

PARENTAL ALCOHOLISM, EARLY SOCIAL SUPPORT,
AND FAMILY ENVIRONMENT AS PREDICTORS OF CURRENT ADJUSTMENT

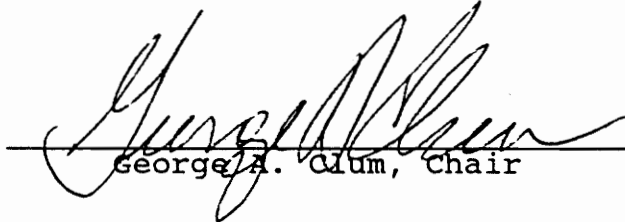
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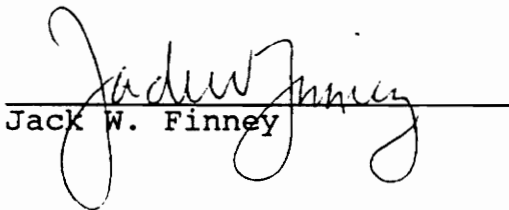
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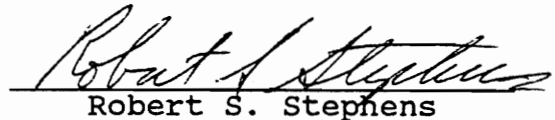
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by

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(ABSTRACT)

The present study assessed 351 undergraduate subjects on dimensions of parental alcohol abuse, childhood family environment, childhood social support, current coping style, current negative life experiences, current psychological symptomatology, and current indices of drug and alcohol abuse. Results indicated that, while paternal alcohol abuse, in and of itself, was not related to any of the outcome measures, maternal alcoholism was correlated with one measure of alcohol abuse and three measures of drug abuse, and was independently predictive of a portion of the variance of one alcohol abuse measure among subjects. Early environmental factors (family environment and low levels of social support), as well as current coping style and current negative life experiences, were found to be related to psychological symptomatology and to indices of drug and alcohol abuse. Coping style was also found to be related to early family environment and to childhood social support, suggesting that coping style may have its developmental roots in early environmental factors. An interaction between

paternal alcohol abuse and disengagement coping style was shown to be predictive of a portion of the variance of subjects' alcohol abuse. Interactions between maternal alcoholism and low level of social support were predictive of a portion of the variance of subjects' drug abuse.

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PARENTAL ALCOHOLISM, EARLY SOCIAL SUPPORT, AND
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REVIEW OF THE LITERATURE

Reviews of the literature regarding the adjustment of children of alcoholics (COAs) reveal substantial ambiguity in documenting the characteristics common to this population (Russell, Henderson, & Blume, 1985; Sher, 1991; West & Prinz, 1987). What is known is that COAs are over-represented in caseloads of medical, psychiatric and child guidance clinics, the criminal and juvenile justice systems and among victims of child abuse (Russell et al, 1985; Sher, 1991; West & Prinz, 1987). COAs are often reported to share a number of maladaptive characteristics, including greater hyperactivity (Sher, 1991), higher levels of behavioral undercontrol and neuroticism (Sher, Walitzer, Wood, & Brent, 1991), and increased psychopathology (e.g., West & Prinz, 1987), in comparison with individuals whose parents are not alcoholic.

Reviews of the empirical literature of clinical and non-clinical COAs indicate that the vast majority of the offspring of alcoholics do not evidence psychopathology (Sher, 1991; West & Prinz, 1987). Further, non-significant differences have been found when comparing COAs and non-COAs on a variety of maladaptive characteristics including self teem (Churchill, Broida, & Nicholson, 1990; Clair & Genest,

1987; Werner & Broida, 1991), locus of control (Callan & Jackson, 1986; Werner & Broida, 1991), and alexithymia (Finn, Martin, & Phil, 1987; Sher, 1991).

Failure to find consistent differences between COAs and non-COAs may be due to any number of methodological limitations of the studies. For example, employment of assessment instruments with limited reliability and validity undoubtedly compromises the obtained results as well as the generalizability of the findings (c.f. Sher, 1991). Also, basing research on children of alcoholic parents who are in treatment, or upon anecdotal information obtained from self-report groups such as Adult Children of Alcoholics (Adult Children of Alcoholics World Service Organization, 1987) may lead to over-pathologizing (Heller, Sher, & Benson, 1982), as the majority of alcoholics and COAs do not seek treatment (West & Prinz, 1987). Additionally, studies typically consider parental alcoholism in a dichotomous manner (e.g., Sher et al, 1991; Dinning & Berk, 1989), rather than assessing severity of alcoholism along a continuum. Employment of a strict cut-off point may erroneously group individuals into the wrong categories, thus confounding the results. Another factor which may lend itself to the ambiguity in findings is the tremendous variability among families. Just as non-alcohol abusing families vary greatly on multiple dimensions including socio-economic status

(SES), communication style, parent-child relations, discipline, affection, religious and cultural values, all of which differentially impact the offspring, families in which alcohol is abused also differ in these ways (Callan & Jackson, 1986; Werner & Broida, 1991; West & Prinz, 1987). Therefore, it may not be alcoholism, per se, but a host of other related early childhood environmental variables, such as lack of a supportive social network and overall family dysfunction which are the causal mechanisms in the development of psychopathology in the offspring (cf. Churchill et al., 1990; Jacob, Krahn, & Leonard, 1991; Reich, Earls, & Powell, 1988). Along these lines, West and Prinz (1987) reviewed the literature between 1975 and 1985 and concluded that "parental alcoholism does not occur in a vacuum" (p. 283). They refer to multiple risk factors associated with parental alcoholism such as family disorganization (discord, separation, divorce, multiple marriages), socioeconomic status, the child's relationship with the nonalcoholic parent, parental criminality, and the availability of alternative sources of support. "Designs that ignore the role of other risk factors could yield group differences that are due to non-alcohol-related factors; conversely, variation due to these other influences could obscure group differences. Within the population of children with alcoholic parents, the ignored dimensions

could be responsible for exacerbation or mitigation of the effects of parental alcoholism" (p. 283). The present study proposes to investigate the early childhood environmental influence of parental alcoholism, while simultaneously examining childhood social support and family dysfunction, as they relate to current adjustment in college-age COAs. It further proposes to examine the effects of these early factors on current coping style, as well as on current substance abuse and indices of psychological symptomatology -- postulated mediating factors between these early factors and current adjustment.

Substance Use Among COAs

Following a review of the literature between 1975 and 1985, West and Prinz (1987) concluded that although findings are not consistent across studies, there is a documentable relationship between parental alcoholism and adolescent substance abuse. According to Cotton (1979), as adults, COAs are between three and five times more likely than others to become alcoholics. Russell (1990) indicates that COAs are "consistently found to have higher rates of alcoholism and alcohol-related problems than are children whose parents are not alcoholic" (p. 32). However, a recent study by Wright and Heppner (1991) compared the self-reported drinking practices of 40 non-clinical college age COAs with a matched control group whose parents are non-

alcoholic. Contrary to typical findings, this study found no group differences in drug and alcohol consumption (nor on any of the other measures assessed, including problem-solving appraisal, perceived social support, shame, and suicidal ideation). One potential explanation for these null results is that the Children of Alcoholics Screening Test (CAST; Jones, 1981) was employed for assessing parental alcoholism. Although this is a commonly used measure, it assesses whether the offspring have experienced various "life events" associated with parental alcoholism, such as feeling embarrassed at the parent's drinking, rather than more objective indices related to actual consumption and/or problems parents encountered as a result of their drinking. Furthermore, as the researchers indicated themselves, they did not assess family functioning, which may have eliminated between-group differences. That is, some of the individuals from the non-COA group may have been raised in highly dysfunctional families and may have experienced childhood environments similar to those of the COAs, thus contributing to the absence of statistically significant results.

Typical of most findings regarding COAs, Chassin et al (1993) recently conducted a community study assessing substance use among 454 adolescents aged 10.5 to 15.5 years (average age = 12.7 years), 246 of whom were COAs, with the remaining 208 demographically matched non-COAs. Their

results revealed that when compared to the non-COA group, the COAs were 2.17 times more likely to use alcohol, were 3.96 times more likely to use illicit drugs, and were 3.33 times more likely to report negative consequences or dependence symptoms from drug and alcohol use. These researchers investigated hypothesized causal mechanisms in the link between parental alcoholism and substance use among COAs. "Results suggested that parental alcoholism influenced adolescent substance use through stress and negative affect pathways, through decreased parental monitoring, and through increased temperamental emotionality (which was associated with heightened negative affect)" (p. 3). Interestingly, decreased parental monitoring was related to a lifetime diagnosis of alcoholism in the offspring, rather than to more acute effects of current alcohol consumption. One potential explanation offered by these researchers was the possibility of an alcohol-related impairment of the parent-child relationship which would have a lingering negative impact on the parent's ability to effectively control the child's behavior. This sample of adolescent COAs was also shown to have increased negative affect which included a negative self-evaluation component. Thus, with regard to COAs associating with a deviant peer group, Chassin et al referred to Kaplan's (1980) self-derogation theory which indicates that adolescents with

negative self-evaluations seek out deviant peer groups in order to obtain more positive messages about the self. According to Chassin et al (1993), substance use and other delinquent behaviors are more acceptable in these peer groups. When combined with lower parental monitoring of the teen's behavior, substance use has the potential to become a well-practiced behavior.

A meta-analysis conducted by Pollock, Schneider, Gabrielli, and Goodwin (1987) indicated that the sex of the parent who is the alcoholic impacts whether sons or daughters develop alcoholism. Paternal alcoholism is correlated with the development of alcoholism in both sons and daughters, whereas maternal alcoholism is correlated only with the development of alcoholism in daughters. Daughters of alcoholic mothers are three times more likely to become alcoholic than daughters of non-alcoholic mothers (Bohman, Sigvardsson, & Cloninger, 1981).

As indicated previously, Clair and Genest (1987) found that the adolescent offspring of alcoholics reported greater use of emotion-focused coping strategies including drinking alcohol, when compared with the comparison group. COAs appear to respond differentially to the stress-dampening effects of alcohol, with even greater response related to extent of alcoholism in the family. In one such prototypical study, Finn and Pihl assessed two groups of 10

non-alcoholic male COAs (average age 24.1 years) -- those with either a uni-generational history (UGH) of alcoholic backgrounds (only their fathers were alcoholic) or a multi-generational history (MGH) of alcoholic backgrounds (their fathers, grandfathers, and at least one other paternal biological relative were alcoholic). Each subject was exposed to an unavoidable shock procedure under alcohol and no-alcohol consumption conditions. Results revealed a number of group differences. First, the MGH group's digital blood alcohol volume (DBAV) during the shock procedure was significantly higher than that of the UGH group, indicating greater physiological reactivity to an unavoidable stressor. Additionally, following alcohol consumption, the MGH group's heart rate and DBAV were significantly lower during the shock procedure, indicating notable stress-dampening effects of alcohol in non-alcoholic individuals with a multi-generational history of alcoholism. Of particular interest, the MGH group's post-alcohol consumption heart rate was lower than baseline during the shock procedure. If individuals physiologically react more strongly to stressors in the environment they perceive as unavoidable, and differentially respond more strongly to the stress-dampening effects of alcohol, use of alcohol as a coping response may reflect an at least short-term adaptive attempt at coping among these individuals.

An ambitious 4-year longitudinal study conducted by Sher, Walitzer, Wood, and Brent (1991) also investigated a variety of characteristics and revealed a number of COA group differences, when compared with non-COA controls. The COAs reported heavier alcohol and marijuana consumption, more negative consequences and dependence symptoms from alcohol and marijuana, and greater likelihood of receiving a lifetime alcohol and drug abuse-diagnosis. The COAs also reported stronger expectancies for positive reinforcement from alcohol regarding tension reduction, social lubrication, and performance enhancement. Additionally, the COAs reported higher levels of "behavioral undercontrol", as measured by various personality characteristics such as hyperactivity, impulsivity, extraversion, aggressiveness, antisociality, and sensation seeking, which, according to Sher (1991), have been linked to the etiology of alcoholism. The COA group was also rated as being significantly more neurotic and having more psychiatric distress, and they also evidenced lower academic achievement and less verbal ability than non-COAs.

In summary, children of alcoholics do appear to use drugs and alcohol with greater frequency, report experiencing more negative consequences from their drug and alcohol use, respond more to the stress-dampening effects of alcohol, report stronger

expectancies for tension reduction from alcohol, and are more likely to receive a lifetime diagnosis of alcohol and/or drug abuse and dependence than their non-COA counterparts. Studies linking parental and child substance abuse have not focused on the independent contribution of parental alcoholism, family environment, and the mediating factors of coping style and social support. These limitations will be addressed in the present study.

Family Environment

Steinglass (1987) defines an alcoholic family as "any family in which alcoholism has become a central organizing principle around which family life is structured" (p. 161). Recent estimates indicate that approximately 10% of the population of the United States, or about 28 million individuals, are children of alcoholics (COAs) (Woodside, 1986). Of those, 22.2 million are over 18 years of age and about 6.6 million young children and adolescent COAs still live in their alcoholic homes (Russell et al., 1985).

Assessment of Parental Alcoholism. Method of assessment of parental alcoholism has varied across studies and ranges from a one-item global assessment question, i.e., "Do you think your parent now has, or has had, an alcohol abuse problem?" (cf. Sher & Descutner, 1986; Werner & Broida, 1991); to questionnaires such as the Children of Alcoholics Screening Test (CAST), which assesses the child's impression

of how the alcoholic parent's drinking has affected his or her life (Jones, 1981); to determination of alcoholism by inpatient treatment status (e.g., Callan & Jackson, 1986). This variability in assessment may account, at least in part, for failure to find consistent effects of parental alcoholism on the subsequent adjustment of COAs, as individuals may have been erroneously grouped in inappropriate categories. Additionally, limiting subjects to COAs whose parents are in treatment has been criticized because the vast majority of alcoholics do not obtain treatment, (e.g., West & Prinz, 1987) and because children of alcoholics who are in treatment are considered a non-representative sub-sample of the entire COA population, potentially resulting in over-psychopathologizing this group of individuals (Heller, Sher, & Benson, 1982). Further, while it is desirable to validate offsprings' reports of parental drinking, COA report of parental drinking has demonstrated acceptability when validation is unfeasible or unreasonable (e.g., Sher & Descutner, 1986). Sher (1991) reports that approximately 70 percent of subjects employed in his research refuse to give permission to contact parents in order to validate parental drinking practices, and only about 60 percent of those parents contacted agree to provide details regarding their own drinking. Thus, method of assessment of parental alcoholism can

unwittingly impact research findings and will be carefully undertaken in the present study.

Characteristics of Alcoholic Families. Once this assessment challenge has been surmounted, family environment has consistently been found to be associated with the development and/or mediation of subsequent psychopathology in the COA. Many homes in which one or both parents are alcoholic are characterized by a lack of consistent role models of adulthood or of healthy relationships (O'Brien, Woody & McLellan, 1983; Stark, 1987). Similarly, Reich, Earls, & Powell (1988) concluded that homes of alcoholic families "are characterized by marital conflict, parent-child conflict, poor adaptive functioning on the part of the parents, and in some cases, physical abuse" (p. 831). According to Sher (1991), behavior problems in COAs are mediated in part by family conflict and poor parental disciplining practices but the direction of causality is unclear because both are often assessed concurrently. Seilhamer and Jacob (1988) note that "alcoholic parenting is often characterized by an inadequate affectional bond, inconsistent discipline, and poor social modeling. Dinning and Berk (1989) assessed COAs on the relationship scales of the Family Environment Scale (FES; Moos & Moos, 1981) and found that higher endorsement of parental alcoholism was significantly related to low family cohesion, high family

conflict and low overall family support. Moreover, alcoholism is a particularly detrimental factor because of its tertiary role in the genesis and perpetuation of other family stressors such as marital conflict and dissolution, social isolation, unemployment, and financial hardship" (p. 175).

Childhood Stress. Stress is an oft-found correlate of current adjustment and can be expected to be a factor in the adjustment of COAs. "A central characteristic of human development involves coping with physical, psychological and social stress" (Compas, 1988, p. 208). Milgram (1989) defines stress as "an imbalance between stimulus demand and response supply". Stressors are "aspects of the stimulus situation perceived as threatening and as taxing one's adaptive capacities". Children residing in alcoholic families which are characterized by low family cohesion, high family conflict and low overall family support (Dinning & Berk, 1989) could conceivably experience some measure of stress which might tax their adaptive capabilities.

According to Milgram, all stressors are not equal. Certain classes of stressors bring about more severe, long-lasting consequences. "Stressors that originate within the family, that impinge directly on the child as primary victim, that last a long time, that are irreversible in context, and that ensue from purposive, human behavior are

prime examples." Additionally, different people will react differently to the same stressor (interpersonal differences), and the same person will react differently to stressors over time (intrapersonal differences). Milgram suggests that some of the differences in reactivity to stressors may be due to (1) intrapersonal resources such as high self-esteem, psychological hardiness, cognitive and behavioral coping strategies and skills, self regulatory competencies, and self--efficacy based on success expectancies; and (2) interpersonal support (i.e., stable social networks across situations, such as a cohesive extended family, or situation-specific social support systems such as members of the nuclear family, school or neighborhood friends, or religious groups).

Similarly, Compas (1987) conducted an extensive review of the literature regarding coping with stress during childhood and adolescence and identified three factors which promote resiliency to stress: (a) dispositional and constitutional characteristics of the child, including temperament, high self-esteem, internal locus of control, and a sense of autonomy; (b) a supportive family environment, including parental warmth, cohesiveness, closeness, order, and organization; and (c) a supportive individual or agency that provides the child a support system to aid in coping, and positive models with whom to

identify. The present study will investigate two factors which Compas has identified as promoting resiliency or invulnerability to stress: childhood family environment and childhood social support, and will also assess current stressors.

Following Sher's review of the literature (1991) he reported that "disturbed family interaction was not specific to alcoholic families (at least when the alcoholic is not intoxicated) and tended to characterize other problem families" (p. 28). Additionally, while parental alcoholism may impact later adjustment, it is by no means always the case that it does (c.f. Sher, 1991). It has been demonstrated that when alcoholic families adhere to certain family rituals, for example, such as the manner in which they observe Sunday dinners, or celebration of holidays, the COAs are less likely to become alcoholic themselves (Wolin, Bennett, & Noonan, 1979) and are less likely to evidence behavior or emotional problems (Bennett, Wolin, & Reiss, 1988). While parental alcoholism has been found to be associated with other negative aspects of family environment, it is at this point unclear whether parental alcoholism and family environment have separate or overlapping roles in the determination of later adjustment. We turn now to coping style, another factor which is theorized to moderate the impact of children's early

environment.

Coping

Coping is defined as cognitive and behavioral efforts to manage specific external or internal demands (and conflicts between them) that are appraised as taxing or exceeding the resources of a person (Lazarus & Folkman, 1984). Coping involves primary appraisal (what has occurred and what is necessary to manage the situation?) and secondary appraisal (comparing the resources available with the resources perceived as necessary to manage the situation). Lazarus (1991) suggests that coping directly follows an initial appraisal of harm, threat or challenge, and is often directed at the regulation of emotional distress. Lazarus and Folkman (1984) described two styles of coping: 1.) Problem-focused coping, in which the individual takes action to ameliorate the source of stress and distress (e.g., asking an intoxicated parent to speak quietly at night so that one's sleep is not disturbed); and 2.) Emotion-focused or cognitive coping, because the strategies involve mainly thinking rather than acting to change the person-environment relationship. With emotion-focused coping the individual changes the *meaning* of the situation, and therefore, the emotional reaction.

Denial is a common initial reaction to very threatening information, and is sometimes employed as a form of emotion-

focused coping. It is most likely to be used by those who both (a) believe the threat, and (b) have no problem-focused way of coping with it (Croyle & Ditto, 1990; Lazarus, 1983). "If we successfully avoid thinking about a threat, the anxiety associated with it is postponed. And if we successfully deny that anything is wrong, there is no reason to experience the emotion appropriate to the particular threat or harm -- say, anxiety, anger, guilt, shame, envy, or whatever" (Lazarus, 1991, p. 112).

Scheier, Weintraub, and Carver (1986) considered the concept of problem-focused and emotion-focused coping from a psychological "approach or avoidance" standpoint. They suggest that during problem-focused coping an individual "approaches" or psychologically "engages" the problem. Emotion-focused coping strategies are somewhat more complex. Some emotion-focused coping strategies serve to "avoid" or psychologically "disengage" the individual from the problem (e.g., denial and escape through fantasy), whereas other emotion-focused coping strategies (such as cognitively restructuring one's thinking about the problem) employs more of an "approach" or "engagement" style of coping.

Following the conceptualization of Scheier and colleagues, Tobin et al. (1989) employed the terms "engagement" and "disengagement" to identify the two general strategies of the structure of coping. These researchers

investigated the structure of coping in a series of studies employing a modified version of Folkman and Lazarus' Ways of Coping Checklist (Folkman & Lazarus, 1980) which they entitled the Coping Strategies Inventory (Tobin, Holroyd, & Reynolds, 1982). Factor analysis yielded eight primary factors (problem solving, cognitive restructuring, express emotions, social support, problem avoidance, wishful thinking, self-criticism, social withdrawal); four secondary factors (problem engagement, emotion engagement, problem disengagement, emotion disengagement); and two tertiary factors of coping (engagement, disengagement). In the present study, coping will be considered from an engagement/disengagement perspective.

Investigation of coping among COAs has rarely been undertaken. Clair and Genest (1986) assessed the coping style of adolescent COAs and found that they reported employing more avoidance and other emotion-focused coping strategies, which are purported to be less adaptive than problem- or action-focused coping strategies aimed at resolving or managing the problem. However, assessing the coping style of COAs from an engagement/ disengagement perspective has not been reported in the literature, to date.

With regard to the effects of employing more or less effective coping strategies, Compas (1988) states, "Mastery

of stress promotes healthy development; the inability to cope successfully has the opposite effect" p. 208). Thus, consistently employing denial or other disengagement coping mechanisms can ultimately lead to maladaptive psychological consequences. First, the individual who consistently employs psychological disengagement does not allow himself the opportunity to master the situation and to develop a sense of efficacy (so self-esteem suffers as a result of avoiding dealing directly with the stressor.) Additionally, when the problem is not dealt with directly it may potentially recur as a future stressor in the individual's life. The present study proposes to assess individuals' employment of engagement/disengagement coping styles and will analyze the extent to which the two styles are related to current psychological adjustment.

Social Support

Social support has been shown to moderate the development of deleterious effects upon children who live in a high risk environment (e.g., Clair & Genest, 1987; Felner, Aber, Primavera, & Cauce, 1985). The research of Sarason, Sarason, Shearin, & Pierce (1987) suggests that individuals' perception of support may be an even more important factor than the actual frequency or number of interpersonal contacts. Perceived social support is defined as "a feeling that one is cared about and valued by others" (Sarason,

Pierce, Bannerman, & Sarason, in press; p. 002).

Perceptions of social support reflect an inferential process in which individuals who believe others care about and positively value them develop confidence both in their own ability to deal with events and confidence in the availability of others, should they be needed (Sarason, Pierce, & Sarason, 1990). These researchers suggest that it is not simply the receipt of supportive behavior, per se, but the supporter's positive views of the individual which provide the beneficial aspects of support. Sarason et al (1987) conclude that "the perception that social support is available when needed may be translated into the idea that the perception of being loved and valued is central in the concept of social support, and that this belief may be a counterpart in adult life to the attachment experience in childhood described by Bowlby (1969, 1980)" (p. 507).

Felner, Aber, Primavera, and Cauce (1985) conducted a study assessing 250 predominantly non-white, lower class adolescents' perceived high school environment, family environment, and social support. Among the results reported, teacher support was associated with greater scholastic self-concept. Family cohesion was also found to be a salient predictor of more positive overall adjustment. Of note, stronger informal support (i.e, from friends) was negatively correlated with grade point average among these

inner city youth. This study differs from the present in that the researchers did not assess parental alcoholism, nor was a control group employed.

Because the above studies used a cross-sectional approach the importance of social support as a predictor was not clearly demonstrated. Using a longitudinal design, Zimrin (1983) investigated a group of 28 abused Israeli children who required medical treatment and hospitalization as a result of deliberate injury by a parent. During a follow-up study 14 years later, 9 of the children were categorized as "survivors" and 19 as "nonsurvivors", as identified by the following criteria: scholastic achievement, adjustment to school or work place norms, presence or absence of severe emotional problems, and a sense of self-fulfillment or constructive plans for the future. Among the variables found to be correlated with subsequent adjustment was the presence of an adult caring person who inspired confidence and encouraged the survivor during the abusive period of his/her childhood. Similarly, Seifer, Sameroff, Baldwin, and Baldwin (1992) identified 50 high risk and 102 low risk Black inner-city children and followed them from 4 to 13 years of age. Among several significant findings, the researchers reported an interaction of social support and risk: social support was shown to be a protective factor among high risk subjects,

with specific gains in cognitive functioning. More specifically, social support was significantly positively correlated with improvement in cognitive functioning (as measured by intelligence testing at 4 and 13 years of age), but only among the high risk children. For those in the low-risk category, social support was mildly negatively correlated with cognitive improvement (although this trend was not statistically significant). The above studies demonstrate the importance of social support as a factor that decreases risk among children experiencing high levels of stress. The question of whether it moderates the effects of stress, such as produced by dysfunctional family environments, will now be examined.

Marital disharmony is recognized as a significant stressor for children and has been shown to contribute to outcome difficulties for children (e.g., Rutter, 1987). Jenkins and Smith (1990) investigated protective factors for children from 57 marriages which the mothers reported as "disharmonious" and 62 marriages which the mothers reported as "harmonious". These researchers assessed factors which might protect the offspring in the high risk group against the development of behavioral and emotional difficulties. They found that quality of parental relationship with either the father and/or the mother, quality of peer relations, and the presence of a best friend were related to positive

outcome across groups, regardless of risk. Of importance, those factors found to be significantly related to positive outcome predominantly in the high risk group (thus termed truly protective factors) were a good relationship with a sibling, positive recognition from a source outside the family (for activities or interests such as sports competitions, artwork, musical talents), and a close relationship with an adult outside the immediate family. This rating was made on the basis of frequency of contact, whether the child made an effort to see that person, and whether the child confided in that person.

Research examining the role of social support among COAs when compared with control groups has been limited. West and Prinz (1987) reviewed the literature regarding COAs between 1975 and 1985 and concluded that "investigators by and large overlooked such possible contributing or mediating variables as ... availability of alternative sources of support" (p. 283). One representative study comparing 30 COAs and 40 non-COAs, 18-23 years of age, assessed these young people on several dimensions, including a retrospective measure of informational and emotional support received from the subject's family. Results of this study indicated that COAs received the same amount of emotional support from their families as the non-COAs, but significantly less informational support (or guidance) than

the control group. The COAs showed poorer adjustment, as indicated by more depression proneness, along with the use of more emotion-focused coping strategies such as eating, drinking, smoking and sleeping when under stress. However, this study assessed only informational and emotional support provided by the subjects' families, and did not consider outside sources of support which may have been available to the youngsters. The present study will remedy this deficiency by assessing such sources of support.

OVERVIEW

As has been indicated, research investigating the role of various mediating factors in the adjustment of COAs has been limited, and attempts at empirical validation of such factors have at times yielded mixed results. Some studies have been fraught with methodological difficulties including means of determination of parental alcoholism, non-representative and limited number of subjects within samples, employment of non-standardized or psychometrically weak assessment instruments, and limitations of or inappropriate analyses of data (Sher, 1991; Woititz, 1983). Further, concurrent assessment of those factors hypothesized to mediate the deleterious effects of parental alcoholism has only rarely been undertaken, and has failed to incorporate those factors which are deemed herein to be significantly related to subsequent adjustment. It is thus

the intention of this study to examine the relationships between family history of alcohol use, family environment, childhood social support, current coping strategies, and current adjustment, including substance use.

HYPOTHESES AND PLANNED ANALYSES

I. Correlations will be conducted to test the following univariate relations:

1) Parental alcoholism (as measured by the SMAST), lower levels of perceived childhood social support (as measured by the Social Support Questionnaire, retrospective childhood version; SSQ-C), greater levels of childhood family conflict, lower levels of family cohesion, and lower levels of family expressiveness (as measured by the Family Environment Scale, FES), coping style (as measured by the Coping Strategies Inventory, CSI), and current stress (as measured by the Life Experiences Survey, LES) will be correlated with the development of subsequent adjustment difficulties (as measured by the Brief Symptom Inventory [BSI] and indices of substance use).

II. A series of regression analyses will test the independent contributions of the following factors:

2) Parental alcoholism, perceived childhood family environment, specifically, levels of family conflict, family cohesion, and expressiveness (as measured by the FES),

perceived childhood social support (as measured by the SSQ-C), coping style (as measured by the CSI), and current stress (as measured by the LES) will independently predict adjustment (as measured by the BSI and indices of substance use).

3) Parental alcoholism, perceived childhood family environment, (specifically, levels of family conflict, family cohesion, and expressiveness, as measured by the FES), and perceived childhood social support (as measured by the SSQ-C), will independently predict the endorsement of more disengagement coping strategies (as measured by the CSI).

III. A series of hierarchical regression analyses will be conducted to test the following:

4). Interactions will be revealed between parental substance use and each of the following factors: childhood family environment, childhood social support, coping style, and current stress, which will independently predict adjustment (as measured by the BSI and indices of substance use).

METHOD

Subjects

Participants were 351 undergraduate psychology students, 207 of whom were female, and 127 were male. Seventeen subjects did not indicate their gender. Subjects were recruited from the research participant pool at Virginia Tech. Ninety-eight subjects met the criteria for children of alcohol abusers (COAs) as defined in this study, 43 subjects were Possible-COAs, and the remaining 210 subjects (Non-COAs) comprised the control group. Subjects participated in one of 15 experimental sessions of approximately 23 subjects each, and received 2 hours of experimental extra credit for their participation. Experiment participation sign-up forms indicated the date, time, and location of the sessions, and also indicated that the participants would complete a questionnaire regarding individual and family characteristics.

Assessment Instruments

Predictor measures

Family alcohol history. The Short Michigan Alcoholism Screening Test (SMAST; Selzer, Vinograd, & Van Rooijen, 1976) is a 13-item questionnaire which can be completed by the offspring to assess parental problem drinking (Sher & Descutner, 1986). It is a shortened version of the original 25-item Michigan Alcoholism Screening Test (MAST; Selzer,

1971) which was revised through a stepwise regression procedure to provide a brief, easily-scored and psychometrically sound self-administered questionnaire. Responses are in the "yes" or "no" format and each affirmative response is given one point. Questions were modified to assess parental alcohol use (for example, "Has your father ever neglected his obligations, his family, or his work for two or more days in a row because he was drinking?") While this measure does request that the offspring provide some subjective responses (i.e., "Do you feel that your father has been a normal drinker?", "Did your father ever feel guilty about his drinking?", and "Was your father able to stop drinking when he wanted to?"), it also requests more objective information (i.e., "Has your father ever attended a meeting of Alcoholics Anonymous?", "Has your father ever gotten into trouble at work because of drinking?", and "Has your father ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcoholic beverages?") The instrument was normed such that subjects scoring 0-1 are considered nonalcoholics, those with 2 points are possible alcoholics, and subjects scoring 3 or more points are considered alcoholics. Thus, scores can range from 0 through 13. For the present study, continuous data were employed. For individuals completing the SMAST on themselves, test-retest

reliability correlations have ranged between .76 and .93 and criterion validity correlations have ranged from .83 to .94 (Selzer, Venokur, & van Rooijen, 1975). When completed by adult COAs to assess parental drinking, good to moderate levels of validity ($r=.85$ for fathers and $r=.52$ for mothers) were shown when compared with parent completion of the form (Levenson, Oyama & Meek, 1987), and good reliability was shown across siblings completing the form for fathers ($r=.85$) (Sher & Descutner, 1986). Subjects completed three versions of the SMAST: they completed the SMAST-Father regarding paternal alcohol use and the SMAST-Mother regarding maternal alcohol use. They also completed the SMAST as part of the assessment of the subjects' own substance use.

Family environment. The Family Environment Scale (FES, Moos & Moos, 1974) is a 90-item true-false questionnaire which measures the social-environmental characteristics of families. The Real Form (Form R), was employed to measure individuals' retrospective perceptions of their family-of-origin environment. The total scale yields 10 subscales (comprised of 9 items each) which assess 3 underlying domains. For the purpose of this study only the Relationship domain was assessed. This domain is measured by 27 items from the Cohesion, Expressiveness, and Conflict subscales. The Cohesion subscale measures the degree of

commitment, help, and support family members provide for one another. The Expressiveness subscale measures the extent to which family members are encouraged to act openly and to express their feelings directly. The Conflict subscale measures the amount of openly expressed anger, aggression, and conflict among family members. The FES is scored in the direction of optimal family functioning, with each item endorsed as "true" receiving a value of 1 and each "false" item receiving a value of 0. Thus, possible scores on each subscale range from 0 (indicating a low level of family functioning in that domain) to 9 (indicating optimal family functioning). The FES was constructed from information gathered in structured interviews with members of different types of families. The scale's sociometric properties are all at an acceptable to good level. The internal consistency (Cronbach's Alpha) of the three Relationship subscales are .78 (Cohesion), .69 (Expressiveness), and .75 (Conflict). Two-month test-retest reliability scores are .86 (Cohesion), .73 (Expressiveness) and .85 (Conflict) (Moos & Moos, 1974). Construct validity has been assessed by numerous studies and has been reported to be conceptually sound. For example, Schaefer and Olson (1980) reported that couples who rated their families high in expressiveness and cohesion and low in conflict rated themselves similarly on items measuring emotional, social and sexual intimacy.

Childhood social support. The Social Support Questionnaire (SSQ) developed by Sarason, Levine, Basham, and Sarason (1983) is a 27-item self-report measure which requests the subject to (a) list up to 8 individuals who are available to him/her as social supports in a variety of contexts (assessing perceived number of supports), and then (b) rate his/her overall satisfaction with such support (assessing satisfaction), ranging from 1 (very dissatisfied) to 6 (very satisfied). For the present study, the wording of the instrument was modified to assess subjects' perceptions of their social support "as a child, through age 18". For example, "Whom could you really have counted on to be dependable when you needed help?" and "Whom could you have counted on to listen openly and uncritically to your innermost feelings?" Categories including friends, neighbors, clergy, teachers, extended family, and others were listed in order to prompt recollection of supportive individuals. The average number of socially supportive individuals is calculated by dividing the total number of supports by 27, and can range from 0 to 8, with a mean of 4.25 for a college student population. Similarly, the average satisfaction scores are calculated by dividing the total satisfaction score by 27, and can range from 1 to 6, with a mean of 5.38 for a college student population. The authors report an alpha coefficient of internal reliability

of .97 for perceived number of current social supports and .94 for satisfaction; a four-week test-retest correlation of .90 for perceived number of current supports and .83 for satisfaction. This instrument was employed as a retrospective measure of childhood social support in a pilot study (assessing childhood social support through age 10) and doctoral dissertation (assessing childhood social support through age 13) by E. Long (personal communication, September 20, 1993). The pilot study revealed that retrospective use of the SSQ showed "adequate test-retest reliability". Long subsequently investigated a group of women with a history of childhood sexual abuse, assessing the relationship between childhood social support and current self- and other- esteem, trust and intimacy. Results indicated that childhood social support was related to subsequent adult cognitions among this group of women who were sexually abused as youngsters. Additionally, the number of social supports was strongly related to the women's cognitions.

Criterion measures

Coping strategies. The Coping Strategies Inventory (CSI-R; Tobin, 1984) is a 72-item self-report questionnaire which requests subjects to generate a description of a specific stressful event which occurred within the past month, and then to indicate the extent to which they used

specific coping responses, using a 5-item likert format. The scale yields three factors: (1) Primary factors, consisting of (a) problem solving; (b) cognitive restructuring; (c) express emotions; (d) social support; (e) problem avoidance; (f) wishful thinking; (g) self criticism; and (h) social withdrawal; (2) Secondary factors which are comprised of (a) problem engagement; (b) emotion engagement; (c) problem disengagement; and (d) emotion disengagement; and (3) Tertiary factors which encompass (a) engagement and (b) disengagement. Secondary factors were employed in the present study. Means and standard deviations for a college population are as follows: Problem focused engagement: 54.36, 11.88; problem-focused disengagement: 47.43, 11.7; emotion-focused engagement: 50.13, 14.58; emotion-focused disengagement: 43.20, 14.58. Factor structure congruence and two-week test-retest reliability for the secondary factors are well within the acceptable range. Factor structure congruence and alpha coefficients are as follows: problem engagement: .91 and .87; emotion engagement: .97 and .92; problem disengagement and .81; emotion disengagement: .86 and .90.

Life Experiences. The Life Experiences Survey, (LES; Sarason, Johnson, & Siegel, 1978) is a self-report questionnaire which requests the subject to identify which of 50 events s/he has experienced within the past 6 mos to 1

yr, and to indicate the extent to which s/he rates the event as having either a positive or a negative impact. Possible scores for each item are -3 (extremely negative) to +3 (extremely positive), including 0. Three total scores are computed: Overall positive life change, overall negative life change, and total change score. The negative life change score was employed in the present study. The negative life experiences score can range from 0 to 150, with a mean for college students of 9.61 ($SD= 9.59$). Test-retest reliability coefficients for the total change score have ranged from .63 to .64 ($p < .001$). Validation of the LES was conducted by comparing individuals' scores with various other indices of personality and life stress, including anxiety, academic achievement, social desirability, personal maladjustment, depression and locus of control. Representative results include correlations between total life change and trait anxiety (.24, $p < .05$); state anxiety (.37, $p < .001$); and grade point average (- .40, $p < .001$).

Current Psychological Adjustment. The Brief Symptom Inventory (BSI; Derogatis, 1975), a brief form of the SCL-90-R, is a 53-item self-report symptom inventory designed to reflect the psychological symptom patterns of psychiatric and medical patients as well as non-patients. Items are rated on a 5-point scale of distress (0-4) ranging from

"not-at-all" (0) to "extremely" (4). Sample items include "How much were you distressed by: thoughts of death or dying; others not giving you proper credit for your achievements". The BSI is scored and profiled along 9 primary symptom dimensions: (1) Somatization; (2) Obsessive-compulsive; (3) Interpersonal sensitivity; (4) Depression; (5) Anxiety; (6) Hostility; (7) Phobic anxiety; (8) Paranoid ideation; (9) Psychoticism. Three global indices reflective of psychological disorder are revealed within the measure: (1) Global Severity Index (GSI); (2) Positive symptom distress index (PSDI); and (3) Positive symptom Total (PST).

The Global Severity Index (GSI) was employed in the present study. The GSI is calculated by dividing the total score by 53. Scores can range from 0 to 4, with a non-psychiatric adolescent mean of .83 ($SD = .59$). Test-retest reliability coefficients for the BSI range from .68 (somatization) to .91 (phobic anxiety) on the 9 symptom dimensions and from .80 (positive symptom total) to .90 (global severity index) on the global indices (Derogatis, 1982). Validation of the BSI has been extensive and has yielded results which indicate that the instrument is psychometrically sound. When comparing the 9 dimensions of the BSI with the clinical scales of the MMPI, for example, correlation coefficients range from .30 (phobic anxiety) to .72 (depression), suggesting a reasonable convergent validity. Factor

analysis of the principal components of the measure yielded nine interpretable factors which accounted for 44% of the variance in the correlation matrix, with factor loadings of at least .35, suggesting a stable internal structure and acceptable construct validity.

Substance use Subjects' current alcohol and drug use was assessed by means of a variety of measures.

Rutgers Alcohol Problem Index. The Rutgers Alcohol Problem Index (RAPI; White & Labouvie, 1989) is a 25-item scale which assesses the number of times an individual has experienced a variety of difficulties as a result of alcohol use. Subjects indicate whether they have ever experienced each problem (yielding the number of problems experienced) and the number of times the problem has occurred during the past 6 months (frequency of problems). Responses are made on a 5-pt likert scale, ranging from 0 (never) to 4 (more than ten times). The RAPI-Number of problems can range from 0 to 25. Mean scores were not reported for this population. Frequency of problems can range from 0 to 100. Mean scores were not reported for this population. The frequency of problems has an internal consistency of .92. Correlations between the RAPI and alcohol-use intensity range from .20 to .57.

Rutgers Drug Problem Index (RDPI). For the purpose of this study, a modified version of the RAPI was also

employed to assess problematic events related to subjects' drug use ("Rutgers Drug Problem Index"). This measure was selected because of its availability, ease of administration, and in order to provide continuity in questionnaire format. Similar to the RAPI, total number of problems can range from 0 to 25, and frequency of problems can range between 0 and 100. Normative data is not available on this measure.

SMAST. The SMAST (as described previously in the "Family alcohol history" section) was employed to assess subjects' alcoholism.

Alcohol and Drug Timeline. A 90-day timeline assessment technique requires subjects to provide estimates of their daily alcohol and drug consumption over a specified time period. Alcohol consumption: Calendars for the previous 90 days, complete with standard holidays and other events significant to this college population were provided. Subjects were first requested to fill in anchor dates (e.g., birthdays, vacations, parties). They were next asked to consider any pattern to their drinking, such as Friday and Saturday nights. Then they were asked to report estimates of standard drinks consumed over the 90-day period (a standard drink equals 12 oz. of beer, 5 oz. of 12% wine, or 1 1/2 oz. of hard liquor). The substance abuse field has established that 5 or more standard drinks per day

constitutes a "day of heavy use". Because of the intention of this study to determine "psychological adjustment" among subjects, the index of "days of heavy use" was employed for the present study, and ranges from 0 to 90. College student means were not available.

Drug consumption: Next they were asked to report frequency of drugs consumed. A listing of drugs was provided to prompt subjects' memory (e.g., marijuana, cocaine, amphetamines, and heroin). The timeline technique has been demonstrated to have good reliability (Sobell, Sobell, Leo, & Cancilla, 1988), although college student means were not available. One study reported ninety-day test-retest reliability coefficient for total no. of drinks at .97; drinks per drinking day was .95; and days abstinent was .96 (Sobell, Sobell, Leo, & Cancilla, 1988).

Procedure Fifteen experimental sessions with approximately 23 subjects each were conducted in the following standardized manner. Participants arrived at the scheduled time and were directed to take a seat in a large experimental room equipped with individual desks. The experimenter greeted the subjects as a group and explained that the purpose of the study was to obtain information regarding individual and family characteristics. Standard conditions of experimental participation were explained and

subjects read and completed informed consent forms. A packet which included all measures was distributed to the participants. All subjects were administered the Family Environment Scale, Relationship domain; the Social Support Questionnaire-C; the Coping Strategies Inventory; the Life Experiences Survey; the Brief Symptom Inventory; the SMAST; the DAST; the RAPI; the modified RDPI; the alcohol quantity/frequency timeline; the drug frequency timeline; the SMAST-Father; and the SMAST-Mother; in that order. The subjects were reminded verbally and in print that their responses to the questionnaires are anonymous and will remain confidential. They were requested to complete the information as accurately and honestly as they could. Responses were made on computer-scored forms and on timeline calendars which were provided. Upon individual completion of the packet, each subject was given a debriefing form which further explained the purpose of the study and which provided the phone number of the researcher. Each student's extra credit participation form was then collected and s/he was individually dismissed. The verbal instructions to subjects are included in Appendix 2.

RESULTS

Parental Alcohol Abuse

Participants' responses to the SMAST for Fathers and Mothers indicated that 210 subjects had two non-alcoholic parents (Non-COAs), 43 subjects had one parent who was a possible alcoholic (Poss-COAs), and 98 subjects had either one (N=65) or two (N=33) alcoholic parents (COAs). Means and Standard Deviations for COAs, Possible-COAs and Non-COAs for childhood family environment (FES), childhood social support (SSQ-R), current coping style (CSI), current stress (LES) and current adjustment, as measured by the BSI and indices of substance use, are presented in Table 1.

To determine the extent of relationships among measures of alcohol and drug use, intercorrelations among all criterion measures were computed. Table 2 indicates that correlations ranged from .18 (days of drug use X SMAST) to .92 (RAPI-# of Problems X RAPI-Frequency of Problems), with an average inter-measure correlation of .46 (all $p < .01$). The highest intercorrelations were .88 (RDPI-Number X RDPI-Frequency of drug problems) and .92 (RAPI-Number X RAPI-Frequency of alcohol problems), which indicates that the dependent measures of frequency and number for both alcohol and drug use measure essentially the same construct.

Generally speaking, intercorrelations revealed that relationships among measures of alcohol use were moderate to

strong, ranging from .49 (RAPI-Number X SMAST) to .57 (days of heavy drinking X RAPI-Frequency), with the exception of the relation between the SMAST and Alcohol Timeline, which was in the low to moderate range ($r = .29$). Relationships among measures of drug use were also moderate to strong, ranging from .42 (days of drug use X DAST) to .64 (days of drug use X RDPI-Number). Relationships between measures of drug and alcohol use were low to moderate, ranging from .18 (days of drug use X SMAST) to .57 (RAPI-Frequency X RDPI-Frequency).

Hypothesis 1

Zero-order correlations were conducted to test the hypotheses that each of the following five factors: (1) higher levels of parental alcohol abuse (SMAST-Father and SMAST-Mother); (2) lower levels of perceived childhood social support (SSQ-Satisfaction and SSQ-Number of supportive individuals); (3) lower levels of childhood family functioning (FES: greater levels of childhood family conflict, lower levels of family cohesion and family expressiveness); (4) employment of a disengagement style of coping (CSI); and (5) higher levels of current stress (LES - Negative life experiences) would be correlated with lower levels of adjustment (as measured by the BSI-Global Symptom Index; 4 indices of alcohol abuse; and 4 indices of drug use, problems and symptoms). Table 3 summarizes these

correlations.

Maternal alcohol abuse (SMAST-Mother) was correlated with one measure of symptoms and problems of subjects' alcohol abuse (SMAST), and with three indices of drug-related problems (RDPI; DAST), which suggests that having an alcoholic mother was related to higher levels of substance use, particularly drug abuse problems and symptoms, among offspring. Paternal alcohol abuse (SMAST-Father) was not significantly correlated with any outcome measure, suggesting that having an alcoholic father, in and of itself, was not related to poor adjustment.

Indices of childhood family relationships (FES; family cohesion, expressiveness, and conflict) were significantly correlated with number of current psychological symptoms (BSI), number and frequency of alcohol abuse problems and symptoms (SMAST; RAPI-Number; RAPI-Frequency), and with number and frequency of drug problems (RDPI-Number; RDPI-Frequency; DAST). These results indicate that individuals whose childhood family environments were high in conflict, low in cohesion and low in expressiveness showed poorer overall adjustment.

Childhood social support (SSQ; Number and Satisfaction) was negatively correlated with psychological symptoms (BSI), and with alcohol (SMAST; Alcohol Timeline) and drug abuse problems and symptoms (RDPI-Number; RDPI-Frequency; DAST),

suggesting that having fewer supportive individuals and lower satisfaction with available social support during childhood were related to poorer subsequent adjustment for all subjects.

The strongest correlations were between emotion- and problem-focused disengagement coping style (CSI) and current psychological symptoms (BSI). Disengagement style of coping was also related to number and frequency of alcohol (RAPI) and drug abuse problems (RDPI), and to days of drug use (Drug Timeline). (It is to be recalled that the RAPI and RDPI are identical, except that the measures describe problems associated with either alcohol or drug abuse.) Further, both problem-focused and emotion-focused engagement coping style were *negatively* related to psychological symptoms (BSI), indicating that individuals who employed an engagement style of coping had fewer psychological symptoms.

Current stressors (LES-Negative life experiences) were significantly related to several measures, including psychological symptoms (BSI), number and frequency of alcohol-related problems and symptoms (SMAST; RAPI), and to drug abuse problems and symptoms (DAST). These findings suggest that high levels of recent negative life events were related to overall maladjustment.

Hypothesis 2

A series of stepwise linear regression analyses were

conducted to test the hypotheses that each of the following five factors (parental alcohol abuse, childhood family environment, childhood social support, current coping style, and current stress) would independently predict adjustment (as measured by the BSI and indices of alcohol and drug use). Criteria for entry into and retention in the regression equations was $p = .05$ and $p = .10$, respectively, which is a standard procedure employed to avoid having items entering and being removed from the equation repeatedly.

Psychological Symptoms.

As indicated in Table 4, linear regression analysis revealed that recent negative life experiences (LES), emotion-focused disengagement coping style (ESI), dissatisfaction with childhood social support (SSQ-Satisfaction), and problem-focused disengagement coping style (ESI) each independently predicted a portion of the variance of current psychological symptomatology (BSI), with the final model accounting for 35% of the variance.

Alcohol Abuse, Problems and Symptoms.

Linear regression analyses were run to investigate whether the predictor variables from the five factors were independently predictive of each of the four measures assessing various aspects of alcohol abuse: (1) RAPI-Number (of alcohol-related problems); (2) RAPI-Frequency (of alcohol-related problems); (3) SMAST (which reflects

problems and symptoms of alcohol abuse); and (4) the 90-Day Alcohol Timeline (which yields number of heavy drinking days [5 or more standard drinks]). Table 5 summarizes the results of the regression analyses predictive of alcohol abuse problems and symptoms.

A portion of the variance of each of the four alcohol measures was predicted by at least one variable from each of the five different factors. Three variables, problem-focused disengagement coping style (CSI), negative life experiences (LES), and low levels of family expressiveness (FES) entered into the models predictive of number and frequency of alcohol-related problems (RAPI-Number; RAPI-Frequency), with the final models accounting for 10% of the variance for each of the two measures. A portion of the variance of problems and symptoms of alcohol abuse (SMAST) was independently predicted by three different variables (negative life experiences, low level of satisfaction with social support, and maternal alcohol abuse), with the final model accounting for 9% of the variance. Finally, low satisfaction with childhood social support (SSQ-Satisfaction) was the only variable which entered the model independently predicting days of heavy drinking (Alcohol Timeline), accounting for 2% of the variance.

Drug Use, Problems and Symptoms.

Linear regression analyses were run to investigate

whether predictor variables from the five factors were independently predictive of each of the four measures which assessed various aspects of drug use: (1) DAST (which yields drug-related problems and symptoms); (2) RDPI-Number (of drug-related problems); (3) RDPI-Frequency (of drug-related problems); and (4) the 90-Day Drug Timeline (which yields number of days of drug use). Table 6 summarizes the results of regression analyses predictive of drug use.

Results indicated that predictor variables from four of the five factors were independently predictive of at least one of the drug measures. Two variables, low levels of childhood family cohesion (FES) and the presence of maternal alcohol abuse (SMAST-Mother) each independently predicted a portion of the variance of drug-related problems and symptoms (DAST), with the final model accounting for 6% of the variance. Two different variables, problem-focused disengagement coping style (CSI), and low levels of satisfaction with childhood social support (SSQ-Satisfaction) entered into the models independently predicting number and frequency of drug-related problems (RDPI-Number; RDPI-Frequency), with the final models accounting for 5% of the variance. Emotion-focused disengagement (CSI) was the only variable which entered into the model predicting 2% of the variance of days of drug use (Drug Timeline).

Hypothesis 3

Coping Style. A series of stepwise linear regression analyses were conducted to test the hypotheses that three childhood factors, parental alcohol abuse, dysfunctional childhood family environment, and lower levels of childhood social support, independently predicted subjects' current employment of disengagement coping strategies. Four aspects of current coping style were investigated: (1) Problem-focused engagement; (2) Problem-focused disengagement; (3) Emotion-focused engagement; and (4) Emotion-focused disengagement (as measured by the CSI). Significant main effects which accounted for a percentage of the variance were revealed for each of the four aspects of coping. Table 7 summarizes the results of regression analyses predictive of coping style.

Variables from each of the three hypothesized factors were independently predictive of a portion of the variance of engagement and disengagement coping style. Emotion-focused engagement style of coping was predicted by a high number of supportive individuals during childhood (SSQ-Satisfaction), along with a high level of family expressiveness (FES), with the final model accounting for 7% of the variance. Similarly, problem-focused engagement was predicted by a high number of supportive individuals (SSQ) and high family expressiveness (FES), and, unexpectedly, by

a third variable, maternal alcohol abuse (SMAST-Mother), with the final model accounting for 8% of the variance.

Current use of a disengagement style of coping was independently predicted by three early childhood variables. Low number of supportive individuals (SSQ) and presence of maternal alcohol abuse (SMAST-Mother) each independently predicted a portion of the variance of emotion-focused disengagement, with the final model accounting for 7% of the variance. One variable, low level of family cohesion (FES), independently predicted 3% of the variance for problem-focused disengagement.

Hypothesis 4

A series of hierarchical regression analyses were conducted to test the hypotheses that interactions between parental alcohol abuse (mother, father) and each of the following variables would emerge as predictors of adjustment: childhood family environment, childhood social support, current coping style, and current stress. The hierarchical procedure was conducted in the following manner: First, main effects for each of the predictor variables (parental alcohol abuse, family environment, childhood social support, coping style, and negative life experiences) were forced into each equation. Next, all interaction terms (mother alcohol abuse X each predictor variable; father alcohol abuse X each predictor variable)

were entered in a stepwise fashion, with each outcome variable (psychological symptoms, alcohol and drug use) designated, in turn, as the dependent measure. Significant interactions predictive of 5 of 9 dependent measures were identified.

Psychological Symptoms.

A hierarchical regression analysis was conducted in the manner described above in order to identify interactions uniquely predictive of psychological symptoms (as measured by the BSI). Table 8 summarizes the results of this analysis.

The constellation of main effects for all 12 predictor variables was forced into the model on the first step and accounted for 36% of the variance of psychological symptoms. On the 2nd step (stepwise entry) the interaction between paternal alcohol abuse X satisfaction with social support entered into the model, accounting for an additional 1% of the variance, with the final model accounting for 37% of the variance.

In order to examine the direction of the above interaction, subjects were separated into groups identified as COAs, Possible-COAs or Non-COAs, based upon normed cutoff scores for the SMAST-Father, and a median split was performed on the social support satisfaction scores. Subjects were then divided into six groups and a 3 X 2 (COA, Possible-COA, Non-COA; SSQ-Satisfaction: high, low) analysis

of variance (ANOVA) was conducted. While interactions were revealed when the data for paternal alcohol abuse and childhood social support were analyzed as continuous variables on the hierarchical regression procedure, interactions were not significant when performed using dichotomous and trichotomous variables on the ANOVA. Therefore, the direction of the interaction was not explored further.

Alcohol Abuse Problems and Symptoms.

Hierarchical regression analyses were conducted to investigate the independent contributions of each of the interactions to the prediction of each of the four measures which assessed alcohol abuse: (1) RAPI-Number (of alcohol-related problems); (2) RAPI-Frequency (of alcohol-related problems); (3) SMAST (which reflects alcohol abuse-related problems and symptoms); and (4) the 90-Day Alcohol Timeline (which yields number of heavy drinking days [5 or more standard drinks]). Table 9 summarizes the results of the regression analyses predictive of alcohol abuse problems and symptoms.

A hierarchical regression analysis was conducted in order to identify interactions uniquely predictive of alcohol problem frequency (RAPI-Frequency). As indicated in Table 9, main effects for all predictor variables were first forced into the equation, and accounted for 13% of the

variance. The interaction of paternal alcohol abuse X satisfaction with social support entered the model next, accounting for an additional 2% of the variance. The interaction of paternal alcohol abuse X family expressiveness entered last, accounting for another 2% of the variance, with the final model accounting for 17% of the variance of alcohol problem frequency.

A hierarchical regression analysis was next conducted in order to identify interactions uniquely predictive of number of alcohol-related problems and symptoms (RAPI-Number). The main effects for all predictor variables were forced into the equation on the first step, accounting for 10% of the variance. On step 2 the interaction of paternal alcohol abuse X satisfaction with social support entered, uniquely predicting another 2% of the variance. On the next step the interaction of paternal alcohol abuse X problem-focused disengagement coping entered, accounting for an additional 1% of the variance, with the final model accounting for 13% of the variance of alcohol abuse problems and symptoms.

A hierarchical regression analysis was then conducted in order to identify interactions uniquely predictive of number of different alcohol-related problems (RAPI-Number). Main effects for all predictor variables were forced into the equation on the first step, accounting for 13% of the

variance. No interactions were significant.

In order to identify interactions independently predictive of days of heavy alcohol use, a hierarchical regression analysis was conducted. Main effects for all predictor variables were forced into the equation, but the results were not significant. Further, no interactions were significant.

In order to examine the direction of the above interactions, subjects were separated into groups identified as COAs, Possible-COAs or Non-COAs, based upon normed cutoff points for the SMAST-Father scores, and a median split was performed on the scores of the variables with which parental alcohol abuse interacted (SSQ-Satisfaction; FES-Expressiveness; CSI-Problem-focused Disengagement; LES-Negative Experiences; SSQ-Number of Supports). Subjects were then divided into six groups and 3 X 2 (COA, Possible-COA, Non-COA; Variable of interest, high, low) analyses of variance (ANOVA) were conducted. As with psychological symptomatology, while interactions were revealed when the analyses employed continuous data (in the hierarchical regression procedure), three out of the four interactions predictive of alcohol measures were not significant when subjected to ANOVAs employing dichotomous and trichotomous variables. The interaction between alcoholic fathers and problem-focused disengagement remained significant when

predicting subjects' SMAST scores. An unexpected pattern of interaction is summarized in Table 10. Possible-COAs who employed a high level of disengagement coping had the highest SMAST scores, followed by Possible-COAs with a low level of disengagement coping, and COAs with a low level of disengagement coping style.

Drug Use, Problems, and Symptoms.

Hierarchical regression analyses were conducted in order to investigate the unique contributions of interactions to the prediction of each of the four measures which assessed drug use: (1) RDPI-Frequency (of drug-related problems); (2) RDPI-Number (of drug-related problems); (3) DAST (which measures drug-related problems and symptoms); and (4) the 90-Day Drug Timeline (which yields number of days of drug use. Table 11 summarizes the results of the regression analyses predictive of drug use.

Interactions uniquely predictive of drug-related problem frequency (RDPI-Frequency) were assessed by conducting a hierarchical regression analysis in the manner described above. As indicated in Table 11, the constellation of main effects for all predictor variables was forced into the equation in the first step, accounting for 8% of the variance. Next the interaction of paternal alcohol abuse X satisfaction with social support entered the model, accounting for an additional 3% of the variance. On step 3

the interaction of maternal alcohol abuse X negative life experiences entered, accounting for another 2% of the variance. On the 4th step the interaction of maternal alcohol abuse X satisfaction with social support also entered, uniquely accounting for 1% of the variance. The final model accounted for 14% of the variance of frequency of drug-related problems.

A hierarchical regression analysis was conducted in order to identify interactions uniquely predictive of number of different drug-related problems (RDPI-Number). On step 1 the constellation of main effects for all predictor variables was forced into the equation, accounting for 8% of the variance. Next the interaction of maternal alcohol abuse X negative life experiences entered, accounting for an additional 2% of the variance. Subsequently, the interaction of maternal alcohol abuse X number of social supports entered, accounting for another 3% of the variance, with the final model accounting for 13% of the variance.

In order to identify interactions independently predictive of drug-related problems and symptoms (DAST) a hierarchical regression analysis was conducted. As indicated in Table 11, the constellation of main effects for all predictor variables was forced into the equation on the first step, accounting for 9% of the variance. No interactions entered the model.

Finally, a hierarchical regression analysis was conducted in order to identify interactions independently predictive of days of drug use. Main effects for all predictor variables were forced into the equation, but the results were not significant.

As with psychological symptomatology and alcohol measures, in order to examine the direction of the interactions predictive of drug use, problems and symptoms, subjects were separated into groups identified as COAs, Possible-COAs or Non-COAs, based upon their SMAST-Father scores (according to normed cutoff scores) and median splits were performed on the scores of the variables with which parental alcohol abuse interacted (SSQ-Satisfaction; LES-Negative Experiences; SSQ-Number of Supports). Subjects were then divided into six groups and 3 X 2 (COA, Possible-COA, Non-COA; Variable of interest, high, low) analyses of variance (ANOVA) were conducted. Once again, while interactions were revealed when the data were analyzed by employing continuous variables in the hierarchical regression procedure, three out of the five interactions predictive of drug measures were not significant when assessed using dichotomous and trichotomous variables on the ANOVAs. Two interactions predictive of number and frequency of drug problems and symptoms remained significant and are summarized in Table 12. The interactions between alcoholic

mothers and negative life experiences remained significant when predicting number and frequency of drug-related problems (RDPI-Number and RDPI-Frequency). That is, individuals who had alcoholic mothers and who experienced high levels of recent negative life events (stressors) endorsed a substantially higher frequency of drug problems than did all other groups of subjects, followed by Possible-COAs who also had high levels of negative life experiences. However, contrary to expectation, Non-COAs with low levels of negative experiences endorsed a higher frequency of drug problems than did COAs and Possible COAs with low levels of negative experiences. With regard to prediction of number of problems associated with drug use (RDPI-Number), Children of alcoholic mothers with high levels of recent negative life experiences had substantially higher scores than all other subjects. Scores for Possible-COAs with high negative life experiences were next highest, and Non-COAs with high levels of stress were the lowest.

DISCUSSION

The present study was conducted in order to determine whether parental alcohol abuse, per se, is directly and independently related to adjustment of offspring, and to examine the concurrent contributions of other factors upon adjustment, including distal variables such as childhood family environment and childhood social support, along with more proximal variables such as current coping style, and current negative life experiences.

Psychological Symptoms

Contrary to the early literature which indicated that essentially all children of alcoholics evidence increased psychopathology (e.g., Black, 1983; Woititz, 1982) parental alcohol abuse was *not* correlated with subjects' current psychological symptoms. Research on COAs has yielded mixed results; recent reviews of the literature have concluded that the majority of COAs do not evidence psychopathology (e.g., Sher, 1991; West & Prinz, 1987). The current finding is certainly consistent with the recent reviews that indicate that parental alcohol abuse, in and of itself, is not related to psychological symptomatology in children of alcoholics.

All other predictor variables (early childhood variables as well as current variables) were correlated with current psychological symptomatology. As hypothesized, and

consistent with the literature (e.g., Moos & Moos, 1981), all three indices of early childhood family environment were related to current psychological adjustment. Individuals who reported childhood family environments characterized by higher conflict, lower cohesion, and lower expressiveness ("dysfunctional families") reported higher levels of psychological symptoms than did subjects who reported more optimal childhood family functioning.

Similarly, both indices of childhood social support used in this study were related to current psychological adjustment. Subjects who indicated they had fewer supportive individuals during childhood and, even more strongly, those who reported lower levels of *satisfaction* with childhood social support, showed greater current psychological symptomatology. These findings are consistent with the social support literature. For example, in one study by Sarason, Sarason, Shearin and Pierce (1987b), individuals' perceptions that they were loved and valued were more strongly correlated with personality measures than were social support scales which assessed specific functions of social support. According to those researchers, individuals who perceived that they were supported showed less depression and loneliness and more satisfaction with current relationships than those who did not perceive that they were supported. "This belief that there are people available who

care about an individual and who would try to help if help were needed may be the key factor in the efficacy of social support in promoting physical and psychological health" (Sarason et al, 1987a; p. 507). However, given the low magnitude of the current findings, these results should be interpreted with caution.

In addition to the early childhood variables which were shown to be distally related to current adjustment, all four indices of coping style, a proximal variable, were also related to psychological symptomatology in this group of subjects, and in the hypothesized directions. Previous research has indicated that engagement style of coping is related to better adjustment, while disengagement coping is related to poorer adjustment (e.g., Scheier, Weintraub, & Carver, 1986). Similarly, in the present study, engagement coping was negatively related to psychological symptoms, while disengagement coping was related to, and predictive of, higher levels of psychological symptomatology.

Current negative life experiences were also moderately and consistently correlated with, and predictive of psychological symptomatology. This finding is consistent with the literature which indicates that negative life changes are related to a variety of psychological difficulties including anxiety, depression, and neuroticism (Sarason, Johnson, & Siegel, 1978).

Current variables (negative life experiences and coping style) were found to have a strong and consistent relationship with current psychological symptoms. However, it may be that coping has its developmental roots in more remote factors, examination of which may help to elucidate the impact of more distal influences. Specifically, this study revealed that early childhood variables including maternal alcohol abuse, low levels of social support, low levels of satisfaction with social support, high family conflict, and low levels of family cohesion and expressiveness were correlated with disengagement style of coping. Thus, while coping, a proximal variable, was found to be related to current adjustment, it appears that early childhood factors are implicated in the development of coping style.

Alcohol Abuse

Contrary to the vast majority of studies and conclusions drawn from literature reviews regarding alcohol consumption among college-age COAs (e.g., Clair & Genest, 1987; Sher, Walitzer, Wood & Brent, 1991; West & Prinz, 1987), paternal alcohol abuse was not correlated with nor independently predictive of any of the four indices of alcohol consumption in the present study, and maternal alcohol abuse was only mildly related to one measure of problems and symptoms of alcohol abuse in offspring. Several

factors bear on the interpretation of these findings. An unexpected pattern of alcohol use emerged for Possible COAs, when compared with COAs and Non-COAs, in that Possible COAs had the lowest level of alcohol problems and symptoms on three of four alcohol measures. However, noting the consistently high standard deviations across all alcohol measures, substantial within-group differences in alcohol use are apparent. This, in itself, is an interesting finding, and suggests that categorization by parental alcohol abuse status may not reflect a meaningful grouping strategy. Perhaps, as previously stated, a parent who barely meets criteria for inclusion as an alcoholic (i.e., a parent with a SMAST score of only 3) is quite different than a parent who manifests multiple problems and symptoms associated with advanced stages of alcohol abuse. Thus, grouping all offspring of parents who meet the minimum or maximum criteria for alcohol abuse in the COA group may obfuscate important effects produced by parents who are severe abusers. Conversely, parental alcohol abuse was predominantly analyzed in the present study as a continuous, rather than dichotomous variable. Although considered unlikely for the reasons cited previously, it warrants consideration that the continuous method of analysis employed herein obscured true differences between groups, and that the normed cutoff points for parental alcohol abuse

which are typically employed are truly reflective of distinct and meaningful groupings of individuals. On the other hand, perhaps previous researchers who employed a dichotomous measure of parental alcohol abuse identified otherwise non-existent between-group differences by eliminating the Possible-COA group and simply comparing the more extreme groups. However, given the consistency of previous findings, it is highly unlikely that the majority of former studies reflected an inaccurate representation of the relationship of parental alcoholism to alcohol abuse by offspring. Finally, given the low magnitude of the present findings relating parental alcohol abuse to alcohol abuse among offspring, any significant results need to be interpreted with caution.

Two of three early family environment variables (low cohesion and low expressiveness, but not high family conflict) were correlated with and predictive of measures of current alcohol abuse among subjects. While generally consistent with the few studies which have examined early family environment among young alcoholics or children of alcoholics (e.g., Dinning & Berk, 1989; Reich, Earls, & Powell, 1988), two of the three indices of family functioning in the present study are consistent with previous findings regarding family environment. That is, families characterized by low cohesion and low

expressiveness are more likely to have offspring with greater adjustment difficulties, including hyperactivity and aggression among male children, and lower levels of self-esteem among adolescents, than are more optimally functioning families (Moos & Moos, 1986).

As hypothesized, low level of satisfaction with childhood social support was correlated with and independently predictive of two measures of current alcohol abuse among subjects. In addition to early childhood factors, two proximal variables, negative life experiences (i.e., stressors) and disengagement style of coping, were correlated with or independently predictive of one or more of the alcohol-related measures, as hypothesized. These findings are consistent with the stress and coping literature which indicates that individuals employ coping strategies in response to an initial appraisal of harm, threat or challenge (Lazarus, 1991). When individuals perceive that they have no problem-focused way of coping with the situation, they are likely to employ emotion-focused (disengagement) types of strategies (Croyle & Ditto, 1990; Lazarus, 1983). When considering the dependence of a young child upon her/his family for receipt of physical as well as emotional needs, developing a disengagement style of coping in light of the child's inability to compel a parent to cease abusing alcohol could actually be considered an

adaptive strategy for that developmental stage in the child's life. However, continuing to employ disengagement strategies rather than identifying strategies to master the stressful situation ultimately proves maladaptive (e.g., Compas, 1988). The present finding regarding the relationship between negative life experiences, disengagement coping style and alcohol abuse is consistent with one of the few studies examining stress and coping style in COAs (Clair and Genest, 1986) which indicated that COAs employed more avoidance and other emotion-focused coping strategies including eating, drinking, smoking and sleeping when under stress.

Finally, hierarchical regression analyses initially revealed four interactions of paternal alcohol abuse with three predictor variables (social support satisfaction; family expressiveness; and problem-focused disengagement coping style) as uniquely predictive of alcohol abuse problems and symptoms. These findings appeared to indicate that while paternal alcohol abuse, in and of itself, was not predictive of alcohol problems among offspring, when combined with other risk factors, it significantly increased the likelihood of alcohol problems in COAs. However, in order to examine the directions of the interactions, the data were necessarily re-categorized as dichotomous or trichotomous variables and ANOVAs were performed, negating

the significance of three out of the four previously identified interactions. One plausible explanation for this unexpected outcome is that, as indicated by the hierarchical regressions, paternal alcohol abuse does in fact, interact with these factors. However, the necessity of splitting the data at distinct points (i.e, median splits) and employing dichotomous or trichotomous variables for data analysis (i.e., COAs, Possible-COAs and Non-COAs) created artificial groupings and thus obscured the interactions. As stated previously, while parental alcohol abuse was not *strongly* related to alcohol abuse among offspring, the pattern of alcohol abuse among Possible COAs revealed in Table 1 may have obscured any otherwise potentially significant interactions. Specifically, when parental alcohol abuse interacted with other measures and was predictive of alcohol abuse among offspring, the data were split into three groups by normed cutoff scores (COA, Possible-COA, and Non-COA), at which point interactions were no longer significant. The one interaction which remained significant as a result of the ANOVA was between paternal alcohol abuse and employment of problem-focused disengagement coping strategies, when predicting problems and symptoms of alcohol abuse among offspring. Examination of subjects' SMAST scores summarized in Table 10 reveals an unexpected and unexplainable pattern of results for COAs.

Drug Use, Problems and Symptoms

As with psychological symptomatology, as well as alcohol problems and symptoms, paternal alcohol abuse was not found to be correlated with nor independently related to any measure of drug use in the present study. This finding is contrary to the majority of the literature (which has predominantly assessed children of alcoholic fathers) and which indicates that while not consistent across studies, there is a relationship between parental alcoholism and adolescent substance abuse (e.g., Sher, 1991; West & Prinz, 1987). More specifically, a recent study by Chassin and colleagues (1993) assessed adolescent children of 206 alcoholic fathers and 44 alcoholic mothers and reported that COAs were 3.96 times more likely than Non-COAs to use drugs.

In contrast to the absence of a relationship with paternal alcohol abuse in the present study, maternal alcohol abuse was significantly correlated with three of four measures of drug problems and symptoms. As previously stated, this finding is consistent with the COA literature in general (i.e., Chassin et al, 1993; Sher, Walitzer, Wood, and Brent; 1991) which indicates that COAs are substantially more likely to use drugs than their Non-COA counterparts.

Family environment (low cohesion, high conflict, low expressiveness), low levels of social support (number and satisfaction), and disengagement style of coping were

correlated with problems and symptoms of drug abuse. Consistent with previous research, low levels of family cohesion (e.g., Moos & Moos, 1986), disengagement coping style (Clair & Genest, 1987) and satisfaction with childhood social support were each independently predictive of drug abuse problems and symptoms. Of interest, hierarchical regression analyses revealed significant interactions between parental alcohol abuse and childhood social support when predicting drug abuse. These findings indicate that a low level of social support -- both the number of supportive individuals as well as one's satisfaction with the support received as a child -- moderates the relationship between parental alcohol abuse and the development of subsequent drug abuse by the offspring. This relationship is consistent with the contention by West and Prinz (1987), that in combination with the risk of having an alcoholic parent, the effects of other risk factors may not be linear. However, as previously stated, when the data were dichotomized and subjected to ANOVAs, these interactions no longer reach statistical significance. Thus, the preliminary findings can only be interpreted with caution, and further examination of these relationships will need to be conducted in the future.

Also of interest, while severity of negative life experiences was consistently predictive of psychological symptoms and of problems and symptoms of alcohol abuse, it

was only independently predictive of number and frequency of problems associated with drug use when interacting with maternal alcohol abuse. These interactions remained significant when the variables were examined by ANOVAs, suggesting relatively strong interaction effects. Apparently individuals who experienced a high number of negative life events were more likely to abuse drugs only if they had an alcohol-abusing mother. One explanation for this finding may be found in the tenets of social learning theory (Bandura, 1977), which proposes that individuals learn vicariously through observing the behaviors of role models, particularly high-status role models. Furthermore, learning is improved when the role model is observed to be reinforced for the behavior. Finally, one's expectancy of the outcome is another important component in the process of social learning theory. Thus, an individual who observed her/his mother (high status role model) to abuse alcohol when under stress, who observed her to be reinforced for this behavior (via the lessening of her negative affect), and who developed the expectancy that drug use would also lessen her/his own negative affect, would be likely to employ this coping strategy when under stressful circumstances. Once again, caution must be employed when interpreting the present findings, due to the low overall magnitude of the results.

The present study has attempted to identify factors which contribute to the understanding of the link between parental alcohol abuse and adjustment among children of alcoholics. As indicated herein, investigators have rarely examined the potentially moderating or mediating variables such as family environment, social support, and coping style when researching COAs. Thus, when studies have shown a link between parental alcohol abuse and maladjustment, it may well be that the contributions of those variables which have typically not been studied may have provided more of an accurate understanding of the whole picture, and we would be advised to consistently explore such intervening variables rather than maintaining a perspective which may be distorting the view.

This study has not been without its own limitations. First, parental alcoholism was assessed via offspring report, through employment of only one measure assessing parental alcohol abuse, without corroborating the subject's report with that of another sibling or with the other parent, or through psychological diagnosis. While research has indicated that, in lieu of more costly means of obtaining this information, offspring report is of demonstrated acceptability (e.g., Sher & Descutner, 1986), it would be preferable to validate this crucial information.

Next, employing subjects from the university population

in the present study certainly limits the generalizability of the results, particularly when considering factors such as the subjects' age, socio-economic status, and level of intelligence. Additionally, the well-known higher incidence of alcohol consumption among college students may compromise any alcohol-related findings among subjects, since the results may simply be an artifact of college life, rather than a true phenomenon specific to some subset of the population.

Additional considerations are that all measures were based upon self-report, and all were retrospective, to some degree. Particularly suspect to retrospective forgetting or alterations in memory are the Family Environment Scale, the Social Support Questionnaire, and, possibly, the SMAST for fathers and mothers, since those measures assess events and perceptions of events which occurred many years ago. With regard to the Life Experiences Survey, subjects are asked to identify events which have occurred within the past six months to one year, and then to rate the degree of positive or negative impact that event had upon them at the time. Subject's current perceptions undoubtedly influenced their responses to the various items, potentially biasing the results in an unpredictable direction. Further, the drug and alcohol timelines are retrospective measures which have been shown to have improved validity over previously-employed

quantity-frequency estimates (Sobell et al, 1988), but they are subject to forgetting and to distortions of memory -- perhaps due to the quantities and qualities of the very substances they are purportedly assessing -- as well. Ideally, a longitudinal study which assessed such factors and corroborated them with behavioral indices would be a marked improvement over the current method of assessment. Additionally, given that 62% of the current subject population was female, it may also be that employing the "days of heavy use" index of problematic alcohol consumption was an inappropriate choice, since women's blood-alcohol content is typically impacted with fewer drinks than men's. Consequently, employing the standard established within the field (5 drinks per day constitutes a "heavy use" day) may have resulted in underreporting problematic alcohol use days for females.

With respect to the mixed findings *within* this study when assessing data through hierarchical regression analysis vs. ANOVA, attempting to identify more appropriate demarcation points within the parental alcohol measure, or even dichotomizing the data at the median, rather than strictly maintaining the normed cutoff points, and perhaps employing mean splits rather than median splits on the other variables of interest, particularly when considering the comparatively smaller group of COAs, may have yielded

results more congruent with those indicated by the hierarchical regression procedure. Additionally, subjecting the data to multiple analyses has certainly increased the possibility of Type II error, the identification of significant differences when none truly exist. As has been indicated, while relationships have been identified between the various predictor and criterion measures, caution must be employed when interpreting the results due to the low overall magnitude of the findings.

Of final note, this study has been of an exploratory nature, attempting to identify potential relationships which will, ideally, be confirmed through replication, by assessment of another group of subjects.

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APPENDICES

Appendix 1. Purpose of Study and Consent Form

Purpose of study:

The purpose of the present study is to obtain information regarding family and individual characteristics. All information will be anonymously provided and will remain confidential. Each participant may withdraw from participation in this study at any time, without penalty.

Consent:

I have read the foregoing and hereby give my consent for the researchers conducting this study to use the information I provide in the attached questionnaire for the purpose of psychological research.

I understand that I may withdraw from participation in this study at any time without penalty.

Signature

Date

Appendix 2. Verbal Instructions

Experiment # 2076-94

Individual and Family Characteristics

WRITE TITLE AND EXPERIMENT # ON BOARD. WRITE DATES ON BOARD. WRITE 90 DAYS FROM ____ TO ____.

Thank you very much for coming tonight. I'm Susan Haggerty, the primary researcher on this study. I am a clinical psychology graduate student and this is my Master's thesis project. I will be administering questionnaires to about 400 subjects. In order that all 400 people receive approximately identical conditions, I will be reading this set of instructions to you. That way, any differences between your answers will probably be due to true individual differences, rather than being due to differences in the way the study was conducted. These are my research assistants, Beth, Marie, Terry, and Shireen, who are undergraduate students majoring in psychology.

There is no deception in this study. All of you will receive the same conditions. All you will be asked to do is to complete a packet of questionnaires. This will take between 1 1/2 and 2 hours, and you will receive two points of extra credit for participation. When you finish all the forms you may bring your packet up to the front of the room

Appendix 2, continued

and I will sign your experimental credit form.

Some questions are of a fairly personal nature. I have made this study completely anonymous in order to encourage you to answer as openly and honestly as you can. The first form in your packet is a consent form which requests your signature and social security number. The consent form will be separate from your answers and you will be identified only by a subject number which is written on the tab of your folder.

The answers you will be providing will be analyzed and considered in a manner which is fairly ground-breaking in the field. I sincerely appreciate each of you helping me in my research by participating in this study. You are free to discontinue at any time without penalty. Should you wish to do so, simply bring your folder to me and no questions will be asked. As I mentioned, some questions are of a fairly personal nature, and as such, there is the potential for them to be disturbing. I do not anticipate that anything will be very troubling to you, but since I am a clinical psychologist in training, and I am concerned about issues such as this, I have provided phone numbers of various counseling agencies on the consent and debriefing forms, should you wish to talk with a therapist.

Appendix 2, continued

Does anyone need a #2 pencil? (DISTRIBUTE PENCILS)

First we will pass out the consent forms. Please take a moment to read and sign the consent form. (PASS OUT CONSENT FORMS)

This is experiment # 2076-94, entitled individual and family characteristics. Are there any questions?

(COLLECT CONSENT FORMS)

You will be completing about 12 different questionnaires. I did not create any of the questionnaires; they were created by respected researchers in the field of psychology. In order to maintain the integrity of the validity and reliability of each of the instruments, I have duplicated them exactly as they were normed. While the instructions are not difficult, since you will be switching from one questionnaire to another, it is important that you read all of the instructions.

When we first pass out the questionnaires, I will ask you to stay with me while I explain some of the more complex issues. I recognize that some of you are very quick and could probably finish ten minutes earlier if I set you loose, but please be patient while everyone gets started and then I will turn you all loose to work at your own pace.

Let's discuss the "calendar" section of the questionnaire at this point. The last two sections of the

Appendix 2, continued

questionnaire will be asking you to recall certain aspects of your behavior during the past 90 days. These dates have been written on the board to help you remember important dates which are common to all of us. You may also have had a birthday, or an anniversary or other date which is important to you. When you get to that section, this will make more sense to you.

You will write directly on the first and last sections of the questionnaires. I am "a starving graduate student" and appreciate your helping me to keep the costs down by not writing on the middle section of the questionnaire, which can be re-used many times if it is not written on. PASS OUT QUESTIONNAIRES.

You each have four opscans in your folder. First, please number your opscans by writing in the pledge box 1, 2, 3, & 4. Next, so that the computer knows which is which, please bubble in test form A for opscan #1, B for 2, C for 3 and D for 4. Your seat number is your 3-digit subject ID number, which is printed on the tab of your folder. Please bubble that in to all four forms. And your group number is _____, which means this is the ___th group we have run.

Are there any questions at this point?

Appendix 2, continued

Part 1 is the most confusing portion of the packet. It also seems somewhat repetitive and you may find it to be boring. I apologize for that. I have placed it first so that we can go over the instructions together. Please read the instructions and then we will complete question #1 together. Continue using opscan #1 until the instructions tell you to begin using opscans #2 and #3 and #4.

If at any time you are unclear about any part of the instructions, please raise your hand and one of us will come to you to answer your questions. Are there any questions at this point? Please continue working at your own pace.

Experiment # 2076-94

INDIVIDUAL AND FAMILY CHARACTERISTICS

90-DAY TIMELINE FROM _____ TO

_____.

DATES:

CLASSES BEGAN - JANUARY 19
SUPER BOWL - JANUARY 30
SNOW DAYS - JANUARY 18, FEB 11, MARCH 3, MARCH 4
SPRING BREAK - MARCH 5 - 13

Appendix 3. Debriefing Form

Thank you for your participation in this study. We are especially interested in family dynamics, particularly family expressiveness, cohesion, and conflict; childhood social support; and parental substance use, and the impact these variables have upon individuals' subsequent adjustment.

If you are interested in obtaining the results of this study, please leave your name and address on a "Research Results Request Form" which is available at the front of the room.

If you have concerns or are interested in discussing issues related to these topics, please feel free to contact the primary researcher, Susan Haggerty, at 231-5388.

Once again, thank you for your participation in this study.

Appendix 4. Research Results Request Form

Please send me a copy of main results of the research which is presently being conducted regarding family and individual characteristics.

Name

| Address | Street | City | State | Zip |
|---------|--------|------|-------|-----|
|---------|--------|------|-------|-----|

Phone

Appendix 5. FES

PLEASE DO NOT MARK IN THIS SECTION OF THE BOOKLET.
MAKE RESPONSES ON ANSWER SHEETS PROVIDED. THANK YOU.

Part 1

This section of the questionnaire requests that you answer questions regarding your family when you were growing up. Some people spent about 18 years at home with their biological families, but this is not true for everyone. Some people's families changed structure and/or family members during the individual's childhood. They may have lived with a relative or step-parent for all or part of their childhoods. Thus, each person will need to decide what the term "family" refers to, and whether one particular time period was most representative (i.e., up to age 8 or 15), or whether it is more appropriate to respond for your entire childhood.

You are to decide which of these statements were true of your family and which were false. Make all your marks on the op scan answer sheets. If you think the statement was true or mostly true of your family during your childhood, mark bubble (1). If you think the statement was false or mostly false of your family during your childhood, mark bubble (2).

You may feel that some of the statements were true for some family members and false for others. Mark (1) for true if the statement was true for most members. Mark (2) for false if the statement was false for most members. If the members were evenly divided, decide what is the stronger overall impression and answer accordingly.

Remember, we would like to know what your family seemed like to you. So do not try to figure out how other members saw your family, but do give us your general impression of your family for each statement.

1 = True

2 = False

1. Family members really helped and supported one another.
2. Family members often kept their feelings to themselves.
3. We fought a lot in our family.
4. We often seemed to be killing time at home.
5. We said anything we wanted to around home.
6. Family members rarely became openly angry.

Appendix 5, continued

7. We put a lot of energy into what we did at home.
8. It was hard to "blow off steam" at home without upsetting somebody.
9. Family members sometimes got so angry they threw things.
10. There was a feeling of togetherness in our family.
11. We told each other about our personal problems.
12. Family members hardly ever lost their tempers.
13. We rarely volunteered when something had to be done at home.
14. If we felt like doing something on the spur of the moment we often just picked up and went.
15. Family members often criticized each other.
16. Family members really backed each other up.
17. Someone usually got upset if you complained in our family.
18. Family members sometimes hit each other.
19. There was very little group spirit in our family.
20. Money and paying bills was openly talked about in our family.
21. If there was a disagreement in our family, we tried hard to smooth things over and keep the peace.
22. We really got along well with each other.
23. We were usually careful about what we said to each other.
24. Family members often tried to one-up or out-do each other.
25. There was plenty of time and attention for everyone in our family.

Appendix 5, continued

26. There were a lot of spontaneous discussions in our family.
27. In our family, we believed you didn't ever get anywhere by raising your voice.

Appendix 6. SSQ

Part 2

SSQ-C

The following questions ask about people in your childhood environment who provided you with help or support. Each question has two parts. For the first part, list all the people you know, excluding yourself, whom you could count on for help or support in the same manner described. Give the person's initials and their relationship to you (see example). Do not list more than one person next to each of the letters beneath the questions.

Unlike some other portions of this questionnaire, do write on the pages provided for this section. After you have listed all the supportive people's initials, bubble in the number of people you listed on the opscan for that question.

For the second part, circle how **satisfied** you were with the overall support you received. Be sure to fill in your level of satisfaction on the opscan.

If you had no support for a question, check the words "No one" (and fill in "1" on the op-scan), and still rate your level of satisfaction. Do not list more than nine persons per question.

Please answer all questions as best you can.

EXAMPLE:

Who did you know who you could trust with information that could get you in trouble?

- | | | |
|-------------------|--------------------|-----------------|
| 1) No one | 4) R.N. (minister) | 7) S.P.(friend) |
| 2) T.N. (brother) | 5) A.S. (neighbor) | 8) |
| 3) L.M. (friend) | 6) G.R. (teacher) | 9) |

Reminder: Always fill in the number of supportive people on the op-scan.

How **satisfied** were you with this overall support?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|
| 6-very satisfied | 5-fairly satisfied | 4-a little satisfied | 3-a little dissatisfied | 2- fairly dissatisfied | 1-very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|

Reminder: Always fill in your level of satisfaction on the op-scan.

Appendix 6, continued

1) Who could you really count on to listen to you when you needed to talk?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

1a) How **satisfied** were you with this overall support?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|
| 6-very satisfied | 5-fairly satisfied | 4-a little satisfied | 3-a little dissatisfied | 2- fairly dissatisfied | 1-very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|

2) Who could you really count on to help you if a person who you thought was a good friend insulted you and told you that s/he didn't want to see you again?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

2a) How **satisfied** were you with this overall support?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|
| 6-very satisfied | 5-fairly satisfied | 4-a little satisfied | 3-a little dissatisfied | 2- fairly dissatisfied | 1-very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|

3) Whose lives did you feel that you were an important part of?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

3a) How **satisfied** were you with this overall support?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|
| 6-very satisfied | 5-fairly satisfied | 4-a little satisfied | 3-a little dissatisfied | 2- fairly dissatisfied | 1-very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|

4) Who did you feel would have helped you if you had just separated from your best friend?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

4a) How **satisfied** were you with this overall support?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|
| 6-very satisfied | 5-fairly satisfied | 4-a little satisfied | 3-a little dissatisfied | 2- fairly dissatisfied | 1-very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|

Appendix 6, continued

5) Who could you really have counted on to help you out in a crisis situation, even though they would have had to go out of their way to do so?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

5a) How **satisfied** were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

6) Who could you have talked with frankly, without having to watch what you said?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

6a) How **satisfied** were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

7) Who helped you feel that you truly had something positive to contribute to others?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

7a) How **satisfied** were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

8) Who could you really have counted on to distract you from your worries when you felt under stress?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

Appendix 6, continued

12) Who did you feel really appreciated you as a person?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

12a) How satisfied were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

13) Who could you really have counted on to give you useful suggestions that helped you to avoid making mistakes?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

13a) How satisfied were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

14) Who could you have counted on to listen openly and uncritically to your innermost feelings?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

14a) How satisfied were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

15) Who would have comforted you when you needed it by holding you in their arms?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

Appendix 6, continued

15a) How satisfied were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

16) Who did you feel would have helped if a good friend of yours had been in a car accident and was hospitalized in serious condition?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

16a) How satisfied were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

17) Who could you really have counted on to help you feel more relaxed when you were under pressure or were tense?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

17a) How satisfied were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

18) Who do you feel would have helped if a family member very close to you died?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

18a) How satisfied were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

Appendix 6, continued

19) Who accepted you totally, including both your worst and your best points?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

19a) How satisfied were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

20) Who could you really have counted on to care about you, regardless of what was happening to you?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

20a) How satisfied were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

21) Who could you really have counted on to listen to you when you were very angry at someone else?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

21a) How satisfied were you with this overall support?

6-very satisfied 5-fairly satisfied 4-a little satisfied 3-a little dissatisfied 2- fairly dissatisfied 1-very dissatisfied

22) Who could you really have counted on to tell you, in a thoughtful manner, when you needed to improve in some way?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

Appendix 6, continued

26) Who could you really have counted on to support you in major decisions you made?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

26a) How **satisfied** were you with this overall support?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|
| 6-very satisfied | 5-fairly satisfied | 4-a little satisfied | 3-a little dissatisfied | 2- fairly dissatisfied | 1-very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|

27) Who could you really have counted on to help you feel better when you were very irritable, ready to get angry at almost anything?

- | | | |
|-----------|----|----|
| 1) No one | 4) | 7) |
| 2) | 5) | 8) |
| 3) | 6) | 9) |

Fill in the number of supportive people on the op-scan.

27a) How **satisfied** were you with this overall support?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|
| 6-very satisfied | 5-fairly satisfied | 4-a little satisfied | 3-a little dissatisfied | 2- fairly dissatisfied | 1-very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|------------------------|---------------------|

Appendix 7. CSI

Part 3

The purpose of this section of the questionnaire is to find out the kinds of situations that trouble people in their day-to-day lives and how people deal with them.

Take a few moments and think about an event or situation that has been very stressful for you during the last month. By stressful we mean a situation that was troubling you, either because it made you feel bad or because it took effort to deal with it. It might have been with your family, with school, with your job, or with your friends.

In the space below, please describe this stressful event. Please describe what happened and include details such as the place, who was involved, what made it important to you, and what you did. The situation could be one that is going on right now or one that has already happened. Don't worry about making it into an essay. Just put down the things that come to you. Continue writing on the back if necessary.

Appendix 7, continued

Once again, take a few minutes to think about your chosen event. As you read through the following items please answer them based on how you handled your event. Please read each item below and determine the extent to which you used it in handling your chosen event. Please do not mark on this inventory. Please mark the opscan in the following manner:

1 = Not at all 2 = A little 3 = Somewhat 4 = Much 5 = Very much

1. I just concentrated on what I had to do next; the next step.
2. I tried to get a new angle on the situation.
3. I found ways to blow off steam.
4. I accepted sympathy and understanding from someone.
5. I slept more than usual.
6. I hoped the problem would take care of itself.
7. I told myself that if I wasn't so careless, things like this wouldn't happen.
8. I tried to keep my feelings to myself.
9. I changed something so that things would turn out alright.
10. I looked for the silver lining, so to speak; tried to look on the bright side of things.
11. I did some things to get it out of my system.
12. I found somebody who was a good listener.
13. I went along as if nothing were happening.
14. I hoped a miracle would happen.
15. I realized that I brought the problem on myself.
16. I spent more time alone.
17. I stood my ground and fought for what I wanted.
18. I told myself things that helped me feel better.
19. I let my emotions go.
20. I talked to someone about how I was feeling.
21. I tried to forget the whole thing.
22. I wished that I never let myself get involved with that situation.
23. I blamed myself.
24. I avoided my family and friends.
25. I made a plan of action and followed it.
26. I looked at things in a different light and tried to make the best of what was available.
27. I let out my feelings to reduce the stress.
28. I just spent more time with people I liked.
29. I didn't let it get to me; I refused to think about it too much.

Appendix 7, continued

30. I wished that the situation would go away or somehow be over with.
31. I criticized myself for what happened.
32. I avoided being with people.
33. I tackled the problem head-on.
34. I asked myself what was really important, and discovered that things weren't so bad after all.
35. I let my feelings out somehow.
36. I talked to someone that I was very close to.
37. I decided that it was really someone else's problem and not mine.
38. I wished that the situation had never started.
39. Since what happened was my fault, I really chewed myself out.
40. I didn't talk to other people about the problem.
41. I knew what had to be done, so I doubled my efforts and tried harder to make things work.
42. I convinced myself that things aren't quite as bad as they seem.
43. I let my emotions out.
44. I let my friends help out.
45. I avoided the person who was causing the trouble.
46. I had fantasies or wishes about how things might turn out.
47. I realized that I was personally responsible for my difficulties and really lectured myself.
48. I spent some time by myself.
49. It was a tricky problem, so I had to work around the edges to make things come out okay.
50. I stepped back from the situation and put things into perspective.
51. My feelings were overwhelming and they just exploded.
52. I asked a friend or relative I respect for advice.
53. I made light of the situation and refused to get too serious about it.
54. I hoped that if I waited long enough, things would turn out okay.
55. I kicked myself for letting this happen.
56. I kept my thoughts and feelings to myself.
57. I worked on solving the problems in the situation.
58. I reorganized the way I looked at the situation, so things didn't look so bad.
59. I got in touch with my feelings and just let them go.
60. I spent some time with my friends.
61. Every time I thought about it got upset; so I just stopped thinking about it.
62. I wished I could have changed what happened.

Appendix 7, continued

63. It was my mistake and I needed to suffer the consequences.
64. I didn't let my family and friends know what was going on.
65. I struggled to resolve the problem.
66. I went over the problem again and again in my mind and finally saw things in a different light.
67. I was angry and really blew up.
68. I talked to someone who was in a similar situation.
69. I avoided thinking or doing anything about the situation.
70. I thought about fantastic or unreal things that made me feel better.
71. I told myself how stupid I was.
72. I did not let others know how I was feeling.

Appendix 8. LES

Part 4

Listed below are a number of events which sometimes bring about change in the lives of those who experience them and which necessitate social readjustment. This section will require two responses per question. **First, please check whether you have experienced the events in the recent past and indicate the time period during which you have experienced each event. Mark the opscan in the following manner:**

Time period:

- 1 = This event has not occurred within the past year
- 2 = This event occurred within the past 0 to 6 mo
- 3 = This event occurred within the past 7 mo to 1 yr

Next, please indicate the extent to which you viewed the event as having either a positive or a negative impact on your life at the time the event occurred, and the degree of impact. Please mark the opscan in the following manner:

Impact:

- 1 = did not occur
- 2 = extremely negative impact
- 3 = moderately negative impact
- 4 = somewhat negative impact
- 5 = event occurred but had no impact
- 6 = slightly positive impact
- 7 = moderately positive impact
- 8 = extremely positive impact

- 1. Marriage - Time period
- 2. Impact

- 3. Detention in jail or comparable institution - Time period
- 4. Impact

- 5. Death of spouse (or girlfriend or boyfriend) - Time period
- 6. Impact

- 7. Major change in sleeping habits - Time period
- 8. Impact

- 9. Death of mother - Time period
- 10. Impact

Appendix 8, continued

11. Death of father - Time period
12. Impact

13. Death of brother - Time period
14. Impact

15. Death of sister - Time period
16. Impact

17. Death of grandmother - Time period
18. Impact

19. Death of grandfather - Time period
20. Impact

21. Death of other close family member - Time period
22. Impact

23. Major change in eating habits - Time period
24. Impact

25. Foreclosure on mortgage or loan - Time period
26. Impact

27. Death of close friend - Time period
28. Impact

29. Outstanding personal achievement - Time period
30. Impact

31. Minor law violations - Time period
32. Impact

33. Males: Wife/girlfriend's pregnancy - Time period
34. Impact

35. Females: Your own pregnancy - Time period
36. Impact

37. Changed work situation - Time period
38. Impact

39. New job - Time period
40. Impact

41. Serious illness or injury of **father** - Time period
42. Impact

Appendix 8, continued

- 43. Serious illness or injury of **mother** - Time period
- 44. Impact

- 45. Serious illness or injury of **sister** - Time period
- 46. Impact

- 47. Serious illness or injury of **brother** - Time period
- 48. Impact

- 49. Serious illness or injury of **grandfather** - Time period
- 50. Impact

- 51. Serious illness or injury of **grandmother** - Time period
- 52. Impact

- 53. Serious illness or injury of **spouse/girlfriend/boyfriend**
- Time period
- 54. Impact

- 55. Serious illness or injury of **other close family member** -
Time period
- 56. Impact

- 57. Sexual difficulties - Time period
- 58. Impact

- 59. Trouble with employer - Time period
- 60. Impact

- 61. Trouble with in-laws - Time period
- 62. Impact

- 63. Major change in financial status - Time period
- 64. Impact

- 65. Major change in closeness of family members - Time
period
- 66. Impact

- 67. Gaining a new family member (through birth, adoption,
family member moving in, etc.) - Time period
- 68. Impact

- 69. Change of residence - Time period
- 70. Impact

Appendix 8, continued

- 71. Marital separation from spouse (due to conflict)- Time period
- 72. Impact

- 73. Major change in church activities - Time
- 74. Impact

- 75. Marital reconciliation - Time period
- 76. Impact

- 77. Major change in number of arguments with spouse/girlfriend/boyfriend - Time
- 78. Impact

- 79. Married or cohabitating male: Change in wife's/girlfriend's work outside the home - Time period
- 80. Impact

- 81. Married or cohabitating female: Change in husband's/boyfriend's work - Time period
- 82. Impact

- 83. Major change in recreation - Time period
- 84. Impact

- 85. Borrowing more than \$10,000. - Time period
- 86. Impact

- 87. Borrowing less than \$10,000. - Time period
- 88. Impact

- 89. Being fired from a job - Time period
- 90. Impact

- 91. Male: Wife/girlfriend having an abortion - Time period
- 92. Impact

- 93. Female: Having an abortion - Time period
- 94. Impact

- 95. Major personal illness or injury - Time period
- 96. Impact

- 97. Major change in social activities - Time period
- 98. Impact

Appendix 8, continued

- 99. Major change in living conditions of family - Time period
- 100. Impact

- 101. Divorce - Time period
- 102. Impact

- 103. Serious injury or illness of close friend - Time period
- 104. Impact

- 105. Retirement - Time period
- 106. Impact

- 107. Son or daughter leaving home - Time period
- 108. Impact

- 109. Ending of formal schooling - Time period
- 110. Impact

- 111. Separation from spouse - Time period
- 112. Impact

- 113. Becoming engaged - Time period
- 114. Impact

- 115. Breaking up with girlfriend/boyfriend - Time period
- 116. Impact

- 117. Leaving home for the first time - Time period
- 118. Impact

- 119. Reconciliation with boyfriend/girlfriend - Time period
- 120. Impact

- 121. Beginning a new school experience at a higher academic level - Time period
- 122. Impact

- 123. Changing to a new school at same academic level - Time period
- 124. Impact

- 125. Academic probation - Time period
- 126. Impact

Appendix 8, continued

- 127. Being dismissed from dormitory or other residence -
Time period
- 128. Impact

- 129. Failing an important exam - Time period
- 130. Impact

- 131. Changing a major - Time period
- 132. Impact

- 133. Failing a course - Time period
- 134. Impact

- 135. Dropping a course - Time period
- 136. Impact

- 137. Joining a fraternity/sorority - Time period
- 138. Impact

- 139. Financial problems concerning school (may not continue)
- Time period
- 140. Impact

Appendix 9. BSI

Part 5

Below is a list of problems people sometimes have. Please read each one carefully, and circle the number to the right that best describes **HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY**. Mark only one number for each problem and please do not skip any items.

1 = NOT AT ALL 2 = A LITTLE BIT 3 = MODERATELY
4 = QUITE A BIT 5 = EXTREMELY

PLEASE MARK HOW MUCH YOU WERE DISTRESSED BY:

1. Nervousness or shakiness inside
2. Faintness or dizziness
3. The idea that someone else can control your thoughts
4. Feeling others are to blame for most of your troubles
5. Trouble remembering things
6. Feeling easily annoyed or irritated
7. Pains in heart or chest
8. Feeling afraid in open spaces
9. Thoughts of ending your life
10. Feeling that most people cannot be trusted
11. Poor appetite
12. Suddenly scared for no reason
13. Temper outbursts that you could not control
14. Feeling lonely even when you are with people
15. Feeling blocked in getting things done
16. Feeling lonely
17. Feeling blue
18. Feeling no interest in things
19. Feeling fearful
20. Your feeling being easily hurt
21. Feeling that people are unfriendly or dislike you
22. Feeling inferior to others
23. Nausea or upset stomach
24. Feeling that you are watched or talked about by others
25. Trouble falling asleep
26. Having to check and double check what you do
27. Difficulty making decisions
28. Feeling afraid to travel on buses, subways, or trains
29. Trouble getting your breath
30. Hot or cold spells
31. Having to avoid certain things, places, or activities because they frighten you
32. Your mind going blank
33. Numbness or tingling in parts of your body

Appendix 9, continued

34. The idea that you should be punished for your sins
35. Feeling hopeless about the future
36. Trouble concentrating
37. Feeling weak in parts of your body
38. Feeling tense or keyed up
39. Thoughts of death or dying
40. Having urges to beat, injure, or harm someone
41. Having urges to break or smash things
42. Feeling very self-conscious with others
43. Feeling uneasy in crowds
44. Never feeling close to another person
45. Spells of terror or panic
46. Getting into frequent arguments
47. Feeling nervous when you are left alone
48. Others not giving you proper credit for your achievements
49. Feeling so restless you couldn't sit still
50. Feelings of worthlessness
51. Feeling that people will take advantage of you if you let them
52. Feelings of guilt
53. The idea that something is wrong with your mind

Appendix 10. SMAST

Part 6

Please answer the following questions as honestly as you can, marking 1 for yes, and 2 for no.

1 = yes 2 = no

1. Do you feel you are a normal drinker? (By normal we mean you drink less than or as much as most other people.)
2. Does your girlfriend, boyfriend, a parent, or other near relative ever worry or complain about your drinking?
3. Do you ever feel guilty about your drinking?
4. Do friends or relatives think you are a normal drinker?
5. Are you able to stop drinking when you want to?
6. Have you ever attended a meeting of Alcoholics Anonymous regarding your own drinking?
7. Has drinking ever created problems between you and your girlfriend, boyfriend, a parent, or other near relative?
8. Have you ever gotten into trouble at work or school because of drinking?
9. Have you ever neglected your obligations, your family, or your work or school for two or more days in a row because you were drinking?
10. Have you ever gone to anyone for help about your drinking?
11. Have you ever been in a hospital because of drinking?
12. Have you ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcoholic beverages?
13. Have you ever been arrested, even for a few hours, because of other drunken behavior?

Appendix 11. DAST

Part 7

The following questions concern information about your involvement and abuse of drugs. Drug abuse refers to (1) the use of prescribed or "over the counter" drugs in excess of the directions and (2) any non-medical use of drugs. Carefully read each statement and decide whether your answer is yes or no. Then fill in the appropriate opscan bubble, marking 1 for yes and 2 for no.

1 = yes 2 = no

1. Have you used drugs other than those required for medical reasons?
2. Have you abused prescription drugs?
3. Do you abuse more than one drug at a time?
4. Can you get through the week without using drugs (other than those required for medical reasons)?
5. Are you always able to stop using drugs when you want to?
6. Do you abuse drugs on a continuous basis?
7. Do you try to limit your drug use to certain situations?
8. Have you had "blackouts" or "flashbacks" as a result of drug use?
9. Do you ever feel bad about your drug abuse?
10. Does your spouse, girlfriend or boyfriend, or your parents ever complain about your involvement with drugs?
11. Do your friends or relatives know or suspect you abuse drugs?
12. Has drug abuse ever created problems between you and your spouse?
13. Has any family member ever sought help for problems related to your drug use?

Appendix 11, continued

14. Have you ever lost friends because of your use of drugs?
15. Have you ever neglected your family or missed work or school because of your use of drugs?
16. Have you ever been in trouble at work or school because of drug abuse?
17. Have you ever lost a job or been removed from school because of drug abuse?
18. Have you gotten into fights when under the influence of drugs?
19. Have you ever been arrested because of unusual behavior while under the influence of drugs?
20. Have you ever been arrested for driving while under the influence of drugs?
21. Have you engaged in illegal activities in order to obtain drugs?
22. Have you ever been arrested for possession of illegal drugs?
23. Have you ever experienced withdrawal symptoms as a result of heavy drug intake?
24. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding, etc)?
25. Have you ever gone to anyone for help for a drug problem?
26. Have you ever been in a hospital for medical problems related to your drug use?
27. Have you ever been involved in a treatment program specifically related to drug use?
28. Have you been treated as an out-patient for problems related to drug abuse?

APPENDIX 12. RAPI

Part 8

INSTRUCTIONS: Different things happen to people while they are drinking alcohol or as a result of their alcohol use. Some of these things are listed below. Please indicate how many times each has happened to you during the past six months while you were drinking alcohol or as the result of your alcohol use.

HOW MANY TIMES DID THE FOLLOWING THINGS HAPPEN TO YOU WHILE YOU WERE DRINKING ALCOHOL OR BECAUSE OF YOUR ALCOHOL USE DURING THE PAST SIX MONTHS?

**1 = Never 2 = One to two times 3 = Three to five times
4 = Six to ten times 5 = More than ten times**

- 1) Not able to do your homework or study for a test?
- 2) Got into fights, acted bad, or did mean things?
- 3) Missed out on other things because you spent too much money on alcohol?
- 4) Went to work or school high or drunk?
- 5) Caused shame or embarrassment to someone?
- 6) Neglected your responsibilities?
- 7) Relative avoided you?
- 8) Felt that you needed more alcohol than you used to use in order to get the same effect?
- 9) Tried to control your drinking by trying to drink only at certain times of the day or in certain places?
- 10) Had withdrawal symptoms, that is, felt sick because you stopped or cut down on your drinking?
- 11) Noticed a change in your personality?
- 12) Felt that you had a problem with alcohol?
- 13) Missed a day (or part of a day) of school or work?
- 14) Tried to cut down or quit drinking?

Appendix 12, continued

- 15) Suddenly found yourself in a place that you could not remember getting to?
- 16) Passed out or fainted suddenly?
- 17) Had a fight, argument or bad feelings with a friend?
- 18) Had a fight, argument or bad feelings with a family member?
- 19) Kept drinking when you promised yourself not to?
- 20) Felt you were going crazy?
- 21) Had a bad time?
- 22) Felt physically or psychologically dependent on alcohol?
- 23) Was told by a friend or neighbor to stop or cut down drinking?
- 24) Drove shortly after having more than 2 drinks?
- 25) Drove shortly after having more than 4 drinks?

Appendix 13. RDPI

Part 9

INSTRUCTIONS: Different things happen to people while they are using drugs or as a result of their drug use. Some of these things are listed below. Please indicate how many times each has happened to you during the past six months while you were using drugs or as the result of your drug use.

HOW MANY TIMES DID THE FOLLOWING THINGS HAPPEN TO YOU WHILE YOU WERE USING DRUGS OR BECAUSE OF YOUR DRUG USE DURING THE PAST SIX MONTHS?

1 = Never 2 = One to two times 3 = Three to five times
4 = Six to ten times 5 = More than ten times

- 1) Not able to do your homework or study for a test?
- 2) Got into fights, acted bad, or did mean things?
- 3) Missed out on other things because you spent too much money on drugs?
- 4) Went to work or school high or loaded?
- 5) Caused shame or embarrassment to someone?
- 6) Neglected your responsibilities?
- 7) Relative avoided you?
- 8) Felt that you needed more of the drug than you used to use in order to get the same effect?
- 9) Tried to control your drug use by trying to use only at certain times of the day or in certain places?
- 10) Had withdrawal symptoms, that is, felt sick because you stopped or cut down on your drug use?
- 11) Noticed a change in your personality?
- 12) Felt that you had a problem with a drug?
- 13) Missed a day (or part of a day) of school or work?
- 14) Tried to cut down or quit using a drug?

Appendix 13, continued

- 15) Suddenly found yourself in a place that you could not remember getting to?
- 16) Passed out or fainted suddenly?
- 17) Had a fight, argument or bad feelings with a friend?
- 18) Had a fight, argument or bad feelings with a family member?
- 19) Kept using a drug when you promised yourself not to?
- 20) Felt you were going crazy?
- 21) Had a bad time?
- 22) Felt physically or psychologically dependent on a drug?
- 23) Was told by a friend or neighbor to stop or cut down drugs?
- 24) Drove shortly after using drugs?

Appendix 14. Alcohol Timeline

Part 10

Using the calendar which follows, we would like you to recall your drinking for the past 90 days. Although this might seem difficult at first, this is really not a difficult task, especially when you use the calendar for reference. We have found calendars very useful in helping people recall their drinking. The following are instructions and tips for completing the calendar.

1. It is important that for each day on the calendar you list the number of drinks you consumed. In reporting your total daily consumption, we would like you to report in **STANDARD DRINKS** (which is explained in the next section).
2. On any day that you did consume an alcoholic beverage, write in the total number of Standard Drinks for each day. This includes days of combined beverage use. For example, on one day if you drank a glass of wine with dinner and a beer, you would count that as 2 Standard Drinks for that day.
3. On all days that you did not drink any alcoholic beverage write "0".

The important thing is to make sure you fill in something for each day.

4. The reason we want you to give daily estimates of your drinking is because the averaging methods that have been used in the past -- such as "how much on an average day did you drink and how many days per month" -- often do not yield information that reflects your actual drinking pattern. Most people don't drink in "average" ways.
5. While some people have felt uncomfortable filling out the calendar at first, it is usually because they are concerned they can't give a precise day-by-day account of their drinking. While this would be nice, what we want you to do is use a daily estimation method which is your best recall or guess of what your drinking was like. Clearly, if you are not sure if it was 8 or 9 drinks (or 18 or 19 drinks), that is okay. Put down your best guess. Remember your daily estimate provides us with more accurate information than an "average" number of standard drinks.

Appendix 14, continued

6. In filling out the calendar, we would like you to be as accurate as possible. However, if you can't recall whether you consumed an alcoholic beverage on a Monday or Tuesday of a certain week, or whether it was the week of January 7 or 17, just give it your best shot.

The purpose of your completing this calendar is to get as accurate a picture as possible of your drinking over the past 90 days.

HELPFUL HINTS:

1. Typical standard holidays (e.g., Halloween, Christmas) are marked on the calendar to help aid your recall. Please mark in days that are of special significance to **yourself**, such as birthdays, vacations, parties, etc.
2. Sometimes people have certain patterns to their drinking and this can help them in completing the calendar. For example, if you usually go out with friends on Friday and Saturday nights, you might recall that you would have had a certain number of drinks on those evenings. Or, you may have a weekend/weekday change in your drinking. Your drinking may differ depending upon the season of the year (winter/ spring), or whether you were on a holiday or business trip.
3. We would like you to report your consumption in **STANDARD DRINKS**.

1 Standard Drink:
is equal to 12 oz. of regular beer,
is equal to 5 oz. of 12% regular wine,
is equal to 1 1/2 oz. of hard liquor.

Light beer and wine:
12 oz. of 2.5% light beer (e.g., Miller Lite) = 1/2
Standard Drink.
12 oz. wine cooler (e.g., Seagram's Coolers) = 1/2
Standard Drink.

SAMPLE CALENDAR:

The following is a sample calendar which has been prepared to show you what a real calendar ought to look like. For example, if on one day you drank 2 12-oz. bottles of regular beer for lunch, 3 5-oz. glasses of regular wine for dinner, and 2 cocktails containing 1 1/2 oz. hard liquor each, then you would enter 7 on the calendar that day.

Appendix 15. Drug Timeline

Part 11

Thank you for completing the timeline for alcohol use. Now we would like you to complete the next calendar in the same manner, but this time enter all days of drug use. Possible drugs to be included are marijuana, cocaine, crack, heroin, speed ("amphetamines"), barbiturates ("downers"), "ice", glue or other inhalants, mushrooms, extasy, etc.

Prescription drugs taken under recommendation of a physician and in the manner prescribed should not be included. However, prescription drugs used not in accordance with your physician's recommendation should be included.

1) On this calendar we would like you to name all drugs you used on any day, and estimate the amount of each substance consumed. For example, if you shared a joint of marijuana with a friend in the morning (1/2 joint), took 2 "speed" tablets or capsules to study in the evening, and one "downer" to sleep at night, please write down these three drugs and amounts.

2) Remember that your responses are totally anonymous and confidential. Please respond as accurately as you can.

3) Please mark "0" for each day you consumed no drugs.

Appendix 16. SMAST-F
Part 12

Please answer the following questions about your father during your childhood as honestly as you can, marking 1 for yes, and 2 for no.

1 = yes 2 = no

1. Do you feel your father has been a normal drinker?
2. Did your mother, a grandparent, or other near relative ever complain about your father's drinking?
3. Did your father ever feel guilty about his drinking?
4. Did friends or relatives think your father was a normal drinker?
5. Was your father able to stop drinking when he wanted to?
6. Has your father ever attended a meeting of Alcoholics Anonymous (AA) regarding his own drinking?
7. Has your father's drinking ever created problems between him and your mother or another near relative?
8. Has your father ever gotten into trouble at work because of his drinking?
9. Has your father ever neglected his obligations, his family, or his work for two or more days in a row because of his drinking?
10. Has your father ever gone to anyone for help about his drinking?
11. Has your father ever been in a hospital because of drinking?
12. Has your father ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcoholic beverages?
13. Has your father ever been arrested, even for a few hours, because of other drunken behavior?

Appendix 17. SMAST-M

Part 12

Please answer the following questions about your mother during your childhood as honestly as you can, marking 1 for yes, and 2 for no.

1 = yes 2 = no

1. Do you feel your mother has been a normal drinker?
2. Did your father, a grandparent, or other near relative ever complain about your mother's drinking?
3. Did your mother ever feel guilty about her drinking?
4. Did friends or relatives think your mother was a normal drinker?
5. Was your mother able to stop drinking when she wanted to?
6. Has your mother ever attended a meeting of Alcoholics Anonymous (AA) regarding her own drinking?
7. Has your mother's drinking ever created problems between her and your father or another near relative?
8. Has your mother ever gotten into trouble at work because of her drinking?
9. Has your mother ever neglected her obligations, her family, or her work for two or more days in a row because of her drinking?
10. Has your mother ever gone to anyone for help about her drinking?
11. Has your mother ever been in a hospital because of drinking?
12. Has your mother ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcoholic beverages?
13. Has your mother ever been arrested, even for a few hours, because of other drunken behavior?

Table 1. COA, Possible-COA, and Non-COA Means and Standard Deviations for Family Environment, Childhood Social Support, Current Coping Style, Current Stress, Psychological Symptoms, Alcohol Use, and Drug Use

| Variable | COA (N=98) | | Poss-COA (N=43) | | Non-COA (N=210) | |
|----------------------------------|-----------------------------------------|-------|--------------------|-------|--------------------|-------|
| | M | SD | M | SD | M | SD |
| | Family Environment ¹: | | | | | |
| Family Conflict | 4.07 | 2.51 | 4.78 | 2.55 | 5.15 | 2.44 |
| Family Cohesion | 5.33 | 2.70 | 5.54 | 2.71 | 6.41 | 2.46 |
| Family Express | 4.38 | 2.49 | 4.20 | 2.30 | 4.52 | 2.47 |
| Childhood Social Support: | | | | | | |
| SSQ-Number | 3.72 | 1.84 | 3.89 | 1.62 | 4.05 | 1.72 |
| SSQ-Satisfaction | 4.81 | 1.08 | 5.09 | .88 | 5.09 | .82 |
| Current Coping Style: | | | | | | |
| CSI-Prob Engmt | 54.14 | 12.84 | 52.39 | 12.62 | 50.49 | 12.97 |
| CSI-Prob Diseng | 48.19 | 11.39 | 47.87 | 12.19 | 44.10 | 11.18 |
| CSI-Emo Engmt | 52.20 | 16.19 | 54.02 | 17.73 | 52.24 | 16.58 |
| CSI-Emo Diseng | 42.47 | 16.28 | 40.41 | 15.29 | 39.96 | 15.19 |
| Current Stress: | | | | | | |
| LES-Neg Events | 11.64 | 9.07 | 12.42 | 9.44 | 10.63 | 10.93 |
| Psychological Symptoms: | | | | | | |
| BSI- Global Symptom | .68 | .55 | .69 | .51 | .57 | .47 |
| Alcohol Use: | | | | | | |
| 90-Day Timeline - | | | | | | |
| Heavy use days (5+ drinks) | 11.52 | 12.28 | 8.59 | 11.73 | 10.66 | 12.48 |
| RAPI-Number Probs | 2.02 | 3.04 | 1.35 | 2.65 | 1.58 | 3.10 |
| RAPI-Frequency Probs | 8.54 | 10.46 | 6.46 | 8.31 | 7.48 | 10.32 |
| SMAST | 1.57 | 1.59 | 1.97 | 1.51 | 1.41 | 1.70 |
| Drug Use: | | | | | | |
| 90-Day Timeline - | | | | | | |
| # Days of Use | 1.74 | 5.98 | 1.05 | 4.20 | 1.28 | 6.87 |
| RDPI-Number Probs | .70 | 2.51 | .48 | 1.93 | .29 | 1.45 |
| RDPI-Frequency Probs | 3.29 | 8.88 | 2.23 | 6.33 | 2.10 | 6.11 |
| DAST | 2.35 | 2.59 | 1.85 | 2.21 | 1.69 | 2.70 |

1. FES- The FES is scored in the direction of optimal family functioning, (i.e., positive scores indicate low conflict, high cohesion and high expressiveness).

Table 2 Intercorrelations Between Substance Use Measures*

| Substance Use Measure | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |
|----------------------------------|------|------|------|------|------|------|------|------|
| 1. SMAST | 1.00 | | | | | | | |
| 2. Alcohol Timeline ¹ | .29 | 1.00 | | | | | | |
| 3. RAPI-Number | .49 | .56 | 1.00 | | | | | |
| 4. RAPI-Frequency | .51 | .57 | .92 | 1.00 | | | | |
| 5. RDPI-Number | .27 | .31 | .52 | .49 | 1.00 | | | |
| 6. RDPI-Frequency | .31 | .28 | .48 | .57 | .88 | 1.00 | | |
| 7. DAST | .38 | .29 | .38 | .35 | .49 | .49 | 1.00 | |
| 8. Drug Timeline ² | .18 | .31 | .32 | .32 | .64 | .60 | .42 | 1.00 |

1. Alcohol Timeline: 90 day timeline - days of heavy use (5 or more standard drinks per day).

2. Drug Timeline: 90 day timeline - days of any drug use.

* All correlations significant < .01

Table 3. Zero-Order Correlations Between Parental Alcohol Abuse, Childhood Social Support, Family Environment, Coping Style, Current Stress, and Current Adjustment

| Predictor Variables | Criterion Variables | | | | | | | | |
|------------------------------------|---------------------|--------|--------------------------|-----------------|-----------------|-----------------|-----------------|--------------------------|--------|
| | BSI Global Symptom | SMAST | 90-Day Timeline Heavy Dr | RAPI # of Probs | RAPI Freq Probs | RDPI # of Probs | RDPI Freq Probs | Drug Timeline # days use | DAST |
| SMAST-Mother | .10 | .12** | .06 | .10 | .08 | .13** | .12* | .04 | .12* |
| SMAST-Father | .09 | .03 | .04 | -.03 | -.02 | .01 | .02 | -.06 | .03 |
| SSQ- Number | -.25** | -.09 | .09 | -.04 | -.05 | -.12* | -.13* | -.01 | -.12* |
| SSQ-Satisfaction | -.32** | -.20** | .13** | -.05 | -.07 | -.14** | -.15** | -.04 | -.17** |
| Family Conflict ¹ | -.24** | -.10 | .01 | -.03 | -.03 | -.04 | -.04 | -.01 | -.15** |
| Family Cohesion ¹ | -.23** | -.14* | -.03 | -.13 | -.13** | -.13* | -.15** | -.03 | -.18** |
| Family Expressive ¹ | -.16** | -.09 | -.04 | -.16** | -.15** | -.12* | -.09 | -.04 | -.11** |
| CSI-Prob Foc Engagemt ¹ | -.11* | -.01 | .04 | -.06 | -.03 | -.01 | -.01 | -.02 | -.07 |
| CSI-Prob Foc Disengage | .36** | .09 | .11 | .25** | .26** | .17** | .17** | .11* | .10 |
| CSI-Emo Foc Engagement | -.13* | -.01 | -.08 | -.02 | -.02 | -.01 | -.03 | -.01 | .06 |
| CSI-Prob Foc Disengage | .41** | .07 | -.02 | .08 | .02 | .01 | .15** | .12* | .08 |
| I.E.S-Ileg L.Ife Exper | .30** | .26** | .07 | .14** | .14* | .05 | .08 | -.00 | .26** |

Note: * Significance LE .05; ** Significance LE .01 (Two-tailed t-tests for all ps.)

¹ FES: The FES is scored in the direction of optimal family functioning (i.e., positive test scores indicate low conflict, high cohesion, and high cohesiveness).

Table 4. Linear Regression Analysis Predicting Psychological Symptoms (BSI)

| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta |
|-------------------------------|-------------------------------------|---------|--------|---------|------|
| LES-Negative Life Experiences | .17 | 59.68 | 1, 291 | .001 | .34 |
| CSI-Emotion Foc Disengagement | .12 | 49.07 | 2, 290 | .001 | .22 |
| SSQ-Satisfaction | .04 | 15.20 | 3, 289 | .001 | -.21 |
| CSI-Problem Foc Disengagement | .02 | 9.40 | 4, 288 | .001 | .17 |

Total R² Predicted: .35

Table 5. Linear Regression Analyses Predicting Alcohol Problems and Symptoms

| Predictor Variable Entered | RAPI-Number of Problems | | | | |
|---------------------------------|-------------------------------------|---------|--------|---------|-------|
| | Partial R ² At Each Step | F Score | df | p Value | Beta |
| CSI-Problem Foc Disengagement | .05 | 15.02 | 1, 291 | .001 | .178 |
| LES-Negative Life Experiences | .03 | 9.41 | 2, 290 | .001 | .167 |
| FES-Family Expressiveness* | .02 | 5.78 | 3, 289 | .001 | -.135 |
| Total R ² Predicted: | .10 | | | | |

* Note: The FES is scored in the direction of optimal family functioning (i.e., positive scores indicate low conflict, high cohesion, and high expressiveness).

Table 5, continued

| RAPI-Frequency of Problems | | | | | | |
|---------------------------------|-------------------------------------|---------|--------|---------|-------|--|
| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta | |
| CSI-Problem Foc Disengagement | .06 | 16.96 | 1, 291 | .001 | .194 | |
| LES-Negative Life Experiences | .02 | 9.03 | 2, 290 | .001 | .164 | |
| FES-Family Expressiveness* | .02 | 4.39 | 3, 289 | .001 | -.118 | |
| Total R ² Predicted: | .10 | | | | | |

* Note: The FES is scored in the direction of optimal family functioning (i.e., positive scores indicate low conflict, high cohesion, and high expressiveness).

Table 5., Continued

| SMAST | | | | | | |
|---------------------------------|-------------------------------------|---------|--------|---------|-------|--|
| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta | |
| LES-Negative Life Experiences | .05 | 14.92 | 1, 291 | .001 | .202 | |
| SSQ-Satisfaction | .02 | 7.70 | 2, 290 | .004 | -.134 | |
| Maternal Alcoholism | .02 | 5.40 | 3, 289 | .02 | .132 | |
| Total R ² Predicted: | .09 | | | | | |

Table 5, continued

| Alcohol Timeline - Days of Heavy Use | | | | | |
|--------------------------------------|-------------------------------------|---------|--------|---------|------|
| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta |
| SSQ-Satisfaction | .02 | 4.82 | 1, 237 | .029 | .141 |
| Total R ² Predicted: | .02 | | | | |

Table 6. Linear Regression Analyses Predicting Drug Use, Problems and Symptoms

DAST

| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta |
|---------------------------------|-------------------------------------|---------|--------|---------|-------|
| FES-Family Cohesion* | .04 | 11.25 | 1, 291 | .001 | -.170 |
| Maternal Alcoholism | .02 | 5.37 | 2, 290 | .001 | .134 |
| Total R ² Predicted: | .06 | | | | |

RDPI-Number of Problems

| Predictor Variable Entered: | Partial R ² At Each Step: | F Score | df | p Value | Beta |
|---------------------------------|--------------------------------------|---------|--------|---------|-------|
| CSI-Problem Foc Disengagement | .03 | 8.83 | 1, 291 | .003 | .165 |
| SSQ-Satisfaction | .02 | 5.91 | 2, 290 | .001 | -.139 |
| Total R ² Predicted: | .05 | | | | |

* Note: The FES is scored in the direction of optimal family functioning (i.e., positive scores indicate low conflict, high cohesion, and high expressiveness).

Table 6., continued

RDPI-Frequency

| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta |
|---------------------------------|-------------------------------------|---------|--------|---------|-------|
| CSI-Problem Foc Disengagement | .03 | 8.53 | 1, 290 | .003 | .162 |
| SSQ-Satisfaction | .02 | 7.27 | 2, 289 | .001 | -.155 |
| Total R ² Predicted: | .05 | | | | |

Drug Timeline

| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta |
|---------------------------------|-------------------------------------|---------|--------|---------|------|
| CSI-Emotion Foc Disengagement | .02 | 6.17 | 1, 291 | .013 | .144 |
| Total R ² Predicted: | .02 | | | | |

Table 7. Linear Regression Analyses Predicting Coping Style

| Emotion-Focused Engagement | | | | | |
|---------------------------------|-------------------------------------|---------|--------|---------|------|
| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta |
| SSQ-Number of Supports | .06 | 19.44 | 1, 314 | .001 | .202 |
| FES-Family Expressiveness* | .01 | 4.35 | 2, 313 | .037 | .120 |
| Total R ² Predicted: | .07 | | | | |
| Problem-Focused Engagement | | | | | |
| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta |
| FES-Family Expressiveness* | .05 | 16.20 | 1, 314 | .001 | .170 |
| SSQ-Number of Supports | .02 | 6.82 | 2, 313 | .01 | .158 |
| Maternal Alcoholism | .01 | 3.97 | 3, 312 | .05 | .108 |
| Total R ² Predicted: | .08 | | | | |

Table 7., continued

Emotion-Focused Disengagement

| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta |
|---------------------------------|-------------------------------------|---------|--------|---------|-------|
| SSQ-Number of Supports | .06 | 19.06 | 1, 314 | .001 | -.232 |
| Maternal Alcoholism | .01 | 4.39 | 2, 313 | .037 | .114 |
| Total R ² Predicted: | .07 | | | | |

Problem-Focused Disengagement

| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value | Beta |
|---------------------------------|-------------------------------------|---------|--------|---------|-------|
| FES-Family Cohesion* | .03 | 9.53 | 1, 314 | .002 | -.172 |
| Total R ² Predicted: | .03 | | | | |

* The FES is scored in the direction of optimal family functioning (i.e., positive scores indicate high cohesion, high expressiveness, and low conflict).

Table 8. Hierarchical Regression Analysis Predicting Psychological Symptomatology (BSI)

| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value |
|--------------------------------------------------------------|-------------------------------------|---------|---------|---------|
| Constellation of all Predictor Variables (Forced Entry) | .36 | 12.99 | 12, 280 | .001 |
| Interaction: Father Alcoholism X Social Support Satisfaction | .01 | 5.42 | 13, 279 | .02 |
| Total R ² Predicted: | .37 | | | |

Table 9. Hierarchical Regression Analyses Predicting Alcohol Problems and Symptoms

| RAPI-Frequency | | | | |
|--------------------------------------------------------------|-------------------------------------|---------|---------|---------|
| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value |
| Constellation of all Predictor Variables (Forced Entry) | .13 | 3.34 | 12, 280 | .001 |
| Interaction: Father Alcoholism X Social Support Satisfaction | .02 | 7.93 | 13, 279 | .005 |
| Interaction: Father Alcoholism X Family Expressiveness | .02 | 6.24 | 14, 278 | .01 |
| Total R ² Predicted: | .17 | | | |

Table 9, continued

SMABT

| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value |
|----------------------------------------------------------------|-------------------------------------|---------|---------|---------|
| Constellation of all Predictor Variables (Forced Entry) | .10 | 2.65 | 12, 280 | .002 |
| Interaction: Father Alcoholism X Social Support Satisfaction | .02 | 5.29 | 13, 279 | .022 |
| Interaction: Father Alcoholism X Problem-Focused Disengagement | .01 | 4.82 | 14, 278 | .029 |
| Total R ² Predicted: | .13 | | | |

Table 9., continued

RAPI-Number

| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value |
|---------------------------------------------------------|-------------------------------------|---------|---------|---------|
| Constellation of all Predictor Variables (Forced Entry) | .13 | 3.55 | 12, 280 | .001 |
| Total R ² Predicted: | .13 | | | |

Table 10. SMAST Scores for Children of Paternal Alcohol Abusers: COAs, Possible COAs, and Non-COAs, Grouped by Level of Problem-Focused Disengagement Coping Style

| | Problem-Focused Disengagement | |
|-------------------------|-------------------------------|------|
| | Low | High |
| COAs (N=98) | 1.76 | 1.24 |
| Possible COAs (N=43) | 2.08 | 2.38 |
| Non-COAs (N=210) | 1.17 | 1.73 |

Table 11. Hierarchical Regression Analyses Predicting Drug Use, Problems and Symptoms

| RDPI-Frequency | | | | |
|----------------------------------------------------------------|-------------------------------------|---------|---------|---------|
| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value |
| Constellation of all Predictor Variables (Forced Entry) | .08 | 1.96 | 12, 279 | .028 |
| Interaction: Father Alcoholism X Social Support Satisfaction | .03 | 9.50 | 13, 278 | .002 |
| Interaction: Mother Alcoholism X LES-Negative Life Experiences | .01 | 4.63 | 14, 277 | .032 |
| Interaction: Mother Alcoholism X Number of Social Supports | .02 | 4.26 | 15, 276 | .040 |
| Total R ² Predicted: | .14 | | | |

Table 11., continued

RDPI-Number

| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value |
|----------------------------------------------------------------|-------------------------------------|---------|---------|---------|
| Constellation of all Predictor Variables (Forced Entry) | .08 | 1.97 | 12, 280 | .027 |
| Interaction: Mother Alcoholism X LES-Negative Life Experiences | .02 | 7.12 | 13, 279 | .008 |
| Interaction: Father Alcoholism X Number of Social Supports | .03 | 8.18 | 14, 278 | .005 |
| Total R ² Predicted: | .13 | | | |
| DAST | | | | |
| Predictor Variable Entered | Partial R ² At Each Step | F Score | df | p Value |
| Constellation of all Predictor Variables (Forced Entry) | .09 | 2.38 | | .006 |
| Total R ² Predicted: | .09 | | | |

Table 12. RDPI-Frequency and RDPI-Number Scores for Children of Maternal Alcohol Abusers: COAs, Possible-COAs, and Non-COAs Grouped by Level of Negative Life Experiences

| Prediction of RDPI-Frequency | | |
|------------------------------|---------------------------|------|
| | Negative Life Experiences | |
| | Low | High |
| COAs | 1.72 | 7.96 |
| Possible COAs | 1.41 | 3.97 |
| Non-COAs | 2.34 | 1.50 |
| Prediction of RDPI-Number | | |
| | Negative Life Experiences | |
| | Low | High |
| COAs | 0.36 | 2.08 |
| Possible COAs | 0.28 | 0.74 |
| Non-COAs | 0.29 | 0.25 |

VITA
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Personal Data

Address: 2103 Monteray Court
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Educational Background

12/94 - Present Doctoral Candidate
Clinical Psychology
Virginia Tech, Blacksburg, VA

1991 - 12/94 Master of Science Candidate
Clinical Psychology
Virginia Tech, Blacksburg, VA

1985 - 1988 B. A., Psychology
San Diego State University,
San Diego, CA
Summa Cum Laude,
Distinction in Psychology

1982 - 1985 A. A., Psychology
Mesa Community College, San Diego, CA
Honors, Distinction in Psychology

Clinical Experience

07/93 - 08/93 Graduate Clinician
J. D. Gilmore, Ph.D.
Director of Training
Psychology Service (116B)
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Post-Traumatic Stress Treatment
Clinic Intern, 28 day group

Vita of Susan Haggerty, continued

08/92 - 05/93

Graduate Clinician
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Supervisors: Thomas H. Ollendick, Ph.D.
Ellie T. Sturgis, Ph.D.

Assessment and treatment of a variety of clients including child, adolescent, adult, family, and couple cases.

05/92 - 08/92

Graduate Clinician
Psychological Services Center
Virginia Tech, Blacksburg, VA
Supervisor: Richard Eisler, Ph.D.

Assessment and treatment of a wide range of child, adolescent, adult, family and couple cases. Included individual parent training of children with behavioral disorders; conducted group training of parents with ADHD children.

08/91 - 05/92

Graduate Clinician
Psychological Services Center
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Supervisors: George Clum, Ph.D.
Jack W. Finney, Ph.D.

Assessment and treatment of child, adult, family, and couples cases.

02/90 - 06/90

Project Oz -YMCA
Residential Shelter for Teens
San Diego, CA

Assistant Residential Supervisor Token economy residential shelter supervisor; Crisis Hotline Telephone Counselor; Residential Intake Phone Counselor; Supervisor of residents' community meetings; Teacher's assistant.

Vita of Susan Haggerty, continued

Teaching Experience

- 08/93 - Present Graduate Assistant to
Professor Joseph Sgro, Ph.D.,
Department Head,
Office of Undergraduate Information
Department of Psychology
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Responsibilities include academic and
career advising to undergraduate
psychology major students, interfacing
at the levels of the University, College
of Arts and Sciences, and the Department
of Psychology.
- 07/94 - 08/94 Freshman Orientation - Social Sciences
Michael Ogliaruso, Ph.D., Dean
College of Arts and Sciences
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Academic advising to incoming Freshmen
within the Social Sciences.
- 08/93 - 12/93 Graduate Teaching Assistant to
Professor Richard M. Eisler, Ph.D.
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Abnormal Psychology, Psychology Majors

Responsibilities included assisting
professor in a variety of duties
including giving class lectures,
presentations and demonstrations,
grading written examinations, keeping
class grades, administering individual
testing sessions to learning disabled
students, holding regular office hours,
and organizing group study sessions.

Vita of Susan Haggerty, continued

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&

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Graduate Assistant
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Supervisor: Jack W. Finney, Ph.D.

Responsibilities included orientation and training of graduate clinicians and faculty members regarding clinic operations and equipment; performance of receptionist duties; training of incoming first year graduate students in clinical therapy skills.

08/91 - 05/92

Graduate Teaching Assistant
Introductory Psychology
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Coordinator: Michael Casey, M.A.

Responsibilities included teaching weekly discussion sections which supplemented lecture material.

01/87 - 05/87

Professor's Teaching Assistant
San Diego State University
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Proctor: Psychological Testing and Measurement Class. Tutored students in statistical testing and measurement.

Honors

Received Psi Chi Excellence in Research Award at
Western Psychological Association, San Francisco,
CA 1991

Graduated Summa Cum Laude, Distinction in Psychology
San Diego State University, 1988

Vita of Susan Haggerty, continued

Graduated with Honors, Distinction in Psychology
San Diego Mesa College, 1985

Elected to Phi Kappa Phi National Honor Society, 1988

Elected to Psi Chi National Honor Society, 1985

Publications

Franzini, L. R. & Haggerty, S. (1994) Humor Assessment of Corporate Managers and Humor Seminar and Personality Students. International Journal of Humor, 7 (4).

Paper Presentations

Franzini, L. R. & Haggerty, S. (1991) Humor Assessment of Corporate Managers and Humor Seminar and Personality Students. Paper presented at the annual meeting of the International Conference on Humor, July, 1991, England.

Franzini, L. R., Rodin, M. J. & Haggerty, S. Humorous Postings in the World of University Faculty. Paper presented at the annual meeting of the International Conference on Humor, July, 1992, Paris, France.

Haggerty, S. & Clum, G. A. Children of Alcoholics: Early Family Environment and Childhood Social Support as Predictors of Current Adjustment. Poster presented at the annual meeting of the Association for the Advancement of Behavior Therapy, November, 1994, San Diego, CA.

Haggerty, S. & Delehanty, S. Children of Alcoholics and Reactivity to Criticism. Poster presented at the annual meeting of the Association for the Advancement of Behavior Therapy, November, 1992, Boston, MA.

Haggerty, S. & McLaughlin, M. E. Negative Bias in Performance Appraisals. Poster presented at the annual meeting of the Western Psychological Association, April 1991, San Francisco, CA.

Vita of Susan Haggerty, continued

Professional Affiliations

Member, Board of Directors
Mental Health Association of the New River Valley

Member, American Psychological Association (APA)
APA Division 12, Clinical
APA Division 35, Women

Member, Association for Advancement of Behavior Therapy

Member, American Psychological Society

Member, Virginia Psychological Association

Member, Western Psychological Association

Susan Haggerty