs exhibited significantly higher scores on The Child Depression Inventory (CDI). These findings were corroborated in a study by Calder and Kostyniuk (1989), who reported that COAs scored one standard deviation higher than the norm population on the depression scale of the Personality Inventory for Children (PIC). In addition, in a study investigating differences between adult COAs and a matched cohort group, Goglia (1986) reported that COAs were significantly more depressed.

In addition to the investigation of differences between COAs and children of non-alcoholics on levels of various acquired social and psychological characteristics, simultaneous research of several demographic variables exists. For example, the effects of gender of the COA as well as gender of the alcoholic parent have recently been addressed. In one study investigating the personality characteristics of COAs, Berkowitz and Perkins (1988) found that adult female COAs experienced significantly more self-depreciation than adult male COAs. These findings were corroborated by Goglia (1986), who found a gender of COA effect on level of depression, with women scoring

significantly higher on the depression scale of the Minnesota Multiphasic Personality Inventory (MMPI) than did men. Gender-of-alcoholic-parent effects and gender-of-COA by gender-of-alcoholic-parent interaction effects on depression have also been assessed, with inconsistent results. For example, Berkowitz and Perkins (1988) found that the level of self-depreciation was significantly higher for women of alcoholic fathers than for those with alcoholic mothers. However, in another study investigating differences between COAs and children of non-alcoholics, McKenna and Pickens (1982) found that subjects with only alcoholics fathers did not differ from subjects with only alcoholic mothers on the MMPI scores obtained. In addition, it was noted that no significant gender-of-COA by gender-of-alcoholic-parent interactions were found.

These inconsistent findings have led researchers to suggest that further investigation of the effects of gender differences on COAs is essential (Blane, 1988; Woodside, 1988). For the proposed study, this researcher has chosen to control for the effect of gender of the COA, while investigating the effects of gender of the alcoholic parent. The evidence to date suggests that female COAs may experience more depression than male COAs. Therefore, this study will investigate differences between female COAs and female children of non-alcoholics only. However, because evidence regarding the effect of gender-of-alcoholic-parent remains

equivocal, a research question will assess these potential effects for the proposed sample.

One area of research consistently neglected throughout the literature on COAs is that of coping among this particular population. It has been suggested by Lazarus and Launier (1978) that the ability to cope effectively with stressful encounters is of paramount importance to overall morale and social functioning. Thus, understanding the ways in which individuals cope with stress may supply counselors with information directly applicable to successful intervention with clients. The research to date includes very little which specifically addresses the coping strategies most often used by COAs. In one study, Martin (1991) found that COAs reported using a higher number of evasive, fatalistic, palliative, and self-reliant coping strategies when confronted with stressful encounters experienced within the context of the family. In the same study, it was reported that COAs used a lower number of optimistic coping strategies than did children of non-alcoholics, and the investigators have suggested that COAs appear to cope differently than children of non-alcoholics. In another study investigating the developmental acquisition of coping strategies of young adults, Scavnicky-Mylany (1990) reported that COAs showed a possible developmental delay in the use of certain coping strategies compared to children of non-alcoholics. Her

findings suggested that for COAs, confrontive coping strategies developed later than for children of non-alcoholics. In addition, she found that COAs were significantly more likely than children of non-alcoholics to use two unique methods of coping - reversed emotive coping and reversed confrontive coping. Reversed emotive coping consists of focusing on the emotions of another as opposed to focusing on one's own emotions. Reversed confrontive coping refers to the act of comforting another as opposed to seeking comfort for oneself.

Lazarus and his colleagues have spent several decades investigating the construct of coping and, as a result, have developed a comprehensive theory of coping (Folkman, 1984; Folkman & Lazarus, 1980; Folkman & Lazarus, 1985; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Folkman, Lazarus, Gruen, & DeLongis, 1986; Lazarus, 1966). Within the theoretical context presented by Lazarus and his colleagues, coping has been defined as "the process of managing demands (internal or external) that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 283). This cognitive theory of stress and coping is described as transactional in nature. The person and the environment are viewed as being in a dynamic, reciprocal, bidirectional relationship.

The function of coping according to Lazarus and his colleagues is twofold. First, coping is said to regulate

emotions or distress (emotion-focused coping). Second, coping strategies are used to manage the problem that is causing the distress (problem-focused coping). In a comprehensive study of coping among college students, Folkman and Lazarus (1985) delineated seven emotion-focused coping strategies (wishful thinking, distancing, seeking social support, emphasizing the positive, self-blame, tension-reduction, and self-isolation), and one problem-focused strategy (problem-focused coping). These strategies were identified through a factor analysis performed on the scores obtained from an administration of the Ways of Coping Checklist - Revised (WCCL-R) (Folkman & Lazarus, 1985).

Empirical testing of Lazarus' theory has revealed several consistent aspects descriptive of the nature of coping. Among these is the fact that individuals tend to use a variety of coping strategies; rarely does an individual choose one coping strategy to the total exclusion of all others. Folkman and Lazarus (1985) found in sample a of 1332 middle-aged community residents that 98% used both emotion-focused and problem-focused coping strategies to cope successfully with with a variety of stressful encounters. Consequently, Folkman and Lazarus (1985) stated that "coping must be examined within the context of a specific stressful encounter" (p. 156), as the choice of coping strategy is entirely context-dependent. For example, in the same study,

Folkman and Lazarus (1985) reported that work contexts tend to elicit problem-focused coping, while health and family contexts favor emotion-focused coping. Likewise, Pearlin and Schooler (1978) reported that the same individual will tend to use different coping strategies within their roles as spouse, parent, worker, and breadwinner. Parental alcoholism takes place within the context of the family. Therefore, stressful encounters within the family may represent those most susceptible to deviations from expected choices in coping strategies among COAs. This particular investigation, therefore will address differences between COAs and children of non-alcoholics in their choice of coping strategies within the context of the family.

Lazarus and his colleagues further suggested that certain psychological predispositions influence an individual's choice of coping strategy. Among these is level of depression. Throughout the literature on coping, findings consistently reveal that depressed individuals engage in different coping strategies than non-depressed persons. Coyne and Lazarus (1980) reported that depressed persons were more likely than non-depressed persons to seek emotional support; they were also significantly more likely to use self-blaming and wishful thinking as coping strategies. Vitaliano, Maiuro, Becker, Russo, and Carr (1985) found that wishful thinking, self-blame and escape-avoidance, as measured by the WCCL-R (Folkman & Lazarus, 1985), were

significantly positively correlated with scores on the Beck Depression Inventory (BDI). Kolenc, Hartley, and Murdock (1990) reported that depressed individuals relied more heavily on emotion-focused coping and engaged in less problem-focused coping than did non-depressed subjects. Folkman and Lazarus (1986) reported that depressed persons used more confrontive coping, self-control, and escape-avoidance, accepted more responsibility for the stressful encounter, and responded to stressful encounters with more disgust/anger and worry/fear than non-depressed individuals.

Due to the developmental tasks associated with the traditional-age college student, this population has been chosen as the most suitable for the proposed investigation. Erikson (1950) purported that the primary developmental task of the adolescent and young adult is that of forming an identity. More specifically, Chickering (1969) suggested that identifiable developmental changes occur in individuals from age seventeen or eighteen into the middle or late twenties. "Some of these changes occur for individuals who do not attend college; but college does make a difference" (p. 2). Through his work with college students, he developed a comprehensive developmental model composed of seven distinct, yet interrelated vectors. These vectors represent the seven major developmental tasks facing young adults and are defined as: achieving competence, managing emotions, becoming

autonomous, establishing identity, freeing interpersonal relationships, clarifying purposes, and developing integrity. Achieving competence, managing emotions, and becoming autonomous, in particular, require that the young adult begin to choose sets of coping strategies in order to master the specific tasks involved. Chickering (1969) suggested that through the process of becoming autonomous, an individual must demonstrate "the ability to carry on activities and to cope with problems without seeking help" (p. 12). From a developmental perspective, then, the traditional college-aged student is likely to be struggling with the question of how to cope with a variety of situations. This being the case, the use of this particular population for the proposed study presents an opportunity to detect differences in choice of coping strategies while these preferences are becoming formed. If, as counselors, we can identify the use of maladaptive coping strategies among COAs at this particular stage in their development, appropriate interventions can be developed and implemented while the individual is in the process of making these choices.

It has been established that COAs consistently exhibit higher levels of depression than children of non-alcoholics (Baker & Williamson, 1989; Calder & Kostiniuk, 1989; Goglia, 1986; Gross & McCaul, 1990; Rolf et al., 1988; Tweed & Ryff, 1991). The fact that this same characteristic has been shown to influence the choice of coping strategies suggests that

COAs may choose different, and possibly ineffective, coping strategies. COAs may be more likely than children of non-alcoholics to choose more emotion-focused coping strategies such as: confrontive coping, wishful thinking, self-blaming, escape-avoidance, accepting responsibility for the stressful encounter, self-control, and seeking more emotional support. Although several of these strategies may be appropriate and effective in the context of specific stressful situations, the trend suggests a fairly negative repertoire of coping strategies among COAs. It has further been established that the traditional-aged college student is most likely in the process of working through some specific developmental struggles which directly relate to the choice of coping strategy (e.g., developing competence, managing emotions , and developing autonomy) (Chickering, 1969).

If, in fact, as Lazarus suggested, the ability to cope effectively is paramount to a sense of overall well-being, the understanding of coping among COAs can provide vital information to professional counselors who can use this information to enhance clinical intervention strategies, develop and execute educational programs, and make informed decisions regarding areas for future empirical investigations. From a developmental perspective, if these interventions can take place during a formative stage in the life of the individual, the chances of affecting the desired change can be increased.

Purpose of the Study

This study will investigate differences in coping strategies between traditional-aged college female COAs and a cohort group of female children of non-alcoholics as they occur within the context of stressful interactions within the family. Additionally, an assessment will be made of the extent to which particular sets of coping strategies can be used to discriminate female COAs from female children of non-alcoholics. Finally, the effect of gender of the alcoholic parent will be examined.

Need for the Study

Vacc and Loesch (1987) described the professional counselor as a practitioner-scientist, thus stressing the counselor's dual role of clinician and scientist. As researchers, counseling professionals must continue to gain scientific insight into the unique characteristics of the individuals they serve. As practitioners, counseling professionals must integrate research findings into clinical practice, thus optimizing the likelihood that they will help individuals achieve counseling goals. Empirical evidence to date suggests that although COAs may require some unique intervention strategies, no discernible set of characteristics leading to such strategies has been ascertained. Clinical impressions have been formulated and empirical evidence has mounted in support of the development

of a theoretical framework. However, no concrete applications of existing theory have been tested (Russell et al., 1985). The literature on stress and coping presents an opportunity for researchers and clinicians to apply existing theory (e.g. Lazarus' theory of coping) to clinical work with COAs.

If in fact, female COAs employ different coping strategies than female children of non-alcoholics, and if COAs consistently exhibit a unique set of coping strategies, professional counselors can anticipate the kinds of coping strategies being used by these clients (e.g., confrontive coping, self-blame, wishful thinking, and escape-avoidance), and can plan educational and counseling interventions aimed directly at increasing female COAs' ability to cope more successfully with stressful encounters in the family. Knowledge of coping strategy differences between female COAs and female children of non-alcoholics can then lead to more efficient and more effective ways of helping these clients. If these differences can be detected in a college-age population, these interventions can be applied at a time when important developmental tasks are being mastered, and choices regarding coping strategies are being made.

Research Questions

The following research questions, which are supported throughout the literature, will be addressed in this study.

First, findings from available studies are suggestive of substantial differences between COAs and children of non-alcoholics in level of depression. Because empirical studies supporting this difference are relatively few, it will be verified in the sample chosen for this investigation. These findings will assist in controlling for differences between COAs and children of non-alcoholics, particularly since level of depression is associated with coping strategy. In this way, differences in the use of particular coping strategies cannot be confounded with possible differences in level of depression. The following research question will therefore be addressed.

1. Are female COAs more depressed than female children of non-alcoholics as measured by the Beck Depression Inventory (BDI) (Beck, 1966)?

The following two research questions will assess between group differences related to choice of coping strategies. The groups under study are COAs and children of non-alcoholics. It is the purpose of this particular investigation to differentiate between these two groups on the basis of choice of coping strategies when faced with stressful encounters involving the family. Therefore, the following questions will directly address these potential between group differences.

2. When confronted with a stressful encounter involving a family-related matter, do female COAs exhibit a distinct coping strategy profile as measured by the Ways of Coping Checklist - Revised (WCCL-R) (Folkman & Lazarus, 1985) when compared with female children of non-alcoholics after controlling for differences in level of depression?

3. Which of the eight coping strategies best discriminate female COAs from female children of non-alcoholics in responding to family-related stressful encounters after controlling for differences in level of depression?

Recent empirical studies have begun to address differences between COAs and children of non-alcoholics on the basis of gender of the alcoholic parent. The following research question will be used to investigate within COA group differences in coping strategies as they relate to this potential effect.

4. Can distinct coping strategy profiles be identified for female COAs with only an alcoholic father, those with only an alcoholic mother, and those with two alcoholic parents?

Organization of the Study

The proposed study will be organized in the following manner. Chapter II will present a thorough review of the literature related to both COAs and coping, along with a brief review of Chickering's vector model of student development. Chapter III will present the proposed methodology for carrying out the study. The research hypotheses will be presented, followed by a detailed description of the population and sample. A thorough review of the proposed instrumentation, including relevant psychometric considerations will be presented. The procedures for carrying out the study will be then described in detail, as will the intended data analyses procedures. Finally, limitations of the proposed study will be addressed, followed by a description of the pilot study. Chapter IV will provide a detailed description of the results of the statistical analyses, and chapter V will cover a discussion of the implications of these findings.

Definition of Terms

The following terms will be used frequently throughout the remainder of this text. Definitions are therefore provided for the purpose of clarifying their meaning within this particular study.

1. Female children of Alcoholics (COAs) - Female COAs will refer to those female individuals who have been

identified as having at least one alcoholic parent. Identification will be made on the basis of scores on the Children of Alcoholics Screening Test (CAST) (Jones, 1983a) (Appendix D) in combination with self-report of the existence of parental alcoholism. Detailed descriptions of CAST scoring and criteria for selection into groups are provided in Chapter III.

2. Female children of non-alcoholics (COnonAs) - This group will consist of female individuals scoring within the range of children of non-alcoholics on the CAST, who simultaneously self-report that they have no alcoholic parents. The CAST is an empirical measure of the presence of parental alcoholism which has been used extensively in conjunction with self report to group subjects. A detailed description of the CAST, including relevant psychometric properties, is provided in chapter III.

3. Depression - Individuals will be defined as depressed on the basis of scores derived from the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) (Appendix E). Those individuals scoring within the range of mild moderate depression, moderate severe depression, or extreme severe depression as defined by the criteria outlined within the BDI test manual (Beck et al., 1961) will be considered depressed.

4. Coping - For the purposes of this study, coping will be defined in accordance with Lazarus' theory of stress and

coping. Therefore, the following definition will be applied: "the process of managing demands (external or internal) that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p. 283).

5. Coping strategies - Coping strategies are defined as those specific strategies employed by individuals when faced with a stressful encounter. The 8 coping strategies delineated by Folkman and Lazarus (1985) will be applied. They are: problem-focused coping, wishful thinking, distancing, seeking social support, emphasizing the positive, self-blame, tension-reduction, and self-isolation.

6. Stressful encounter - A stressful encounter will be defined as any situation, thought, or activity leading to the use of a coping strategy on the part of the individual.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

In this chapter a review of the literature pertinent to the proposed study is presented. To begin with, the literature pertaining to the epidemiology of parental alcoholism will be reviewed. This will be followed by a review of the literature assessing various social, psychological, and demographic characteristics of children of alcoholics (COAs), including coping among COAs. The literature on coping theory, particularly that reflective of Lazarus' theory of stress and coping, will then be reviewed. An emphasis will be placed on studies focusing on coping and those psychological characteristics associated with parental alcoholism. A brief review of some developmental considerations based on Arthur W. Chickering's (1969) vector model of student development will be presented. Finally, the chapter will conclude with a summary of the literature review, with particular emphasis on the key variables linking the separate bodies of literature.

Children of Alcoholics

Epidemiology

It was noted earlier that 28,000,000 Americans are children of alcoholics (NIAAA, 1985). Approximately 15,000,000 of these individuals are school-aged children and the remainder are adults. The effects of growing up in an alcoholic family have been the focus of much research and clinical consideration over the past decade. In a comprehensive review of the literature, Russell et al. (1985), concluded that children of alcoholics (COAs) are at increased risk for several specific psychological and social problems. Researchers have compared COAs to children of non-alcoholics on a variety of characteristics. Among these are; the incidence of substance-abuse, cognitive function, overall psychological well-being, self-esteem, sociability, locus of control orientation, and depression. In addition, several studies have incorporated the simultaneous investigation of such demographic characteristics as gender of the COA and gender of the alcoholic parent. The literature addressing each of these variables is discussed in the following section.

Characteristics of COAs

Incidence of Substance-Abuse

Research comparing the incidence of substance-abuse between COAs and children of non-alcoholics reveals that COAs

consistently exhibit higher rates of substance-abuse. For example, when Svanum & McAdoo (1991) investigated the drinking behavior of male and female alcoholics in treatment, they found that offspring of alcoholics were more likely to exhibit higher levels of alcohol dependency and alcohol-related consequences. Drake and Vaillant (1988) found that the best predictor of alcohol dependence was number of alcoholic relatives. This finding is supported in a review (Cotton, 1979) of 39 studies on the familial incidence of alcoholism. After reviewing data on 6251 alcoholic families and 4083 non-alcoholic families, Cotton (1979) concluded that:

> the most striking finding revealed . . . is that, regardless of the nature of the population of non-alcoholics studied, an alcoholic is more likely than a non-alcoholic to have a mother, father or more distant relative who is alcoholic (p. 99).

Cognitive Function

Cognitive function in COAs has been examined by a number of researchers. In a study by Plescia-Pikus et al. (1988), the researchers found significant differences between COAs and a matched group of children of non-alcoholics on a measure of achievement extracted from the California Psychological Inventory (CPI). Marcus (1986) conducted a study comparing 40 elementary school-aged children of alcoholic mothers with 40 youngsters of non-alcoholic mothers. He reported that the children of alcoholic mothers

scored significantly lower on mathematics, reading recognition and reading comprehension tests, and were more often placed in special education classes. Ervin et al. (1984) found that full-scale IQ performance scores and verbal scores were significantly lower for children of alcoholic fathers than for children of non-alcoholic fathers.

Although differences between COAs and children of non-alcoholics on level of cognitive function have been noted, Johnson and Rolf (1988) reported otherwise. In a study comparing 50 male and female school-aged children of alcoholics with 48 children of non-alcoholics, independent t-tests revealed no significant differences between the groups on the Weschler Intelligence Test for Children-Revised (WISC-R) or the Weschler Adult Intelligence Scale (WAIS), and the Wide Range Achievement Test (WRAT).

Overall Psychological Well-Being

Several researchers have investigated the effects of parental drinking on various psychological variables. Those which have assessed the effect of parental alcoholism on overall psychological well-being vary in their findings. Most have concluded that COAs exhibit lower than expected levels of overall psychological well-being, a higher incidence of maladjustment, and more personality disorders (Baker & Williamson, 1989; McKenna & Pickens, 1982; Plescia-Pikus et al., 1988; Reich et al., 1988; Rubio-Stipec

et al., 1991; Svanum & McDoo, 1991). However, several studies have found no discernible differences between COAs and children of nonalcoholics on measures of psychological adjustment (Calder & Kostyniuk 1989; Tweed & Ryff, 1991; Wilson & Blocher, 1990).

Using several subscales (achievement via conformance, achievement via independence, and sense of well-being) of the California Psychological Inventory (CPI) as a dependent measure, Plescia-Pikus et al. (1988) concluded that adult COAs exhibited lower overall well-being than children of non-alcoholics. These results were supported for children from ages four to 16 in a study by Rubio-Stipec et al. (1991), where conclusions were based on differences in scores on the Child Behavior Checklist (CBC). In their study, Rubio-Stipec et al. assessed differences between 82 COAs and 95 children of non-alcoholics. Analyses revealed that COAs scored significantly higher on the total behavior problem scale of the CBC. Reich et al. (1988) found that 44% of the children of alcoholics they investigated received more than one diagnosis from the Diagnostic and Statistical Manual III (DSM III); 50% received a behavioral diagnosis only, 16% received a behavioral/emotional diagnosis, and only 28% received no diagnosis. Although the sample size used in this study was relatively small, these numbers represented differences that were significantly different ($p < .05$) from those observed in a matched cohort group.

In two other studies using MMPI scores as the dependent measure, significant differences between COAs and children of non-alcoholics were noted. In a study of 1929 alcoholics (75% COAs and 25% children of non-alcoholics), McKenna & Pickens (1982) found that adult COAs were more likely to show elevated profiles on MMPI measures of psychopathology, especially aggression. In a similar study, Svanum & McAdoo (1991) reported that 264 alcoholic adult COAs were more likely than 275 alcoholic children of non-alcoholics to exhibit elevated profiles on MMPI-measured psychopathology. In particular, COAs exhibited more elevated profiles on the MMPI scales measuring dependency, alcoholism, and depression.

Several researchers have investigated factors associated with overall psychological well-being and found that no significant differences exist between COAs and the control groups investigated. For example, Wilson & Blocher (1990) found no differences between a sample of college-aged COAs and children of nonalcoholics in identifying feelings, expressing feelings spontaneously, developing intimate relationships, and self-worth as measured by the Personal Orientation Inventory (POI). Calder and Kostyniuk (1989) compared 62 COAs with a cohort group of children of non-alcoholics using the Personality Inventory for Children (PIC). They found that although signs of adjustment problems were evident in some COAs, the majority did not suffer from an increased tendency toward such problems.

In a study investigating the effects of parental alcoholism on adult COAs, Tweed and Ryff (1991) looked at the differences between 114 adult COAs and a cohort group of 125 children of non-alcoholics. An analysis of a self-report instrument that included items from a number of standardized measures of depression, anxiety, and psychological adjustment revealed that there were no significant differences between the two groups on the majority of measures.

Self-Esteem

Clinicians working with COAs have often characterized this group as at risk for low self-esteem. However, the empirical evidence related to the self-esteem of COAs is less conclusive. While some researchers have provided support for such clinical impressions (e.g., Berkowitz & Perkins, 1988; Reardon & Markwell, 1989; Roosa, et al., 1988; Russell et al., 1985), others report no evidence of a propensity toward lower self-esteem in COAs (Churchill et al., 1990; Gross & McCaul, 1990; Werner & Broida, 1991; Wilson & Blocher, 1990).

Based on their review of the literature, Russell et al. (1985) concluded that COAs are more likely than children of non-alcoholics to exhibit lower levels of self-esteem. In a study investigating several characteristics of COAs, Berkowitz and Perkins (1988) found that women COAs were more likely to report self-depreciation than women children of non-alcoholics. Reardon and Markwell (1989) compared 34 COAs

with 114 children of non-alcoholics using the "Personal Self" section of the Tennessee Self-Concept Scale (TSCS). Their conclusions state that the COAs exhibited significantly lower scores on this measure of self-concept than the children of non-alcoholics.

In other studies, differences in level of self-esteem between COAs and children of non-alcoholics were not supported. For example, Werner and Broida (1991), using randomly selected items from the self-esteem scale of the Jackson Personality Inventory (JPI) as a dependent measure, found no significant differences between the two groups on a sample of 82 COAs and 82 children of non-alcoholics. Likewise, Churchill et al. (1990) found that no differences existed between 177 adult COAs and a cohort group of 318 subjects on level of self-esteem as measured by the JPI.

Sociability

The controversial nature of findings on the characteristics of COAs extends into the literature on a variety of variables associated with social skills. Udayakumar (1984) compared 50 alcoholic families with 50 families where parental alcoholism was not existent on the following variables; quarrelsome vs. sociable disposition, school attendance, self-discipline, and compliance vs. distance. On all of the variables COAs showed significantly lower (i.e., less socially acceptable) levels of behavior.

In support of these findings, Gross and McCaul (1990) found that adolescents with a positive family history of alcohol abuse were more likely than those with a negative family history to exhibit behavioral dysfunction. In another study investigating the incidence of delinquency among various children, Calder and Kostiniuk (1989) found that COAs scored more than one standard deviation higher than the cohort group on a measure of delinquent behavior. Contrary to these findings however, Berkowitz and Perkins (1988), in a study of young college students, found that COAs scored similarly to their peers on a self-report measure of sociability.

Locus of Control

In three separate studies investigating the differences between COAs and cohort groups on locus of control, no significant differences were found (Berkowitz & Perkins, 1988; Churchill et al., 1990; Werner & Broida, 1991). However, in a study comparing the control orientation of 20 COAs with that of a matched cohort group, Kern et al. (1971) found that the COAs exhibited a significantly higher external orientation. These findings were corroborated by both O'Gorman (1975) and Prewett et al. (1981). In both of these studies significant differences between groups in scores on the Nowicki-Strickland Scale (NSS) were reported, with COAs exhibiting a higher tendency toward an external control orientation.

Depression

Depression appears to be the sole psychological characteristic unequivocally linked to parental alcoholism. Studies on the differences between COAs and children of non-alcoholics in level of depression present entirely consistent findings. Empirical investigations to date reveal higher levels of depression for COAs. In one study, Rolf et al. (1988) investigated differences in the depressive affect of 50 COAs and 48 children of non-alcoholics. Scores from the Children's Depression Inventory (CDI) were derived and comparisons indicated significant differences between the two groups, with COAs exhibiting more depressive affect. Differences between COAs and children of non-alcoholics were also noted on scores obtained from the Depressed Factor of the Youth Self-Report form of the Child Behavior Checklist (CBC). These findings were corroborated in several other studies where researchers found significant differences between COAs and children of nonalcoholics on measures of depression (Baker & Williamson, 1989; Calder & Kostiniuk, 1989; Gross & McCaul, 1990). In their investigation of a variety of characteristics, Tweed and Ryff (1991) found that adult COAs scored significantly higher on measures of depression than controls. Likewise, Goglia (1986) found significant differences between COAs and children of non-alcoholics. In a sample of 120 college students, the COAs scored higher on the MMPI Depression Scale.

Demographic Characteristics

In addition to the investigation of various social and psychological characteristics as they relate to parental alcoholism, researchers have simultaneously incorporated the study of several demographic variables. Studies have addressed the effect of gender-of-COA, gender-of-alcoholic parent, and the interaction between the two. Goglia (1986), in a sample of 120 college-aged COAs, found a significant gender-of-COA effect on the total Depression Scale of the MMPI, with the female COAs scoring significantly higher than the males. In another sample of 860 college students, Berkowitz and Perkins (1988) found that female COAs were significantly more self-depreciating than males. The dependent measure in this case consisted of items derived from a survey developed by Borgatta (1965) which purported to assess level of self-depreciation. Additionally, the same study revealed that level of self-depreciation was significantly higher for daughters of alcoholic fathers than for those with alcoholic mothers. Thus, initial inquiry suggests that gender of both the COA and the alcoholic parent may be associated with differences in the level of various psychological characteristics, especially depression.

COAs and Coping

One characteristic consistently neglected throughout the literature on COAs is that of coping. Although the ability

to cope successfully has been associated with high morale and overall psychological well-being (Lazarus, 1966), little has been done in the way of investigating the differences between COAs and children of non-alcoholics on the use of various coping strategies. In one study, Scavnicky-Mylant (1990) set out to describe the developing coping strategies of 30 young adult COAs. Subjects were asked to describe stressful encounters experienced at predetermined ages throughout their lives. The Jalowiec Coping Scale (JCS) was used to assess the strategies used to cope with the situations described. Findings indicated that a possible developmental delay in the acquisition of coping strategies may exist for COAs. Analyses revealed significant differences in the use of confrontive coping strategies throughout the adolescent years. Adolescent COAs reported using a significantly lower percentage of confrontive coping strategies than expected based on norming data. Additionally, two unique coping strategies were attributed to the existence of parental alcoholism: reversed emotive coping and reversed confrontive coping. Reversed emotive coping involved a preoccupation with the feelings of others, while denying ones' own feelings. Reversed confrontive coping was suggestive of an individual's preoccupation with the rights of others. Both of these coping strategies were found to exist more frequently among COAs, and both were considered maladaptive by the primary investigator. Martin (1991)

compared the coping behaviors of 71 adult COAs with 174 children of non-alcoholics. Comparisons were made on choices of strategies used to cope with stressful family relationships as measured by the Jalowiec Coping Scale. COAs reported using significantly higher numbers of evasive, fatalistic, and self-reliant coping strategies. Additionally, the COAs reported using a significantly lower number of optimistic coping strategies than the children of non-alcoholics. Martin suggests that COAs may in fact use different coping strategies when dealing with the stress of family relationships.

Finally, Passarello (1988) compared coping mechanisms in a sample of non-clinical college youth raised in alcoholic homes with those of youths raised in non-alcoholic homes. The sample of 498 students completed the Young Adult-Coping Orientation for Problem Experiences, and scores were compared for the two groups. The findings indicated that the family of origin's ability to function, as measured by the Family Orientation for Problem Experiences and the Family of Origin Scale was the primary explanatory factor regarding coping mechanisms. The alcoholic families exhibited significantly lower functioning, and consequently, COAs and children of non-alcoholics exhibited significantly different coping mechanisms.

Summary of Literature on COAs

Empirical investigations in the area of parental alcoholism have been primarily descriptive in nature. As shown, recent investigative efforts have attempted to characterize this population in terms of some specific psychological and social factors. For example, differences between COAs and children of non-alcoholics have been assessed for overall psychological well-being, cognitive function, self-esteem, locus of control orientation, and depression. Each of these variables has also been repeatedly associated with one's ability to cope with stress. Therefore, a review of the literature on coping will follow. An examination of this literature will assist in clarifying the possible link between the presence of parental alcoholism and the choice of coping strategy.

Coping

Definitions and Models

The construct of coping has been defined by several researchers. For example, Haan (1977) defined coping as any efforts made by an individual to adhere to reality, while Stone and Neale (1984) described it as any conscious efforts made to deal with stressful demands. Pearlin and Schooler (1978), in a study investigating the structure of coping, defined coping as "the things that people do to avoid being harmed by lifestrains" (p. 2). Matheny, Aycock, Pugh,

Curlette, and Silva-Cannella (1986), after conducting a thorough review of the literature on stress and coping, defined it as "any effort, healthy or unhealthy, conscious or unconscious, to prevent, eliminate, or weaken stressors, or to tolerate their effects in the least hurtful manner" (p. 509).

More comprehensive models of stress have been presented by Matheny, et al. (1986) and by Pearlin and Schooler (1978). In a meta-analysis of coping effectiveness, Matheny, et al. (1978) presented a taxonomy of coping based on their review of 35 studies of coping behaviors and resources. They define taxonomy as "a comprehensive listing of variables covering the significant dimensions of the construct" (p. 512). Their literature review yielded 17 distinct categories of coping. In addition, an "other" category was included to subsume coping behaviors and resources different from those explicitly defined. Each of the 17 categories of coping was presented as either a coping behavior or a coping resource. The 12 coping behaviors presented were; cognitive restructuring, problem solving, tension reduction, use of social skills, self-disclosure/catharsis, structuring, seeking information, stress monitoring, assertive responses, avoidance/withdrawal, suppression/denial, and self-medication. The five coping resources were; social support, beliefs/values, confidence/control, wellness, and self-esteem.

Pearlin and Schooler (1978) modeled the construct of coping in terms of three distinct but interrelated dimensions. The first dimension was referred to as social resources, which they defined as the available network of family, friends, etc. that an individual will call on in times of stress for various kinds of support (e.g. financial, emotional, physical). The second dimension consisted of the individual's available psychological resources for coping with stressful situations. These included; self-esteem, self-denigration, mastery, denial, general tendency toward escapism, and movement toward or away from people when troubled. The third dimension described was referred to as coping responses, and was defined as the actual behaviors an individual exhibits in the face of a stressful situation.

Lazarus' Theory of Coping

Introduction

The most comprehensive theory of coping available to date is that developed by Richard S. Lazarus and his colleagues (Cohen & Lazarus, 1979; Folkman & Lazarus, 1980; Folkman, Lazarus, Dunkel-Scheffer, DeLongis, & Gruen, 1986; Folkman et al., 1986; Lazarus, 1966; Lazarus & Folkman, 1984). After years of hypothesizing and testing theoretical constructs, these investigators have developed a framework encompassing several components of the coping construct. Central to their theory is the interactional nature of

coping. Coping is described as the dynamic and interdependent relationship between the person, the environment, and the stressful encounter. Lazarus and his colleagues provide a definition of coping encompassing constructs related to this theoretical orientation. They describe what they profess to be the functions of coping. These theorists also describe the cognitive processes which impact coping. And, finally, they discuss both the situational and person determinants of coping.

Definition of Coping

As previously stated, Lazarus and Folkman (1984) have defined coping as "the process of managing demands (external or internal) that are appraised as taxing or exceeding the resources of the person" (p. 283). This definition has been expanded to distinguish coping from adaptation by describing coping as requiring a mobilization of effort. "Coping occurs when the person cannot routinely handle the demands or requirements of living, but must draw upon something extra" (p.284). A deliberate attempt has been made to define coping in such as way as to serve several important functions. First, the "process" nature of this construct has been emphasized. Second, the "management" as opposed to the "mastery" of demands is described. Many human problems (e.g. incapacitation, terminal illness) cannot be mastered, and therefore must be tolerated and accepted (i.e. "managed") for

optimal adaptation to take place. Third, the concept of "appraisal" indicates the central role of psychological mediation in the process of coping.

Functions of Coping

Cohen and Lazarus (1979) describe five functions of coping:

> (1) to reduce harmful environmental conditions and enhance prospects of recovery, (2) to tolerate or adjust to negative events and realities , (3) to maintain a positive self-image, (4) to maintain emotional equilibrium, and (5) to continue satisfying relationships with others (p. 232).

Common to all of these tasks is a distinction which Lazarus and his colleagues feel is of great importance - that between "problem-focused" and "emotion-focused" coping. "Problem-focused" coping refers to direct actions taken to constructively handle the conditions of harm or threat, while "emotion-focused" coping refers to an individual's efforts to regulate the emotional expression of stress. One study suggests that in most stressful situations individuals use both "problem-focused" and "emotion-focused" coping strategies. Folkman and Lazarus (1980), in an analysis of coping in a sample of middle-aged persons, found that in 98% of the 1332 coping episodes studied, individuals used both "problem" and "emotion-focused" strategies.

Cognitive Processes in Coping

"Without some cognitive mediational concept, we could never account for individual differences in the levels of stress response displayed to common environmental conditions" (Lazarus & Folkman, 1984, p. 289). Lazarus and his colleagues have referred to this evaluative process as "cognitive appraisal" (Coyne & Lazarus, 1980; Folkman, Schaefer, & Lazarus, 1979; Lazarus, 1966). Three kinds of appraisal have been described; harm, threat, and challenge. Harm, including loss, refers to damage already done. Threat refers to the potential for harm, and challenge is the potential for some positive gain under difficult odds. It has been suggested that individuals cope better when they are challenged than when they have experienced harm or feel threatened (Lazarus, Kanner, & Folkman, 1980). It is hypothesized that this is due to the fact that when a situation is appraised as a challenge, the individual feels less conflicted and experiences less anxiety, anger, guilt, or jealousy.

Central to the above discussion is the idea that "coping is to a large extent sensitive to the requirements, constraints, and available resources characterizing a stressful encounter, as these are appraised by the person" (Lazarus & Folkman, 1984, p. 291). Lazarus and his colleagues suggest that appraisal will strongly influence coping. In their study of coping among a sample of

middle-aged persons, Folkman and Lazarus (1980) found that how an event was appraised was significantly related to the coping strategies employed. In this longitudinal study, the coping behaviors of 100 community-residing men and women aged 45 to 64 were assessed over a six-month period. Using The Ways of Coping Checklist (WCCL) (Folkman & Lazarus, 1980), the coping thoughts and actions used in specific stressful encounters were assessed. In situations where the appraisal indicated that something constructive could be done, the individual was significantly more likely to use "problem-focused" coping strategies. However, in those situations appraised as needing to be accepted (e.g., chronic illness), individuals were far more likely to engage in "emotion-focused" coping strategies.

Determinants of Coping

Lazarus and his colleagues contend that coping is situation and person dependent. That is, coping behavior is largely a function of variables inherent within a particular stressful encounter, and those associated with the individual. In Stress, Appraisal, and Coping, Lazarus and Folkman (1984) describe the situation factors and the person factors which they believe impact the coping process. Two types of situation factors are described; ambiguity and social resources. "Ambiguity refers to lack of clarity in the environment" (Folkman & Lazarus, 1984, p. 293).

Theoretically, it is assumed that as ambiguity increases, the role of person factors in appraisal and coping will likewise increase. Social resources refers to the "social network" (i.e. the number and kinds of people with whom a person associates) of an individual as well as the "social supports" (the presence of tangible help, information, emotional support, etc.) to which an individual has access.

In the context of Lazarus' theory, the two person factors felt to impact coping are pattern of motivation and personal control. Pattern of motivation, often referred to as commitment, defines a person's stakes in any given encounter. Lazarus and Folkman (1984) contend that the greater an individual's commitment within a specific stressful encounter, the more likely they will be to appraise that situation as harmful, threatening, or challenging. This appraisal will in turn influence the choice of coping strategies.

Rotter's (1966) development of a scale measuring beliefs about locus of control was the major impetus into the investigation of locus of control orientation as it relates to coping. It is proposed that the extent to which an individual believes that their fate is within their control will greatly effect both the appraisal and coping processes for that individual. To date, the research related to a preferred orientation is equivocal. Averill (1973) and Thompson (1981) provide reviews indicating that the preferred

locus of control orientation is dependent upon the specific situational conditions of the stressful encounter. In both reviews it was noted that the choice of control orientation changed for individual subjects dependent upon the context of the stressful encounter. For example, subjects were shown to exhibit an external locus of control orientation with regard to career aspirations, while being internally motivated with regard to personal matters (Averill, 1973; Thompson, 1981).

Psychological Characteristics and the Coping Process

It was noted previously that the relationship between certain psychological characteristics and the existence of parental alcoholism has been empirically tested. Several of these psychological characteristics have also been tested in studies related to the choice of coping strategy. In particular, associations between choice of coping strategy and overall psychological well-being, as well as depression have been considered, and shown to exist. These relationships support further review, as the same characteristics appear to be associated with both the presence of parental alcoholism and the choice of coping strategy.

Overall Psychological Well-being and Coping

In a study examining the relationship between personality factors and the coping process, Folkman et al.

(1986) state that "personality characteristics dispose the person to cope in certain ways that either impair or facilitate the various components of adaptational status" (p. 3). In this particular study, one of the primary purposes was to test the extent to which people are stable in their coping processes across diverse stressful encounters. The researchers sampled 85 married couples with at least one child at home. Subjects were interviewed in their homes once a month for six months. Husbands and wives were interviewed on the same day, and whenever possible, at the same time. The Stress Interview, an instrument developed for this study, was used to provide the reconstruction of the most stressful event the subject had experienced within the past week. The personality traits of mastery, interpersonal trust, self-esteem, values and commitments, and religious beliefs were measured once over the six months. Mastery was measured with a scale developed by Pearlin and Schooler (1978) which assessed the extent to which subjects viewed events as under their control versus their being fatalistically predetermined. Interpersonal trust was measured using Rotter's Interpersonal Trust Scale. Self-esteem was assessed using the Rosenberg Self-esteem Scale, and values and commitments and religious beliefs were also measured with scales developed for this study. Coping was measured in each interview conducted using the Revised Ways of Coping Checklist (Folkman & Lazarus, 1985) (WCCL-R). Somatic health

status and psychological symptoms were used to assess the adaptational status, or outcome, for each subject. Psychological symptomatology was measured using the Hopkins Symptom Checklist (HSCL), and somatic health was measured using a self-report scale used by the Human Population Laboratory.

Initial analyses of this data indicated that no significant gender differences were present in personality characteristics or coping. A series of regression analyses revealed that personality variables and aggregated coping processes were significantly related to psychological symptoms. For example, mastery and interpersonal trust (two of the personality variables under study) were significantly correlated with psychological symptoms. Additionally, findings revealed that the more subjects felt they had at stake over diverse encounters, the more likely they were to suffer psychological symptomatology. Last, findings indicated that significant part correlations existed between coping and psychological symptoms where "problem-focused" coping behaviors were employed. Planful problem-solving was significantly negatively correlated with symptoms, while confrontive coping was positively correlated with psychological symptomatology.

In another study, investigators supported the research of Folkman et al. (1986), and concluded that coping behavior was significantly related to psychological symptomatology.

In a longitudinal study exploring the relationship between coping strategies and psychological symptoms for 291 adults, Aldwin and Revenson (1986) concluded that those individuals in poorer mental health and under greater stress used less adaptive coping behaviors. Additionally, it was determined that coping strategies significantly affected mental health even after controlling for prior symptom levels and degree of stress. Finally, in a discussion of the relationship between coping and emotion, Folkman and Lazarus (1988), argued that coping and emotion are directly related. They proposed that coping mediates emotion in three ways:

> (1) by cognitive activity that influences attention, (2) by altering the subjective meaning of an encounter, and (3) by actions that alter terms of the person-environment relationship (p. 310).

Depression and Coping

Coyne, Aldwin, and Lazarus (1981) conducted the first empirical investigation into the relationship between coping and depression. A random sample of 100 middle aged subjects selected from a sample already participating in a study of stress and coping was selected. Two administrations of the HSCL were administered eight months apart to distinguish depressed from nondepressed individuals. Only subjects scoring within the range indicative of depression at both administrations were classified as depressed. Subjects were interviewed at four-week intervals, and asked to describe the

most stressful encounter experienced within the past month. The WCCL (Folkman & Lazarus, 1980) was used to assess the coping behaviors within the stressful encounters experienced. Findings revealed that depressed persons were more likely to appraise stressful situations as requiring more information before they could act, and they were less likely to appraise stressful encounters as having to be accepted. It was also noted that although depressed and nondepressed persons did not differ in the type of stressful encounters they faced, they differed significantly in the ways in which they coped. Depressed persons sought more emotional support, and did more self-blaming, wishful thinking and mixed coping than did the nondepressed participants.

In a paper presented at a meeting of the Society of Behavioral Medicine, Vitaliano, Maiuro, Becker, Russo, and Carr (1985) discussed the relationship between coping and depression in three samples. In their study, they sampled psychiatric outpatients, spouses of patients with Alzheimer's Disease, and first/second year medical students. Subjects were asked to complete the WCCL-R (Folkman & Lazarus, 1985) in the context of their most recent stressful encounter. They were simultaneously asked to complete the Beck Depression Inventory (BDI). In all three samples, the wishful thinking and the avoidance scales of the WCCL-R were significantly positively correlated with scores on the BDI, while "problem-focused" coping was shown to be significantly

inversely related to depression. In two of the three samples, self-blame was also significantly related to depression.

In two other studies, the relationship between coping and depression was consistent with the above-mentioned findings. Kolenc, Hartley, and Murdock (1990) administered the BDI and the Global Assessment and Inventory of Stressors subscales of the Comprehensive Scale of Stress Assessment (CSSA) to 227 undergraduate, graduate, and professional students. Findings revealed that depressed subjects relied more heavily on "emotion-focused" coping and engaged in less "problem-focused" coping than nondepressed participants. Folkman and Lazarus (1985) interviewed 75 married white couples once a month for five months. Using the WCCL-R (Folkman & Lazarus, 1985) and the Center for Epidemiological Studies Depression Scale (CESDS), they assessed both coping behavior and depression. They found that subjects high in depression felt they had more at stake in stressful encounters, used more confrontive coping, self-control and escape-avoidance, accepted more responsibility, and responded with more disgust/anger and worry/fear than the nondepressed subjects.

Summary of Literature on Coping

Coping has been defined by Lazarus and Folkman (1984) as "the process of managing demands (external and internal) that are appraised as taxing or exceeding the resources of the

person" (p. 283). Within this theoretical framework, coping has been described as serving several functions and requiring fairly specific cognitive processes. Additionally, the determinants of the coping process are impacted by both situation and person factors (Folkman & Lazarus, 1984). Consequently, several psychological predispositions have been shown to impact the coping process. Specifically, overall psychological well-being and level of depression effected the choice of coping strategies in the studies cited (Coyne et al., 1981; Folkman et al., 1985; Vitaliano et al., 1985). A summary of both bodies of literature elaborates the connection between the kinds of variables studied throughout the COA literature and those tested in relation to choice of coping strategies.

Developmental Considerations

The population of undergraduate college students presents a unique opportunity to study individuals while they are in the process of forming an identity. At this particular stage in the course of human development the individual is faced with a variety of tasks requiring the choice of coping strategies. Arthur W. Chickering is recognized by counseling professionals as a pioneer and leader in the area of student development. The researcher has therefore chosen to briefly review Chickering's (1969)

vector model of student development as it relates to the proposed research.

Chickering's Vector Model of Student Development

Erikson (1950) describes the primary task of the adolescent and young adult as that of developing an identity. He suggests that the most pressing developmental issue for these individuals is the resolution of the conflict between identity and identity diffusion. Chickering (1969) more specifically asserts that "a developmental period of young adulthood does seem to exist" (p. 2). He suggests that this period of development takes place from age seventeen or eighteen through the middle or late twenties.

> Developmental changes do occur during this period. Numerous cross-sectional and longitudinal studies of college students indicate that changes occur in attitudes, interests, values, future plans and aspirations, openness to impulses and emotions, personal integration, and intellectual ability. Such changes have been found for diverse students in diverse institutions. Some of these changes are shared by those who do not attend college; but college does make a difference (p. 2).

Within his model, Chickering (1969) defines the specific developmental tasks as achieving competence, managing emotions, becoming autonomous, establishing identity, freeing interpersonal relationships, clarifying purposes, and developing integrity. He refers to these areas of development as vectors, as each has both direction and

magnitude. The developmental tasks associated with achieving competence, managing emotions, and becoming autonomous are of particular relevance to this study, for is within the process of mastering these tasks that the young adult will face many decisions involving the choice of coping strategies. Furthermore, these decisions will be made while individuals are still heavily reliant upon their childhood experiences as the primary source of information for decision-making. If these past experiences include the presence of an alcoholic parent, this may impact the choices made.

The first three vectors described by Chickering are achieving competence, managing emotions, and becoming autonomous. Competence is presented as a three-tined pitchfork. Intellectual competence, physical and manual skills, and interpersonal competence are the tines, and an overall sense of competence is the handle. The second vector presented by Chickering (1969) is managing emotions. Within this stage, "the task is to develop increasing capacity for passion and commitment accompanied by increasing capacity to implement passion and commitment through intelligent behavior" (Chickering, 1969, p. 53). Chickering's third vector, becoming autonomous, requires that decisions be made relative to coping with specific developmental tasks.

> Instrumental independence has two major components: the ability to carry on activities and to cope with problems without seeking help, and the ability to be mobile in

> relation to one's needs or desires (Chickering, 1969, p. 12).

Within each of these developmental stages, students are faced with tasks requiring the use of coping strategies. The young adult is forced to begin choosing coping strategies while in the process of tremendous growth. Furthermore, Chickering (1969) states that many of the choices made while in this developmental period are carried long into adulthood. As counselors, it seem advantageous to impact change at a point when choices are being made, as opposed to when those choices have become more fully integrated into the individual's personality structure. Therefore, for the purposes of the proposed study, subjects will come from the population of traditional-aged college students.

Differences between COAs and children of non-alcoholics have been suspected for some time (Russell et al., 1985). However, it is only within the past decade that these purported differences have been the subject of empirical inquiry. To date, the findings relative to these suggested differences are primarily inconclusive. However, it appears that COAs may be at risk for a variety of social and psychological problems. Specifically, the evidence strongly suggests that differences between COAs and children of non-alcoholics may exist in the areas of overall psychological well-being, sociability, and locus of control orientation. These specific psychological variables have

also been shown to influence the choice of coping strategies. In addition, the research findings unequivocally show that COAs are more depressed than children of non-alcoholics. Depression has also been shown to significantly effect an individual's choice of coping strategies.

The research on COAs further suggests that the effects of parental alcoholism may depend upon the gender of the COA, the gender of the alcoholic parent, or the interaction between the two. Furthermore, the research on coping suggests that choice of coping strategy may be context-dependent. The same individuals have been shown to choose different coping strategies depending on the context of a particular stressful encounter (i.e. a stressful encounter within the family, one related to a health concern, a stressful encounter on the job, etc.).

Although the research on COAs has increased in recent years, there is still relatively little known about how these individuals cope with stressful encounters. Lazarus (1966) has suggested that an individual's ability to cope will greatly influence overall well-being and morale. In addition, Lazarus and his colleagues offer a comprehensive theory which can be empirically applied to the investigation of coping strategies among COAs.

Chickering (1969) states that changes within our society, along with the universal nature of higher education have led to the creation of another developmental period; "a

period during which certain changes may be fostered and during which certain kinds of adjustment and development may predominate" (p. 1). This developmental period is said to begin at around age 17 and proceed into the mid to late twenties. Chickering contends that although the developmental tasks he describes may present themselves to individuals who do not go to college, college does make a difference. Chickering describes seven vectors representing the developmental tasks that college students will face. Of these, the first three (achieving competence, managing emotions, and becoming autonomous) represent stages in which the student will make changes requiring the choice of coping strategies. It is during this time that young adults may begin to establish sets of coping strategies, and as Chickering (1969) states, "the patterns established at this time tend to persist long into adulthood" (p. 2). Therefore, research focusing on differences between COAs and children of non-alcoholics in their choice of coping strategies within the population of traditional-aged college students presents the opportunity to assess choices while they are still being made.

Parental alcoholism directly affects 28,000,000 individuals nation-wide, and has been shown to create tremendous stress within the family. COAs are likely to be more depressed than children of non-alcoholics, and depressed persons are known to cope differently, and less effectively,

than non-depressed individuals. Consequently, COAs may be at risk of developing and/or using different, and possibly maladaptive coping strategies. Since persons with maladaptive coping behaviors often seek or are referred for counseling, it is likely that COAs will be among the population served by counselors. Effective intervention must be based on knowledge of the specific characteristics and unique concerns of this population. Therefore, it is the purpose of this study to assess the potential differences in coping strategies between female COAs and female children of non-alcoholics. These differences will be assessed as they occur within the context of stressful encounters in the family for the population of traditional-aged college students.

CHAPTER III

METHODOLOGY

Introduction

The literature reviewed in chapter II supports the investigation of coping strategies among female COAs. Although several psychological characteristics have been studied in connection with parental alcoholism, differences in choice of coping strategies between this population and children of non-alcoholics have not been investigated. However, the psychological characteristics shown to be associated with parental alcoholism have also been shown to influence an individual's choice of coping strategies. If, as Lazarus (1966) contends, the ability to cope effectively with stressful encounters is paramount to life satisfaction, knowledge related to differences in the choice of coping strategies among COAs can be extremely useful to professional counselors. The use of Lazarus' theory of coping for the purposes of making comparisons between female COAs and female children of non-alcoholics presents a viable theoretical basis for an investigation of group differences. Theoretically, the use of traditional-aged college students as subjects for this study has been justified. Chickering (1969) suggests that college students face several age-specific developmental issues. The process of

successfully resolving the tasks associated with this period of development requires the selection of a set of coping strategies. Therefore, based on the theoretical framework presented by Lazarus and his colleagues, this chapter describes the methodological considerations of this study. Included within this chapter are the following: the research hypotheses, a detailed description of the proposed population and subjects, the procedures, detailed descriptions of the instruments, including relevant psychometric properties, proposed data analyses procedures and the results of the pilot study.

Hypotheses

The research questions previously presented have been addressed by testing the following null hypotheses:

1. Female COAs are not more depressed than female children of non-alcoholics as measured by the BDI.

2. No differences exist in coping strategy profile between female COAs and female children of non-alcoholics as measured by the WCCL-R after controlling for differences in level of depression.

3. Female COAs cannot be discriminated from female children of non-alcoholics on the basis of the eight coping strategies measured by the WCCL-R in responding to family-related stressful encounters after controlling for differences in level of depression.

4. No differences exist in coping strategy profiles for female COAs with only an alcoholic father, those with only an alcoholic mother, and those with two alcoholic parents.

Subjects

Subjects for this study were chosen from the population of traditional-aged female undergraduate students in attendance at The University of North Carolina at Greensboro (UNCG) during the fall 1992 semester. The specific sample consisted of volunteers recruited from the female students enrolled in two Counseling and Educational Development (CED) classes for the fall 1992 semester - Career/Life Planning (CED 210) and Helping Relationships (CED 310). This sample was chosen because the students enrolled in these two classes tended to be representative of all classifications (i.e. freshman, sophomore, junior, and senior), as well as a variety of majors. In addition, the researcher was able to gain access to these particular classes, making this a sample of convenience.

For the purpose of grouping, the CAST (Jones, 1983a) (Appendix D), designed to assist in the distinction between COAs and children of non-alcoholics, was administered to all of the students in the CED 210 and 310 classes. In addition, the Demographics Information sheet included questions regarding whether or not subjects suspected that any parent (biological or step) was alcoholic. Responses to this item

constituted a measure of self-report of parental alcoholism. Potential subjects were grouped into COAs and children of non-alcoholics on the basis of the following criteria. COAs were defined as individuals who scored within the COA range on the CAST (6 to 30), and who self-reported the existence of parental alcoholism on the Demographics Information sheet. Children of non-alcoholics were defined as those individuals who scored within the range of children of non-alcoholics on the CAST (0 to 1), and who self-reported that no parental alcoholism was present within their family.

Several guidelines for eligibility for the study were followed. Subjects had to be female and fall within the age range of 17 to 24. In addition, COA subjects needed to indicate on the Demographics Information Form (Appendix H) that they had lived with an alcoholic parent (either an alcoholic stepparent or an alcoholic biological parent, as it was the intent of this study to focus on the effects of living with any alcoholic parent). Additionally, all subjects needed to obtain consistent ratings on the two measures used to assess the presence of parental alcoholism - scores on The Children of Alcoholics Screening Test (CAST) and self-report. Finally, a vignette was used in conjunction with the WCCL - R. Subjects were asked to indicate whether or not this particular vignette was realistic for them. If the vignette was not realistic, subjects were asked to indicate whether or not the situation described was one which

they could easily imagine themselves participating in. Subjects who indicated that the the situation described in the vignette was not realistic for them and could not be easily imagined were eliminated from participation in the study.

Three sections of CED 210 and four sections of CED 310 were taught in the fall 1992 semester. The total number of female students enrolled in the combined sections was 145. It is estimated in the literature that approximately 17% of the general population are COAs (Russell et al., 1985). It was therefore expected that within this sample of 145 undergraduate women, there would be approximately 25 COAs. Using the variance of scores on the Ways of Coping Checklist - Revised (WCCL-R) derived from a pilot study, power calculations indicated that a sample size of 25 per group (25 COAs and 25 children of non-alcoholics) would provide adequate statistical power. A total sample size of 50 (25 per group) was estimated to provide power greater than .80 in detecting mean differences of .5 points or more on any of the WCCL-R subscales between the two groups. A sample size of 30 per group would provide statistical power greater than .85 for detecting the same group difference (Neter, Wasserman, & Kutner, 1985). Statistical power of .80 was established as the minimum acceptable criteria for this investigation (G.E. Kissling, personal communication, October 1992).

Data were collected on 111 undergraduate female students. Eight of these students were not eligible for participation in the study based on previously established criteria. Four of these eight students were outside of the age range chosen for this investigation (17 to 24). Two potential subjects indicated that the vignette was not realistic for them, nor could they easily imagine themselves participating in the described situation. One student did not complete enough of either administration of the WCCL-R to provide sufficient information for meaningful analyses, and one student provided inconsistent ratings on the two measures of parental alcoholism (the CAST and self-report). This left a total sample of 103, representing 93% of the female students sampled.

Of the 103 subjects used in this study, 27 (26.7%) were classified and treated as COAs. The remaining 76 (73.3 %) were classified and treated as children of non-alcoholics. This representation of COAs provided adequate statistical power (> .80) to conduct the proposed analyses.

The demographic characteristics of the entire sample are depicted in tables 1 and 2. The ages of the subjects were normally distributed and ranged from 17 to 24, with a mean age of 21.01, a standard deviation of 1.38, and a mode of 21. There were 26 (25.2%) African-Americans, 74 (71.8%) Caucasians, and 3 individuals (3%) of other races represented within the sample. The most highly represented student

Table 1

Age, Race, and Student Classification for Entire Sample

Age		Race			Student Classification		
			N	%		N	%
Mean	21.01	African-American	26	25.2	Freshman	7	6.8
S.D.	1.38	Caucasian	74	71.8	Sophomore	10	9.7
Mode	21.00	Other	3	3.0	Junior	26	25.2
					Senior	60	58.2

Table 2

Presence of Parental Alcoholism, Meaningfulness of Vignette, and Number of Single-Parent Families for Entire Sample

Parental Alcoholism			Vignette			Single-Parent Home		
	N	%		N	%		N	%
COA	27	26.2	Real	36	35.0	Yes	26	25.2
*COnon-A	76	73.8	Imagine	67	65.0	No	77	74.8

*COnon-A = children of non-alcoholics

classification among the sample was senior, with 60 (58.2%) of the subjects falling into this category. There were 26 (25%) juniors, 10 (9.6%) sophomores, and 7 (6.8%) freshman. Thirty-six (35.0%) subjects stated that the vignette was realistic for them, while 67 (65.0%) stated that while it was not realistic for them, they could easily imagine being the

child in the situation described. Finally, 26 (25.2%) of the students sampled were raised in a single parent home for at least 10 years, while 77 (74.8%) were raised in two-parent homes.

Questions regarding the number of years lived with the alcoholic parent, as well as pertaining to length of time lived with an active versus a sober alcoholic parent were included on the Demographics Information sheet for the purposes of describing the specific characteristics of the sample of COAs used in this investigation. It was beyond the scope of this investigation to test for differences in choice of coping strategies as they related to amount of time lived with an alcoholic parent, or of time lived with an active versus a sober alcoholic parent. The sample size required for such a study exceeded reasonable limits. However, the possibility exists that these situations may represent confounding variables, and they will therefore be addressed descriptively.

Information specifically related to the COAs can be found in table 3 (i.e. Number of years lived with alcoholic the parent and the age of the child when the parent became alcoholic). For the COA group, the range of years lived with an alcoholic parent was from 3 to 21, with the mode falling at 18. However, the distribution was not normally distributed, but skewed. The mean number of years lived with an alcoholic parent was 14.07 (S.D. = 6.06), and only

Table 3

Number of Years Lived With the Alcoholic Parent and Age of Child When Parent Became Alcoholic for COA Group (N = 27)

	Range	Mean	S.D.	Mode
Number of Years Lived With Alcoholic Parent	3 - 21	14.07	6.06	18
Age of Child When Parent Became Alcoholic	0 - 10	2.74	3.63	0

seven of the 27 COAs under study lived with the alcoholic parent for less than 10 years. The mean age of COAs at which the alcoholic parent became alcoholic was 2.74, with a standard deviation of 6.06, a mode of 0, and a range of 0 to 10.

Ten COAs reported that the alcoholic parent did stop drinking for some period of time. The mean age of the COA at the time that the parent stopped drinking was 12.80, with a standard deviation of 6.73. Of these 10 subjects, four reported that the alcoholic parent began drinking again within a year of stopping. Six of these COAs stated that the alcoholic parent remained sober.

Procedures

The researcher began data collection procedures by contacting the instructors within the Counseling and Educational Development (CED) department at the University of North Carolina at Greensboro responsible for teaching CED 210 and 310. All of the instructors agreed to participate in the study. A letter thanking them for their cooperation and assistance and suggesting a specific time and date for administration of the instruments was sent to all CED 210 and 310 instructors (Appendix A).

The researcher went to the classes at the agreed-upon times, and the Specific Procedures for Data Collection (Appendix B) were followed. These procedures were developed in accordance with the regulations set forth by the Human Subjects Review Board at The University of North Carolina at Greensboro. Approval from this board was granted for the use of the described procedures. Furthermore, an Informed Consent Form (Appendix C), distributed by the Office of Research Services, was completed by each student as a part of the data collection procedures. Students completed the instruments while in the classroom and returned them to the researcher. Data collection was completed within two weeks.

Upon completion of the data collection process, the researcher reviewed the packets and eliminated potential subjects who did not meet the criteria for selection previously outlined (e.g., those individuals who

self-reported the presence of parental alcoholism, but did not score within the COA range on the CAST). The remaining subjects were divided into COAs and children of non-alcoholics using previously described criteria for group selection. Data analysis procedures were applied to the scores derived from the instruments included.

Instruments

As previously stated, measures were taken to assess the presence of parental alcoholism, the level of depression, and the choice of coping strategies based on stressful encounters within the family. The following section includes a detailed description of the instruments used in this study. Descriptions include an overview of the instrument, guidelines for scoring, and reliability and validity information.

The Children of Alcoholics Screening Test (CAST)

The CAST (Jones, 1983a) (Appendix D), in addition to the self-report question on the Demographics Information Form, was used to screen for the presence of parental alcoholism. To date, this is the only available empirical measure of the existence of parental alcoholism on which reliability and validity information are available. The CAST, although fairly new, has been used in a wide variety of empirical

investigations involving the identification of large numbers of COAs (Jones, 1983a).

The CAST is a 30-item inventory that measures attitudes, feelings, perceptions, and experiences related to parental drinking behavior. The items themselves were formulated on the basis of clinical experience, in conjunction with published case studies of COAs. The CAST measures the level of psychological distress associated with parental drinking, the perceptions of drinking-related marital discord between parents, attempts to control a parent's drinking, the efforts to escape from situations involving parental drinking, the exposure to drinking-related family violence, tendencies to perceive parents as being alcoholic, and the desire for professional counseling. The CAST is suitable for use with individuals from age nine through adulthood, as norming data exists for these age ranges (Jones, 1982; Jones 1983a; Jones 1983b).

Scoring

The CAST was designed to yield one total score. The "yes" answers are summed, and this sum represents an individual's CAST score. The total score can range from 0 to 30. The following guidelines have been established (Jones, 1983a):

CAST Score	Diagnosis
0-1	Children of Non-Alcoholics
2-5	Children of Problem Drinkers
6-30	Children of Alcoholics

For the purposes of this investigation, individuals meeting the criteria previously described, who score 0 to 1 were placed in the children of non-alcoholics group. Individuals scoring 6 to 30 were placed in the COA group if they met the previously described criteria. Individuals scoring between 2 and 5 on the CAST were excluded from participation in the study.

Reliability

A Spearman-Brown split-half (odd vs. even) reliability of .98 was computed for a sample of 81 randomly selected adults residing in the Chicago area (Jones, 1983b). Additionally, a Spearman-Brown split-half (odd vs. even) reliability coefficient of .98 was computed for a a sample of 133 latency-age and adolescent children (Jones, 1982). These estimates suggest that the CAST is highly internally consistent.

Validity

In a validity study of the CAST, Jones (1982) administered the instrument to 82 children of clinically-diagnosed alcoholics, 15 self-reported children of

alcoholics, and 118 randomly selected children of non-alcoholics. Using the method of contrasted groups (Anastasi, 1976), an analysis of variance revealed that the children of clinically-diagnosed alcoholics and the self-reported children of alcoholics scored significantly higher on the CAST when compared to the controls (F (2,21) = 166.5, $p < .0001$). Additionally, chi-square analyses revealed that all 30 CAST items discriminated COAs from children of non-alcoholics, indicating a high degree of validity. In follow-up analyses, Jones (1982) grouped the children of clinically-diagnosed alcoholics with the self-reported COAs. The 118 control group participants were scored as one, and the 97 COAs were scored as two. A point biserial correlation of these group scores with the total CAST scores yielded a validity coefficient of .78 ($p < .0001$), suggesting that the CAST is a valid measure of the presence of parental alcoholism.

The Beck Depression Inventory (BDI)

Due to the empirical evidence supporting higher rates of depression in COAs, and associations between depression and coping, level of depression was assessed in the study subjects. The choice of the BDI (Beck et al., 1961) (Appendix E) over the depression subscale of the MMPI, the Hamilton Psychiatric Rating Scale for Depression, and the Zung Self-Rating Depression Scale was made in light of

several factors. The BDI has been used to measure depression in the majority of studies cited throughout the literature on both COAs and coping. Additionally, in a Counselor's Guide to the Assessment of Depression, Ponterotto, Pace, and Kavan (1989) concluded that the BDI was the most frequently used assessment of depression. Furthermore, the BDI has been the subject of numerous psychometric reviews (e.g. Dobson & Breiter, 1981; Gallagher, Nies, & Thompson, 1982; Lambert, Kingston, & Edwards, 1986; Lightfoot & Oliver, 1985; Tanaka & Huba, 1984), and was rated higher on validity, reliability and utility than the considered alternatives. Finally, the BDI is among the shortest and most quickly administered of the considered instruments. Several instruments were included within the packet designed for this study, requiring that the measurement of desired traits be accomplished in an efficient manner.

The BDI was designed to assess the severity of depression in psychiatrically diagnosed patients. Although it was not developed as a screening instrument for detecting the presence and level of depression in the general population, it has been used for such purposes for many years (Steer, Beck, & Shaw, 1985). The original BDI was based on clinical observations and descriptions of symptoms frequently given by adult depressed psychiatric patients as contrasted with those frequently given by non-depressed psychiatric patients. The clinical observations and patient descriptions

were consolidated into 21 symptoms and attitudes which could be rated on a four-point scale ranging from 0 to 3 in severity.

Scoring

The BDI is scored by summing the ratings for each of the 21 items. Item ratings range from 0 to 3; the minimum total score is 0, and the maximum total score is 63. The BDI test manual (Beck et al., 1961) offers the following guidelines for cut-off scores:

Total Score	Level of Depression
0 - 9	no depression - normal range
10 - 18	mild moderate depression
19 - 29	moderate severe depression
30 - 63	extreme severe depression

For the purposes of this investigation subjects scoring 10 or higher were classified as depressed. Individuals scoring below 10 were classified as non-depressed.

Reliability

Beck & Steer (1984) employed six normative outpatient samples were employed to investigate the psychometric properties of the BDI. The internal consistency estimates based upon Cronbach's coefficient alpha indicate a high degree of reliability. They were calculated as follows:

Sample	Cronbach's alpha
Mixed DSM-III diagnoses (N=348)	.86
Single-episode major depressive disorders (N=113)	.80
Recurrent-episode major depressive disorders (N=168)	.86
Dysthymic disorders (N=99)	.79
Alcoholics (N=105)	.90
Heroin addicts (N=211)	.88

In addition, several studies have been conducted using alternative methods for estimating the reliability of the BDI. Zimmerman (1986) computed a test-retest reliability coefficient of .64 with 139 undergraduate students with a one-week interval between testings. The split-half (odd-even) reliability has been reported as .86 (Beck et al., 1961). These estimates further support the strength of the internal consistency of the BDI.

Validity

The discriminant validity of the BDI was assessed by Steer et al. (1985) and conclusions suggest that it can effectively differentiate psychiatric patients from normals. Additionally, the BDI was found to successfully discriminate between dysthymic and major depressive disorders. The construct validity reported in the BDI test manual reveals Pearson product-moment correlations ranging from .38 to .76

when BDI scores were compared with the construct of hopelessness in the six outpatient normative samples previously described. The concurrent validity of the BDI has been assessed in comparisons of the BDI with the Hamilton Psychiatric Rating Scale for Depression, the Symptoms Checklist-90, and the depression scale of the MMPI. Concurrent validity coefficients in these studies range from .61 to .76, indicating that the BDI is a valid measure of depression.

The Ways of Coping Checklist - Revised (WCCL-R)

The WCCL-R (Appendix F) is a measure of coping derived from Lazarus' transactional theory of stress and coping. It is a 66-item questionnaire containing a range of responses used to deal with specific stressful encounters. The choice of this particular instrument for this investigation was made on the basis of the theoretical link between the instrument and the foundation of this study. The justification for this study was based heavily on Lazarus' theory (i.e. Folkman & Lazarus, 1980; Folkman & Lazarus, 1985), and therefore relied on the ability to measure the constructs presented by Lazarus and his colleagues. The WCCL-R was specifically designed to empirically assess the choice of coping strategies based on this particular model, and was therefore chosen as the most suitable measure of choice of coping strategies.

Factor analyses from two separate studies yielded eight distinct coping strategies (Folkman & Lazarus, 1980; 1985). In one study responses were evaluated on a sample of married adults residing in the community (Folkman & Lazarus, 1980). In the second, the subscales were derived from an investigation of the coping strategies used by college students throughout an examination (Folkman & Lazarus, 1985).

The sample for the study described here was not large enough to conduct a factor analysis yielding a unique solution. Therefore, the factor solution from the study of college students was used in this investigation. This choice was made on the basis of the similarity of samples used in the described study and the 1985 Folkman and Lazarus study. The Folkman and Lazarus (1985) study was conducted using undergraduate students in a psychology class, while the subjects for the described study were female undergraduate students enrolled in two specific Counseling and Educational Development classes.

The WCCL-R is designed to be applied to a specific stressful encounter. The participant is asked to rate their perceived potential use of each of the possible coping behaviors in response to one particular stressful encounter. Therefore, for the purposes of this study, the researcher asked subjects to respond to two stressful encounters. The first stressful encounter was one which was unique to each subject, and will be referred to as the actual stressful

encounter. Subjects were asked to describe, in four sentences or less, the most stressful family-related encounter that has taken place within the past six months. This form of administration of the WCCL-R is the one most often used by Lazarus and his colleagues (e.g. Folkman & Lazarus, 1980, Folkman & Lazarus, 1985). However, it was not reasonable, given the sample size of this study, to compare subjects based solely on responses to different stressful encounters. Therefore, the researcher added a second administration of the WCCL-R; one in which all subjects responded to the same stressful encounter. This encounter was read by subjects in the form of a vignette (Appendix G), and will be referred to as the vignette. By providing a situation in which all subjects responded to the same stressful encounter, comparisons among subjects could be made.

The vignette (Appendix G) involved a stressful encounter which takes place within the family. A situation in which a student argues with her parents after coming home at 3 a.m. was described. This particular situation was presented because of the universal nature of such a scenario. The student, who is home on break, is confronted with a situation in which her parents are trying to control behavior that is completely within her control while she is away at college. As previously stated, subjects were asked if the situation described was realistic for them, or if they could easily

imagine such a scenario. Subjects responding yes to either question were included within the study. However, if a subject answered no to both questions, she was eliminated from participation in the study. Thirty-six of the subjects (34.6%) stated that the vignette was realistic for them, while 67 (65.4%) stated that it was not a realistic situation for them, but they could easily imagine being the student described (see Table 2).

Scoring

The WCCL-R is comprised of 66 possible responses to a stressful encounter. Subjects were asked to rate their use of each of these responses for the actual stressful encounter, and their probable use of each response for the vignette on a scale of 0 (never used) to 3 (used a great deal). Each item represented the use of one of the eight possible coping strategies under study. The eight strategies, which represent the eight subscales of the WCCL-R, are as follows: problem-focused coping, wishful thinking, distancing, seeking social support, emphasizing the positive, self-blame, tension-reduction, and self-isolation. Mean scores for each subscale represented the score for that particular coping strategy.

The two administrations of the WCCL-R were scored and analyzed separately because the Pearson product-moment

correlations between like subscales the two administrations was less than .85 for all of the subscales (see table 4). In addition, as previously reported, the means for like subscales were compared between the two administrations of the WCCL - R, and significant differences were noted for the problem focused (t = -7.57, df = 101, p < .0001), wishful thinking (t = 4.05, df = 101, p < .0001), emphasizing the positive (t = 4.22, df = 101, p < .0001), blame-self (t = -4.31, df = 101, p < .0001), and self-isolation (t = 2.94, df = 101, p < .0041) subscales.

Reliability

In a study of the psychometric properties of the WCCL-R, Vitaliano, Russo, Carr, Maiuro, and Becker (1985) derived coefficient alphas on three distinct samples; medical students, spouses of patients with senile dementia of the Alzheimer's type (SDAT), and psychiatric outpatients referred to a specialized treatment program for anger and dyscontrol (lack of appropriate levels self control when angered) problems. Internal consistency estimates were calculated for each of the WCCL-R subscales for each group. These ranged from .73 to .88, with mean coefficient alphas across the subscales as follows: .82 on the medical student sample and .83 for the SDAT spouses and the psychiatric outpatients, indicating a fairly high degree of internal consistency.

Table 4

Correlations Between Responses on Like Subscales of the Two Administrations of the WCCL - R

ACTUAL STRESSFUL ENCOUNTER

	prob foc	wish think	detach-ment	sss	posit think	blame self	ten red	self isol
problem focused	.61							
wishful thinking		.59						
detach-ment			.37					
seeking social support				.53				
positive thinking					.47			
blame self						.25		
tension reduction							.46	
self isolation								.45

Validity

To determine the construct validity within the samples of psychiatric outpatients and SDAT spouses, Vitaliano et al. (1985) performed one-way analyses of variance were performed

to assess the relationship between the source of stress and the WCCL-R subscales. None of the subscales were significantly different across the sources of stress for either sample. Additionally, "the relative associations of the coping scales with anxiety and depression provide the strongest evidence of the construct validity" of the WCCL-R. (Vitaliano et al., 1985, p. 21). Both wishful thinking and seeks social support were significantly related to depression (as measured by the BDI), while wishful thinking and avoidance were related to anxiety (as measured by the Symptoms Checklist - A), indicating that the WCCL-R has adequate construct validity.

The relationship between coping and participation in a support group was assessed to test for concurrent validity (Vitaliano et al., 1985). It had been previously established that participation in the support group was associated with high levels of distress and difficulty in coping. Vitaliano et al. (1985) noted that support group members had significantly higher scores than non-members on the seeks social support scale (F (1,222) = 9.17, $p < .005$), the wishful thinking subscale (F (1,222) = 4.15, $p < .05$), and the blame-self subscale (F (1,222) = 8.24, $p < .005$), adding stronger evidence of the construct validity of the WCCL-R.

Demographics Information Form

A Demographics Information form (Appendix H) was developed by the researcher for several purposes. First, information regarding race, major and student classification was used to help adequately describe the sample. In addition, COA subjects were asked to indicate how long they lived with their alcoholic parent. COAs were also asked if the alcoholic parent ever stopped drinking, and if so, for how long. This information was used to specifically describe this particular sample of COAs. As previously discussed, it was beyond the scope of this study to control for either the length of time exposed to parental alcoholism or the effects on children's choice of coping strategies of alcoholic parents who stop drinking. However, the prevalence of these circumstances within the sample used in this study was presented, and the results are discussed in light of the range of years lived with an alcoholic parent, the mean number of years that subjects have lived with an alcoholic parent, and the mean time lived with a sober versus an active alcoholic parent.

Other questions were included on the Demographics information Form for the purposes of grouping subjects. Age was be used to insure the inclusion of only traditional-aged college students (17 years of age through 24). Additionally, questions regarding whether or not potential subjects

suspected that either parent is alcoholic were used as the self-report measure of parental alcoholism.

Summary of Instruments

Based on the above-mentioned criteria for selection, the following instruments were be used in this investigation:

1. The Children of Alcoholics Screening Test (CAST) (Jones, 1983a) was used in conjunction with self-report to assess the presence of parental alcoholism.

2. The Beck Depression Inventory (BDI) (Beck et al., 1961) was used to measure the level of depression for subjects.

3. The Ways of Coping Checklist - Revised (WCCL-R) (Folkman & Lazarus, 1985) was used to assess the use of the eight coping strategies under investigation. Use of the strategies in an actual stressful encounter, as well as the probable use in response to a vignette developed by the investigator describing a stressful encounter within the family were measured.

4. A Demographics Information Form was included for the purposes of screening potential subjects based on previously described criteria, and for assistance in adequately describing the sample used in the study.

Data Analyses

The data analyses procedures are described in detail in the following section. Each research question is restated, followed by a description of the proposed statistical procedures the researcher applied to the data. Specific statistical tests as well as the probability levels, used to determine the significance of findings, are addressed.

Question One

1. Are female COAs more depressed than female children of non-alcoholics as measured by the BDI (Beck et al., 1961)?

An independent two-sample t-test was applied to scores derived from the BDI in order to test whether the means of the two groups (COAs and children of non-alcoholics) were equal (Neter, et al., 1985). A p-value of .05 or less was considered statistically significant. The groups were therefore to be considered "different" on level of depression if the t-test yielded a p-value less than or equal to .05. Means of the BDI scores were compared to identify significant differences in level of depression between COAs and children of non-alcoholics.

Question Two

2. When confronted with a stressful encounter involving a family-related matter, do female COAs exhibit a distinct coping strategy profile as measured by the WCCL-R (Folkman &

Lazarus, 1985) when compared with female children of non-alcoholics after controlling for differences in level of depression?

A multivariate analysis of covariance was applied to the eight subscales of the WCCL-R to test for an overall difference between COAs and children of non-alcoholics (Manly, 1986). Scores from the BDI were used as a covariate to control for differences in level of depression as well as any associations which may exist between depression and coping. The overall difference was to be considered significant if the p-value associated with the Wilks' Lambda corresponding to group differences was less than or equal to .05. In addition graphical techniques were used to depict possible trends related to differences between COAs and children of non-alcoholics on their use of each of the eight coping strategies under study.

If an overall difference was detected, follow-up univariate tests (i.e., one-way analyses of variance (ANOVAs) with F-tests) were conducted to specifically establish where COAs differ from children of non-alcoholics on the use of the eight coping strategies under study. Univariate analyses of covariance were used to compare COAs and children of non-alcoholics on each of the subscales of the WCCL-R, adjusting for depression as the covariate.

Bonferroni's correction was applied to maintain the overall significance level at .05 (Manly, 1986) in follow-up

analyses of variance. Therefore, a p-value of .05/8 (.0063) or less for individual univariate F-tests was considered significant. Differences between COAs and children of non-alcoholics were therefore reported on those subscales (e.g., blame-self, avoidance, wishful thinking) where significant differences were shown.

Question Three

3. Which of the eight coping strategies best discriminate female COAs from female children of non-alcoholics in responding to family-related stressful encounters after controlling for differences in level of depression?

A discriminant function analysis, using a stepwise selection, was conducted to answer this question (Manly, 1986). BDI scores were forced into the model first, and remained. The eight subscale scores were available for selection, using a p-value of .10 as the criterion for inclusion in the model. Inclusion into the model requires more leniency than a .05 p-value allows, and therefore a value of .10 was been selected (Kissling, 1992), while the criteria for exclusion was maintained at .05. F-tests were used to determine which variables were selected, as well as the overall discriminatory ability of the model. In addition, a classification table and a discriminant function

are presented to represent the discriminatory ability of the model.

Question Four

4. Can distinct coping strategy profiles be identified for female COAs with only an alcoholic father, those with only an alcoholic mother, and those with two alcoholic parents?

If adequate sample sizes per group (COAs with only an alcoholic father, those with only an alcoholic mother, and those with two alcoholic parents) were obtained, a multivariate analysis of covariance applied to the eight subscales of the WCCL-R to test for an overall difference among the three groups (Manly, 1986) was proposed. The overall difference was to be considered significant if the p-value associated with the test was less than or equal to .05. If an overall difference was detected, follow-up univariate tests were to be applied to the data.

However, if the sample sizes per group were not sufficiently large, a descriptive analysis was proposed. This analysis would consist of reporting the means and standard deviations per group for each of the eight subscales as well as the BDI. The range of differences between the highest and lowest means among the three groups would be reported for both administrations of the WCCL - R.

The sample sizes per group prohibited the use of the proposed multivariate analysis of covariance. Twenty-two of the 27 COAs reported that they lived with only an alcoholic father, two reported living with only an alcoholic mother, and 3 reported living with two alcoholic parents. Therefore a descriptive analysis is presented in chapter IV.

Pilot Study

A pilot study was conducted during the week of November 1. The pilot study was conducted using female undergraduate students enrolled in two Statistics (STA) 108 classes. Permission was granted by Dr. Cheryl Tennant and Dr. Terry Cooper to use their sections of STA 108 on November 4 and 5, respectively. There were 25 female students enrolled in each of these sections. Therefore, the pilot study was be conducted on a potential total sample of 50 students.

The primary purpose of the pilot study was to test out the proposed procedures and instruments on a sample similar to that proposed for the main study. Participants in the pilot study were exposed to all of the conditions intended for use in the main study as they have been outlined within this chapter. However, they were also asked to provide feedback regarding any confusing or irrelevant aspects of the study. They were asked to leave their comments in writing on the back of the Demographics Information Form.

In addition to testing the procedures and instruments, the pilot study was used to assess the rate of parental alcoholism among female undergraduate students. As previously stated, it was expected that approximately 17% of the respondents would meet the criteria for placement into the COA group. However, the pilot study was used to assess this rate for this particular population, in order to determine if additional subjects might be needed for the main study.

Finally, data analyses procedures were tested on the pilot data. The pilot study sample size was not adequate to derive meaningful results. However, the computer program was run to check for accuracy. In addition, the results of these analyses are reported to assess general trends within the sample.

The results of the pilot study indicated that no substantial changes needed to be made regarding the instruments or the procedures used to collect the data. Subjects consistently reported that the instructions were clear, and that the instruments did not confuse them. The only change made in the procedures for the main study involved reminding subjects to give only one answer per item on the BDI.

Of the 50 potential female students enrolled in the two sections of STA 108, 33 were present and completed packets of instruments. Five of these 33 students were dropped from the

study due to ineligibility based on previously described criteria. Two of these five students were outside of the proposed age range for the pilot study (17 to 27), one had inconsistent ratings on the two measures of parental alcoholism (the CAST and self-report), and two students indicated that the vignette presented was not realistic for them, and could not be easily imagined. This left a total sample size of 28 for the pilot study.

Within this sample of 28, 21 (75%) were classified as children of non-alcoholics, while 7 (25%) were classified as COAs. This represented a proportion that was substantially higher than expected. Therefore, no attempt was made to acquire additional subjects for the main study.

One African-American (3.6%), 26 Caucasians (92.9%), and 1 individual (3.6%) classified as other in terms of race were represented within the pilot study sample. There were 11 freshman (39.3%), 4 sophomores (14.3%), 8 juniors (28.6%), and 5 seniors (17.8%) in the pilot study sample. The mean age of the subjects was 20.14 (S.D. = 2.68), with a range of 17 to 27.

Of the seven COAs, one stated that they had an alcoholic mother and six had alcoholic fathers. None of the subjects reported having two alcoholic parents. The mean number of years lived with an alcoholic parent was 11 (S.D. = 6.22), with a range of 3 to 18. The mean age of the COA at the time the parent became alcoholic was 3.14 (S.D. = 5.79), with a

mode of 0. Three of the COAs indicated that the alcoholic parent had stopped drinking at some point in time. One of these individuals indicated that the alcoholic parent did not remain sober, while the other two stated that the alcoholic parent had not resumed drinking.

An independent two-sample t-test was applied to the scores derived from the BDI to test for differences in level of depression between COAs and children of non-alcoholics. A t-statistic of -.9287 (df = 6.2) yielded a p-value of .3878, indicating that the mean BDI scores did not differ significantly between groups. However, conclusions based on the results of this analysis are not meaningful, due to the small sample size.

The responses to the WCCL - R were analyzed separately for the two administrations of that instrument. All of the correlations between like subscales on the two administrations were less than .85. In addition, the means of like subscales for the two administrations were significantly different for five of the eight subscales as follows; problem-focused (t = -5.51, p < .0001), wishful thinking (t = 2.33, df = 26, p < .0275), emphasizing the positive (t = 2.20, df = 26, p < .0364), blame-self (t = -2.27, df = 26, p < .0.0311), and self-isolation (t = 2.54, df = 26, p < .0172).

Figures 1 and 2 show the general trends associated with the use of the eight coping strategies under study for COAs and children of non-alcoholics. In each figure, mean

subscale scores are plotted for each group (COAs and children of non-alcoholics). In response to the actual stressful encounter reported by subjects, no significant differences were shown between COAs and children of non-alcoholics on their use of the eight coping strategies under study. In response to the vignette, a significant difference was noted in the use of tension reduction after controlling for level of depression (F (1,24) = 4.28, $p < .0496$), with COAs more likely to use this coping strategy. Again, any conclusions based on these results must be made in light of the small sample size used.

The results of the pilot study indicated that no substantial changes in either the instruments or the procedures were necessary prior to conducting the main study. In addition, the higher than expected rate of parental alcoholism among the pilot study sample suggested that additional subjects would not be necessary for the main study. Finally, statistical analyses of the pilot data revealed that for this sample no significant difference was found in level of depression between COAs and children of non-alcoholics. Furthermore, the only significant difference between the two groups in the use of the eight coping strategies under study occurred for the use of tension reduction in response to the prepared vignette. However, the general trends revealed in figures 1 and 2 suggested that with a larger sample size, more significant differences may be detected.

Figure 1

MEAN SUBSCALE SCORES FOR ACTUAL STRESSFUL ENCOUNTER BY GROUP (PILOT STUDY DATA)

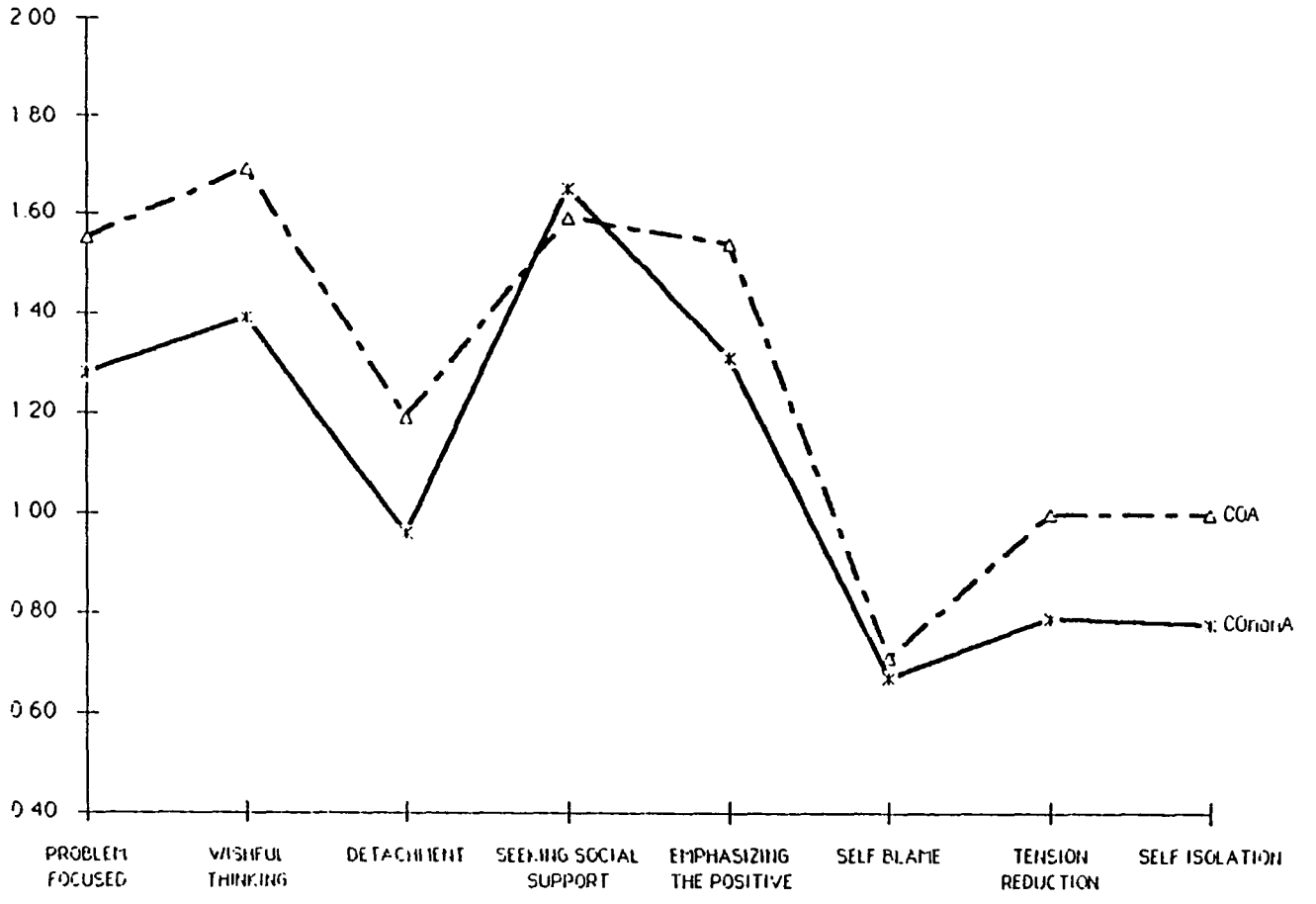
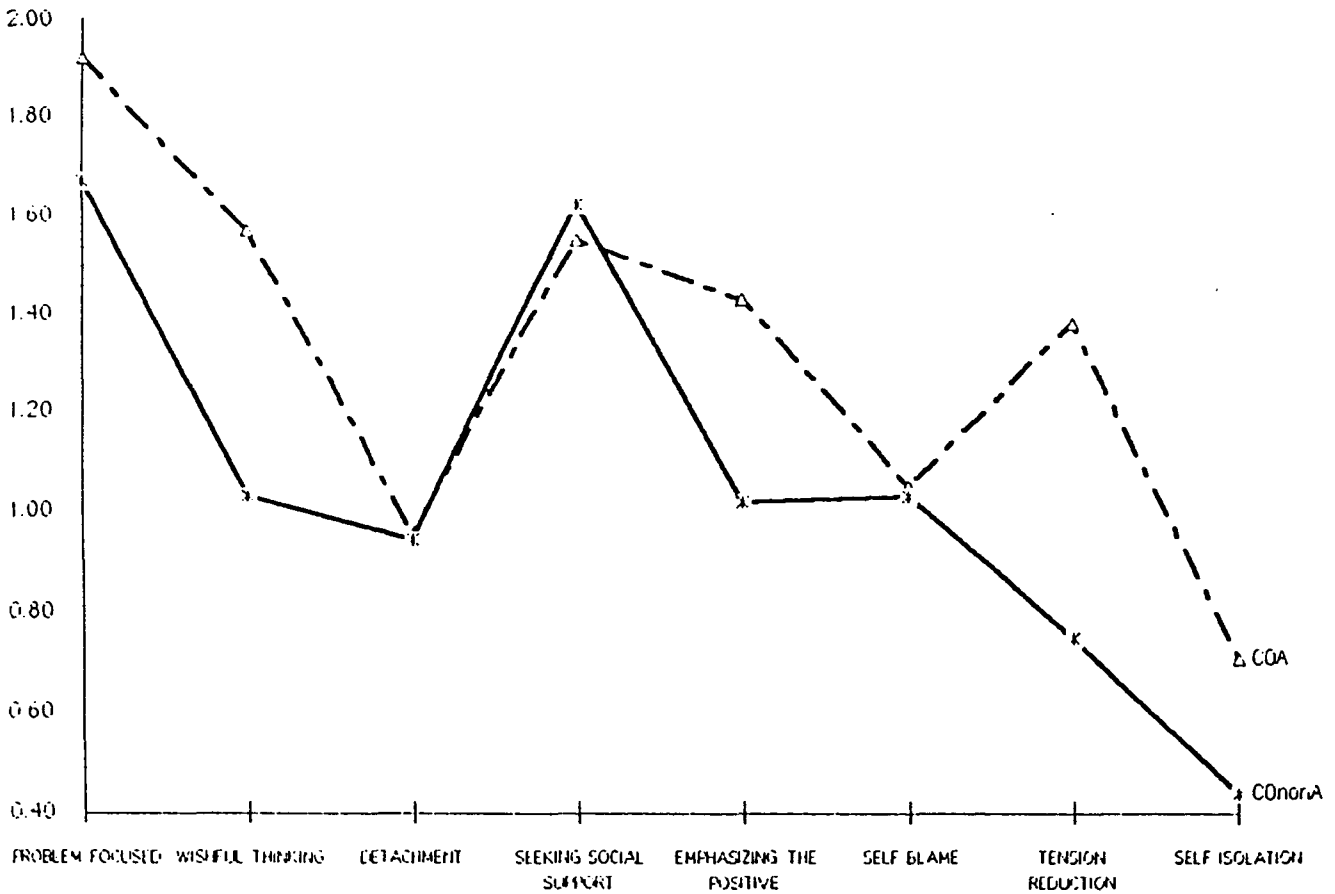


Figure 2

MEAN SUBSCALE SCORES FOR VIGNETTE (PILOT STUDY DATA)



CHAPTER IV

RESULTS

Presented in Chapter IV are the results of the statistical analyses used to test the research hypotheses delineated in Chapter III. The sample will be described in terms of the major outcome variables. This will be followed by the results, which will be presented separately for each hypothesis. Finally, a summary of the statistical findings will be presented.

The overall demographic characteristics of the sample used in this study were detailed in Chapter III. Presented here is a description of the sample by group, in terms of the major outcome variables (see Tables 5 and 6). On the BDI, the mean score for the COA group was 7.96 (SD = 7.66); the range was 0 to 34. The distribution of scores was skewed, with the majority of subjects scoring between 0 and 2. For the children of non-alcoholics group, the mean BDI score was 4.49 (SD = 5.17); the range was 0 to 24, with a highly skewed distribution. The vast majority of children of non-alcoholics scored 0 or 1 on the BDI.

COA Group

On the administration of the WCCL-R applied to the actual stressful encounter, the scores for the COA group were

fairly normally distributed for all eight subscales, with the exception of wishful thinking and blame-self. The wishful thinking subscale was negatively skewed, and the blame-self subscale was bimodal, with the majority of scores falling at either the center of the distribution, or at the low end. In response to the vignette, the score distributions for the COA group on the eight subscales of the WCCL-R were normal with the exception of the wishful thinking, emphasizing the positive, and the tension reduction subscales. The wishful thinking and tension reduction subscales presented flat distributions, while the emphasizing the positive subscale was negatively skewed.

The mean BDI and WCCL-R subscale scores for the COA group are presented in Table 5. In response to the actual stressful encounter, the mean WCCL-R subscale scores for the COA group ranged from .73 with a standard deviation of .73 (blame-self) to 1.56 with a standard deviation of .66 (seek social support). In response to the vignette, the mean subscale scores for the COA group ranged from .72 with a standard deviation of .60 (blame-self) to 1.56 with a standard deviation of .46 (seek social support).

COnonA Group

On the administration of the WCCL-R applied to the actual stressful encounter, all of the subscales were fairly normally distributed for the children of non-alcoholic group

Table 5

Mean BDI Score and WCCl-R Subscale Scores for COA Group

		BDI	Problem-Focused	Wishful-Thinking	Detach-ment	Seeking Social Support
ACTUAL STRESSFUL ENCOUNTER	Mean	7.96	1.23	1.47	.97	1.56
	S.D.	7.66	.55	.94	.55	.66
		Emphasizing Positive	Blame-Self	Tension Reduction	Self-Isolation	
	Mean	1.25	.73	.88	1.10	
	S.D.	.55	.73	.80	.67	
		BDI	Problem-Focused	Wishful-Thinking	Detach-ment	Seeking Social Support
VIGNETTE	Mean	7.96	1.41	1.29	.96	1.56
	S.D.	7.66	.43	.84	.52	.46
		Emphasizing Positive	Blame-Self	Tension Reduction	Self-Isolation	
	Mean	.85	.89	.88	.73	
	S.D.	.66	.60	.66	.66	

with the exception of the blame-self, tension reduction, and self-isolation subscales. In each of these cases the distributions were skewed. The majority of children of non-alcoholics did not use these coping strategies at all in response to the actual stressful encounter. In response to the vignette, all of the subscales were normally distributed

for the children of non-alcoholics group with the exception of the tension-reduction and self-isolation subscales. In both cases the distributions were negatively skewed.

The mean BDI score along with the mean WCCL-R subscale scores for the children of non-alcoholics group are represented in Table 6. In response to the actual stressful encounter, the mean WCCL-R subscale scores for the children of non-alcoholics group ranged from .63 with a standard deviation of .84 (blame-self) to 1.52 with a standard deviation of .94 (wishful thinking). In response to the vignette, WCCL-R mean subscale scores for the children of non-alcoholics group ranged from .53 with a standard deviation of .56 (self-isolation) to 1.54 with a standard deviation of .59 (problem-focused).

Hypothesis 1

The null hypothesis was that female COAs are not more depressed than female children of non-alcoholics. An independent two-sample t-test was applied to the scores derived from the administration of the BDI in order to test for equality of means between the two groups under study. The results of this analysis indicated that for this sample, female COAs were more depressed than female children of non-alcoholics. A t-statistic of -2.66 with 102 degrees of freedom yielded a p-value of .0092 (see Table 7).

Table 6

Mean BDI Score and WCCl-R Subscale Scores for COnonA Group

		BDI	Problem-Focused	Wishful-Thinking	Detach-ment	Seeking Social Support
ACTUAL STRESSFUL ENCOUNTER	Mean	4.49	1.07	1.52	.96	1.46
	S.D.	5.17	.66	.94	.52	.77
		Emphasizing Positive	Blame-Self	Tension Reduction	Self-Isolation	
	Mean	1.27	.63	.63	.66	
	S.D.	.67	.84	.62	.70	
		BDI	Problem-Focused	Wishful-Thinking	Detach-ment	Seeking Social Support
VIGNETTE	Mean	4.49	1.54	1.19	1.06	1.54
	S.D.	5.17	.59	.77	.67	.73
		Emphasizing Positive	Blame-Self	Tension Reduction	Self-Isolation	
	Mean	1.03	1.11	.57	.53	
	S.D.	.67	.71	.67	.56	

The mean BDI score for the COA group was higher than that that of the children of non-alcoholic group. For the COA group the mean BDI score was 7.96 (SD = 7.66), while the mean score for the children of non-alcoholic group was 4.49 (SD = 5.17). However, the mean BDI score for both groups was

Table 7

Results of T-Test Procedure Testing for Differences in Level of Depression Between COAs and Children of Non-Alcoholics

Group	N	Mean	S.D.	T	D.F.	Prob > |T|
COnon-A	77	4.49	5.17	-2.66*	102	.0092
COA	27	7.96	7.66			

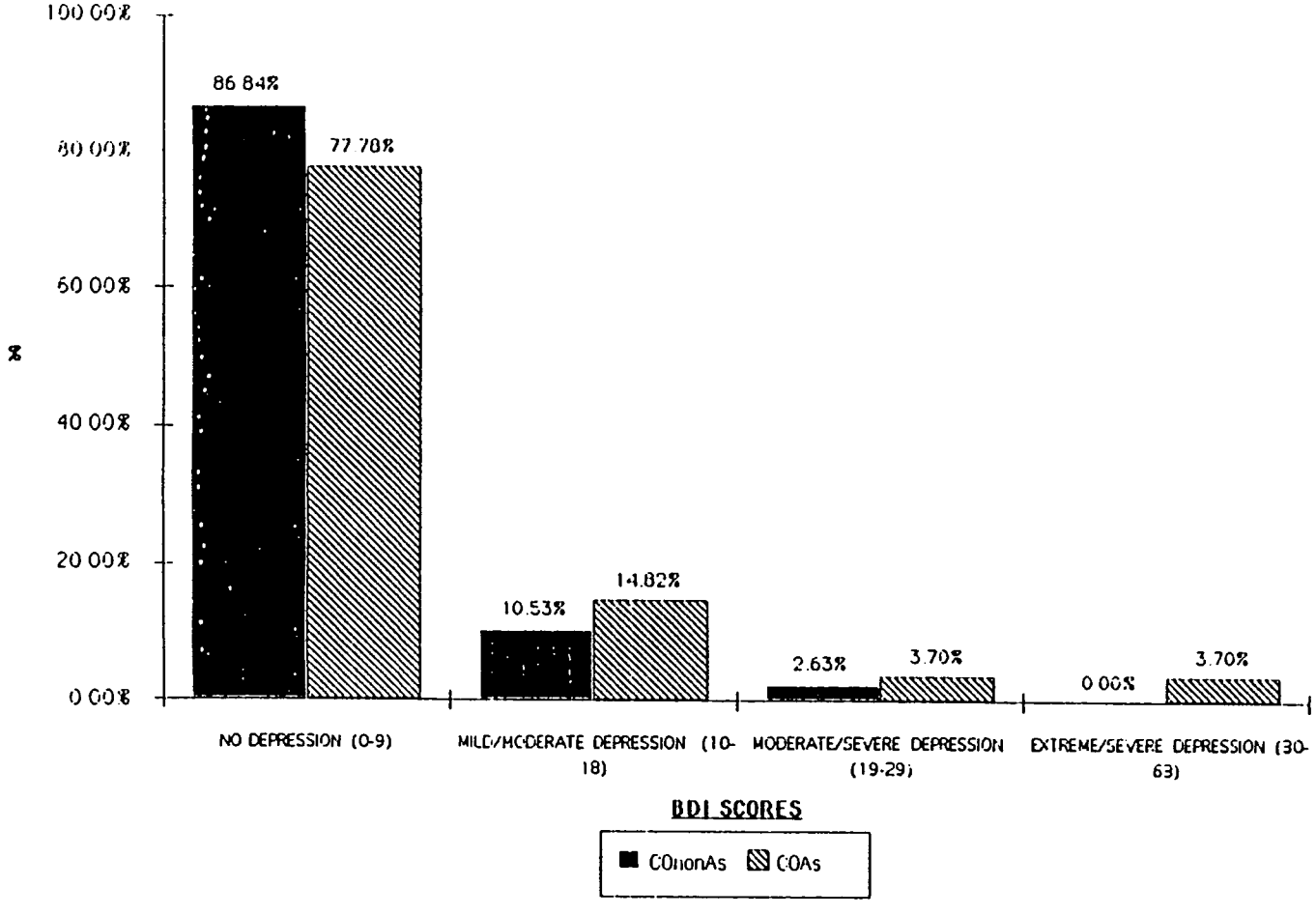
*2-sided $p < .01$

within the no depression range as described in the BDI test manual.

Figure 3 illustrates the distribution of BDI scores for the COA group and the children of non-alcoholic group. For the children of non-alcoholic group, 66 (86.84%) of the subjects scored within the no depression range on the BDI (0 to 9). Eight (10.53%) subjects in the children of non-alcoholics group scored within the mild/moderate range (10 to 18) of depression on the BDI, and two COA subjects (2.63%) scored within the moderate/severe range (19 to 29). For the COA group, 21 (77.78%) scored within the no depression range. Four (14.82%) COAs scored within the mild/moderate range, one (3.70%) scored within the moderate/severe range, and one (3.70%) scored within the extreme/severe range (30 to 63).

Figure 3

DISTRIBUTION OF BDI SCORES BY GROUP



Hypothesis 2

To test the second hypothesis that no differences exist in coping strategy profile between female COAs and female children of non-alcoholics after controlling for differences in level of depression, two multivariate analyses of covariance were applied to the eight subscales of the WCCL - R, one for each administration of the instrument (see Table 4). Initially, however, the distribution of scores for the eight subscales was checked for normality, and the variance of the scores on each subscale was assessed for homoscedasticity. The homoscedasticity assumption was met for all of the variables on both administrations of the WCCL - R.

Scores for all of the subscales were distributed normally, with the exception of the blame-self and tension reduction scales for both administrations of the WCCL - R. In each of these cases the disproportionate number of zero scores created a skewed distribution. Because none of these subscales represented variables on which significant differences were detected, no attempt was made to transform the data or apply different statistical procedures.

The results of the multivariate analysis of covariance applied to the eight subscales of the WCCL - R administered in response to the actual event reported by subjects indicated an overall difference between COAs and children of non-alcoholics on their use of the eight coping strategies

under study. The F-approximation to the Wilks' Lambda statistic was 2.13 with 8 and 91 degrees of freedom. The associated p-value was .0404. Previously established criteria set a p-value of .05 or less as indicative of significant group differences. Therefore, follow-up univariate tests were applied to assess group differences on specific subscales.

Bonferonni's correction was applied to follow-up univariate analysis of variance F-tests to control for the overall significance level due to the multiple tests being conducted. Therefore, a significance level of .0063 was applied to the follow-up tests. None of the follow-up univariate tests yielded a p-value equal to or less than .0063. Therefore, no significant differences can be reported between COAs and children of non-alcoholics using this criteria. However, on the wishful thinking (F (3, 98) = 5.08, $p < .0026$) and self-isolation (F (3,98) = 8.78, $p < .0001$) subscales, significant differences were detected before controlling for level of depression. In addition, after controlling for level of depression, the p-value associated with differences in the use of self-isolation was .0425 (F (1, 98) = 4.22), and that associated with tension reduction was .0909 (F (1,98) = 2.92). For both subscales the COA group scored higher than the children of non-alcoholics. If the Bonferroni correction is ignored, and

a p-value of .05 is considered significant, differences in the use of self-isolation can be considered significant.

The relationship between COAs and children of non-alcoholics on their use of the eight coping strategies in response to the actual stressful event can be seen in Figure 4. No statistically significant differences exist between COAs and children of non-alcoholics for any of the individual subscales of the WCCL-R. However, several trends exist. For example, the COAs were more likely than the children of non-alcoholics to use problem-focused coping, seeking social support, tension reduction, and self-isolation. These trends will be discussed in greater detail in Chapter V.

The multivariate analysis of covariance applied to the second administration of the WCCL - R, where subjects responded to the prepared vignette, yielded a p-value of .4367. The F-approximation to the Wilks' Lambda statistic of 1.01 with 8 and 92 degrees of freedom resulted in a nonsignificant finding, indicating that no overall differences exist between COAs and children of non-alcoholics on their use of the eight coping strategies under study in response to the vignette. Because an overall difference was not detected, follow-up univariate tests were not meaningful. However, Figure 5 depicts the trends in the use of the eight coping strategies under study for both COAs and children of non-alcoholics in response to the vignette. For example, the children of non-alcoholics were more likely than the COAs to

Figure 4

MEAN SUBSCALE SCORES FOR ACTUAL STRESSFUL ENCOUNTER BY GROUP (MAIN STUDY DATA)

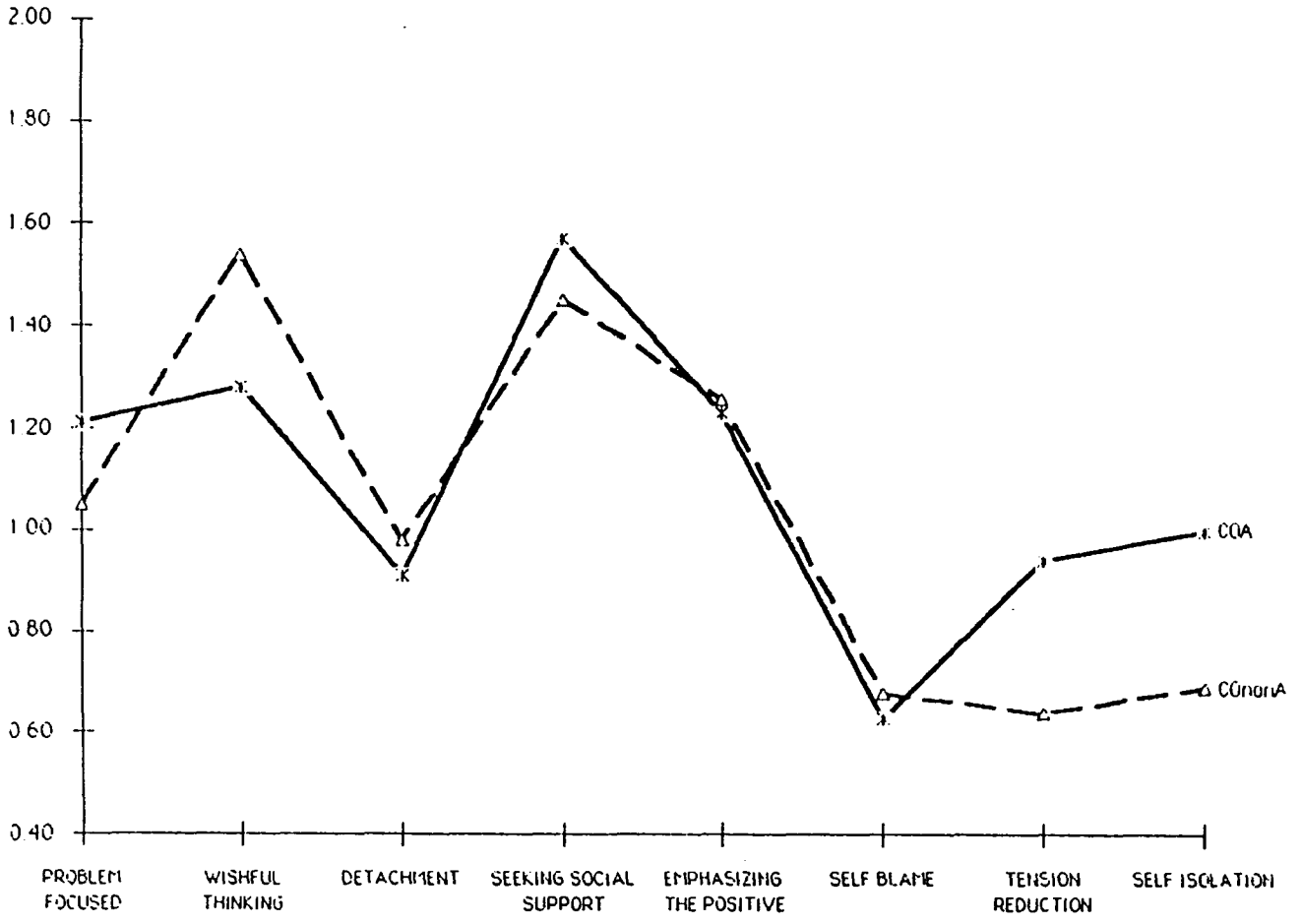
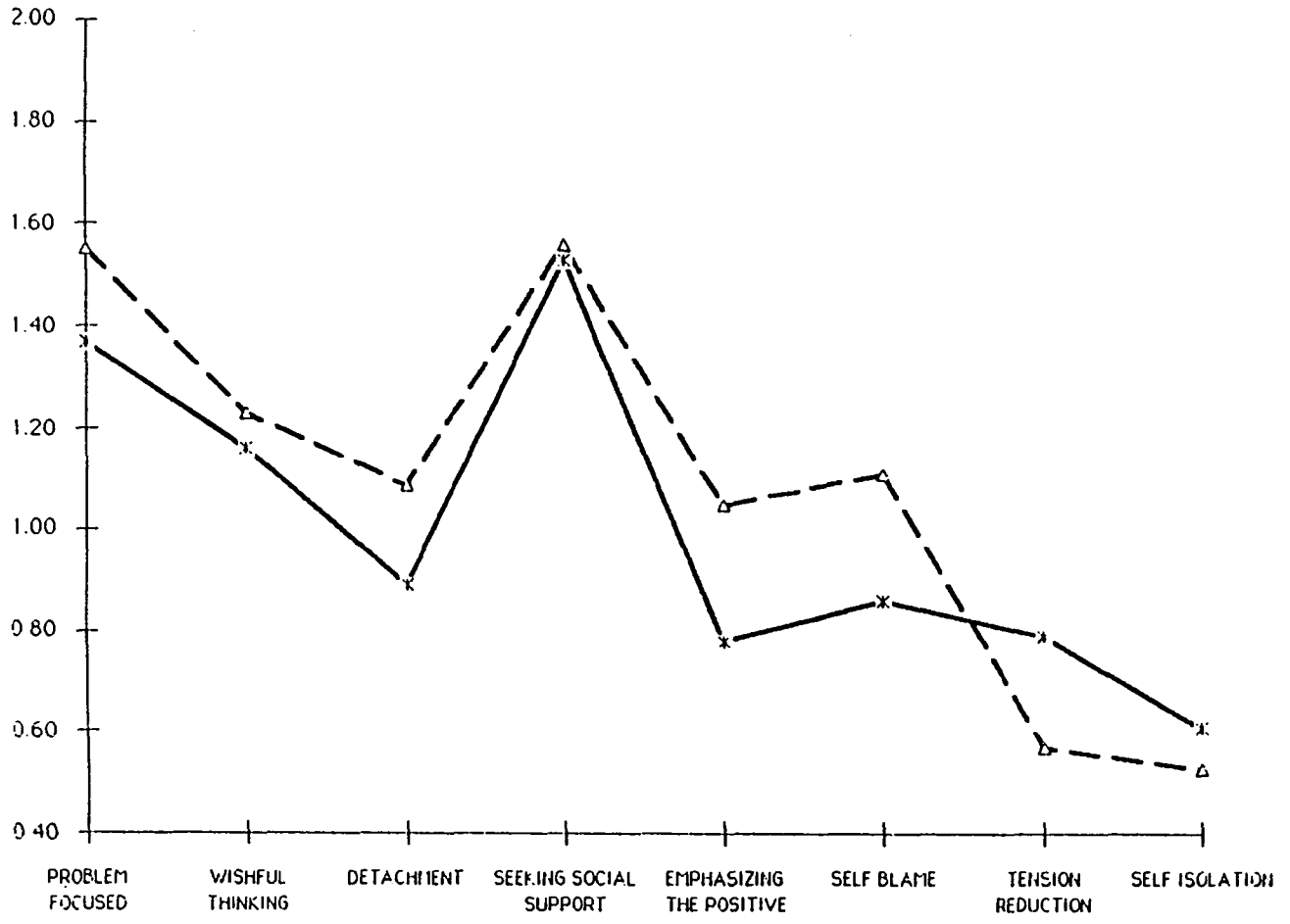


Figure 5

MEAN SUBSCALE SCORES FOR VIGNETTE BY GROUP (MAIN STUDY DATA)



use all of the coping strategies under study, with the exception of tension reduction and self-isolation. These trends will be discussed in greater detail in Chapter V.

Hypothesis 3

To test the null hypothesis that female COAs cannot be discriminated from female children of non-alcoholics on the basis of the eight coping strategies under study, two discriminant function analyses using a stepwise selection were applied to the eight subscales of the WCCL - R; one for each administration of the instrument. The eight subscale scores were available for selection using a p-value of .10 as the criterion for inclusion in the model, while a value of .05 was set as the criterion for removal from the model. Because of the established relationship between depression and both parental alcoholism and coping, scores from the BDI were forced into the model first.

In response to the actual stressful event reported by subjects, depression and self-isolation were initially included in the model (F (2,99) = 5.786, p < .0042), and were not removed in step two (F (1,99) = 4.254, p < .0418). Wishful thinking was then added to the model (F (3,98) = 5.272, p < .0021), but was removed (F (1,97) = 3.905, p < .0510) in the proceeding step, missing the criteria for remaining in the model by .0010. Therefore, the final model

contained depression and self-isolation, and the discriminant function was: -2.94 + .07(BDI) + .69(self-isolation).

Table 8 is a classification table indicating the extent to which group membership (COA or children of non-alcoholic) was predicted using the derived model, which includes depression and self-isolation. It was expected, based on prior probabilities, that 26.21% of the sample would be predicted to be COAs. Likewise, it was expected that 73.91% of the sample would be predicted to be children of non-alcoholics. These were the percentages that occurred in the sample. However, the actual results indicate that 5 of the 27 COAs under study were correctly predicted to be COAs, while 22 were incorrectly predicted to fall into the children of non-alcoholic group. For the children of non-alcoholics, 4 were incorrectly predicted to fall into the COA group, while 72 were correctly predicted to fall into the COnonA group. Translated into percentages, these results indicate that 18.52% of the COAs were correctly predicted to fall into the COA group, while 81.48% were incorrectly predicted to fall into the COnonA group. For the children of non-alcoholics, 5.26% were incorrectly predicted to fall into the COA group, while 94.74% were correctly predicted to fall into the COnonA group. Consequently, the overall error rate associated with predicting group using depression and self-isolation was .2524 (25.24%).

Table 8

Number of Observations and Percent Classified into COA and COnonA Groups for Actual Stressful Encounter

		Predicted Group					
		COA		*COnonA		Total	
		N	%	N	%	N	%
Actual Group	COA	5	(18.52%)	22	(81.48%)	27	(100.00%)
	*COnonA	4	(5.26%)	72	(94.74%)	76	(100.00%)
	Total Predicted	9	(8.74%)	94	(91.26%)	103	(100.00%)
	Priors Probabilities	.2621		.7379			

In response to the vignette, after depression was forced into the model, emphasizing the positive was added (F (2,100) = 4.865, p < .0096). However in the proceeding step emphasizing the positive was removed from the model (F (1,100) = 2.781, p < .0985). No other variables met the criteria for inclusion in the model. Therefore, group discrimination in response to the vignette was based on depression only, and the discriminant function was: -1.63 + .10(BDI).

Table 9 represents the classification of subjects into groups based on the model with only depression being used as a predictor. Two (7.14%) of the COAs were correctly

Table 9

Number of Observations and Percent Classified into COA and COnonA Groups for Vignette

		Predicted Group					
		COA		*COnonA		Total	
		N	%	N	%	N	%
Actual Group	COA	2	(7.14%)	25	(92.86%)	27	(100.00%)
	*COnonA	4	(5.26%)	72	(94.74%)	76	(100.00%)
	Total Predicted	6	(5.71%)	99	(94.29%)	103	(100.00%)
	Priors Probabilities	.2621		.7379			

classified on the basis of this model as COAs, while 25 (92.86%) were incorrectly classified as children of non-alcoholics. For the children of non-alcoholics, 4 (5.19%) were incorrectly classified as COAs, while 72 (94.81%) were correctly classified as children of non-alcoholics. The total number of subjects classified as COAs was 6 (5.71%), while 99 (94.29%) were classified as COnonAs. The prior probabilities, based on what actually occurred in the sample, indicated that 26.67% of the subjects were expected to be classified as COAs, while 73.33% of the subjects were expected to be classified as children of non-alcoholics.

The overall error rate for COAs using the derived model was .9286 (92.86%). The error rate for predicting children of non-alcoholics was .0526, or 5.26%. The total error rate, using the model with depression only was .2857 (28.57%).

Hypothesis 4

The null hypothesis that no differences exist in coping strategy profiles for female COAs with only an alcoholic mother, those with only an alcoholic father, and those with two alcoholic parents could not be statistically tested due to the limited number of subjects within each group. Therefore, a descriptive analysis will be presented for the purposes of investigating any trends which may be present within the sample. The number of subjects within each group will be reported for each administration of the WCCL - R, along with the mean subscale scores for each group and the standard deviations of these scores (see Table 10).

Twenty-two (81.48%) of COA subjects reported that they were raised in a home with only an alcoholic father. Two (7.41%) indicated that they were raised with only an alcoholic mother, and three (11.11%) were raised by two alcoholic parents. The mean responses and standard deviations for the eight subscale scores on each of the two administrations of the the WCCL - R, along with the sample sizes for each group are reported in Table 10.

Table 10

Mean WCCL - R Subscale Scores for Subjects With Only an Alcoholic Father, Only an Alcoholic Mother, and Two Alcoholic Parents

		BDI	prob-solv	wish-think	det-sch	seek supp	emph pos	self-blame	tens red	self isol
Actual Event										
Father Only N=22	Mean	8.14	1.22	1.41	0.99	1.52	1.31	0.69	0.82	1.05
	S.D.	8.23	.58	.98	.59	.70	.53	.78	.73	.71
Mother Only N=2	Mean	6.00	0.91	1.60	0.58	1.93	0.88	0.67	0.33	1.17
	S.D.	0	.13	.28	.35	.30	.53	0	.47	.71
Both N=3	Mean	9.33	1.48	1.87	1.06	1.62	1.08	1.11	1.67	1.44
	S.D.	8.08	.37	1.01	.35	.58	.72	.51	1.15	.38
Vignette										
Father Only N=22	Mean	8.14	1.47	1.33	0.96	1.48	0.88	0.94	0.92	0.74
	S.D.	8.23	.45	.90	.54	.48	.70	.66	.68	.71
Mother Only N=2	Mean	6.00	1.18	1.10	0.75	2.00	0.75	0.67	0.33	0.33
	S.D.	0	.26	.14	.12	.20	.35	.47	.47	.47
Both N=3	Mean	9.33	1.15	0.80	0.78	1.81	0.67	0.78	0.67	0.67
	S.D.	8.08	.29	.20	.38	.30	.76	.19	.33	.33

For the actual stressful encounter, the range of mean scores among the three groups (COAs with only an alcoholic father, those with only an alcoholic mother, and those with two alcoholic parents) for each subscale was calculated. These differences ranged from .39 to 1.34. The difference of

1.34 between the highest and lowest mean subscale score occurred for the tension reduction subscale. A mean of 1.67 (SD = 1.15) was reported for subjects with two alcoholic parents, while the mean score for subjects with only an alcoholic mother was .33 (SD = .47). Subjects with only an alcoholic father fell between these two extreme means with a mean of .82 and a standard deviation of .73. For the other seven subscales, the maximum range among the three groups was found to occur for the problem focused subscale and was reported at .57; differences among the three mean scores did not exceed slightly over one half of a point for any of the remaining subscales in response to the actual stressful encounter.

In response to the vignette (see Table 8), the range of means among the three groups (COAs with only an alcoholic father, those with only an alcoholic mother, and those with two alcoholic parents) for the eight WCCL-R subscales, fell between .21 and .59. The maximum range of mean scores was again associated with the tension reduction subscale. In this case, individuals with only an alcoholic father had the highest mean score reported at .92 (SD = .68), while subjects with only an alcoholic mother had a mean score of .33 (SD = .47). The mean score of subjects with two alcoholic parents was reported at .67 (SD = .33). A range of .53 was calculated among the three groups for the wishful thinking subscale, again indicating that the difference between the

highest and lowest mean scores on any other subscale was never greater than slightly more than one half of a point.

Summary of Results

To summarize, a significant difference was noted between COAs and children of non-alcoholics in level of depression as measured by the BDI, with the COA group exhibiting more depression than the children of non-alcoholic group. Additionally, a significant overall difference was detected in choice of coping strategies based on responses to the actual stressful event reported by subjects after controlling for level of depression. However, using Bonferroni's correction to adjust the significance level resulted in no differences on the follow-up univariate analyses of variance. Small group differences were detected in the use of tension reduction ($Pr > F = .0909$) and self-isolation ($Pr > F = .0425$), with COAs more likely to use both of these. In response to the vignette, no overall significant differences were detected between COAs and children of non-alcoholics. Therefore, follow-up univariate analyses of variance were not conducted.

The discriminatory ability of the models derived using a stepwise discriminant function analysis indicate a higher rate of successful prediction for the children of non-alcoholic group. In both cases, the models derived were able to successfully predict children of non-alcoholics at a

substantially higher rate than COAs. For the administration of the WCCL - R in response to the actual stressful event, this model included depression and self-isolation. In response to the vignette the model included only depression.

Finally, differences in the choice of coping strategies among COAs with only an alcoholic father, those with only an alcoholic mother, and those with two alcoholic parents could not be statistically analyzed due to the small group sizes. However, a descriptive analysis indicated that differences among these groups were negligible. The highest differences among the three groups was noted for the use of tension reduction for both administrations of the WCCL - R.

Although the number of statistically significant findings throughout these analyses are minimal, several explanations might be offered to explain the results. In addition, the questions raised as a result of these findings lead to suggestions for further investigations involving COAs. Finally, implications for practitioners arise as a result of the conclusions drawn from these analyses. A discussion addressing these indications will be presented in Chapter V.

CHAPTER V

DISCUSSION

Introduction

The statistical tests reported in Chapter IV resulted in relatively few significant findings. However, several of the findings, along with some trends which appear to exist, have implications for both further research and practice. This chapter will include a discussion of the limitations of the study, followed by a detailed discussion of the conclusions of this study and implications for both research and practice.

Limitations of the Study

The most notable limitations of the study revolved around the selection of the sample. Due to logistical considerations, the sample was not randomly selected. The researcher was limited to a subject pool comprised of individuals enrolled in classes where she was able to gain access. Furthermore, all of the subjects in the study were volunteers. In addition, the discussion and implications must be applied with caution, as they relate only to female undergraduate students between the ages of 17 and 24 currently enrolled in a public Southeastern university. Finally, the sample consisted only of students enrolled in

two Counseling and Educational Development undergraduate courses. These conditions most directly affect the generalizability of the findings from this study. It is unknown whether these same findings would apply to a sample of non-college-age subjects.

Another limitation relates back to the application and appropriateness of basing choices on Chickering's Developmental Model of Student Development. This particular sample was chosen on the basis of the developmental tasks associated with this population as proposed by Chickering (1969). Specifically, the first three vector's (achieving competence, managing emotions, and becoming autonomous) of his theory were thought to apply directly to the choice of coping strategies. Although overlap in the developmental acquisition of skills is expected, these particular tasks are most often associated with the freshman and sophomore student. The sample used in this study consisted of only 17 freshman and sophomore students combined, representing approximately 16% of the total sample size. The remaining 84% of the sample was comprised of juniors (25%) and seniors (59%). The developmental tasks associated with juniors and seniors are freeing interpersonal relationships, clarifying purposes, and developing integrity.

Limitations associated with the presence of measurement error also must be considered. Although the instruments selected for this study were psychometrically sound,

interpretations of the results of the analyses must be made in light of the fact that these instruments are not entirely valid or reliable. In addition, self-report error may be present. Although self-report was used in conjunction with scores on the CAST, the potential for error was not entirely eliminated.

Interpretations of findings from the WCCL-R present further challenge. As previously discussed, the responses on the WCCL-R were made on the basis of subjects' reactions to both an actual family-related stressful encounter which occurred within the past six months and a prepared vignette. Interpretations drawn from analyses applied to the actual stressful encounter must be considered in light of the fact that each subject was responding to a different, self-described encounter. Although this represents the form of administration most often used by Lazarus and his colleagues (e.g. Folkman & Lazarus, 1980, 1985), any differences detected could be attributable to differences in the actual stressful encounter as opposed to group differences. Limiting the actual stressful encounter to one which had taken place within the family within the past six months somewhat controlled for encounter differences, but by no means eliminated the possibility of confounded results.

The prepared vignette involved a situation in which the subject needed to imagine that she had just had a fight with her parents. This particular scenario was chosen for two

reasons. First, it represented a situation in which most, if not all, undergraduate students have participated. Second, the situation described can be easily assessed using the WCCL-R. However, the specific situation described in the vignette may have been unrealistic for some of the participants. Although subjects were asked if the situation presented was realistic for them, or if they could easily imagine themselves in the situation described, they were forced to pretend that they had participated in a situation which may or may not have been within the realm of actual experience for them. These responses, then, reflect some subjects' perceptions of how they think they would have coped, as opposed to how they actually have coped in a real situation.

Problems associated with the existence of potential confounding variables also exist. Although efforts were made to control for or test several of these (i.e., gender of the COA, gender of the alcoholic parent, and level of depression), and report on several others (i.e., number of years lived with an alcoholic parent, amount of time lived with an active alcoholic parent, and amount of time lived with a sober alcoholic parent), other potentially confounding factors may exist. Some of these, which may affect the level of depression and/or the choice of coping strategies for individuals within the sample, include; exposure to physical, sexual, verbal and/or emotional abuse, parental separation

and/or divorce, the presence of other psychological problems, socioeconomic status, significant relationships outside of the family, etc. It was beyond the scope of this investigation to address all of these situations. It is the intention of this researcher to address some of these potentially confounding situations in future studies of COAs.

Discussion of Results

The analyses reported in Chapter IV point to some conclusions with several possible explanations and implications. Perhaps the most obvious of these is the fact that the COAs were significantly more depressed than children of non-alcoholics. This finding is in agreement with already existing research (Baker & Williamson, 1989; Calder & Kostiniuk, 1989; Goglia, 1986; Gross & McCaul, 1990; Rolf, Johnson, Isreal, Baldwin, & Chandra, 1988; Tweed & Ryff, 1991), and permeates the implications of further findings throughout these analyses.

The fact that there was a statistically significant difference between COAs and children of non-alcoholics in the level of depression as measured by the BDI does not accurately reflect the distribution of scores for both groups (COAs and children of non-alcoholics), or the actual BDI scores themselves. Although the mean BDI score for the COA group was significantly higher than that of the children of non-alcoholics, both mean scores were within the range of no

depression (0 to 9) as set forth in the BDI test manual (Beck et al., 1961). In addition to the mean scores for both groups being within the normal range, the distribution of scores for both groups indicates that inferring that COAs are more depressed than children of non-alcoholics may not be accurate. The distribution of scores for both groups was similar, and indicates that COAs should not automatically be assumed to be depressed.

An interesting subjective analysis of the role of depression in the lives of COAs can be made on the basis of the quality of the stressful encounters reported by subjects. COAs tended to report events that were quite different from children of non-alcoholics. The episodes reported by the COA subjects tended to include experiences that a counselor might associate with depression, and yet those COA subjects who reported the most severe episodes were among those who scored 0 or 1 on the BDI. Several explanations for this trend may exist. The more popular literature on COAs suggests that these individuals use a great deal of denial in coping with trauma (Black, 1981). Perhaps the COAs in this sample were in a state of denial regarding their level of discomfort and depression. Another possible explanation is that COAs may be accustomed to discomfort and chaos and may have a limited emotional response to traumatic events. It is also possible that COAs are simply strong, and have perhaps developed

extensive and effective coping strategies over the years of growing up in an alcoholic home.

Overall, the use of the eight coping strategies under study was consistent with expectations according to Chickering's developmental model. The trends suggest that all of the subjects were most likely to use seeking social support as a coping strategy. In addition, wishful thinking and problem solving were frequently used by subjects. The use of the these particular strategies is supported in that, according to Chickering (1969), the developmental tasks associated with this group revolve around achieving competence, becoming autonomous, establishing identity, freeing interpersonal relationships, clarifying purposes, and developing integrity. The mastery of such tasks for individuals attending undergraduate school is consistent with the use of seeking social support, wishful thinking, and problem solving.

The results of the multivariate analyses of covariance indicate that there is little difference between COAs and children of non-alcoholics in their choice of coping strategies. The overall difference between the two groups in response to the actual stressful event reported suggests that the COAs in this sample coped with an actual family-related stressful encounter differently than the children of non-alcoholics. However, as stated earlier in this chapter, these differences could in fact be due to the actual event

reported (each subject reported a different stressful encounter), as opposed to the status of parental alcoholism within the family. These differences may also be due to a lack of statistical power to detect the observed differences, although there was adequate statistical power to detect a difference of .5 or greater on the individual subscales of the WCCL-R. A post hoc power analysis could be conducted to assess the sample size necessary to detect the score differences obtained in this study with statistical power of .80 or better.

Differences in the use of tension reduction and self-isolation in response to the actual stressful encounter, although not statistically significant, may warrant further investigation. COAs were shown to use both of these coping strategies at a higher rate than children of non-alcoholics. The more prevalent use of tension reduction among COAs related specifically to one item on which COAs consistently indicated that they were likely to use drugs or alcohol to cope with stress, while the children of non-alcoholics indicated that they were not likely to use drugs or alcohol. This was expected, and is supported throughout the literature (Cotton, 1979; Drake & Vaillant, 1988; Svanum & McAdoo, 1991). The difference between the two groups in the use of self-isolation may be related to the fact that COAs tend to exhibit less adaptive social skills than children of non-alcoholics (Calder & Kostiniuk, 1989; Udayakumar, 1984).

This lack of social skills and support systems may lead to a more isolated approach to coping with stress.

Significant differences between COAs and children of non-alcoholics in the use of wishful thinking and self-isolation in response to the actual stressful event were noted prior to controlling for level of depression. These differences point to the major role of depression in mediating choice of coping strategies. When level of depression was set equivalent for both groups, no significant differences existed in the use of wishful thinking or self-isolation, although a slight group difference could still be detected in the use of self-isolation. However when depression was removed from the model, children of non-alcoholics were significantly more likely to use wishful thinking, while COAs were more likely to use self-isolation. This finding points to the fact that both wishful thinking and self-isolation are more closely related to depression than to parental alcoholism.

When all subjects were asked to respond to the same stressful encounter presented in the form of a vignette, no overall differences between COAs and children of non-alcoholics in choice of coping strategies were detected. Again, differences in the use of self-isolation, with COAs showing a greater likelihood of using this coping strategy, were detected prior to controlling for depression. These results suggest that differences in choice of coping

strategies in response to the vignette are most likely attributable to level of depression as opposed to parental alcoholism.

The ability to discriminate COAs from children of non-alcoholics on the basis of choice of coping strategies as measured by the WCCL - R is limited. The model for making group predictions based on responses to the actual stressful encounter included both depression and self-isolation. Using these subscales, children of non-alcoholics could be reasonably well predicted. However, COAs were more far more likely to be placed in the children of non-alcoholic group than the COA group using the derived model. Similar findings were noted in response to the vignette. In this case the derived model included only level of depression. Using this model, COAs were extremely likely to be placed in the children of non-alcoholic group. However, this model did a good job of predicting group placement for children of non-alcoholics. While level of depression does a reasonably good job of predicting group placement for the children of non-alcoholics, it did a poor job of predicting the existence of parental alcoholism. An assessment of the distribution of BDI scores indicated that the COA group scores fell primarily at the extremes, with a large percentage of the COAs scoring 0 or 1. The significant difference between COAs and children of non-alcoholics in level of depression is attributable to the fact that several COAs scored very high on the BDI,

raising the mean for that group. Thus, the difference between the mean BDI scores for the two groups was statistically significant. However, the majority of COA subjects were not at all depressed, and characterizing this group as more depressed than children of non-alcoholics is not a clear representation of the actual data.

The COA subjects scoring 0 and 1 on the BDI were most likely predicted to be in the children of non-alcoholic group according to both models, where depression was forced in first. This would account for the high error rate of predicting group placement for COAs. These results seem to indicate that although the mean BDI score for COAs is significantly higher than that for children of non-alcoholics, depression is not a good predictor of parental alcoholism, but predicts the absence of parental alcoholism with a high rate of success. Another explanation for the bimodal distribution of BDI score among COAs is that COAs may tend to be either extremely depressed or not depressed at all. Although this may seem somewhat inconsistent with the literature, the actual statistical findings do not suggest such inconsistencies. The literature to date suggests that according to mean score differences, the two groups differ significantly in level of depression. However, a more comprehensive assessment of the data from this study suggests that this finding is not as simple to interpret as it may appear.

Due to the limited numbers of individuals with only an alcoholic father (n = 22), only an alcoholic mother (n = 2), and those with two alcoholic parents (n = 3), no statistical tests could be conducted to detect choice of coping strategy differences among these three groups. Descriptive analyses reveal that little difference appears to exist among the three groups with regard to choice of coping strategies. The largest difference appeared for the use of tension reduction among the groups. In response to both the actual stressful encounter and the vignette, subjects with only an alcoholic mother were least likely to use this coping strategy. Again, responses to the item regarding the use of drugs and alcohol as a coping mechanism were fewer for this group. Individuals with only an alcoholic father and those with two alcoholic parents were more likely to respond in the affirmative to this item.

Conclusions

Results of these analyses most clearly emphasize the confusing role of depression in the lives of COAs. Although the COAs in this study were shown to be significantly more depressed than the children of non-alcoholics, conclusions from these results must be made with caution. In addition to the fact that COAs are significantly more depressed than children of non-alcoholics (although the mean BDI scores for both groups were within the range of no depression),

depression has been shown to mediate to some extent the choice of coping strategies. Differences between COAs and children of non-alcoholics in their choice of coping strategies are most likely attributable to differences in level of depression as opposed to the existence of parental alcoholism. However, the assessment of depression among this population must be made with caution. As previously discussed, the majority of COAs in this sample were not depressed at all. However, the incidents reported by these individuals suggest that they are either coping extremely well with the stress in their lives, or that they may have a tendency to deny the existence of depression.

Finally, the small numbers of individuals represented with only an alcoholic father, only an alcoholic mother, and two alcoholic parents makes interpretations of differences in choice of coping strategies among these groups impractical. Although there is some evidence to support differences in the use of tension reduction among these groups, a larger study is warranted to draw meaningful conclusions. The use of drugs and alcohol has been shown to be related to the presence of parental alcoholism, and Cotton (1979) indicated that an increased tendency toward substance-abuse is related to number of alcoholic relatives. These findings support several recommendations for future research.

Recommendations for Further Research

Conclusions drawn from this investigation of parental alcoholism and choice of coping strategy point to the need for several larger scale studies. A subjective screening of the individual stressful encounters reported by subjects revealed that COAs tended to report encounters of a more serious nature than children of non-alcoholics. For example, one COA reported that her father had recently gone to prison, while another reported that her 15 year old sister was pregnant by a married alcoholic man. The nature and tone of these stressful encounters was generally different from those reported by the children of non-alcoholics. For the latter group, the level of dysfunction within the family did not appear to be as great as for the COA group. For example, one child of a non-alcoholic reported that her parents had had a recent fight and had gone to a marriage counselor. She reported that, as a result of the counseling experience, they were happier than they had ever been. Another subject reported that her parents did not approve of her sister's boyfriend, and several reported that there was some stress related to financial matters within the family.

These subjective findings indicate that it may be advantageous to investigate differences in choice of coping strategies based on type or level of stressful encounter. This type of investigation would require a much larger sample size, as well as a system for rating the type of stressful

encounter, based on a sound theoretical framework. However, investigating differences in choice of coping strategies, after the stressful encounters have been rated and grouped, most closely approximates the majority of studies conducted by Lazarus and his colleagues and may represent the best use of the WCCL - R.

Another option in examining differences in choice of coping strategies is to use a more comprehensive and sensitive instrument to measure choice of coping strategies. Curlette, Aycock, Matheny, Pugh, and Taylor (1990) have developed the Coping Resources Inventory for Stress (CRIS), which is designed to measure how an individual thinks they would cope in a particular situation. The CRIS measures self-disclosure, self-directedness, confidence, acceptance, social support, financial freedom, physical health, physical fitness, stress monitoring, tension control, structuring, problem solving, cognitive restructuring, functional beliefs, and social ease. Perhaps this more comprehensive measure of the coping process could detect group differences not detected by the less sensitive WCCL - R. This measure also represents a more appropriate measure of one's perceptions of how they might cope, and is therefore more adaptable for use with a prepared vignette. This measure was not selected for use in this study due to both logistical and theoretical considerations. The CRIS is extremely expensive and requires 45 minutes to administer. In addition, this study was based

on the theoretical framework of Lazarus and his colleagues, and therefore the instrument constructed on the basis of their framework was selected.

In addition to pointing out possible modifications to the existing study, several additional studies are suggested by the results. For example, a study to examine differences in choice of coping strategy and/or depression among COAs with only an alcoholic father, those with only an alcoholic mother, and those with two alcoholic parents may reveal differences among these groups. This study pointed to possible differences in the use of tension reduction among these groups, which could be more specifically investigated.

In addition, a study specifically investigating differences between COAs and children of non-alcoholics in their use of tension reduction and self-isolation may be beneficial. Findings from this investigation indicate slight group differences, with COAs more prone to use both strategies. Specifically, a study where more sensitive measures of these specific constructs could be employed may point to more marked group differences in the use of these strategies.

The distribution of the BDI scores among the COA group suggests that further study of depression among COAs is warranted. Although the COA group was shown to be significantly more depressed than the children of non-alcoholics, the mean BDI score (7.96) was within the no

depression range. However, the standard deviation (7.66) indicates a high degree of variability in level of depression among COAs. In addition, the distribution of scores among COAs revealed a tendency toward either an extremely high level of depression, or no depression at all. All of these findings suggests that COAs are a heterogeneous group, and that further within-group study of this group is warranted.

Implications for Practice

Along with recommendations for future research on COAs, this study points to several implications for counseling 17 to 24 year old college students. First and foremost is the fact that counseling professionals can be made aware of the differences between COAs and children of non-alcoholics in level of depression and respond accordingly. The results of this study related to differences between COAs and children of non-alcoholics in level of depression substantiate what is already in the literature (Baker & Williamson, 1989; Calder & Kostiniuk, 1989; Goglia, 1986; Gross & McCaul, 1990; Rolf, Johnson, Isreal, Baldwin, & Chandra, 1988; Tweed & Ryff, 1991): COAs are more depressed than children of non-alcoholics. However, counselors must be aware that this does not necessarily point to the fact that COAs are in fact depressed. Although, on average, COAs were shown to be more depressed than the children of non-alcoholics, the mean BDI score for this group indicated that they are not necessarily

depressed at all. It is suggested, as a result of these findings, that treatment of this population should include an assessment of and possible treatment for depression. A positive indication of parental alcoholism should lead counselors to assume that depression may be present. An assessment of the level of depression can be made, and depressed COA clients can be appropriately treated for their depression. In addition, counselors should exercise caution in their interpretation of scores derived from a depression inventory. The subjective evidence accumulated in this investigation suggests that COAs may under-report their level of depression on such inventories. In cases where COA clients do not show depressive tendencies as measured by a depression inventory, counselors may wish to investigate the possibility that this may be the result of denial. However, it must not be automatically assumed that when painful events have occurred in the life of a COA they must be in a state of denial if they do not score within the depressed range on a depression inventory. They may in fact have developed superior coping resources as a result of their upbringing. A structured interview, in which the counselor looks specifically for reports of incidents which might be expected to coincide with an elevated level of depression, along with evidence that the COA has successfully coped with these episodes could be used.

This investigation was inconclusive in terms of addressing specific differences in choice of coping strategies between COAs and children of non-alcoholics. It raised more questions than it provided concrete answers. In terms of implications for practice, it does not appear, based on the results of this study alone, that COA clients will necessarily benefit from specific training related to choice of coping strategies. With the exception of a possible increased tendency toward using tension reduction and self-isolation, COAs do not appear to cope differently from children of non-alcoholics. Counselors may want to look for signs that individual COAs are using tension reduction (specifically using drugs and/or alcoholic to cope with stress) and self-isolation as coping strategies and address these issues for individual clients. However, based on this study, specific interventions for training COA clients to cope successfully with family-related stressful encounters cannot be recommended.

Concluding Remarks

It was the purpose of this study to investigate potential differences between COAs and children of non-alcoholics in the choice of coping strategies. Significant differences were not shown to exist in the use of the eight coping strategies under study. A need for specific interventions to teach coping strategies to COAs has not been

established based on this investigation alone. However, the trends discussed suggest the need for both further investigation and changes in practice. The need for further research on this topic has been established and discussed. In addition, the implications for counselors suggest that these findings be incorporated into practice. The incorporation of these findings into practice should lead the counselor to more effective intervention with COA clients.

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APPENDIX A

LETTER TO INSTRUCTORS

10/7/92

Instructor's Name
Department of Counseling and Educational Development
Curry Building
The University of North Carolina at Greensboro
Greensboro, NC 27412-5001

Dear *Instructor*:

Thank you for agreeing to allow me access to your CED 310 students. I plan to use the students as subjects in my main dissertation study. The study involves the comparison of children of alcoholics with children of non-alcoholics on their use of eight distinct coping strategies. I will administer a battery of three instruments; The Children of Alcoholics Screening Test, The Beck Depression Inventory, and The Ways of Coping Checklist - Revised. An informed consent form as well as a demographics sheet will also completed by the students. The entire battery will take approximately 45 minutes to administer. I intend to come to your class and administer the battery, wait for the students to complete it, and collect it myself. I have enclosed a copy of the specific procedures I intend to use.

I would like to suggest that I come to your class on ***Day, Date at time*** to administer the battery. If this time is not convenient for you, please let me know and we can reschedule. You can reach me or leave a message at **(919) 274-1609**. Please do not relay the details of this study to your class prior to my coming as I am afraid that this may bias the results.

Again, I thank you for your cooperation. I look forward to seeing you on the *Date*.

Sincerely,

Virginia A. Kelly
Enc.

APPENDIX B

SPECIFIC PROCEDURES FOR DATA COLLECTION

SPECIFIC PROCEDURES FOR DATA COLLECTION

Parental Alcoholism and Coping: A Comparison of Female Children of Alcoholics With Female Children of Non-Alcoholics

The following procedures were followed in the collection of data for the above-mentioned study. The subjects for this study were the students enrolled in either Counseling and Educational Development (CED) 210 and CED 310 classes during the fall 1992 semester. The researcher gained permission from the instructors for access to their classes, and followed these procedures:

1. The researcher and the involved instructors decided upon a convenient time to collect the data.

2. The researcher attended each class at the agreed-upon time, with individual packets for the student to complete.

3. Each packet included an informed consent form, a Demographics Information Sheet, The Children of Alcoholics Screening Test, The Beck Depression Inventory, and The Ways of Coping Checklist - Revised.

4. Before administering the packets, the researcher said the following:

Hello, my name is Ginny Kelly. I am a doctoral student in Counselor Education at UNCG, and I am here to ask you to participate as subjects in my dissertation. It is estimated that there are 28,000,000 children of alcoholics in the United States, and that these individuals are at risk for a number of social and psychological problems. In my study, I will be looking at differences between children of alcoholics and children of non-alcoholics, and I need individuals from both groups to participate in this study. I would like to stress that all of the information I gather will be held entirely confidential, and that anyone who does not wish to participate in this study may decline without any penalty.

I have a packet of instruments that I would like you complete while I wait. It should take no more than 45 minutes for you to finish.

I do not expect that the results of this study will be available until next semester. However, if you are interested in the results, there is a place to

indicate that on the Demographic Information form enclosed in your packet. I will write up a summary of the results and put copies on a table in room 224 Curry Building. You can pick one up in March, 1993. I plan to keep the data until I am completely finished with my degree, at which time I will permanently dispose of the instruments.

The researcher handed out the Informed Consent Forms at this time.

I am passing out an informed consent form at this time. If you agree to participate, I need for you to complete this form. It is being completed separately from the main questionnaire, to insure confidentiality.

The researcher read over the form with the subjects, had them sign it, and collected it. After the Informed Consent Form was collected, the researcher handed out the individual questionnaire packets.

You will notice that all of the forms in your packets are numbered. Again, I would like to stress the confidentiality of this study. Please rest assured that this is an identification number used only for the purposes of keeping the data straight. There is no way of identifying you personally.

Each of the instruments, and the Demographic Information form, has instructions which are fairly self-explanatory. However, if you have any questions, please feel free to ask. Please do not skip items on any of the instruments, and please answer all of the items as honestly as you can. When you have completed the packet, please return all of the forms to the envelope, and bring it to me.

Several of the instruments deal with issues that are personal, and can possibly be upsetting. If anyone is upset by items on the instruments, please let me know immediately. I will speak with you, and can refer you to a counselor or self-help group if, after talking, you would like more assistance.

Does anyone have any questions before we begin? You may begin completing the questionnaire. Thank you in advance for your cooperation.

APPENDIX C

INFORMED CONSENT FORM

APPENDIX C

THE UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

Consent to Act as a Human Subject
(Short Form)

Subject's Name _____

Date of Consent _____

I hereby consent to participate in the research project entitled _____

_____

An explanation of the procedures and/or investigations to be followed and their purpose,

including any experimental procedures, was provided to me by _____

_____. I was also informed about any benefits, risks, or discomforts that I might expect. I was given the opportunity to ask questions regarding the research and was assured that I am free to withdraw my consent to participate in the project at any time without penalty or prejudice. I understand that I will not be identified by name as a participant in this project.

I have been assured that the explanation I have received regarding this project and this consent form have been approved by the University Institutional Review Board which ensures that research projects involving human subjects follow federal regulations. If I have any questions about this, I have been told to call the Office of Research Services at (919)334-5878.

I understand that any new information that develops during the project will be provided to me if that information might affect my willingness to continue participation in the project. In addition, I have been informed of the compensation/treatment or the absence of compensation/treatment should I be injured in this project.

_____ _____

Subject's Signature

Witness to Oral Presentation
and Signature of Subject

If subject is a minor or for some other reason unable to sign, complete the following:

Subject is ____ years old or unable to sign because _____

_____

_____

Parent(s)/Guardian Signature

APPENDIX D

THE CHILDREN OF ALCOHOLICS SCREENING TEST

PLEASE NOTE

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APPENDIX E

THE BECK DEPRESSION INVENTORY

APPENDIX F

THE WAYS OF COPING CHECKLIST - REVISED

APPENDIX G

VIGNETTE (WCCL-R)

APPENDIX H

DEMOGRAPHIC INFORMATION FORM

DEMOGRAPHIC INFORMATION FORM

In this final section of the questionnaire, you are asked to provide some personal information for the purposes of describing the sample for this study. Again, please be assured that this information will not be used to identify you in any way.

CONFIDENTIALITY IS GUARANTEED

1. What is your gender? F M (circle one)

2. What is your race? African-American Hispanic Caucasian
   Asian-American Other (circle one)

3. What is your age? _____

4. What is your classification in school? Fr So Ju Se

5. What is your major? _____

6. Are you interested in obtaining a summary of the results from this study? yes no (circle one)

7. Were you raised in a single-parent family? yes no (circle one)
   If so, for how long was your family a single-parent family? _____

8. Do you suspect that your **biological** mother is, or ever was, an alcoholic? yes no (circle one)

9. Do you suspect that your **biological** father is, or ever was, an alcoholic? yes no (circle one)

10. Do you suspect that your **stepmother** is, or ever was, an alcoholic? yes no does not apply (circle one)

11. Do you suspect that your **stepfather** is, or ever was, an alcoholic? yes no does not apply (circle one)

If you answered yes to **any** of the previous four questions (questions 8, 9,10, or 11), please complete the remainder of this form. If you answered no or does not apply to **all** of the previous four questions (questions 8, 9, 10, and 11) you may stop here.

12. For how long did you live with the parent **(stepparent or biological parent)** that you suspect is or was an alcoholic?

_____

13. Do you still live with the alcoholic parent? yes no (circle one)

14. To the best of your knowledge, how old were you when your alcoholic parent became an alcoholic? _____

15. Did the parent that you suspect is alcoholic ever stop drinking? yes no (circle one)

16. If you answered yes to the previous question, please indicate how old you were when that parent stopped drinking.

_____

17. Did that parent ever begin drinking again? yes no

If yes, how old were you when the alcoholic parent began to drink again? _____

THANK YOU FOR COOPERATION AND ASSISTANCE.