

# The Study of Factors Influenced on Life Satisfaction of Adult Children of Alcoholics

알코올 중독가정 성인자녀들의 생활만족도에 영향을 미치는  
요인에 관한 연구

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〈Abstract〉

본 연구의 목적은 알코올 중독 가정(alcoholic family)내에서 성장한 성인자녀들(adult children of alcoholics)의 생활만족도에 영향을 미치는 요인들간의 인과관계를 설명해 줄 수 있는 원인-결과 모델(causal model)을 개발하고, 그 모델의 적합성(fit of the model)에 대해 연구되어졌다. 본 연구의 결과를 요약하면 다음과 같다: 1) 사회적 지원의 활용성 정도(the availability of social supports)에 대한 인식이 높은 자녀들의 경우 정서적으로 불안정한 상태(lower emotional status)를 보이는 경향이 있으며; 2) 사회적 지원의 활용성에 대한 인식정도가 높은 성인자녀들의 경우 어려운 상황을 잘 극복해 나가는 성향을 보였고(to have better coping skills); 3) 위기 대처 능력(appropriate coping skills)이 뛰어난 성인자녀들의 경우 생활만족도가 높은 것으로 나타났다(to be better adjusted in life); 마지막으로 4) 정서적으로 안정된 성인자녀들의 경우 그들의 삶에 대한 적응도가 높은 경향을 보였다. 본 연구에서는 또한 사회적지원(social supports)과 성인자녀들의 정서적 상태(emotional status)간의 부정적 상관관계에 대해 논의되었으며, 이 연구의 결과를 바탕으로 미래의 연구방향 및 상담현장에서 본 연구내용의 실제활용(practical implications)등에 대해서도 논의되었다.

## I. INTRODUCTION

In the United States nearly two-thirds (64%) of the population interviewed in a 1992 Gallup poll identified themselves as drinkers, up from 57% in 1990 (Gallup, 1992). In a National Institution Mental Health (NIMH) study (Myers & Weissman, 1984), interviewers conducted surveys in several communities and clinicians made psychiatric diagnoses based on the responses. Among the adult respondents, five percent were defined as alcohol abusers or alcohol-dependent and two percent were diagnosed as drug abusers or drug dependent. Based on the estimate of 150 million adults in the U.S., approximately 10.5 million are chemically dependent. Based on this number, we can project that at any point in time, there are 15-18 million adult children of alcoholics in our present population (Black et al., 1986). Some, but not all adult children of alcoholics appear to be at risk of serious social and emotional maladjustment.

Studies have shown that many adult children of alcoholics (ACOAs) are symptomatic (Garmezzy, 1981; Rutter, 1985), displaying such symptoms as acting out, delinquency, use of alcohol and drugs, criminal behavior, mental disorders, behavior problems, psychological maladjustment, academic difficulties, suicide attempts, and physical complications. Other ACOAs, however, do not show these common symptoms (Benard, 1991; Brook et al., 1989). We may ask why some ACOAs are symptomatic and others are not.

Developmentalists (e.g., Werner) have argued that in order to answer this question, we must come to understand how various factors influence an individual's response to stressful circumstances. Regarding this concern, the present study was conducted to understand the influences of various factors on individual's reaction to stressful situations. Various factors that affect the adjustment of ACOAs in the present study were defined as follows: 1) A vulnerability factor is

defined as factor indicated by the characteristics within an individual—behavioral, emotional, or cognitive— which has a negative effect on ACOAs' adjustment; 2) A resilience factor is defined as a factor indicated by characteristics within an individual—behavioral, emotional, or cognitive— which has a positive effect on ACOAs' adjustment; 3) A risk factor is defined as a factor indicated by characteristics outside an individual—family, community, political, or social environment— which has a negative effect on ACOAs' adjustment; and 4) A protective factor is defined as a factor indicated by characteristics of environment around an individual—family, community, political, or social environment— which has a positive effect on ACOAs' adjustment. These factors are used as the conceptual guideline (or category) for selecting variables in the present study.

Previous study concerning the influences of vulnerability and resilience factors on adult children of alcoholics identified characteristics that differentiated offspring of alcoholics who did not develop any serious problems in childhood and adolescence from those who did. Those who did not show problems had: (1) at least average intelligence and adequate communication skills (in reading and writing); (2) high achievement levels; (3) a responsible and caring attitude; (4) a positive self-concept; (5) an internal locus of control; and (6) a belief in self-help groups (Berkowitz & Perkins, 1988). In contrast, ACOAs who did not adjust well suffered from emotional problems including low self esteem and negative self-concept (Clair & Genest, 1987), an external locus of control (Callan & Jackson, 1986), depression (Lipman, 1990), and higher levels of anxiety (Whipple & Noble, 1991).

Regarding the risk and protective factors among ACOAs, previous literature suggested that the adjustment of ACOAs is also affected by the type of environment in which they grew up. While certain types of family environment increase the risk of

maladjustment, others seem to protect ACOAs from the stress of living with an alcoholic parent. For example, in comparison to the families of non-alcoholics, ACOAs are usually reared in dysfunctional families, characterized by lower levels of family cohesion and adaptability (Billings & Moos, 1986), more role reversals (Richards, 1979), more abuse (Black et al., 1986), inconsistent parenting style (Kernberg, 1986), lower levels of parental attachment (Johnson & Pandina, 1991), higher rates of divorce or parent-child separation (Tennant & Bernardi, 1988), disrupted family rituals (Kane, 1985), poor communication and problem-solving techniques (Clair & Genest, 1987), and more frequent family violence (Black et al., 1986). Not all ACOAs, however, are raised in dysfunctional family environments. For instance, Berkowitz and Perkins (1988) identified protective qualities of the caretaking environment in alcoholic homes : (1) plenty of attention received from the primary caretaker during infancy and the absence of any prolonged separation from the caretaker ; (2) no additional births into the family during the first two years of life ; and (3) the absence of conflict between the parents during the first two years of life. Wolin & Bennett (1980) also indicated that children from alcoholic families are less likely to become alcoholic themselves if family members are able to maintain family rituals such as celebrating holidays and sharing regular mealtimes, and keeping these times relatively stress-free.

Protective-risk factors and resilience-vulnerability factors often interact to affect the adjustment of ACOAs. ACOAs are often raised in homes that lack a consistent model of adulthood or of healthy relationships (O'Brien et al., 1983). Because of inattention or neglect from alcoholic parents, ACOAs consider themselves as unwanted or undeserving of their parents' love. These negative ideas about themselves may cause significant problems in self-

esteem (Wegscheider-Curse, 1985). In alcoholic home environments, children also experience parental inconsistencies, double-bind messages (a message that has two different meanings), hidden feelings, incomplete information, shame, uncertainty, mistrust, and roles that prevent the child from development and establishment of his or her identity (Woititz, 1983). Previous studies have also consistently shown that parental divorce, parental conflict, parental alcoholism, low socioeconomics, child abuse, chronic illness, severe family discord, parental-child conflict and rejection, and disrupted communication and parenting abilities in the alcoholic family environment negatively influence the adjustment of children of alcoholics (Reich et al., 1988 ; Roosa et al., 1988). However, although ACOAs grow up in the alcoholic family environment, they are likely to adjust well in their lives if the alcoholic family is able to maintain social support, high parent-child attachment, and a high level of family adaptability and cohesion.

On the basis of previous studies of children of alcoholics, there are shortcomings in the research. These are : 1) Almost all studies of ACOAs have been interested in finding differences between ACOAs and adult children of non-alcoholics. However, there have been few studies to explain why those differences occur. Those previous studies unfortunately are not able to explain what makes these two groups different ; and 2) The theoretical conceptual model is important to explain a certain situation in a research field. Regardless of the importance of the theoretical conceptual model in a research field, there are few theoretical models in the alcoholism research area. More importantly, a certain theoretical model is hardly researchable. Because previous studies of children of alcoholics have been focused on finding differences between ACOAs and adult children of non-alcoholics and because there are no studies on ACOAs related to protective-risk factor and vulnerability-resilience

factor, the present study attempts to establish a structural model that explain the adjustment of ACOAs in relation to these factors.

### 1. The Theoretical Conceptual Framework

To provide a better explanation of the various degrees of adjustments of ACOAs, the theoretical model (Figure 1) for the present study was formulated on the basis of relationships among variables that influence the ACOAs' adjustments.

On the basis of previously discussed literature concerning children of alcoholics, the rationale for causal paths in the theoretical model for the present study is as follows :

*Direct causal effect from "Emotional Status" to "Adjustment"* An individual's ability to deal with making adjustment in life is likely to depend on the

person's emotional health, regardless of whether the individual has problems or stressful circumstances. If people have fairly stable emotional status—that is, higher self-esteem, no depression or anxiety symptoms—then they are more likely to be able to make better adjustments in their lives than people who have an unstable emotional status (Wright & Heppner, 1991 ; Subby, 1987 ; Hibbard, 1987). These studies support the idea that the control of both external and internal events is regarded as validating a sense of self, and that ACOAs innately feel bad, intrinsically wrong, and have a sense of shame. With respect to the importance of the control issue predicting the level of sense of self, ACOAs tend to feel unable to control events and react with learned helplessness (or depression) in their lives. This inability to control and helplessness of ACOAs then lead to an unhealthy emotional status which results in ACOAs having difficulty making

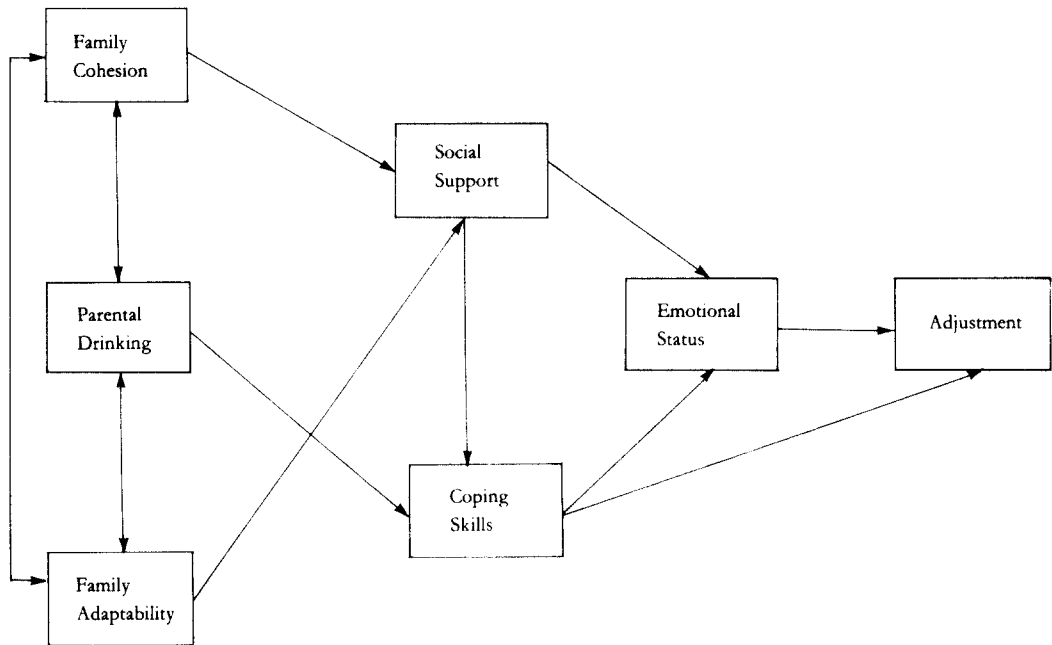


Figure 1. The Theoretical Model for the present study

adjustments in life (Cermak & Rosenfel, 1987 ; Flannery, 1986 ; Woititz, 1983 ; Seixas & Ylucha, 1985).

*Direct causal effect from "Coping Skills" to "Adjustment"* Black et al. (1986) reported that coping skills are one of the fundamental factors that explain the adjustment of children of alcoholics. They found that ACOAs reported difficulty not only with problem solving but also with identifying problems. These unsolved problems in life lead ACOAs to have lower levels of adjustment in life. Previous studies have suggested that avoidance (or wishful thinking) coping has been related to poor adjustment among healthy women (Aldwin & Revenson, 1987) and seriously ill people (Felton & Revenson, 1984 ; Parker et al., 1988). Various types of coping such as positive reappraisal, seeking help, and cognitive restructuring have been related to positive adaptational outcomes among seriously ill people (Felton & Revenson, 1984 ; Parker et al., 1988). Thus it can be concluded that if people try to face their problems and to solve them with the belief that they are going to find the solutions, then they are more likely to have better adjustment in their lives than people who try to avoid the stressful situations or problems (Sternberg, 1982 ; Miller & Tuchfeld, 1986 ; West & Prinz, 1987). In relation to ACOAs, ACOAs will be better adjusted in their lives if they have appropriate coping skills.

*Direct causal effect from "Social Support" to "Emotional Status"* Studies suggested that in comparison to ACOAs who have the symptoms of depression and anxiety, lower level of self-esteem, and negative self-concepts, ACOAs without these symptoms are more likely to have support from outsiders than do people with these symptoms (Clair & Genest, 1987 ; Black et al., 1986).

*Direct causal effect from "Coping Skills" to "Emotional Status"* There has been a great deal written about the personality characteristics of ACOAs.

For instance, previous studies have consistently reported that ACOAs tend to have problems such as difficulty identifying and expressing feelings, inability to trust, and concern with boundary issues (Black, 1982 ; Cermak, 1986 ; Woititz, 1985 ; Inger, 1988). Inger (1988) investigated how psychologically symptomatic and nonsymptomatic ACOAs differ in their regulation of interpersonal boundaries through assertiveness and aggressiveness. This study found that interpersonal boundaries (defined as assertiveness and aggressiveness) provide protection of personal integrity and sense of self. For instance, assertive behaviors maintain control of emotional sharing with respect to self-interest. The results of her study showed that ACOAs who were still suffering from psychological symptoms regulate boundaries less effectively with less assertive behaviors. She suggested that without skillful assertiveness, conflict is more likely to be avoided and passive aggressiveness is a choice for handling conflict. Consequently, this situation leads ACOAs to have feelings of helplessness and powerlessness and fear of losing support from others. Therefore, in order to promote their levels of emotional health, ACOAs have to learn coping skills in order to deal effectively with stressful situations.

*Direct causal effect from "Social Support" to "Coping Skills"* Both social support theory and coping theory suggest the importance of social support to develop appropriate coping skills among people. Coping theory suggests that social support can function as a coping strategy by providing resources that people need to handle stressors, providing tangible aid, giving emotional support, and providing alternative problem-solving techniques (Stewart, 1989 ; Lazarus & Folkman, 1984 ; Thoits, 1986). Social support theory suggests that social support increases a person's ability to cope with problems of living (Minkler, 1981, 1984 ; Kari & Michels, 1991 ; Minkler, Frantz, & Wechsler, 1982). Thus, ACOAs will be better adjusted

in their lives if they have social supports from other people.

*Direct causal effect from "Family Cohesion" to "Social Support"* The family structure is defined as the "invisible set of functional demands that organize the ways in which family members interact" (Minuchin, 1974, p.51). Within the family structure, people in continuing relationships interact in patterned ways organized by "rules" governing interaction. Through repetition of rule governing interaction, families develop a shared belief system which defines how, when, and to whom family members may relate interpersonally and regulates and monitors contact with outside systems and changes (Jackson, 1965). The family boundaries refer to the rules of a system that define who is in and who is out and who participates and how (Minuchin, 1974). Healthy family functioning requires that a family protect the integrity of the total system and the functional autonomy of its parts with clear yet flexible boundaries. Olson et al. (1979) found that a family system with extremely disengaged individuals had a distorted sense of independence, lacked feelings of loyalty and belonging, lacked the capacity for interdependence and lacked the capacity for requesting support when needed. On the other hand, individuals in a family system with enmeshed bonding had an obligatory sense of responsibility for the emotional well being of other persons and showed over-involvement with one another. Thus, since the alcoholic family has been characterized as being enmeshed, the obligatory sense of responsibility for the emotional well-being of another person encourages the family to seek social supports.

*Direct causal effect from "Parental Drinking Behavior" to "Coping Skills"* Most alcoholics have a tendency to drink in order to deal with their stressful situations or difficulties in their lives, and to try to avoid facing the problems or difficulties (MacDonald & Blume, 1986 ; Black et al., 1986 ; Clair & Genest,

1987). Children of alcoholics perceive that a parent (s) drinks alcohol whenever they have a problem. Their perception of parental drinking then influences their coping skills in that they are likely to drink alcohol whenever they have a problem. Therefore, the parent's attitude toward handling stressful situations affects the children's attitudes toward dealing with stressful situations. For instance, if the parent(s) tends to confront problems and stressful situations, children are more likely to confront their problems and to try to resolve their conflicts effectively. Children of alcoholics tended to use more emotion-focused than problem-focused coping in response to their problems, in comparison to the coping strategies of children of nonalcoholics. Moreover, children of alcoholics tended to use more wishful thinking and avoidant strategies than children of nonalcoholics (Clair & Genest, 1987).

*Direct causal effect from "Family Adaptability" to "Social Support"* When we deal with the direct causal effect from "Family Adaptability" to "Social Support", the definition of family adaptability should also be considered. Family adaptability is defined as the ability of the family to change in order to respond to situational or developmental stress (Olson et al., 1979). This notion of family adaptability includes changing negotiation styles, control, or discipline in a way to respond to situational stress. There has been very little research on adaptability in alcoholic families associated with social support. However, the available research suggests that alcoholic families which showed high levels of adaptability to change were more likely to report positive outcomes (Kazak, 1989 ; Kazak, Reber, & Snitzer, 1988). Based on this research, the investigator speculates that alcoholic families with high levels of adaptability would be more likely to accept social support from others than would those with low levels of adaptability.

## II. METHODOLOGY

### 1. Procedure of Data Collection

The data for the present study were designed to investigate the family, social supports, coping skills, emotional status issues of adult children of alcoholics (ACOAs) in terms of their adjustment in life. An anonymous questionnaire was distributed via therapists to adult children of alcoholic parents who were 20 years or older and living in Leon and Wakula counties, Florida, United States. The data were collected in 4 months from October 25, 1992 to January 25, 1993. To collect the data, the investigator initially contacted therapists from the American Association Marriage and Family Therapy (AAMFT) and group leaders in self-help groups held in Tallahassee for adult children of alcoholics (ACOAs) in order to confirm their willingness to participate the present study. In the meeting they received a cover letter from the investigator. Subjects who are in therapy received questionnaires with stamped envelopes through their therapists. The investigator also attended self-help groups for ACOAs in order to distribute questionnaires to group members. Subjects sent the investigator completed questionnaires by mail. Follow-up procedures were conducted to increase the response rate. Of the 420 questionnaires 121 were returned, indicating a response rate of 29%. Among 121 returned questionnaires, only 84 were usable in analysis because of missing values and of invalidating data.

### 2. Description of the Subject's Characteristics

Subjects in the present study consisted of 84 ACOAs including 22 males and 62 females who live in Leon and Wakula counties, Florida, United States. Subjects were predominantly Caucasian (96%) and a small percentage of African American (4%). The distribu-

tion of subject's ages was 53% from 20 to 35 years, 45% from 36 to 55, and 2% from 56 to 65. Regarding their marital status, 40% of subjects were never married, 33% were married, 17% were divorced, 5% were remarried, 4% were separated, and 1% was cohabitating. With religious background of subjects, 53% of subjects had a religion: 16% of subjects were Catholic, 12% were Baptist, 14% were Methodist, 8% were Episcopal, 2% were Lutheran, and 1% was Jewish and 47% did not have any religion at all. With regard to the length of education among subjects, 74% had 11 to 20 years of educational experience, 22% had 20 years or more of educational experience, and 4% had less than 10 years of educational experience.

With respect to the family structure of the family of origin, 74% of subjects had 1 to 5 siblings, 18% were only children, and 8% had 6 to 13 siblings (including step-siblings). Concerning birth order of subjects, 45% of subjects were first born, 23% were second born, 19% were third born, 11% were fourth (4%) and fifth (7%) born, and 2% were sixth born. Regarding age differences between a subject and the oldest child as well as between a subject and next younger child, 82% of subjects had less than 4 years difference with the oldest child and 75% had less than 4 years difference with the next younger child. 67% of subjects were under 20 years when they left home and 33% had been 21 to 46 years when they left home.

86% of subjects had an experience of counseling in the past and 48% had an experience of self-help group in the past. Among subjects 61% were currently involved in therapy and 44% were also currently involved in self-help group. Moreover, 88% of subjects had a 1 year to 10 years of experience in a therapy and 93% had a 1 year to 5 years of experience in a self-help group.

### 3. Instrumentation

The theoretical model (see figure 1 in introduction section) has three exogenous variables—Family Cohesion, Parental Drinking Behavior, and Family Adaptability—and four endogenous variables—Social Support, Coping Skills, Emotional Status, and Adjustment. The instruments utilized in this study included various different scales. On the basis of each scale, several scales were added to measure variables in the study (Babbie, 1973 ; Trimberger, 1982). In a process of combining several scales, raw scores were converted to standardized scores. Then, the standardized scores were summed.

In order to measure the “*Family Cohesion*” variable, the family cohesion subscale in the Family Adaptability and Cohesion Evaluation Scales III (FACES III), the support subscale in the Family Relation Scale (FRS), and the cohesion subscale in the Family Functioning Scale (FFS) were added together. The reliability for the composite scale was .92. To measure the “*Family Adaptability*” variable, the family adaptability subscale in the Family Adaptability and Cohesion Evaluation Scales III (FACES III), the flexibility subscale in the Family Relation Scale (FRS), and the problem solving and behavior control subscales in the Family Assessment Scale (FAD) were collapsed. The reliability for the composite scale was .86. To measure the “*Parental Drinking Behavior*” variable, the Brief Michigan Alcoholism Screening Tests (BMAST) for both mother and father were added. The reliability for the composite scale was .70.

For measuring the “*Social Support*” variable, the appraisal and belonging subscales in the Interpersonal Support Evaluation List (ISEL) were added. The reliability for the composite scale was .84. To measure the “*Coping Skills*” variable, the confrontive coping, escape-avoidance, and positive reappraisal subscales in the Ways of Coping (WOC) were collapsed. The reliability for the composite scale was .86. To measure

the “*Emotional Status*” variable, the Rosenberg Self-Esteem Scale (RSE) and Cognitive Checklist (CCL) were added. The reliability for the composite scale was .96. For measuring the “*Adjustment*” variable, the Affect Balance Scale (ABS) and the Satisfaction With Life Scale (SWLS) were collapsed. The reliability for the composite scale was .88.

The Family Adaptability and Cohesion Evaluation Scales III (FACES III) is designed to measure three central dimensions of family behavior: cohesion, adaptability (change), and communication (Olson et al., 1985). FACES III is a self-report questionnaire consisting of 20 items with 10 cohesion and 10 adaptability items. The internal consistency reliability coefficients (Cronbach alpha) were .77 for cohesion dimension, .62 for adaptability dimension, and .68 for total scale as FACES III (Olson et al., 1985).

The Family Functioning Scale (FFS) (Bloom, 1985) is a self-report questionnaire consisting of 75 items with 4-point Likert scale. The Family Functioning Scale (FFS) is designed to improve self-report measure of family functioning based on four different scales—Family Environment Scale, Family-Concept Q Sort, Family Adaptability and Cohesion Evaluation Scales, and Family Assessment Measure. Only the “*Cohesion*” subscale was used for the purpose of the study. The internal consistency reliability, Cronbach alphas, ranged between .40 and .85, with a mean of .71; average inter-item correlations ranged from .13 to .53, with a mean of .36 (Bloom, 1985).

The Family Relation Scale (FRS) is designed to measure several related aspects of family relationships and family functioning (Barabrin, 1992). The FRS is a self report questionnaire consisting of 50 items with a 4-point Likert scale rating to indicate the extent to which respondents believe that the item is true of their current family. The Flexibility and Support subscales were used for this study. The internal consistency Cronbach alpha was .87. For the normative sample,



the mean score was 30 with a standard deviation of 5 (Barabrin, 1992).

The Family Assessment Device (FAD) is a self-report questionnaire consisting of 60 items with a 4-point Likert scale. The FAD is designed to evaluate family functioning according to the McMaster model (Epstein, 1983). The McMaster model describes structural, occupational, and transactional properties of families. The FAD demonstrates internal consistency with alphas for the subscales ranging from .72 to .92 (Santa-Barbra, 1983).

The Brief Michigan Alcoholism Screening Test (Pokorny et al., 1972) is a self-report questionnaire composed of 10 items. The Brief MAST is an abbreviated version of the Michigan Alcoholism Screening Test (MAST). The purpose of the Brief MAST is to detect alcoholism based on a self-report. For the purpose of the present study, the wording of the Brief MAST was altered to detect parental alcoholism in subject's childhood based on their perceptions. For the internal consistency reliability, Selzer (1971) compared drivers in a safety-school to alcoholics in a treatment. Separate computations produced coefficients of .83 for drivers, of .87 for alcoholics, and of .95 for the entire sample.

The Interpersonal Support Evaluation List (ISEL) (Cohen et al., 1985) is a self-report questionnaire consisting of 40 items in order to measure the components of social support of ACOAs. The ISEL is designed to study the support-buffering process and to assess the functions that others may serve. The ISEL is also designed to measure the subject's perception of the availability of support in comparison to the objective existence of that resource. Only two subscales (appraisal and belonging supports) were used for the purpose of this study. The internal consistency reliability of the total general population ISEL ranged from .88 to .90. Specifically, alpha coefficients of ISEL subscales for general population were .70 to .82 for

appraisal, .62 to .73 for self-esteem, .73 to .78 for belonging, and .73 to .81 for tangible support.

The Rosenberg Self-Esteem Scale (RSE) (Rosenberg, 1979) is a self-report questionnaire composed of 10 items with Guttman scale. Rosenberg (1979) developed the self-esteem scale in order to measure one aspect of the self-image the degree to which people hold attitudes of acceptance or rejection toward themselves. The test-retest reliability coefficient was estimated to assess the reliability of the Rosenberg self-esteem scale. Rosenberg (1979) introduced two studies suggesting that items in the RSE have satisfactory internal reliability. Silber and Tippett (1965) showed a two-week test-retest reliability of  $r=.85$  and Claire McCullough (1967) found a two-week test-retest reliability of  $r=.88$ .

The Cognition Checklist (CCL) is designed to measure the frequency of automatic thoughts which are defined as nonvolitional, stream-of-consciousness cognitions (Beck et al., 1987). The CCL is a self-report questionnaire that measures depression and anxiety. To measure the reliability of the CCL, Beck et al. (1987) used internal consistency reliability (Cronbach alpha). The internal consistency reliability was estimated in the cross-validation sample. Results showed that the Cronbach alpha coefficients were .90 for CCL-A (Anxiety) and .92 for CCL-D (Depression).

The Ways of Coping (WOC) is a self-report questionnaire consisting of eight subscales with a 4-point Likert scale. The WOC is designed to measure the present different types of coping skills represented by ACOAs (Folkman et al., 1986). Internal consistency reliability (Cronbach alpha) was used to estimate the reliability of the Ways of Coping (Folkman et al., 1986). Results showed that Cronbach's alphas for each scale as follows: .70 for Confrontive coping, .61 for Distancing, .70 for self-controlling, .76 for Seeking social support, .66 for Accepting responsibility, .72 for

Escape-Avoidance, .68 for Planful problem-solving, and .79 for Positive reappraisal.

Affect Balance Scale (ABS) was used to measure the psychological well-being of ACOAs. The ABS is a self-report questionnaire composed of 5 items for each dimension (positive and negative affects dimension) with a 4-point Likert scale. The fundamental purpose of the ABS is to concern the most effective way to understand the psychological reactions of normal individuals to the stresses and strains of everyday life (Bradburn, 1969). For each feeling-state item, coefficients of association (Q's) between the responses given by the respondents during the first interview and their responses given to another interviewer three days later (Bradburn, 1969). A gamma coefficient between the scores at the two time periods was computed. The Q-values for the individual items were high with all except one being over .90. The gammas for the scales were around .80.

The Satisfaction With Life Scale (SWLS) was used for measuring life satisfaction among adult children of alcoholics. The SWLS (Diener et al., 1985) is a self-report questionnaire with 5 items. Life satisfaction refers to a cognitive, judgmental process. Judgments of satisfaction are dependent upon a comparison of one's circumstances with what is thought to be an appropriate standard. This is the hallmark of the SWLS that it centers on the person's own judgments (Diener, 1984). The two-month test-retest correlation coefficient was .82, and internal consistency reliability coefficient alpha was .87.

#### 4. Statistical Analysis

The test of the theoretical model in this study was done by path analysis with bivariate correlation matrix in the LISREL VI package (Jöreskog & Sörbom, 1989) utilizing a maximum likelihood estimation of unknown parameters. The maximum likelihood method

has an advantage of providing a comprehensive means to assess and modify the theoretical model(s).

Unlike previous path analysis with regression estimating each path equation individually, path analysis with LISREL regards the model as a system of equations and estimates all the structural path coefficients directly (Jöreskog & Sörbom, 1989). Path analysis in the LISREL VI package provides estimates of the strength and direction of the hypothesized causal paths between constructs in the model. This analysis provides estimates of the overall fit which are used to test how well a theoretical model fits the data. To assess overall fit, five indices should be concerned: 1) chi-square test and ratio between chi-square score and degrees of freedom; 2) goodness of fit index (GFI); 3) adjusted goodness of fit index (AGFI); 4) root mean square residual (RMSR); 4) standard residual; and 5) Q-plots.

If the model is testable but does not fit the data sufficiently well, the modification indices are used to assess what changes in the model's specification would improve its fit to the data. As Lavee (1988) suggested, a modification index larger than 5.0 indicates that the model's fit to the data will improve if the constraint of fixed parameter is relaxed. It is suggested that only one parameter be relaxed at a time with the largest modification index (Long, 1983). If the overall model fit to the data is confirmed the interpretation of parameter estimates should be accomplished. The significance of each parameter is determined by the *t* statistic which is equal to the ratio between the coefficient and its standard error.

### III. RESULTS

The present study was designed to investigate the influences of family and personal characteristics on adjustment of adult children of alcoholics (ACOAs). Analysis of the data was designed to test whether the

data support the investigator's proposed theoretical model.

### 1. Analysis of the Theoretical Model

The theoretical model in this study was analysis by path analysis. First, means and standard deviations of variables in the theoretical model are presented in Table 1. Second, the bivariate correlations among the observed variables were estimated (Table 2). Third, the bivariate correlations among observed variables were used to estimate the reproduced correlation matrix ( $\sigma$ ). Fourth, the reproduced correlation was utilized to run path analysis with the LISREL V package (Jöreskog & Sörbom, 1989). ☞

Table 1. Means and Standard Deviations of Variables

Variable	Mean	SD
FAMCOH	19.90	2.29
PARDRI	2.94	1.39
FAMADP	25.14	2.99
SUPPOT	26.46	2.05
COPING	21.95	2.77
EMOTIN	19.14	6.69
ADJUST	22.06	4.12

Key : FAMCOH=Family Cohesion, PARDRI=Parental Drinking Behavior, FAMADP=Family Adaptability, SUPPOT=Social Support, COPING=Coping Skills, EMOTIN=Emotional Status, ADJUST=Adjustment.

#### Assessment of overall model fit

The proposed theoretical model developed by the investigator was based on several theories. The overall model fit to the data indicates how well the theoretical model reproduces the data.

With respect to assessment of overall model fit, the chi-square test of overall fit was estimated. The chi-square test was intended to fail to reject the null hypothesis because the null hypothesis states that there

is a perfect fit, that is, correlation matrix of observed variables is exactly the same as reproduced correlation matrix ( $\sigma$ ). As a result of the chi-square test in this study the null hypothesis was rejected with a chi-square value of 24.18 and 10 degrees of freedom ( $p > .007$ ) at a .05 level. Rather than paying attention to the chi-square test itself, the ratio between chi-square and degrees of freedom is more likely to be preferred because the chi-square test depends heavily on the sample size (Jöreskog & Sörbom, 1989). The value of the ratio for the chi-square value relative to the degrees of freedom approaching 1.0 suggests that the model has relatively good overall fit to the data (Lomax, 1982). The ratio between the chi-square value (24.18) and the degrees of freedom (10) in this study was 2.42.

If the chi-square is large relative to the degrees of freedom, the fit may be further evaluated through an inspection of other indicators. These other indicators are as follows: The global indices are preferred because of limitations with the chi-square test. The global indices are incorporated with the goodness of fit index (GFI); the adjusted goodness of fit index (AGFI); and the root mean square residual (RMSR). Theoretically, the GFI ranges from 0 to 1. The rule of thumb to determine good overall model fit to the data by goodness of fit index is greater than .90 (Hoelter & Harper, 1987). The present study had a goodness of fit index of .95. The adjusted goodness of fit index is the goodness of fit index related to the sample size, indicating that the GFI is affected by sample size. The rule of thumb for the adjusted goodness of fit index in order to determine good overall model fit to the data is also greater than .90 (Hoelter & Harper, 1987). The adjusted goodness of fit index for the present study was .85. The root mean square residual is another way to indicate overall model fit to the data. The rule of thumb indicates that it is regarded as good overall model fit if root mean square

Table 2. Bivariate Correlation Matrix

	FAMCOH	PARDRI	FAMADP	SUPPOT	COPING	EMOTIN	ADJUST
FAMCOH							
PARDRI	-.1082						
FAMADP	.5469*	-.0139					
SUPPOT	.1742	-.0031	-.0016				
COPING	.0791	.0571	.0179	.3036			
EMOTIN	.2127	-.0609	-.0986	.6250*	-.11582		
ADJUST	.1897	-.0820	.0022	.5332*	.3857*	.6313*	

Key : FAMCOH = Family Cohesion, PARDRI = Parental Drinking Behavior, FAMADP = Family Adaptability, SUPPOT = Social Support, COPING = Coping Skills, EMOTIN = Emotional Status, ADJUST = Adjustment.

residual is equal to or less than .20 or .30 (Jöreskog & Sörbom, 1989). The present study had a root mean square residual of .12.

Fitted residuals indicating differences between the observed correlation matrix and the fitted correlation matrix were also estimated in order to look at the overall model fit to the data. Standardized residuals were used in order to determine whether fitted residuals were small enough to indicate good overall model fit to the data. The rule of thumb for standardized residuals is that it is regarded as good overall model fit if standardized residuals are equal to or less than 3 (Anderson & Gerbing, 1988). The present study had eight residuals out of twenty-eight residuals (29%) larger than 3. The largest standard residuals was 4.85.

The Q-plot is used to visualize the overall model fit to the data. The slope closes to 45 degrees, this suggests good overall model fit to the data. Figure 2 shows the Q-plot in this study. In sum, it can be concluded that the theoretical model in this study presents good model fit to the data. Table 3 shows the summary of the indices of the data.

Assessment of each hypothesized path in the model

With regard to effects among variables, T-values were utilized to determine whether hypothesized links

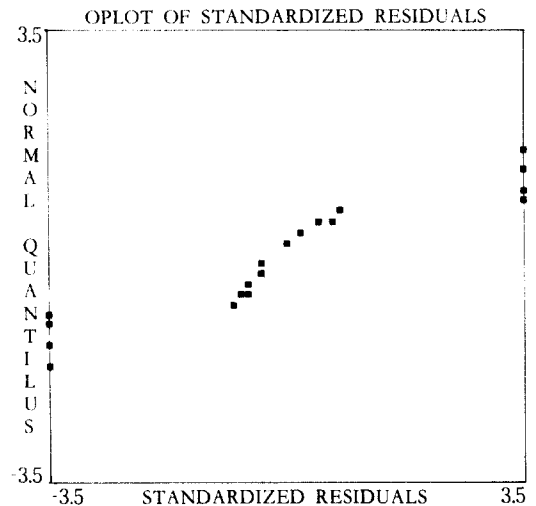


Figure 2. The Q-Plot

Table 3. Summary of Indices of Fit to the Data

Chi-square	df	p-value	GFI	AGFI	RMST	MI
24.18	10	.007	.95	.85	.12	24.51

were significant. The criteria for determining significant links is that each path is significant if a T-value of each path is either larger than 2 or smaller than -2 (Fassinger, 1987). There were no significant direct, indirect, and total effects of exogenous variables (X) on endogenous variables (Y).

Four direct effects of endogenous variables (Y) on endogenous variables (Y), however, were significant. These significant direct effects were as follows : 1) A negative direct effect of social support on emotional status. That is, ACOAs who are better able to perceive the availability of social resources tend to have lower emotional status ; 2) A positive direct effect of social support on coping skills. That is, ACOAs who are better able to perceive the availability of social resources have a tendency to have better coping skills ; 3) A positive direct effect of coping skills on adjustment. That is, ACOAs who have more appropriate coping skills tend to be better adjusted in life ; and 4) A positive direct effect of emotional status on adjustment. That is, ACOAs who have higher emotional status have a tendency to be better adjusted in life.

None of the indirect effects among endogenous variables in this study were significant. The three total effects, on the other hand, were significant. Those significant total effects among variables were : 1) Positive total effects of social support on coping skills. That is, ACOAs who are better able to perceive the availability of social resources have a tendency to have better coping skills ; 2) Positive total effects of coping skills on adjustment. That is, ACOAs who have more appropriate coping skills tend to be better adjusted ; and 3) Positive total effects of emotional status on adjustment. That is, ACOAs who have higher emotional status have a tendency to be better adjusted in life. Table 4 shows the direct, indirect, and total effects among endogenous variables. Figure 3 shows the theoretical model with significant paths.

#### IV. DISCUSSION

The purpose of the present study was to determine factors that make ACOAs either resilient or vulnerable to the negative consequences of parental alcoholism and to explain relationships among factors. The

**Table 4. Direct, Indirect, and Total Effects of Y on Y in the Model**

Outcome	Determinant	Direct	Indirect	Total
ADJUST	EMOTION	3.18*	.00	3.18*
	COPING	3.28*	.06	3.34*
	SUPPORT	.00	.23	.23
EMOTION	SUPPORT	-1.32*	.05	-1.27
	COPING	.20	.00	.20
COPING	SUPPORT	3.35*	.00	3.35*

Key : FAMCOH= Family Cohesion. PARDRI= Parental Drinking Behavior. FAMADP= Family Adaptability. SUPPOT= Social Support. COPING= Coping Skills. EMOTIN= Emotional Status. ADJUST= Adjustment.

theoretical model in the present study had four significant direct effects among dependent variables.

With respect to the relationship between social support and emotional status, previous research had indicated positive effects of social support on emotional status among ACOAs (LaRocco et al., 1980; Wilcox, 1981). However, the findings of this study indicated a negative relationship between social support and emotional status, suggesting ACOAs who are better able to perceive the availability of social resources tend to have lower emotional status. One interpretation of the negative effect of social support on emotional status relates to what is called the conflicting support network (Sandler & Barrera, 1984). A number of individuals in the lives of ACOAs might serve as both sources of support and sources of conflict. Sandler and Barrera (1984) investigated the effects of social support on psychological symptomatology based on two measures of the support network. These two measures were: 1) unconflicted support network, indicating the number of people who were regarded as only a source of support; and 2) conflicted support network, indicating the number of people who were mentioned as both a source of support and of upsetting interactions. Their study found that only the conflicted

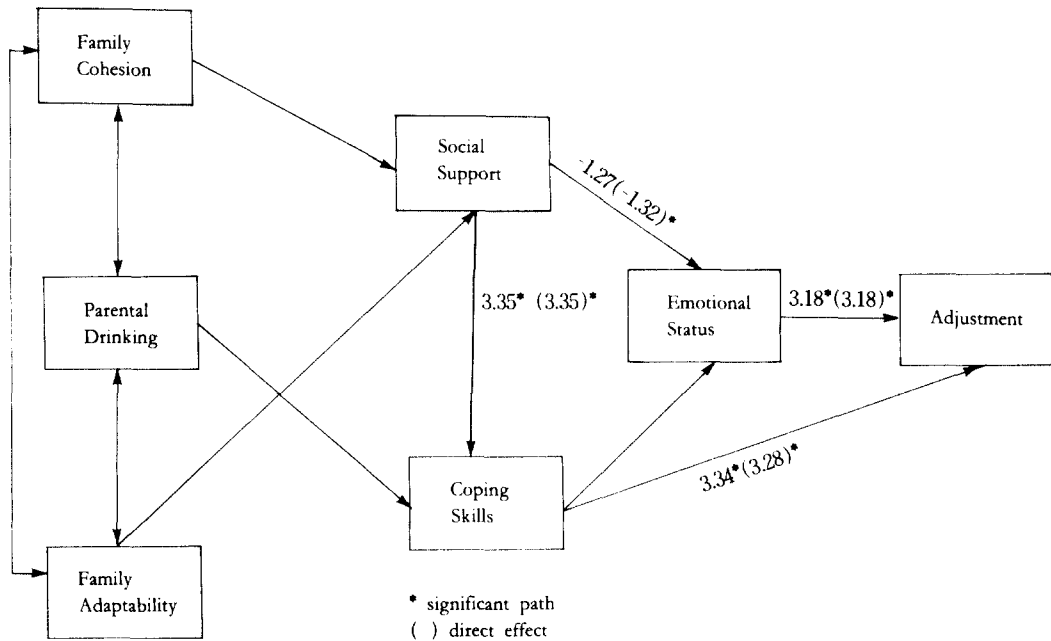


Figure 3. The theoretical model with significant paths

network was positively related to symptomatology and increased the relationship between stress and symptomatology. Therefore, if subjects in the present study had more conflicted social support than unconflicted social support, this might explain the negative effect on emotional status. Unfortunately, the present measure of social support did not distinguish between conflicted and unconflicted social support, leaving this issue unresolved. Future research should make distinction between these two. Compus et al. (1986) also found that lower levels of satisfaction with social support were significantly related to symptoms of depression, anxiety, interpersonal sensitivity, and somatization. Based on their findings, while subjects in the present study had social support, they might not be satisfied with that social support or find it inadequate to their needs. It is speculated that ACOAs are not able to accept or to utilize social support effectively. It is also possible that while social support may be available to

ACOAs, it may be presented to them in a way that degrades or embarrasses them. Thus they may not use the support and fail to adjust.

With regard to the relationship between social support and coping skills, the present study found a positive effect of social support on skills. This finding agrees previous studies. For example, Roush and DeBlasie (1989) investigated the effect of counseling support on changing coping skills and behaviors of ACOAs. They compared ACOAs in the treatment group to those in the control group. In the treatment group, ACOAs received information relating to parental alcoholism and its influences on the family. The result showed that ACOAs in the treatment group demonstrated healthier coping skills after 11, 2-hour weekly sessions. Their study clearly demonstrated the importance of social support on development of adequate coping skills among ACOAs.

In consideration of the relationship between coping

skills and adjustment, the present study found that when ACOAs dealt with problems or stressful situations, they were better adjusted if they confronted their problems directly, maintained a positive attitude, and considered problems as opportunities for personal growth. ACOAs who had higher level of life satisfaction and psychological well-being tended to regard problems as a tool for personal growth. They confronted their problems head on, evaluated the situations, and actively searched for solutions. This finding is also consistent to previous results, indicating that ACOAs who were well adjusted to the negative consequences of parental alcoholism were more likely to cope successfully with stressful situations than ACOAs who were maladjusted. Previous research also indicated that resilient ACOAs were likely to use accurate cognitive appraisal of the stress situations to be dealt with, regulate impulsive drives, delay gratification, understand and confront problems, and work through sustained losses (Benard, 1991; Brook et al., 1989). These findings are also consistent with the results from the present study.

Concerning the relationship between emotional status and adjustment, the present study found that ACOAs who had higher scores on emotional status tended to be better adjusted. ACOAs who were confident of their ability, not anxious about their general life situations, and not depressed were more likely to adjust well in their adulthood than those who did not have confidence concerning their ability and had high levels of anxiety and depression. This finding agrees with previous studies, indicating that ACOAs who were not adjusted well in life suffered from emotional problems (or unhealthy emotional status), including lower self-esteem and negative self-concepts (Beardslee et al., 1986), depression (Lipman, 1990), higher anxiety (West & Prinz, 1987), feelings of inadequacy (Drake & Valliant, 1988), and difficulty in establishing positive self-concepts (DiCicco et al., 1991).

## 1. Limitations

Despite the significant findings in the present study, there are several limitations that should be discussed. The most critical limitation would be the poor response rate and its effects on generalization of the findings to the general ACOA population. Although the proposed model in this study had very good fit to the data, there is a doubt that the proposed model represents the whole population of ACOAs. The other limitation of this study would be the race of subjects. Caucasian subjects constituted 93% of the present study. Because of the predominance of Caucasian subjects, the present study might not be generalizable to the whole population of ACOAs. In addition, there is no way of knowing whether more diversity among the races of the subjects might change the finding in the present study.

In relation to the issue of generalizability of the findings to the population of ACOAs, subjects in the present study were involved in therapy, self-help groups, or both. Therefore, this study is not able to make claims as to whether the proposed model represents the population of ACOAs who are not presently in therapy or in self-help groups. Consequently, the present study represents ACOAs who are Caucasian, have higher levels of education (are at least high school graduates), have experiences with a therapy or self-help group (for at least 5 years), and range in age from 20 to 55.

## 2. Implications for Practice

The results of the present study clearly demonstrated that ACOAs constitute a diverse group of people who not only have functional and adaptive characteristics but also dysfunctional and maladaptive characteristics. The diversity of the ACOA population suggests that therapists and educators should be sensitive to broad

individual differences. The findings in the present study distinguished factors--social support, appropriate coping skills, and healthy emotional status--that help ACOAs to be adaptive in their lives from factors--inappropriate coping skills and unstable emotional status--that associate with the maladjustment of ACOAs.

Since we realize that stable emotional status plays a critical role to ACOAs' adjustment in their lives, professionals should encourage ACOAs to have stable emotional status in order to be well adjusted. We recognize that appropriate coping skills also play an important role in ACOAs' adjustment. Thus, professionals should also encourage ACOAs to develop appropriate coping skills such as confronting problems, standing up for self, and having positive attitudes in stressful situations. In order to establish the appropriate coping skills among ACOAs, educators and therapists should provide opportunities for them to participate in training that helps ACOAs learn appropriate skills to handle problems, practice their skills, and express their feelings. Through community social support, ACOAs may change their attitudes to stressful situations and coping skills in appropriate ways. The present study also suggested the important role of social supports in maintaining better adjustment among ACOAs by increasing coping abilities. When a stressful life event occurs, the individual is likely to handle the stressful event effectively if he or she has better resources to deal with it. Thus, the present study may help professionals in practical fields when they develop a comprehensive program for ACOAs to improve their adjustment. Since we know that social support plays a critical role in ACOAs' adjustment, therapists must go beyond individual (one-to-one) therapy and deal directly with those who can provide social support, such as other family members, neighbors, or friends.

### 3. Implications For Future Research

Future studies should attempt to get a larger sample size to enable the use of the full structural LISREL model. One promising approach would be to reduce the number of items in the questionnaire. It is also possible that giving rewards such as financial incentive may encourage people to participate in the study.

This study focus on factors that make ACOAs more resilient or more vulnerable to the negative influences of the parent's use of alcohol. Our selection of factors was based on the review of literature and the development of model to explain the adjustment of ACOAs. Although we have presented important findings, clearly much work needs to be done before we develop a comprehensive understanding of adjustment of ACOAs and how they may be helped in the adjustment.

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