Childhood predictive and protective factors of adult substance abuse

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Childhood Predictive and Protective Factors of Adult Substance Abuse

BY

Melissa A. Grossman

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

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I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING THIS PART OF THE GRADUATE DEGREE CITED ABOVE

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Childhood Predictive and Protective Factors of Adult Substance Abuse

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Abstract

Psychological abuse in childhood is believed to have an affect on psychological well-being in adulthood, specifically in the area of substance abuse. Following the lead of studies in psychological abuse, substance abuse and protective factors, the present study examined the relationship between childhood psychological abuse and adult substance use, along with the role of protective factors in that relationship. Participants, consisting of college undergraduates, completed a series of measures of family cohesion, bonding, substance use, and psychological maltreatment. Although results did not show a relationship between childhood psychological abuse and adult substance abuse, family cohesion was shown to be related to lower instances of psychological abuse and alcohol use. In addition, bonding was also found to be related to lower instances of psychological abuse. Gender differences were found, with males reporting higher levels of substance use and psychological abuse, while females reported higher levels of bonding. In addition to the experimental results, theoretical and research implications are discussed.
I would like to thank everyone who supported me while I completed my thesis. Thank you to my supportive committee, especially Dr. Sharma who provided guidance and insight. Also, thank you to my family who helped keep me focused and relaxed during the stressful times.
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Psychological abuse and neglect, also referred to as emotional abuse and neglect, may be the least recognized form of child maltreatment in society and the least studied form of maltreatment in research. Given the lack of consensus regarding the definition of childhood psychological abuse, it is not surprising that relatively little empirical research has specifically addressed this topic (Moran, Bilfulco, Ball, Jacobs, & Benaim, 2002). Although nearly all forms of childhood maltreatment are significantly related to psychological disorders, such as depression, psychological abuse, in addition to being highly correlated with psychological disorders, also adds to the prediction of disorders over and above other forms of neglect and abuse (Bilfulco et al., 2002). Given this, it stands to reason that other psychological disorders, particularly substance abuse, would also be highly correlated with psychological abuse. Research has shown that physically and sexually abused alcoholic patients report poorer functioning than nonabused patients (Rice et al., 2001). In addition, alcoholics reporting the experience of only emotional maltreatment demonstrate significantly more deficits in functioning than those who do not experience maltreatment of any kind (Rice et al., 2001).

The main purpose of this study was to examine the effects of childhood psychological maltreatment, and the role of proposed protective factors and gender on adult substance abuse. Initially, the effects of psychological maltreatment in childhood on substance abuse in adulthood will be examined. Then, the role of protective factors in the individual and in the family will be assessed. The proposed protective factors include family cohesion, socioeconomic status, an emotional bond with at least one parent or guardian, and education. The study will also attempt to establish whether factors, such as frequency of psychological maltreatment, protective factors, and gender, influence adult
substance abuse more than others do. Finally, this study will examine whether protective factors only serve as an influence in the presence of psychological maltreatment (interaction), or if protective factors alone influence behavior (main effects).

Definitions of Psychological Maltreatment

*Psychological abuse and neglect.* Non-physical abuse, frequently identified as "psychological abuse", generally refers to controlling behaviors, verbal abuse, and threats where the intent and effect is often to diminish another person's self-esteem and mental well being (O'Leary, 1999). Furthermore, O'Leary (1999) stated that psychological abuse might also result in victims experiencing fear, isolation, and submission, in addition to low self-esteem. Nicholas and Bieber (1996) looked at relationships between abuse and several other factors, including support in the family, exposure to aggression in childhood, and adult aggression and hostility in a college undergraduate population, consisting of 102 females and 114 males. Results showed that in both abusive and nonabusive families, emotional abusive behaviors were related to lower supportive behaviors. It was also found that even low levels of emotional abuse (e.g., parental verbal aggression, rejection, irritability) in childhood resulted in adult hostility and aggression, while low levels of physical abuse (e.g. assault, physical fights) were found to be less influential. These results support the theory that psychological abuse may have a more powerful influence on adult behavior than other forms of abuse. According to Moran, et al. (2002), evidence pointing to the negative effects of psychological abuse in childhood, such as impaired emotional, social, and cognitive development, has become increasingly apparent in recent years. Impairments in these areas can manifest in various ways, including helplessness, lowered self-esteem, aggression, emotional
unresponsiveness, dependency, incompetence and educational failure. Although society is becoming increasingly aware of the negative effects of psychological abuse, unfortunately the ability to recognize such abuse is not increasing at the same rate.

Psychological neglect may be even more difficult to recognize than psychological abuse, and may be one of the least commonly occurring types of abuse (Scher, Forde, McQuaid, & Stein, 2004). Gauthier, Stollak, Messe, & Aronoff (1996) studied reports of childhood neglect and physical abuse in college undergraduates and discovered that emotional neglect may have a more powerful and lasting effect than any other form of abuse due to the pervasiveness and chronicity of neglect. Children may be left with the belief that they are unwanted or unlovable due to minimal interactions with either parent.

Psychological maltreatment throughout childhood can manifest itself in many different ways in adulthood. Psychological maltreatment often leaves individuals searching for coping mechanisms, one of which is to use or abuse substances. In a survey that targeted substance abusers, it was estimated that 39%-75% experienced physical or sexual abuse in childhood (Grice et al., 1995; Rohsenow et al., 1998; Simpson et al., 1994; Triffleman et al., 1995), much higher than percentages found in the general population (Finkelhor, Hotaling, Lewis, & Smith, 1990; Straus & Gelles, 1990). Other researchers examined the presence of psychological abuse in combination with other forms of abuse, during the childhood of substance abusers. Downs, Capshew, and Rindels (2004) examined the relationship between mother and/or father physical abuse and psychological aggression in addition to women’s alcohol abuse. Results showed that higher levels of mother and/or father physical abuse and psychological aggression resulted in a higher likelihood of alcohol dependence. The relationship between
psychological abuse in childhood and substance abuse in adulthood has not been
examined. In order to better understand psychological maltreatment in the childhood of
substance abusers, we will first explore definitions of substance abuse.

Substance Abuse


Substance abuse is defined as a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one or more symptom occurring during the past 12 months, whereas substance dependence requires three or more symptoms occurring during the past 12 months (p. 199). The National Survey on Drug Use and Health (NSDUH, 2003) clarifies this distinction, stating that dependence is a more severe substance problem than abuse, and individuals are classified with abuse of a particular substance only if they are not dependent on that substance. For the purpose of this study, abuse or dependence will be referred to as abuse; given that dependence is simply a more severe form of abuse.

Substance abuse has been defined as the problematic use of alcohol, tobacco, or illicit drugs (Mersy, 2003). The DSM-IV-TR (2000) defines substance abuse as follows:

A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring in a 12-month period:

(1) recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)

(2) recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)

(3) recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)
For the present study, substance abuse will refer only to abuse of alcohol and illicit drugs. While individuals use tobacco for many of the same reasons they use alcohol or illicit drugs, the results of using alcohol or illicit drugs are often more psychologically damaging, which results in more impairment. According to the American Academy of Family Physicians (AAFP, 2004), people use alcohol and drugs because of how these substances make them feel. While occasional use may seem harmless, for some people occasional use slowly becomes frequent use that negatively affects various areas of functioning, that is, occasional use can lead to an addiction.

Just as addiction is not exclusive to one substance, addiction is not exclusive to one group of people, as individuals who abuse or are dependent on substances do so for any number of reasons. At one point in history, substance abuse was viewed as a problem of the lower classes, and generally associated more with men (Newcomb, Galaif, & Locke, 2001). Now it is understood that substance abuse is a problem that can affect anyone, regardless of age, gender, race, or socioeconomic status (Newcomb, Galaif, & Locke, 2001). While various psychological, social, and biological factors play a role in the development of an addiction, ultimately there are no factors known to be the sole cause of an addiction to drugs or alcohol. The AAFP (2004) views addiction as a disease that affects the brain and behavior. In fact, it has been shown that the actual structure of the brain of an individual who is addicted to alcohol or drugs is different from that of a non-addicted person (AAFP, 2004).

**Prevalence.** It is important to examine the possible etiological factors underlying
substance abuse due to the high prevalence of addictions in the U.S. According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2003), a division of the U.S. Department of Health and Human Services, in 2003 approximately 21.6 million Americans ages 12 and older were classified with substance dependence or abuse. It was found that males are twice as likely as females to be classified with substance dependence or abuse; however, from ages 12-17, the rate between males and females was similar. In addition, most individuals classified with substance abuse or dependence were employed either full or part time (76.8%) (SAMHSA, 2003).

Many factors that influence substance use can be first identified in childhood. It has been found that adults who first used substances at a younger age were more likely to be classified with dependence or abuse than those whose use began at a later age (SAMHSA, 2003). Given the availability of alcohol and drugs, it is important that children develop the necessary coping skills and have enough protective factors to help them survive in a drug-oriented society. Given that children often look towards their parents or guardians to learn skills, it stands to reason that a child who is psychologically maltreated will be more vulnerable to drug use, unless a strong protective factor is present.

Protective and Risk Factors of Substance Abuse

Recently, research has begun to focus on protective factors, such as family cohesion, good coping skills, and a healthy emotional bond to parents, and their role in substance abuse (Liddle et al., 2004; Lyter & Lyter, 2003; Parker, 2003). However, protective factors alone cannot fully negate the effects of exposure to multiple risk factors, such as no family cohesion, poor coping skills, or an unhealthy emotional bond to
parents, during childhood. Shifting the focus to protection at the expense of acknowledging risk factors is not likely to produce the desired outcome of promoting positive behaviors (Pollard et al., 1999).

**Definition.** According to a recent study, protective factors are factors that protect and minimize the risk of youth substance use (Schiffman, 2004). Protective factors inhibit, reduce, or buffer the probability of drug use, abuse, or a transition in the level of involvement with drugs (Clayton et al., 1995). Drug strategy in the 1990s assumed all young drug users were at risk of becoming offenders or addicts, and would not reach their full potential due to a spiral into deviant lifestyles. Protective factors and their role in development were ignored (Parker, 2003). The tendency was to focus on causation, while dismissing factors that did not lead to substance abuse.

A given factor may act as either a risk factor or a protective factor, but not both. For example, family cohesion can be either a risk or a protective factor. If there is good family cohesion, it can act as a protective factor, whereas if there is little or no family cohesion, it can act as a risk factor. Efforts to reduce risk variables and augment protective variables can complement and potentiate each other (Lyter & Lyter, 2003). For example, family factors may function as either protective factors or risk factors. If a family is supportive and loving, they serve as a protective factor; whereas a family that is full of conflict and punishment may be a risk factor.

Lyter & Lyter (2003) conducted a review of a previous study (Lyter & Blevins, 1986) in order to identify protective factors related to non-use or limited use of alcohol. In 1986, Lyter and Blevins conducted a study of 2059 high school students (1119 from an urban school and 940 from a suburban school) who completed two self-administered
questionnaires that targeted the relationships among social factors and teenage drinking behaviors and attitudes. For the reanalysis, protective factors were defined as those factors that can buffer, moderate, or protect young people; and included intact households, similarity to parental attitude, source of introduction to alcohol, order and discipline, and aspirations. A chi-square analysis was conducted at the six identified levels of drinking in relation to family intactness, similarity to parental attitudes, source of introduction to alcohol, restrictions and controls, and scholastic achievement and aspirations. Results showed that non-drinkers were more likely to come from intact families (in suburban communities), have similar attitudes to those of their parents, have a mother who was identified as restricting or controlling, and have scholastic achievement and aspirations (in suburban communities).

Types of Protective Factors. Researchers have tried to identify childhood protective factors of substance abuse; however there is no general consensus. One study (Schiffman, 2004) gathered protective factors from the National Household Survey on Drug Abuse and divided them into five general domains: community (e.g., availability of drugs), family (e.g., discipline, conflict, attitudes, and communication), peer/individual (e.g., the individual delinquency, perception of risk, friends' attitudes and use of drugs), school (e.g., attendance, grades), and general (e.g., participation in activities, religious beliefs). Liddle et al. (2004) proposed clustering factors into four important domains: individual, family, peer, and school. These domains were selected based on their importance during adolescent adjustment. It was assumed that a lapse in one of these domains may result in developmental problems that appear throughout life. While the clusters proposed by Liddle et al. (2004) are influential, the importance of other
environmental factors cannot be overlooked. Overall, protective factors can include a variety of psychosocial and environmental variables, including parental involvement and controls, religious commitment, involvement in sports and activities, connection to community, and sharing of values with the family (Lyter & Lyter, 2003).

*Within the family.* At the family level, many factors are critical to the outcome of an individual and his/her coping skills. According to various researchers (Clayton et al., 1995; Liddle et al., 2004; Lyter & Lyter, 2003; Parker, 2003; Schiffman, 2004), these factors include, but are not limited to: family conflict and domestic violence, family "intactness" (attachment), family social environment (isolation), support, cohesion, and characteristics such as race and ethnicity. Liddle et al. (2004) evaluated the effectiveness of a multi-dimensional family therapy (MDFT) versus a peer group therapy with 80 (58 males, 22 females) ethnically diverse adolescents, ranging from 11 to 15 (M = 13.73), referred to a nonprofit drug abuse treatment center for substance abuse and behavior problems. The participants and their parent(s) were assessed for various risk factors and protective factors including family (e.g., cohesion and conflict), peer (e.g., association with deviant peers), and school factors (e.g., not doing homework, difficult classes, cutting classes, problems with teachers), in addition to delinquency (e.g., criminal behavior) and drug use history. After the intake assessment, adolescents were randomly assigned to either the peer-group therapy (n = 41) or MDFT (n = 39), balanced according to gender, ethnicity, age, and family income. Therapy was provided to adolescents in both treatment conditions twice per week (approximately 90-minute sessions) for 12-16 weeks. The clients and their parents completed all outcome measures at six weeks post-intake and at treatment discharge. Measures used included the Achenbach Youth Self-
Report, the Moos & Moos Family Environment Scale, the Timeline Follow-Back Method as adapted for adolescents (a measure of consumption of drugs), the Parent and Adolescent Interviews, and the National Youth Survey Peer Delinquency Scale. Results indicated that the family-based treatment was significantly more effective than peer group therapy in reducing risk and promoting protective process in the individual, family, peer and school domains, as well as in reducing substance use over the course of treatment. No findings regarding gender or ethnicity were reported.

In an overview of adolescent drug and substance use, Shiffman (2004) also indicates the importance of protective factors, specifically family factors (e.g., discipline, conflict, attitudes, communication), in reducing substance abuse. In an editorial, Parker (2003) supports the importance of protective factors. With the belief that protective factors were too long ignored, Parker (2003) states that protective factors, such as having a “functional family”, are important to address in relation to substance abuse. These findings support the importance of familial and developmental factors in substance abuse.

As stated previously, Lyter and Lyter (2003) conducted a review of a 1986 study to examine protective factors that were related to high school students. Lyter and Lyter (2003) posed the question of whether the “intactness” of the family influences the use of alcohol, with intact families being more likely to serve as a protective factor. It was concluded that students who feel more bonded to their families are less likely to use alcohol. In addition, it was found that students who identify with their parents’ attitudes appear to be less likely to misuse alcohol.

Within the individual. Protective factors identified within the individual include personality traits (attitudes and values), externalizing behaviors (delinquent acts and
aggressive behaviors) and internalizing symptoms (being withdrawn, somatic complaints, and feeling anxious/depressed), biological factors and self-esteem (Clayton et al., 1995; Liddle et al., 2004; Lyter & Lyter, 2003). Clayton et al. (1995) provide an overview of major bio-psychosocial findings in regards to taxonomies of risk and protective factors. They indicated that individual attributes and individual characteristics could be either risk or protective factors. Clayton et al. (1995) noted that biological factors of addiction are being looked at more closely due to the disease concept of addiction and growing evidence of a family history of alcoholism serving as an indicator for future generations. In addition to biological factors, Clayton et al.’s review of psychological factors found that linkages have been made between behavior activity level and addiction as well as comorbidity factors.

Liddle et al.’s (2004) findings, which were previously mentioned in family factors, also support the theory of protective factors being found within the individual. Behavioral and emotional problems that are present at an early age can interact with family and environmental factors in a detrimental way, which may increase the risk of later substance abuse. However, as stated above, it was found that family-based therapy (i.e., family protective factors) was most effective for promoting protective factors within the individual.

*Within the environment.* Factors within the environment are often beyond the adolescent is control. Such factors include socioeconomic status, who an individual is raised by, and the connection of the individual and family to the community (DeWit, Silverman, Goodstadt & Stoduto, 1995; Lyter & Lyter, 2003). The stability of an adolescent’s environment can be influential to development, either in a positive or
negative way. Other protective factors may often play into a “high risk” environment, giving the resilience needed to withstand such a childhood. DeWit, Silverman, Goodstadt, & Stoduto (1995) applied the risk factor approach to assess the influence of protective and risk factors on five measures of substance abuse. The risk factor model proposes that adolescents who are exposed to an increased number of risk factors will have a greater likelihood of engaging in substance use. The adapted risk factor approach not only assesses risk factors for substance use, but also examines the role of protective factors in non-substance users. The study examined 400 students (70% female) with an average age of 14. Self-report questionnaires designed to identify high-risk adolescents were administered over a 4-week period. The questionnaires assessed for risk and protective factors rooted in personality traits (e.g., honesty, social values, oppositional disorder, self-esteem), the level of the family (e.g., perceived amount of parental alcohol use & parental control over respondent’s activities, amount of time spent involved in family activities), the peer group (e.g., susceptibility to peer influence to use alcohol/drugs, and to commit deviant/antisocial behavior), the school (e.g., respondent academic achievement, attitudes toward school), behavioral variables (e.g., number of hours each week spent watching television, frequency of church attendance and delinquent activities), and socioeconomic and demographic variables (i.e., respondent age, sex, living arrangements). The findings supported the ecological/risk factor approach to adolescent drug use. Factors that were found to be operative include drug using peers and availability of drugs. Based on this study, risk factors within the environment may be effective indicators of high-risk youth and be helpful in setting up interventions for this population.
Present Study

As stated above, previous studies suggest that many risk factors and protective factors can influence adjustment and development throughout adolescence, particularly in those experiencing maltreatment. Psychological maltreatment often goes hand-in-hand with physical or sexual abuse, though it can also occur independently. Adjustment and development throughout adolescence can adversely affect outcome in adulthood, at times leading to substance abuse. Given the high percentage of substance abusers having experienced physical or sexual abuse, it stands to reason that the percentage of those experiencing psychological maltreatment would be at least as high, if not higher. Despite the known damaging consequences of childhood psychological maltreatment, the unique effects of psychological abuse and neglect have not been examined (Spertus et al., 2003). Furthermore, studies that have examined the relationship of psychological maltreatment to substance abuse often combine it with some other form of abuse (i.e., sexual or physical) (Bilfulco, et al., 2002; Downs, Capshew & Rindels, 2004; Rice et al., 2001).

The present study seeks to clarify and expand on past research by exploring the relationship between psychological maltreatment in childhood and adult substance abuse. Existing research on childhood maltreatment focuses primarily on physical and/or sexual abuse and the inclusion of psychological abuse is often secondary. Furthermore, to have a more complete understanding of the impact of protective and risk factors on psychological maltreatment (and accordingly on substance abuse), this study will attempt to have a large sample size to correct for limitations of the previous protective/risk factor research in which small sample sizes did not allow for analyses by gender (Dewit et al., 1995). Finally, much past research has focused on adolescent substance abuse, while
neglecting abuse that occurs throughout adulthood (Liddle et al., 2004). Psychological maltreatment can affect individuals well beyond adolescence; however this area of study has not been fully examined in research.

In order to expand an area of research that is limited, the present study aimed to examine the influence of predictive and protective factors on a college-age population substance abuse, particularly the role of psychological maltreatment. Predictive/protective factors were assessed for each participant. Factors assessed included emotional bond to parent(s), level of family cohesion, coping skills, educational level and income. Emotional bond to parent(s) refers to the participant’s perceived feelings of parental care and over-protectiveness/control, while cohesion refers to the participant’s perceived level of attachment and emotional bonding between family members (Matherne & Thomas, 2001). Coping skills refers to problem solving (problem focused), social-support and avoidance coping (emotion focused) (Welch & Austin, 2000). Education and employment refer to the participant’s parental figure(s)’ level of education and income during the participant’s childhood. This study will add to the existing research in this area in that the role of these factors in combination with psychological maltreatment will be assessed while examining the relationship to adult substance abuse.

The study hypotheses are as follows:

1. Those that experience psychological maltreatment in childhood will be more likely to abuse substances in adulthood.

2. Protective factors (i.e., emotional bond to parents, family cohesion, parental income, and parental education level) will influence the relationship between
childhood psychological maltreatment and adult substance abuse. Specifically, in
the presence of one or more protective factors, an individual experiencing
psychological maltreatment in childhood will be less likely to abuse substances in
adulthood than an individual with no, or few, protective factors present.

(3) Gender differences will be found with respect to protective factors,
psychological maltreatment and substance abuse. I hypothesize that, among those
psychologically maltreated in childhood, males will be more likely to abuse
substances in adulthood due to the presence of fewer protective factors and more
risk factors than found in a female’s childhood.

(4) The presence of a protective factor will alone predict instances of adult
substance abuse. Specifically, regardless of psychological maltreatment in
childhood, the presence of protective factors in childhood will lessen the
likelihood of adult substance abuse.

Method

Participants

The data for this research were collected from 92 college undergraduates from
Eastern Illinois University. Within this sample, participants ranged from 17 to 34 years
(M = 19.6 years), and included 23 males (25%) and 69 females (75%). The participants
were primarily Caucasian (80.43%; n = 74), followed by African Americans (17.39%; n
= 16), Hispanic/Latinos (1.09%; n = 1) and Asians (1.09%; n = 1).

The level of education achieved by the parents was as follows: 2 completed some
high school (2.17%), 31 completed high school (33.70%), 34 completed some college
(36.96%), 21 completed college, (22.83%), and 4 completed an “other” level of
education (4.35%). Parental income ranged from below $20,000 (n = 5, 5.4%) to above $80,000 (n = 15, 16.3%). The remaining parental salaries were as follows: between $20,000 and $35,000 (n = 10, 10.9%); between $35,000 and $50,000 (n = 20, 21.7%); between $50,000 and $65,000 (n = 20, 21.7%); and between $65,000 and $80,000 (n = 20, 21.7%).

With regard to family structure, one participant reported having been adopted at birth and was grouped with those raised by biological parents for analyses. One person also reported an aunt as their primary parental figure, and was grouped with the maternal figure group for analyses. The majority of the participants indicated being raised by their biological parents (72.83%; n = 67), followed by a maternal figure (19.57%; n = 18), and remarried parents (7.61%; n = 7). Of those having had a maternal figure, 96.7% of the participants (n = 89) indicated they considered their biological mother to be their primary maternal figure. The remaining 3.3% indicated their primary maternal figure being a stepmother (n = 2) or an aunt (n = 1). Of those having had a paternal figure, 93.2% considered their biological father their paternal figure (n = 69), while only 5.4% considered a stepfather their primary paternal figure (n = 4), and 1.6% considering both their biological father and stepfather as primary parental figures (n = 1).

Survey Questionnaires

Demographic Questionnaire. The participants completed a demographic questionnaire, which had questions about participant age, ethnicity, highest education level attained of participant and parents, family status during childhood (married, separated, divorced, single), and socioeconomic status (see Appendix A).

Psychological Maltreatment Scale (PMS). Participants completed the PMS
(Briere and Funtz, 1988), a self-report measure of psychological maltreatment consisting of seven items (see Appendix B1). This scale was created to focus more on parental verbal behaviors. Participants reported the frequency with which they had experienced each act in an average year during childhood (while living at home) on a seven-point scale (0 = never to 6 = more than 20 times). The PMS has a good internal consistency reliability of .87 for psychological maltreatment by both mother and father.

*The Alcohol Use and Drug Use Scales (ADS).* Participants completed the ADS (Mehrabian, 1994), which is a self-report measure consisting of 19 self-report items (see Appendix B2). There are 14 Alcohol use items and 7 Drug use items. The alcohol use items focus on alcohol frequency of consumption and severity of use, whereas the drug use items focus on frequency and severity of drug use.

*Family Adaptability and Cohesion Scale (FACES).* FACES is a 30-item self-report inventory that examines two dimensions of family functioning, specifically cohesion and adaptability (see Appendix B3). There are 16 Cohesion items and 14 Adaptability items. The cohesion items focus on perceived positive interactions within the family, whereas adaptability focuses on perceived parental flexibility and openness to family rules. The frequency of positive behaviors from the family experienced during childhood was rated on a 5-point scale (1 = almost never and 5 = almost always).

*The Parental Bonding Instrument (PBI).* The PBI, developed by Parker, Tubling, and Brown (1979), was used to assess participants’ perception of parental attitudes toward them and perceived emotional neglect by parents (see Appendix B4). There are parallel questionnaires for each parent, consisting of two scales entitled “care” and “overprotection”. Participants were asked to rate characteristics (throughout their first 16
years) of each parent independently on a 4-point scale (1 = very like, 2 = moderately like, 3 = moderately unlike, and 4 = very unlike).

Procedure

The participants were asked to participate in a voluntary research project for which they received one extra credit point. Each participant was given a packet containing an informed consent (see Appendix C) and questionnaire booklet took approximately 20 minutes to complete. The measures in the packet included a demographic questionnaire as well as all of the measures previously reviewed (i.e., the PMS, ADS, FACES, and PBI). Each participant was provided with a written debriefing statement (see Appendix D) following the completion of the questionnaire packet.

Results

The present study was conducted to examine the relationship between psychological abuse in childhood and substance use in adulthood and the role of protective factors in that relationship. In this study, psychological or verbal abuse (VA) was conceptualized by examining parental verbal behaviors along a continuum. Substance use, divided into alcohol use and drug use, was also conceptualized along a continuum of severity. Since both psychological abuse and substance use were conceptualized on a continuum, the majority of the analyses included all individuals. For certain analyses, the participants were divided into a high and low group for VA and substance use. The low and high VA groups were each composed of 46 participants whose VA scores on the PMS were respectively below or above the median of 17.50. The low and high substance use groups were divided based on the ADS z-score and the ADS interpretive table (see Table 1). The low substance use groups had a z-score < 1.0
and the high substance use groups had a z-score > 1.0. In the low alcohol and drug use groups there were 67 and 79 participants (72.8% and 85.9%), respectively. In the high alcohol and drug use groups there were 25 and 13 participants (27.2% and 14.1%), respectively.

Psychological Maltreatment and Substance Use

The first hypothesis asserts that children who experience psychological maltreatment will be more likely to abuse substances in adulthood. First, correlations between the VA scale scores and substance use were performed (see Table 2). The relationship between VA and alcohol use was found to be approaching significance ($r = .12, p = .056$). The relationship between VA from the father and alcohol use was also found to be approaching significance ($r = .21, p = .06$), however no other correlations were significant. Common types of VA from the father included yelling, criticizing and making one feel guilty.

A second analysis was done by dividing participants into low and high VA groups. Two $t$-tests were conducted comparing those in the low and high verbal abuse groups with the dependent variable being the alcohol and drug use means. No significant differences, with regards to substance use, were found between low and high verbal abuse groups.

Role of Protective Factors

Protective factors examined in this study include emotional bond to parents, family cohesion, parental income, and parental education level. It was hypothesized that these factors either individually or in combination would influence the relationship between childhood VA and adult substance abuse in such a way that the presence of at
least one protective factor would make an individual who experienced VA in childhood less likely to abuse substances.

Two regression analyses were done to examine the role of protective factors (see Table 3). In these analyses, VA and the protective factors were entered as predictor variables and alcohol use and other drug use were entered as the criterion variables. These results show that the role of protective factors is not significant in the relationship between VA and substance use.

**Gender Differences**

Another goal of this study was to determine if gender differences existed with respect to VA experienced in childhood, protective factors and substance use in adulthood. It was hypothesized that among those having experienced VA, males would be more likely to abuse substances in adulthood due to fewer protective factors being present. As hypothesized, results of a t-test indicated there were gender differences in VA experienced in childhood. Specifically, males experienced higher levels of overall VA ($M_{male} = 31.26; M_{female} = 18.38; t = 3.36; p < .01$), as well as higher levels of maternal VA ($M_{male} = 16.26; M_{female} = 9.86; t = 3.11; p < .01$) and paternal VA ($M_{male} = 17.25; M_{female} = 9.80; t = 3.09; p < .01$). With respect to protective factors, the females were found to have experienced higher levels of maternal bonding ($M_{male} = 35.23; M_{female} = 30.36; t = 2.03; p < .05$). Gender differences were also found with respect to alcohol use and drug use, with male participants reporting significantly higher levels of alcohol use ($M_{male} = 1.37; M_{female} = -13.58; t = 4.18; p < .01$) and drug use ($M_{male} = -21.04; M_{female} = -25.32; t = 2.32; p < .05$). The t-test assessing gender differences within overall bonding and parental income approached significance. Females reported higher levels of overall
bonding ($M_{male} = 68.09$; $M_{female} = 58.65$; $t = 1.99$; $p = .05$) and males reported higher parental income ($M_{male} = 4.43$; $M_{female} = 3.78$; $t = 1.92$; $p = .058$).

Protective Factors as Predictors

A series of correlational analyses (see Table 2) found that, with the exception of family cohesion, none of the protective factors were significant predictors of substance abuse. Family cohesion was significantly inversely correlated with alcohol use ($r = -.24$; $p < .05$). Specifically, participants who reported a higher level of family cohesion during childhood were more likely to report lower instances of alcohol use, whereas those who reported lower levels of family cohesion were more likely to report higher instances of alcohol use.

Although protective factors as a whole did not prove to be predictors of substance use, they were significantly correlated with VA. Family cohesion was negatively correlated with combined maternal and paternal VA ($r = -.25$; $p < .05$) and with paternal VA ($r = -.33$; $p < .01$). Overall bonding was significantly negatively correlated with combined VA ($r = -.51$; $p < .01$), maternal VA ($r = -.37$; $p < .01$), and paternal VA ($r = -.48$; $p < .01$). Individually, maternal bonding and paternal bonding were also found to be significantly negatively correlated with maternal VA ($r = -.49$; $p < .01$, $r = -.34$; $p < .01$), paternal VA ($r = -.36$; $p < .01$, $r = -.54$; $p < .01$), and combined VA ($r = -.42$; $p < .01$, $r = -.46$; $p < .01$).

Discussion

It has been hypothesized that psychological maltreatment, conceptualized as verbal abuse (VA) adds to the prediction of psychological disorders above and beyond other forms of maltreatment (Bilfulco et al., 2002). The present study focused
specifically on childhood psychological maltreatment in relation to adult substance abuse while also examining the role of protective factors. This study examined these hypotheses specifically in regards to an undergraduate college population.

Previous research has shown that verbal abuse can have a significant impact on an individual’s behavior (Bilfulco et al., 2002; Moran et al., 2002; Nicholas and Bieber, 1996; O’Leary, 1999), including substance use (Rice et al., 2001). Following this lead, hypothesis one stated that those who experience psychological maltreatment in childhood would be more likely to abuse substances in adulthood. As stated previously, this hypothesis was not supported. The lack of support found in this study while similar hypotheses have been supported by previous research (Downs, Capshew, and Rindels, 2004), may be due to several factors. One of these factors is the sample; participants in the study conducted by Downs, Capshew and Rindels (2004) consisted of 447 women, 225 in treatment for substance abuse and 222 receiving services for domestic violence. These participants were asked to rate levels of parental abuse (psychological aggression, nonviolent discipline, minor physical assault, severe physical assault and very severe physical assault) in a typical year of their childhood. The participants in the present study were recruited from college classes which meant the participants in the present study had the protective factor of education in common and while participants in the research by Downs, Capshew and Rindels (2004) were already known to have either a substance abuse problem or to be victims of domestic violence.

Additional hypotheses addressed the mitigating affects of protective factors, gender differences and the role of protective factors independent of verbal abuse. Protective factors have been defined as factors that protect and minimize the risk of youth
substance use by inhibiting or buffering the probability of or level of substance abuse (Clayton et al., 1995; Shiffman, 2004). Previous research has shown and stressed that protective factors can decrease the occurrence of substance use (Clayton et al., 1995; Lyter & Lyter, 2003; Parker, 2003; Shiffman, 2004). The present findings show that protective factors did not act as a buffer between verbal abuse in childhood and adult substance abuse. However, family cohesion was related to lower levels of alcohol use, although no protective factors found to lower the probability of drug use. Family cohesion examines the togetherness and supportiveness within a family. The more supportive and close a family is may lead to a lesser need to turn to substances for comfort and support. The more cohesive family may also have a tendency to friends and acquaintances that the entire family enjoy and have a more open and honest relationship about recreational activities.

In support of the third hypothesis of the study, males did report experiencing higher levels of substance use. Social stereotypes often depict men as more likely to abuse substances than females (Newcomb, Galaif, & Locke, 2001). Beyond stereotypes, men may be more likely to abuse substances partially due the socialization patterns of men versus those of women. In college many men join fraternities which are notorious for alcohol use, so at a young age men are introduced to social drinking and drinking for the purpose of bonding. Males may also tend to be more willing to admit to higher levels of drinking, while there is a certain “shame factor” with females reporting the use of substances. Although rates of alcohol use in women are rising, young women may still be less likely to bond over a beer and more likely to bond by forming emotional ties. In support of this stereotype, or perhaps partially due to the stereotype, in 2003 the
Substance Abuse and Mental Health Services Administration found that men (ages 18+) were twice as likely as women (ages 18+) to be classified with substance dependence or abuse. Previous research in the area of substance abuse has found that men are more likely than women to abuse or depend on alcohol (Diala, Muntaner, & Walrath, 2004), however research in this area is lacking as sample sizes have not allowed for analyses of gender differences (Dewit et al., 1995) while other research focused only on females (Downs, Capshew, & Rindels, 2004).

Further gender differences were found in examining maternal bonding and verbal abuse in childhood. As predicted, females reported higher levels of maternal bonding and males reported higher levels of verbal abuse in childhood. A possible explanation for these findings stems from the belief that males are raised to be less emotional and females are viewed as more sensitive. In line with this belief previous research has found that adolescents view paternal parenting characteristics as more negative compared with maternal parenting characteristics, with the differences slightly more pronounced for adolescent females (Shek, 2000).

A result of the above beliefs may be that females experience less verbal abuse due to their sensitive nature and a tendency on part of parents to be tougher on males (Shek, 2000). In addition, following the belief that males are to be tough and less emotional, it would seem logical that young boys may experience less family cohesion as they are raised to be independent and tough. Additionally, family relationships in general may be less important to boys than girls (Swan, 1995).

Finally, the relationship between gender, overall bonding and parental income also approached significance. Males reported higher levels of parental income, while
females reported higher levels of overall bonding. Males may have a tendency to overestimate parental income as income may be seen as a sign of status, while females may tend to underrepresent parental income. With males also reporting lower levels of overall bonding and higher levels of verbal abuse in childhood, this demonstrates that verbal abuse is not contained within the lower class and income may be a weaker predictor of verbal abuse in childhood than the familial factors of bonding and cohesion. These findings may also be indicative of family cohesion and bonding being unrelated to family income.

While protective factors did not play a role in the relationship between verbal abuse and substance abuse, previous researchers have supported the idea of there being a relationship between protective factors and substance abuse (Clayton et al., 1995; Schiffman, 2004). The present study sought to find a relationship between protective factors and substance abuse, similar to Lyter and Lyter (2003) who found that the presence of certain protective factors decreased the likelihood of alcohol use. The present study found that family cohesion was the only factor associated with a decrease in alcohol use. However, higher levels of family cohesion, in addition to family bonding, proved to be related to lower instances of verbal abuse. There are several possible reasons for these findings and discrepancies. First, the Lyter and Lyter study (2003) had a sample consisting of 2000 students from two high schools, one urban and one suburban, grades 9 through 12. This larger and more diverse sample would have been more likely to represent the familial income of the general population, was more representative of minorities (specifically Hispanics and those of lower socio-economic status) and the participants were not as removed from their childhood memories as the present sample.
Secondly, ecological theory says that for a given individual there are multiple sets of risk and protective factors operating at different levels or spheres of influence (DeWit et al., 1995). Individuals may have experienced the indicated protective factors, however numerous risk factors were not accounted for that may have counteracted the impact of those protective factors such as parental drinking, parental and individual attitudes toward drinking, current adult relationship status and current life stressors.

Limitations & Implications for Future Research

While this study does provide information about the relationship between the variables studied in an undergraduate college population, the results of this study should be viewed in the context of several limitations. For one, having an increased sample size and a more diverse sample may have helped due to having a more representative sample in addition to increasing the statistical power of the analyses. Because this study was conducted at a predominantly Caucasian campus, minorities were not well represented, while women and individuals between the ages of 18 and 22 were overly represented. All of these factors contribute to having a sample that is not representative of society, and therefore it would prove difficult to have findings of significance consistent with other studies discussed previously (e.g., Downs, Capshew, & Rindles, 2004). Also, this study’s results hinged on a retrospective and self-report of human behavior and data based on these reports is always at risk for human error, specifically inaccurate accounts of the past.

Future research in this area could continue to explore the effects of verbal abuse in childhood, as this is still an extremely under researched area, but may affect individuals the same if not more than other forms of abuse. Additionally, the area of
verbal abuse in childhood and its effects on substance abuse, and the role of mediating factors on that relationship, continues to be an area of needed research. Specifically an important future area of study would be to examine the relationship between verbal abuse and substance abuse and the protective factors that can cause individuals with similar childhoods to take different paths in regards to substance use.

In addition to protective factors looked at in the present study, other factors such as individual education, social support groups, shyness and aggressiveness in childhood may also act as mitigating factors and be worth examining further. More longitudinal research would be beneficial as it controls for self report biases and allows researchers to examine more aspects of protective factors, specifically family factors and peer influences (Swan, 1995). It may also be beneficial to further examine the relationship between males and parental income and family cohesion to determine whether having a higher family income is related to family cohesion and why males reported higher levels of parental income. Focusing on individuals already in treatment for substance abuse may be helpful as this would allow research to focus specifically on substance abuse and factors related to and possibly indicative of, substance use.

Substance abuse and verbal abuse are problems that plague society. It is important that future research continue to examine the effects, related factors, and possible cause of substance abuse and verbal abuse so that small steps may be taken to decrease the instances of these problems.
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demographic correlates of childhood maltreatment in an adult community sample.


Table 1

*Percentile Score and z-Score Equivalents for Alcohol and Drug Use Scale*

<table>
<thead>
<tr>
<th>z-Score</th>
<th>Percentile Score</th>
<th>Interpretation of Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5</td>
<td>99.4</td>
<td>Very extremely high</td>
</tr>
<tr>
<td>2.0</td>
<td>98</td>
<td>Extremely high</td>
</tr>
<tr>
<td>1.5</td>
<td>93</td>
<td>Very high</td>
</tr>
<tr>
<td>1.0</td>
<td>84</td>
<td>Moderately high</td>
</tr>
<tr>
<td>0.5</td>
<td>69</td>
<td>Slightly high</td>
</tr>
<tr>
<td>0</td>
<td>50</td>
<td>Average</td>
</tr>
<tr>
<td>-0.5</td>
<td>31</td>
<td>Slightly low</td>
</tr>
<tr>
<td>-1.0</td>
<td>16</td>
<td>Moderately low</td>
</tr>
<tr>
<td>-1.5</td>
<td>7</td>
<td>Very low</td>
</tr>
<tr>
<td>-2.0</td>
<td>2</td>
<td>Extremely low</td>
</tr>
<tr>
<td>-2.5</td>
<td>0.6</td>
<td>Very extremely low</td>
</tr>
</tbody>
</table>

*Note.* From “Manual for the Alcohol and Drug Use Scales” by A. Mehrabian, 1994, p.4.

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Table 2

Correlations between VA, Protective Factors and Substance Use

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. VA Sum</td>
<td>-</td>
<td>.88**</td>
<td>.92**</td>
<td>-.25*</td>
<td>.51**</td>
<td>.42**</td>
<td>.46**</td>
<td>.11</td>
<td>.05</td>
</tr>
<tr>
<td>2. VA Mom</td>
<td>.88**</td>
<td>-</td>
<td>.67**</td>
<td>-.20</td>
<td>.37**</td>
<td>.49**</td>
<td>.34**</td>
<td>.09</td>
<td>-.03</td>
</tr>
<tr>
<td>3. VA Dad</td>
<td>.92**</td>
<td>.67**</td>
<td>-</td>
<td>-.33**</td>
<td>.48**</td>
<td>.36**</td>
<td>.54**</td>
<td>.21</td>
<td>.11</td>
</tr>
<tr>
<td>4. Cohesion</td>
<td>-.25*</td>
<td>-.20</td>
<td>-.33**</td>
<td>-</td>
<td>-.28**</td>
<td>-.34**</td>
<td>-.46**</td>
<td>-.24*</td>
<td>-.08</td>
</tr>
<tr>
<td>5. Bonding Sum</td>
<td>.51**</td>
<td>.37**</td>
<td>.48**</td>
<td>-.28**</td>
<td>-</td>
<td>.78**</td>
<td>.93**</td>
<td>.00</td>
<td>.04</td>
</tr>
<tr>
<td>6. Bonding Mom</td>
<td>.42**</td>
<td>.49**</td>
<td>.36**</td>
<td>-.37**</td>
<td>.78**</td>
<td>-</td>
<td>.73**</td>
<td>.13</td>
<td>.06</td>
</tr>
<tr>
<td>7. Bonding Dad</td>
<td>.46**</td>
<td>.34**</td>
<td>.54**</td>
<td>-.46**</td>
<td>.93**</td>
<td>.73**</td>
<td>-</td>
<td>.11</td>
<td>.06</td>
</tr>
<tr>
<td>8. Alcohol Use</td>
<td>.11</td>
<td>.09</td>
<td>.21</td>
<td>-.24*</td>
<td>.00</td>
<td>.13</td>
<td>.11</td>
<td>-</td>
<td>.49**</td>
</tr>
<tr>
<td>9. Drug Use</td>
<td>.05</td>
<td>-.03</td>
<td>.11</td>
<td>-.08</td>
<td>.04</td>
<td>.06</td>
<td>.06</td>
<td>.49**</td>
<td>-</td>
</tr>
</tbody>
</table>

Note. **p < .01. *p < .05. a For Bonding Sum, Bonding Mom, and Bonding Dad, higher scores denote lower levels of bonding.
Table 3

Regression Analyses Outcomes on Substance Use Frequency and VA in the Presence of Protective Factors \((N = 81)\)

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Alcohol Use</th>
<th>Drug Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(\Delta R^2)</td>
<td>(\beta)</td>
</tr>
<tr>
<td>Step 1</td>
<td>.033</td>
<td>.005</td>
</tr>
<tr>
<td>Verbal Aggression</td>
<td>.181</td>
<td>.071</td>
</tr>
<tr>
<td>Step 2</td>
<td>.097</td>
<td>.063</td>
</tr>
<tr>
<td>Verbal Aggression</td>
<td>.099</td>
<td>.055</td>
</tr>
<tr>
<td>Family Cohesion</td>
<td>-.243</td>
<td></td>
</tr>
<tr>
<td>Maternal Bonding</td>
<td>-.048</td>
<td></td>
</tr>
<tr>
<td>Paternal Bonding</td>
<td>.013</td>
<td></td>
</tr>
<tr>
<td>Parent’s Education</td>
<td>-.056</td>
<td></td>
</tr>
<tr>
<td>Parent’s Income</td>
<td>.257</td>
<td>.251</td>
</tr>
</tbody>
</table>
APPENDIX A

Demographic Data Sheet

Please answer the following questions as honestly as possible. This survey is anonymous; do not write your name on it. Please read the instructions for each scale before you begin the scale. Try to answer all questions and do not go back to previous sections to change your answers. Thank you for your participation.

Please fill you the following background information.

1. Age: ____
2. Gender: Male ____ Female____
3. Ethnicity:
   Caucasian    African American    Hispanic/Latino
   Asian        Native American    Other:_________
4. Highest level of education completed:
   Some High School    High School    Some College    College    Other
5. Highest level of education completed by parent(s) during your childhood:
   Some High School    High School    Some College    College    Other
6. Are you adopted? Yes (if yes, what age? ____ )  No
7. What was your parents’ annual income during your childhood?
   □ Under $20,000
   □ $20,000-$35,000
   □ $35,000-$50,000
   □ $50,000-$65,000
   □ $65,000-$80,000
   □ Over $80,000

Please continue to the next page...
8. Answer the following questions in order to describe your primary family structure during childhood:

8a. Check one of the 3 options listed below (A-C) and then the specific type of family situation that best fits your experience:

**Two Parent Home**

- [ ] Biological Parents
- [ ] Adoptive Parents
- [ ] Grandparents
- [ ] Remarried Parents
- [ ] Other (please describe): __________________

**One Parent Home**

- [ ] Maternal
- [ ] Parental
- [ ] Other (please describe): __________________

**Other**

- [ ] Foster Care
- [ ] Other (please describe): ____________

8b. Indicate below who your primary maternal and paternal figures who raised you during childhood:

Maternal (e.g., mother, grandmother): ___________________

Paternal (e.g., father, stepfather): ___________________
APPENDIX B1

Psychological Maltreatment Scale (PMS)

During childhood, when you were living at home, rate how often the following occurred in an average year. Answer for both your mother (or step-mother or foster mother) and father (or step-father or foster father) using the following scale.

0= Never  1= Once  2= Twice  3= 3-5 Times
4= 6-10 Times  5= 11-20 Times  6= More than 20 times

When you were living at home, how often did the following happen to you in the average year?

1. Yell at you
   Mother: ____
   Father: ____

2. Insult you
   Mother: ____
   Father: ____

3. Criticize you
   Mother: ____
   Father: ____

4. Try to make you feel guilty
   Mother: ____
   Father: ____

5. Ridicule or humiliate you
   Mother: ____
   Father: ____

6. Embarrass you in front of others
   Mother: ____
   Father: ____

7. Make you feel like a bad person
   Mother: ____
   Father: ____
APPENDIX B2

Alcohol Use and Drug Use Scale (ADS)

Please answer all questions as honestly as possible.

1. When you drink alcoholic beverages, how many do you usually have during the first hour of drinking (one drink is 1.5 ounces of hard liquor, 5 ounces of wine, or 12 ounces of beer)? Please write the number in the space on this line. ______

2. When you drink, what percentage of the time do you over do it (that is, lose control over your speech, you physical movements, or experience uncontrollable emotional outbursts)? ______

3. During the last two months, how many times have you overdone drinking to the point it has effected your speech or your movements? ______

Please answer the following questions by circling T (for TRUE) or F (for FALSE).

T F 4. I have been hospitalized because of my drinking problem.

T F 5. I have needed medical or psychiatric help because of my drinking problem.

T F 6. I have not been cited by police for a DUI (Driving Under the influence).

T F 7. I have not needed medical or psychiatric help for a drug problem.

T F 8. I have been hospitalized because of a drug problem.

Please continue to the next page...
Please use the nine numbers of the ACCURATE-INACCURATE scale below to show how accurately each of the following statements describes you as a person. Record your numerical answer to each statement in the space provided preceding the statement.

+4 = Extremely Accurate  
+3 = Very Accurate  
+2 = Moderately Accurate  
+1 = Slightly Accurate  
0 = Neither Accurate nor Inaccurate  
-1 = Slightly Inaccurate  
-2 = Moderately Inaccurate  
-3 = Very Inaccurate  
-4 = Extremely Inaccurate

_____ 10. My alcohol use has caused problems at home and my relatives have wanted me to get help for it.

_____ 11. I don't miss work because of difficulties with excessive alcohol use.

_____ 12. I have had 8 or more drinks on some days.

_____ 13. I have not experienced the shakes (that is, Delirium Tremens or DTs) because of drinking.

_____ 14. Sometimes, I have had 20 or more drinks in one day.

_____ 15. I don't miss work because of difficulties with excessive drug use.

_____ 16. Because of drug use, I sometimes have emotional problems, such as, feeling strange, depressed, lacking energy, or being extremely suspicious of others.

_____ 17. My drug use has caused problems at home and my relatives have wanted me to get help for it.

_____ 18. I sometimes get into trouble with others because of my drug problem.

_____ 19. Sometimes, I try different medications on my own (that is, without consulting a physician) to see if I can find a new drug that is better than those I am using.
APPENDIX B3

Family Adaptability and Cohesion Scale (FACES)

Please answer all questions, using the following scale.

1 = Almost Never   2 = Once In A While   3 = Sometimes

4 = Frequently   5 = Almost Always

How would you describe your family during your childhood?

____ 1. Family members are supportive of each other during difficult times.

____ 2. It is easier to discuss problems with people outside the family than with other family members.

____ 3. Our family gathers together in the same room.

____ 4. Our family does things together.

____ 5. In our family, everyone goes his/her own way.

____ 6. Family members know each other’s close friends.

____ 7. Family members consult other family members on their decisions.

____ 8. We have difficulty thinking of things to do as a family.

____ 9. Family members like to spend their free time with each other.

____ 10. Family members avoid each other at home.

____ 11. We approve of each other’s friends.

____ 12. Family members pair up rather than do things as a total family.

____ 13. Family members share interests and hobbies with each other.

____ 14. Family members feel very close to each other.

____ 15. Family members feel closer to people outside the family than to other family members.

____ 16. Family members go along with what the family decides to do.
APPENDIX B4

Parental Bonding Instrument (PBI)

This questionnaire lists various attitudes and behaviors of parents. As you remember your parents in your first 16 years please answer all the questions, using the following scale.

1=Very Like  2=Moderately Like  3=Moderately Unlike  4=Very Unlike

1. Spoke to me in a warm and friendly voice  
   Mother: _____  Father: _____

2. Did not help me as much as I needed  
   Mother: _____  Father: _____

3. Let me do those things I liked doing  
   Mother: _____  Father: _____

4. Seemed emotionally cold to me  
   Mother: _____  Father: _____

5. Appeared to understand my problems and worries  
   Mother: _____  Father: _____

6. Was affectionate to me  
   Mother: _____  Father: _____

7. Liked me to make my own decisions  
   Mother: _____  Father: _____

8. Tried to control everything I did  
   Mother: _____  Father: _____

9. Invaded my privacy  
   Mother: _____  Father: _____

10. Enjoyed talking things over with me  
    Mother: _____  Father: _____

11. Tended to baby me  
    Mother: _____  Father: _____

12. Did not seem to understand what I needed or wanted  
    Mother: _____  Father: _____

13. Made me feel I wasn’t wanted  
    Mother: _____  Father: _____

14. Did not talk with me very much  
    Mother: _____  Father: _____

15. Tried to make me feel dependent on her/him  
    Mother: _____  Father: _____

16. Gave me as much freedom as I wanted  
    Mother: _____  Father: _____

17. Was overprotective of me  
    Mother: _____  Father: _____

18. Did not praise me  
    Mother: _____  Father: _____
APPENDIX C

INFORMED CONSENT

The goal of this study is to learn more about your family life during childhood and how it has affected your actions, attitudes, and beliefs. You will be asked to fill out several questionnaires regarding your family life, your relationship to your parents, substance use, and general information about you. These questionnaires should take you approximately 30 minutes to complete.

All information given on the questionnaires will be completely confidential and anonymous. Other than signing this form, do not put your name on any of the questionnaires you complete.

If you agree to participate, please read the following information and sign below:

The goals of this study and the procedures to be completed by me have been explained. I understand that my participation is voluntary and therefore I may choose to quit at any time without penalty. I also understand that all of my responses will be anonymous and confidential.

I give my consent to participate in the study Childhood Family Life and Adult Actions & Beliefs.

Signed ______________________________ __ Date __________________

Print Name ______________________________ Date __________________

For more information contact:

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APPENDIX D

DEBRIEFING STATEMENT

Thank you for your participation in this study. The goal of this study is to determine how family factors in childhood affect adult substance abuse. This study was designed to determine which variables both best predict and best detract from the possibility of adult substance abuse. The purpose is to attempt to continue developing better substance abuse prevention, intervention, and treatment.

If you have any questions or comments regarding this study, please contact Melissa Grossman by email at cgmag3@eiu.edu or Dr. Anu Sharma at (217) 581-2127.

For information regarding substance abuse, please consult the following resources:

Central East Alcoholism and Drug Council (CEAD)
635 Division Street
Charleston, IL 61920
(217) 348-8108 or 348-0154

Heartland Human Services
1200 North 4th Street
Effingham, IL,
(217) 347-7179
www.heartlandhs.org

For information regarding counseling services, please consult the following resources:

Eastern Illinois University Counseling Center
Charleston, IL
(217) 581-3413
http://www.eiu.edu/~counstr/cslwelc.html

Coles County Mental Health Center
825 N 18th St, Mattoon, IL 61938
(217) 258-0598

EIPC Counseling Center
617 4th St, Charleston, IL 61920
(217) 345-9273