

UNIVERSITY OF CALIFORNIA
Santa Barbara

The Mediating Effects of Shame and Social Support on
Distress and Attributional Processing in Adults Abused
as Children: A Structural Model

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

Counseling/Clinical/School Psychology

by

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3

August 1, 1994

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DEDICATION

It is only fitting and appropriate that I dedicate this work to my three sons: Oliver, Christopher, and Adrian. Throughout the entire ordeal of course-taking, research, data gathering, and writing, they were without a Daddy. Indeed, my presence in their environment was primarily of a corporeal nature. It was only through each boy's occasional insistence that I wrench myself from the computer that they derived any paternal sustenance at all. Each child had his own unique and precious mannerism. You are indeed priceless jewels.

I love you each very dearly, boys. Your existence and presence in my life comprise my most valued experiences and memories. I only hope that I can contribute as much to your development and learning as you have contributed to mine.

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Childhood Abuse Structural Model

7

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Childhood Abuse Structural Model

9

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ABSTRACT

This study compared psychodynamic and behavioral models of the effects of child sexual and physical abuse on adult functioning. The constructs of each model were represented using structural equation modeling techniques. The mediating effects of distress, shame, current social support, and perceived childhood social support were incorporated in the psychodynamic model. What was most relevant was the hypothesized mediation of the factor, shame, between distress and social support. The behavioral model did not include shame as a mediator, and thus exemplified a direct interaction between social support and distress. Social support, distress, and shame were structured to interact in order to organize an individual's internal and external attributions of personal expectancies for success or failure. Childhood sexual abuse, physical abuse, and combined physical and sexual abuse were examined for differential effects on shame, and thus on levels of distress.

The psychodynamic model is graphically represented in Figure 1 (Page 14). As this model suggests, it was

expected that the effects of shame augment the effects of distress, escalating levels of depression and anxiety. Reciprocity effects among distress, shame, and social support were anticipated. The effects of recalled childhood social support on current social support were also examined. Perception of memories of childhood social support were expected to significantly enhance one's current level of adult social support.

The behavioral model is depicted in Figure 2. The factor of Shame was considered an internal or psychodynamic construct, and was removed from the model to show direct reciprocity between feelings of distress and levels of environmental social support.

A structural analysis using Lisrel 7.15 was performed for each model separately. A solution to the psychodynamic model was not identified. A solution to the behavioral model was identified.

Reciprocity effects between distress and social support did occur. Furthermore, Abuse acted directly on Distress and Attributional Style to enhance dysfunctional thinking and increase negative affect. The loadings of sexual abuse and physical abuse on the

Abuse factor were found to be similar. An additional indicator of Abuse was childhood social support satisfaction.

The effects of retrospective childhood social support on current social support were also found to directly and vigorously influence one's current social support topology. The size of one's social support network was shown to be four times more influential than satisfaction with one's available social support on overall social support. Interestingly, physical abuse had a negative impact on social support, whereas a similar loading of sexual abuse on Child Social Support was not indicated.

Treatment implications from these findings were explored for behavioral strategies for adult childhood abuse victims. The model supported interventions with programmed augmentation of an individual's social support size. Interactively, attributions should change to a more internal and positive perspective.

Preventative treatment procedures for children were supported by the model. Since there was a strong and significant link between childhood social support

and current social support, the intervention of abused children by providing social support augmentation skills should positively effect adult functioning.

Figure 1

Figure 2

Table of Contents

| | |
|-------------------------------------|-----|
| Title Page..... | 1 |
| Signature Page..... | 2 |
| Copyright..... | 3 |
| Dedication..... | 4 |
| Curriculum Vitae..... | 5 |
| Abstract..... | 11 |
| Chapter 1/Introduction..... | 18 |
| Chapter 2/Review of Literature..... | 21 |
| Chapter 3/Method..... | 35 |
| Chapter 4/Results..... | 63 |
| Chapter 5/Discussion..... | 86 |
| References..... | 103 |
| Appendix A..... | 111 |
| Appendix B..... | 142 |
| Appendix C..... | 143 |
| Appendix D..... | 144 |

CHAPTER 1

Introduction

The effects of childhood trauma on later adult functioning has been the topic of considerable research over the past 15 years. Some researchers have observed that similar symptom architectures occur between those with combat-related post-traumatic stress disorder and those with histories of childhood trauma. Types of childhood trauma that have been proposed to induce these symptoms have included sexual victimization (Finkelhor, 1988; Finkelhor & Browne, 1985; Greenwald, Leitenberg, Cado, & Tarran, 1990), physical abuse (Brown & Anderson, 1991; Deblinger, McLeer, Atkins, & Ralphe, 1989), severe parental mental illness (Walker, Downey, & Bergman, 1989), and parental alcoholism (Williams & Corrigan, 1992; Plescia-Pikus, Long-Suter, & Wilson, 1988). Little is known about how parentally-induced prolonged and stressful events effect attributional and self-regulatory style in the adult individual.

Recent epidemiological reports suggest that as many as one out of four girls are molested by a parent,

family member, or close friend by the time she is an adult (Finkelhor, 1988). As many as one out of six boys suffer similar abuse. Alarming, recent research suggests that epidemiological studies of childhood sexual victimization might underrepresent the base rates of the problem (Finkelhor & Browne, 1985). These data are supported by the statements of many reporting agencies that the instances of child abuse and neglect are probably underreported.

Research findings suggest there are some common residual traits among people who were physically, sexually, or emotionally traumatized as children (Deblinger et al, 1989). Moreover, the perceived or actual extent of the childhood trauma appears to account for certain primary distress measures in adulthood. The constructs investigated have included depression, trait anxiety, self-esteem, and size and utilization of available social support networks (Kiser, Heston, Millsap, & Pruitt, 1991; Wolfe, Gentile, Michienzi, & Sas, 1991; Williams & Corrigan, 1992; Brown & Anderson, 1991).

The present study examined the interaction of factors associated with depression, anxiety, and social support in order to predict the differential effects of childhood sexual and physical abuse. Furthermore, an interactive structural model was analyzed which accounted for the mediation of shame between feelings of distress and the utilization of social support networks.

CHAPTER 2

Review of the Literature

Shame and Distressful Negative Affect

Cognitive and attributional studies have implicated self-focused attention and self-consciousness as possible intervening factors over an individual's feelings of negative affect (Weiner, 1982). Both have been shown to perpetuate a cycle of distress and negative self-awareness (Strack, Blaney, Ganelen, & Coyne, 1985; Pyszczynski & Greenberg, 1987). Replicated findings support the view that there is a dispositional tendency to be highly self-focused that is correlated with depression in both non-clinical and clinical samples (Smith & Greenberg, 1981).

Attributional theory posits that increasing the perceptual salience of any object increases the extent to which that object influences perceptions and cognitions (Taylor & Fiske, 1978). It follows that since self-focus increases the salience of the self, an individual with negative self-schemata will engage in internal causal attributions and self-blame. "Shame"

will be used as a term to describe the effect of negative self-consciousness and internalized guilt.

Some family systems theorists have long maintained that shame plays a primary role in the adult functioning of individuals who were victimized as children (Bradshaw, 1988; Whitfield, 1987). The concepts of shame and guilt are differentiated by the self-statements, "I am bad" versus "I did a bad thing" (Bradshaw, 1988; Stone, 1992). The etiology of shame can be conceptualized as a pervasiveness of negative internalized global attributions of events over which the individual as a child had no control (Rothbaum, Weisz, & Snyder, 1982). This attributional style pervades the adult's functioning, and distressful feelings of depression and anxiety are the outcome.

Brown and Taylor (1986) hypothesized that mood states activate mood-congruent self-schemata that "facilitate the encoding and processing of mood-compatible personal information." Their findings suggest that schematic effects on memory are more pronounced during stimulus registration than at retrieval. Hence, childhood perceived negative self-

descriptive information organizes self-schemata which are highly resistant to restructuring. These perceived negative internal states are salient aspects of the self, and act to further enhance deprecating self-focus. The process has been shown to be self-perpetuating (Dweck & Licht, 1981). The present study attempted to confirm the presence of a reciprocal feedback path between self-consciousness and internal distressful states like depression and anxiety. It was anticipated that the effect of shame will enhance distress. Likewise, continued distress was expected to facilitate focus on salient negative aspects of self. Thus, the feedback paths in both directions were expected to be positive, and therefore would augment one another (Figure 1).

The differential effects of sexual abuse and physical abuse were examined in our study. Various writers and theorists have suggested that the effects on shame may be more pernicious when associated with sexual abuse than when associated with physical abuse (Bradshaw, 1986; Brown & Anderson, 1991; Finkelhor et al, 1985). Bradshaw (1986) suggests that the patterns

of acting out and externalization concomitant with childhood physical abuse may be in the form of anger, antisocial behavior, and substance abuse. The shame-based feelings associated with sexual victimization may be internalized to a greater degree, and may take the form of negative self-statements and punitive scripts.

The present study was concerned with a number of influencing and interacting factors in the form of measurement and latent variables. A perspicacious distinction should be made between the meaning of moderating, mediating, and intervening variables. Wiersma (1991) states that an intervening variable is one whose existence is inferred, but it cannot be manipulated, or it was not measured. He suggests that the terms "intervening variable" and "mediating variable" are synonymous. He adds that the effects of a moderating variable alter the effects measured at a dependent variable. If the effects of the moderator are uncontrolled, then it is a mediating variable; if they are controlled, then the moderator is a control variable. Since the effects of "shame" and "social support" in the present study were controlled

statistically, but not experimentally, we shall refer to these variables as mediating variables.

Shame and Social Support as Interacting Reciprocal Mediators

The negative effects of shame have been hypothesized to attenuate social support, and reciprocally, the positive effects of social support would be expected to mitigate the effects of shame. Strack and his associates (Strack, Blaney, Ganellen, & Coyne, 1985) elicited depression-like deficits in normal individuals by inducing negative self-focus after task failure. Subjects were allowed 100 seconds to solve a sequence of five letter anagrams. After the testing, half the participants were placed in front of a mirror and given a questionnaire requiring them to "honestly" evaluate their task failures. The other participants were given identical tasks, but without the mirror, and with additional external distractions. When both groups of subjects were combined and re-evaluated for performance with different tasks, the self-focused group performed significantly more poorly

than the distracted group. This study serves as an example of a controlled setting where external distraction was shown to moderate the effects of negative self-focus and subsequent depression-like behaviors.

Interventions which serve to disrupt the tenacity of negative self-focus should be beneficial in reducing depression and anxiety. Changes in the satisfaction and amount of available social support have been researched as a means of redirecting self-focused attention among depressed individuals (Hirsch & Reischl, 1985). Research findings also suggest that satisfaction and utilization of available social support is related to reduction of depression and anxiety, and an increase in self-esteem in adult children of alcoholics (Williams & Corrigan, 1992), adult children of mentally ill (Walker, Downey & Bergman, 1989; Williams & Corrigan, 1992), and adult survivors of childhood sexual abuse (Gold, 1986). However, optimal utilization of available social support may be diminished by negative self-focus. Jacobson and Anderson (1982) showed that depressed

subjects are more likely than nondepressed subjects to inappropriately refer to themselves in social interaction when such self-references are not directly solicited. This preoccupation with self may inhibit depressives' social performance by disrupting the normal flow of social interaction. This study attempted to confirm an indirect effect between distressful internal states and social support size and satisfaction mediated by shame and self-focus. These mediating pathways are shown in Figure 1. A factor which serves to redirect attention outside the individual (social support) should have an ameliorating effect on self-conscious awareness. Likewise, there was expected to be a reciprocating mitigating effect on the effect of social support by self-conscious awareness. The valence of both paths was expected to be negative. Hence, as the effect of shame is reduced by increased size and satisfaction of available social support, the negative effects on social support utilization by shame will be reduced, thus enhancing the ability of social support indices to reduce distress.

Mediated Distress and Attributions

Self-focusing tendencies among depressed people encourage dispositional (internal) attributions for negative outcomes and situational (external) attributions for positive outcomes (Pyszczynski & Greenberg, 1987). Attributional style may explain reactions to specific positive and negative events and the resulting impact on adverse outcomes (Anderson, Jennings, & Arnoult, 1988). There are two dimensions of attribution relative to the valence of a specific event. An individual could characterize any given event in one's life along both an external/internal axis, and along a positive/negative axis. Attributions are thus depicted by the quadrants defined by these axes. People prone to depression would be expected to blame themselves when anything bad happens, and to attribute luck for good things that happen to them. Conversely, nondepressed people will accept responsibility for the good in their lives, but tend to blame the situation on others when things do not work out (Beck et al, 1979).

The difference in information processing and attributional style between individuals who perceived themselves as abused in childhood and those individuals who made no such confirmation was also examined. The distress-mediated pathways of shame were expected to effect the dimensions of locus of control and expectancy differently among individuals who confirm childhood sexual abuse, physical abuse, and combined abuse. The salience of these effects was expected to be most apparent when the direct differential contributions to the magnitude of shame were evaluated. Subjects who endorse child abuse-related items were expected to have more negatively valenced internal and positively valenced external attributions. Subjects who do not confirm childhood abuse were expected to have patterns of negatively valenced external and positively valenced internal attributions. Hence, for nonabused subjects abuse effects are not expected to contribute to the magnitude of shame. The distribution of effects from distress to the four attributional components should be different for nonabused subjects.

Most research on the effects of physical and sexual abuse has been conducted with clinical populations of disturbed children or adults. (Plescia-Pikus et al., 1988; West & Prinz, 1987). Interviewing subjects in treatment settings may confound findings by yielding samples that comprise prediagnosed individuals who have been sensitized to life's problems. Many of the perceptions of childhood function have been gathered secondarily from parents, from clinicians and other service providers who suspect psychopathology, or retrospectively, from the children. To circumvent these confounds, subjects in this study were adults who had not previously participated in extensive clinical treatment.

Summary of Hypotheses

1. The variables of shame and current social support interact in concert with distress to organize an individual's internal and external attributions of personal expectancies for success or failure. Hence, reciprocity effects among distress, shame, and social support was anticipated. The alternate hypothesis is

that shame is not a mediator between distress and social support, and that there is direct interaction between the two factors.

2. Childhood sexual abuse, physical abuse, and combined physical and sexual abuse impact shame differentially, thus having varying degrees of effects on distress. An alternate hypothesis is that the effects of shame are noncontributory, and that the effects of abuse interact directly with social support and distress.

3. The effects of shame augment the effects of distress, escalating levels of depression and anxiety. Alternately, the effects are directly reciprocal.

4. Distress mediates the feelings of shame, thus increasing negative self-focus. Again, if shame is an irrelevant contributor to the dynamics of the model, mediation of distress is a direct consequence of social support.

5. Shame attenuates the availability and satisfaction of social support. Thus, events that occurred to the adult subject as a child differentially impact the initiation of shameful feelings, and one's

ability to acquire and derive satisfaction from social support.

6. Increased social support mitigates the effects of shame by reducing it.

7. The effect of childhood social support on current social support should be significantly influential and direct.

Figure 1 is presented on the following page as a graphical representation of the entire model from a psychodynamic perspective. It serves to characterize a composite of the psychodynamically-oriented hypotheses of this study.

On the other hand, Figure 2 is presented as a representation of the alternate hypothesis of the model. This pattern encompasses a more behavioral orientation to the distress-social support-abuse triad. The intervening effects of shame are removed, and there is direct interaction between the factors of interest.

Figure 1

Figure 2

CHAPTER 3

Method

Subjects

Subjects for this study were recruited from a pool of graduate and undergraduate psychology and sociology students at a major university in Southern California. Of the 180 subjects who completed the an hour long battery of self-report measures, fourteen of the questionnaires were invalid or incomplete.

To understand the rationale for the study, subjects were told that "questions you are about to answer probe into memories and feelings associated with childhood sexual and physical abuse." Recollected abuse history was determined after subjects completed the Childhood Sexual Victimization Interview Schedule (Russell, 1983) and the Assessing Environments III (Berger, et al, 1988) . The Assessing Environments III Inventory (AE3) is a 164 item, 15 scale instrument designed to measure the perception of an adult's family environment as a child. Of primary importance to the present study was the 12 item Physical Punishment (PP) Scale (Appendix A, Block 8, Items 1-12). Respondents

indicated the occurrence of disciplinary events ranging from exemplars of mild physical discipline (spanking) to potentially injurious physical punishment (e.g., punching, kicking, choking, hit with objects). The authors of the measure reported a two month test-retest reliability coefficient of .89 for the scale (Berger, 1988). It has been used routinely in clinical settings with patients diagnosed with combat-related post-traumatic stress disorder (Foy & Glynn, 1992). Subjects who positively endorsed three or more items were considered physically abused as children. This threshold was selected based on findings from the pilot study.

Childhood sexual victimization was also hypothesized to be a critical abuse component in this study. Respondents were asked to complete eight items from the Childhood Sexual Abuse Interview Schedule which "elicit memories of child sexual abuse experiences" and identified adults who were molested as children (Russell, 1983). Weighted response options for each item are age ranges: (1) less than 14 (weighted '2'), (2) age 14-18 (weighted '1'), and (3)

not by age 18 (weighted '0'). Types of questions regarding childhood sexual victimization included experiences which ranged from being upset by genital exposure to having experienced forced sexual intercourse (Appendix A, Block 7, Items 1-8). Consensually valid threshold levels were confirmed by interview at the conclusion of a pilot study conducted as part of the present study's procedure.

Findings from the Childhood Sexual Victimization Interview of the remaining 166 subjects suggested that 14% were sexually victimized as children (n=23). Results from the AE3 revealed that another 11% perceived themselves as being physically abused as children (n=16). Moreover, 7% endorsed items for both physical and sexual abuse (n=12). Hence, 30% of the sample (n=51) perceived themselves as being sexually and/or physically abused as children. Demographic characteristics across abuse categories were summarized in Table 1.

Despite using a nonclinical sample, approximately one third of subjects endorsed items which indicated they believed they were abused sexually and/or

physically as children. This frequency was concurrent with recent epidemiological abuse reports.

Subjects in this study also reported demographic information including gender, age, ethnicity, education level, previous and current therapy experience, existence of perceived parental alcoholism and/or mental illness, and any past or current self-help or 12-Step involvement. Subject demographic characteristics are shown in Table 1.

Childhood Abuse Structural Model

Table 1

Means and Standard Deviations of Demographic Variables across Abuse Categories.

| | <u>Abuse Categories</u> | | | |
|---------------------|-------------------------|--------------------------------|----------------------------------|-------------------------------------|
| | Normal <u>n=115</u> | Sexual Abuse <u>n=23</u> | Physical Abuse <u>n=16</u> | Sexual & Physical <u>n=12</u> |
| AGE | 21.4(7.4) | 22.9(9.1) | 27.9(9.8) | 21.8(4.3) |
| GENDER | | | | |
| MALE | 65 | 6 | 7 | 2 |
| FEMALE | 49 | 17 | 9 | 10 |
| ETHNICITY | | | | |
| % Caucasian | 74 | 65 | 88 | 75 |
| % Other | 26 | 35 | 12 | 25 |
| YEARS/ EDUCATION | 13.8(2.7) | 14.0(2.9) | 15.3(2.9) | 15.4(2.7) |
| YEARS/THERAPY | 0.54(1.1) | 1.1(1.8) | 2.6(4.8) | 1.3(1.6) |

Standard deviation of age, years/education, and years/therapy are included in parentheses.

MeasuresDistress measures.

Studies that have examined negative affect in adult children of alcoholics (Plescia-Pikus et al, 1988; Williams & Corrigan, 1992), adults physically abused as children (Brown & Anderson, 1991; Kiser et al, 1991), and adult survivors of childhood sexual victimization (Brown & Anderson, 1991; Kiser et al, 1991; Wolfe et al, 1991) have used anxiety and depression as indices of distress. Recent and immediate emotional condition is also useful in assessing affect state. In the present study trait and state anxiety were determined using the state and trait versions of the State-Trait Anxiety Inventory (STAI) (Spielberger, 1983). Each measure included 20 items, and the total scale ranges from 20 to 80 for each part. Test-retest correlations for the trait anxiety scale range from .73 to .86 for college students, and from .65 to .75 for high school students. Measures on the trait anxiety scale correlate well with other trait anxiety measures such as the *Institute for Personality and Ability Testing (IPAT) Anxiety Scale*, the Taylor

Manifest Anxiety Scale, and the Zuckerman *Affect Adjective Checklist*.

Depression was measured using the Beck Depression Inventory (BDI) (Beck, 1967). Split-half reliabilities for the BDI range from .78 to .93. The BDI has correlated significantly with other depression measures such as the Hamilton Rating Scale for Depression (HRSD) and the Depression scale of the Millon Clinical Multiaxial Inventory. Both the STAI and BDI have been used to measure the severity of effects in adults abused as children (Walker, Downey, & Bergman, 1989).

Shame measures.

Shame was assessed by the Self-Consciousness Scale (SCS) (Scheier, 1987). The SCS is a 22 item measure with a range of 0 to 66, where a low score indicates low negative self-consciousness. It focuses on the assessment of an individual's self-consciousness in both public and private situations. The measure's authors report an internal consistency of $\alpha=.84$, and a two week test-retest reliability of .82. The SCS measures degree of negative self-focusing, self-awareness, and the extent to which an individual

engages in self-blaming rumination. The measure correlates well with both the Mosher Forced-Choice Guilt Scale and the Revised Shame-Guilt Scale.

Measures of Social Support

To measure current social support, the 12 item short form of the Social Support Questionnaire (SSQ) (Sarason, Levine, Basham, & Sarason, 1983) (Appendix A) was used. The SSQ yields two scores, the number of persons listed as available social support (SSQN) and the respondent's satisfaction with available social support (SSQS). Alpha coefficients of internal reliability for the SSQ typically range from .94 to .97 for N and S scores, with S scores having the lower alpha. Test-retest reliability over a four week interval was .90 and .83 for N and S respectively. Factor analytic studies suggest that one factor accounts for 82% of the common variance of the N score. Another single factor accounts for 72% of the common variance of the S score. (Sarason, et al, 1983).

It was posited that current social support is initiated by social support patterns established in

childhood. In order to examine this relationship respondents were instructed to recall through visual imagery his/her tenth birthday. When the subject had indicated recall of his/her past environment, s/he was asked to respond to the SSQ as s/he would have at that time when s/he was ten years of age. The validity of this procedure was supported in a pilot study by corroborating parental responses. The details of this study are summarized below.

Pilot Study

The potential for false positives and negatives in the recollection of childhood abuse measures represented a threat since the validity of the research was dependent on self-report measures, and follow-up procedures to verify responses of a large sample were beyond the scope of the study. In order to assuage this potential confound a pilot study was conducted with follow-up procedures and interviews. This type of research prototyping is also known to circumvent potential pitfalls early in a study (Kazdin, 1992).

Pilot Subjects.

Of the 20 subjects who completed the questionnaires, findings from the Childhood Sexual Victimization Interview suggested that 20% were sexually victimized as children (n=4). Results from the AE3 revealed that another 20% perceived themselves as being physically abused as children (n=4). Moreover, 20% endorsed items for both physical and sexual abuse (n=4). Hence, 60% of the pilot sample (n=12) perceived themselves as being sexually and/or physically abused as children. Demographic characteristics across abuse categories were summarized in Table 1.

Pilot Procedure

The full battery of measures was administered to 20 subjects from two graduate psychology classes at a small private university in Southern California. The first consideration was establishing the consistency and validity of the childhood abuse measures. Prior to taking the tests, respondents signed a Consent Form (Appendix C) which acknowledged that their responses were to be strictly confidential, and that the researcher would contact them to review their

responses. Each response, positive or negative, was confirmed during a subsequent telephone interview. Explanations regarding the "meaning" of any question items were provided if the respondent seemed unsure or hesitant.

It was also useful to determine the validity of the participant's recollection of childhood social support by collecting corroborating data from a parent/guardian who knew the subject when he/she was ten years old. Hence, each respondent was provided with a prestamped envelope to address to his/her parent or guardian. Each envelope contained a letter explaining the purpose of the correspondence, a social support questionnaire to be filled out as it pertained to the parent's recollection of the respondent when he/she was ten years old, and a stamped, self-addressed envelope to the researcher (Appendix D).

Finally, logistical feedback relative to the administration of the entire battery was gathered immediately after all participants had completed the questionnaires. Design, analysis procedures, and

psychometric properties of the various variables were also pre-evaluated.

Evaluation of the efficacy of the dichotomization of the locus of control and expectancy variables was another goal of the pilot study. Instructions in BMDP were written to separately analyze items from each test, and four new variables were designated. Variable EP was external locus of control, positive expectancy; variable EN was external locus of control, negative expectancy; IP was internal locus of control, positive expectancy; IN was internal locus of control, negative expectancy. Both the GESS and the N-SLC were dichotomized and recombined to yield four new variables. EP, IP, EN, and IN were statistically evaluated after the pilot study for consideration of appropriate psychometric properties. Of particular concern was the normal distribution of each component, and each variable's ability to discriminate among the four quadrants of locus of control. Probability plots were used to determine adequate normal distribution.

Pilot Results.

Findings from the pilot study indicated that both the AE3 and the Childhood Sexual Victimization Interview were not confounded by false positives and negatives, and are criterion, divergently, and convergently valid in their discrimination of adults physically and sexually abused as children. During telephone interviews, every respondent re-endorsed each item of the Sexual Abuse Inventory and the AE3 in the same direction and magnitude as he/she responded during the original test administration. Individuals who did not endorse abuse items did not do so during subsequent interviews. However, these data should not be over-zealously interpreted since respondents knew beforehand that they would be queried about their responses, and may not have made special efforts to remember their responses.

Of the 20 social support questionnaires provided for parental feedback, twelve were returned. In order to simplify the interpretation of the social support data, the Satisfaction and Size factors from the current, child, and parent social support measures were collapsed to yield one social support variable for

current, child, and parent. Respectively, these variables were called SSQ, SSQ-C, and SSQ-P. The Pearson product-moment correlation matrix for these variables is presented in Table 2. All entries were significant below $\alpha=.01$. Of particular interest to this study is the correlation between SSQ-C and SSQ-P, $r=0.46$ ($p<.01$). The size of this coefficient suggests that the Child Social Support measure had adequate validity since respondent recollections of childhood social support were moderately corroborated by parental recollections.

Table 2Pearson Correlation Matrix of Social Support Measures
from Pilot Study.

n=20

| | SSQN | SSQS | SSQN_C | SSQS_C | SSQN_P |
|--------|--------|------|--------|--------|--------|
| SSQN | 1.00 | | | | |
| SSQS | 0.13 | 1.00 | | | |
| SSQN_C | 0.74 | 0.26 | 1.00 | | |
| SSQS_C | 0.58 | 0.08 | 0.79 | 1.00 | |
| SSQN_P | 0.73 | 0.18 | 0.35 | 0.39 | 1.00 |
| SSQS_P | 0.52 | 0.28 | 0.54 | 0.49 | 0.54 |
| SSQ | 0.99 | 0.28 | 0.76 | 0.57 | 0.73 |
| SSQ_C | 0.71 | 0.20 | 0.96 | 0.92 | 0.39 |
| SSQ_P | 0.742 | 0.22 | 0.43 | 0.45 | 0.98 |
| | SSQS_P | SSQ | SSQ_C | SSQ_P | |
| SSQS_P | 1.00 | | | | |
| SSQ | 0.55 | 1.00 | | | |
| SSQ_C | 0.55 | 0.72 | 1.00 | | |
| SSQ_P | 0.69 | 0.75 | 0.46 | 1.00 | |

* denotes entries where $p > .05$

Pilot Conclusion.

The major goal of the pilot study was to examine the psychometric properties of the measures, especially the NSLC (Locus of control) and the Generalized Expectancy for Success Scale (GESS). Inadequate resolution of the four quadrants of attributional style were obtained by the dichotomization of the N-SLC and the GESS. However, it became apparent that a more comprehensive conceptualization of the model was to identify an endogenous factor called Attributional Style, which is the latent variable underlying the measures GESS and N-SLC. This re-operationalization of the attribution factor facilitated the path analysis since the sign of the paths between the factor and each measure served to implicitly dichotomize locus of control and generalized expectancy. Therefore, extraneous data manipulation was not required. This revised conceptualization of the baseline model, along with other baseline model corrections, is presented in Figure 2.

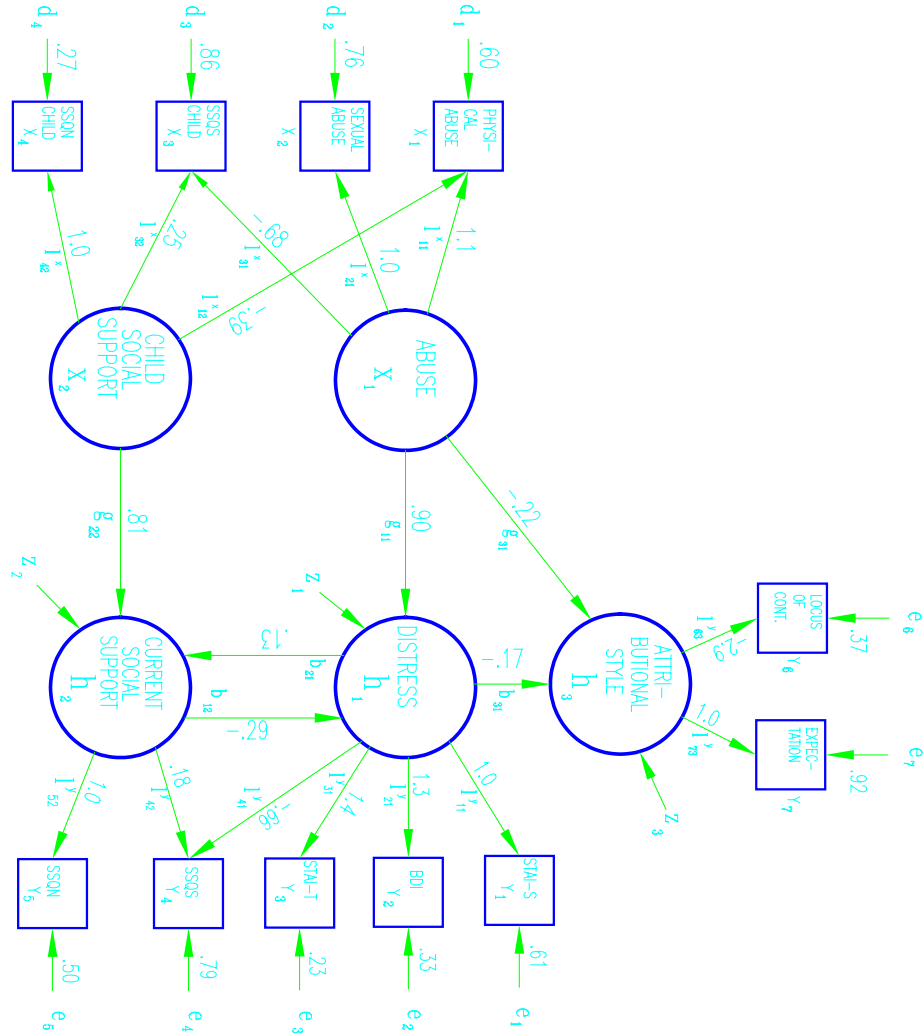


Figure 2

Bollen (1989) suggests a minimum of 5-10 subjects for each free model parameter in a structural model. A full and unrestricted model of Figure 2 would have been unwieldy and indecipherable. The maximum number of free paths included paths between indicators and

factors, paths between factors, and error perturbation paths where there is more than one observed measure for a factor. Measurement error paths where there was only one indicator for a factor were fixed, and therefore not free. This study required a minimum of five subjects per free parameter estimate. Since there were 29 free parameters in the base model, a minimum of N=145 subjects were required for the study.

Measures of Attributional Style.

An assessment of attributional style required a measure which would yield four separate components: Internal control/Positively valanced expectations, Internal control/Negatively valanced expectations, External control/Positively valanced expectations, and External control/Negatively valanced expectations. Two separate instruments were required in order to assess each dimension, Internal/External and Positive/Negative. The Nowicki-Strickland Locus of Control Scale (N-SLCS) (Nowicki & Strickland, 1973) was used to assess the internal/external dimension of locus of control. The N-SLCS is a 40-item instrument designed to measure whether

or not a person believes that reinforcement comes to him or her by chance or fate (external locus of control), or because of his or her own behavior (internal locus of control). Each item requires a "yes or no" response. The authors of the test report an internal consistency of $\alpha=.81$. Six week test-retest reliability was reported at $r=.71$.

Positive and negative expectancy was measured by the Generalized Expectancy for Success Scale (GESS) (Fibell & Hale, 1978). The GESS is a 30 item instrument that assesses the generalized expectancy of being successful. Each item is rated in terms of how much it applies to the respondent on a scale of 1 to 5, where "1" indicates strong agreement, and "5" indicates strong disagreement. Norms were established with three separate samples of primarily white, middle class college students. The authors reported an internal consistency of $\alpha=.90$ for males and $\alpha=.91$ for females. Six week test-retest reliability was reported to be .83 for both genders.

The Questions Booklet is shown in Appendix A. Respondents were presented with a test booklet and an

answer sheet (Appendix B) for template scoring. The format of the measures shown in Appendix A were altered to reflect "fill in the circle" responses. The questions and measures which did not lend themselves to automatic scoring had response sections on the back of the answer sheet (i.e. the Social Support Questionnaire, and certain items in Demographics), shown in the last part of Appendix A.

Statistical Procedure

LISREL (LIinear Structural RELationships) path analysis (Joreskog & Sorbom, 1989) was used to estimate the fit of the interrelationships between type of childhood abuse, distress, shame, past and present social support, and locus of control components. Specifically, the computer program Lisrel 7.15 performed an analysis for maximum likelihood parameter estimates and overall maximized goodness of fit for the model presented to it.

The structure of the model in Figure 1 (page 48) was driven by prevelent psychodynamic theory. That is, an internal psychodynamic process, shame, intervenes

between internal feelings of distress, and external social influences. The fit of an alternate model was also explored. A strictly behavioral model excluding the presence of the psychodynamic factor of shame was introduced into the analysis, and alternate fit parameters were presented as well. Nested models were of primary interest in the analysis. Significant differences in goodness of fit based on the equality or nonequality of certain parameters in the model were key to this investigation.

Generally the LISREL model assumes that a causal structure is specified among a set of latent dependent (η , eta, pronounced "eta") and independent variables (ξ , xi, pronounced "szee"). There are a set of observed variables (x and y) that are related to the latent variables. Hence, the latent variables appear as underlying causes of the observed variables. These latent variables can also be treated as intervening variables in a causal chain. The full LISREL model consists of two sub-models: the measurement model and the structural model. The measurement model specifies how the latent variables are measured in terms of the

observed variable indicators. The structural model specifies the causal relationships among the latent variables. The full LISREL model can be summarized by the following three matrix equations:

$$\begin{array}{ll} \text{Structural Model:} & \eta = B\eta + \Gamma\xi + \zeta \\ \text{Measurement Model for } y: & y = \Lambda_y\eta + \varepsilon \\ \text{Measurement Model for } x: & x = \Lambda_x\xi + \delta \end{array}$$

It is customary in path analysis to use Greek symbols, where η is lower-case eta; B is upper-case beta; ξ is lower-case ksi (or xi); Γ is upper-case gamma; ζ is lower-case zeta; Λ is upper-case lambda; ε is lower-case epsilon; δ is lower-case delta.

The symbol η refers to the matrix of endogenous (dependent) latent variables in a structural model. These factors are the unobserved variables associated with the observed measures in vector \mathbf{y} of the measurement model. The symbol ξ is used to represent the matrix of exogenous (independent) latent variables. These factors are the unobserved variables associated with the observed measures in vector \mathbf{x} of the measurement model. The elements λ (lambda) of the Λ_y and Λ_x matrices are the parameter coefficients which

link the latent and observed measures for both endogenous and exogenous factors respectively. The elements β (beta) of the full matrix \mathbf{B} represent directed effects between the various dependent latent constructs, $\eta_1, \eta_2, \dots, \eta_k$. Hence, the elements of \mathbf{B} are parameters which show strength and direction of the effects between the endogenous factors of the model. The parameters γ of the symmetric matrix $\mathbf{\Gamma}$ are directed effects from exogenous factors, ξ , to endogenous factors, η .

In path analysis the term "exogenous" refers to "independent" variables; the term "endogenous" refers to the "dependent" variables. The terms are subjective and model specific. The convention is to refer to variables as exogenous or endogenous based on their representation in a particular model.

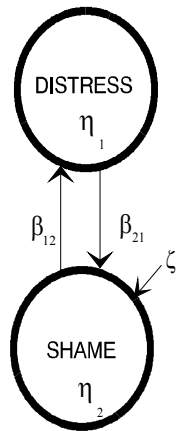
Epsilon (ϵ) and delta (δ) are matrices whose elements are errors of measurement in the observed endogenous variables, \mathbf{y} , and the observed exogenous variables, \mathbf{x} , respectively. The elements of δ are expected to be uncorrelated with ϵ , and conversely, the elements of ϵ are assumed to not be correlated with the

elements of δ . Furthermore, measurement perturbations are uncorrelated with all other endogenous factors (η), exogenous factors (ξ), and factor error perturbations (ζ , pronounced zeta).

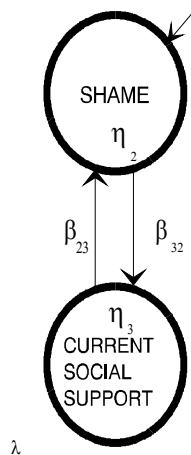
The exogenous factors hypothesized to be the external contributors to Shame are the Abuse Factors: Physical Abuse (ξ_1), Sexual Abuse (ξ_2), and combined Physical and Sexual Abuse (ξ_3). The indicator for ξ_1 is identified as the AE3 (x_1); the indicator for ξ_2 is identified as the Childhood Sexual Abuse Inventory (CSAI) (x_2); the indicator for ξ_3 is identified as the combined confirmation of sexual and physical abuse from both the AE3 and the CSAI, x_3 . The external factor effect on Current Social Support is identified as Childhood Social Support, ξ_4 . The indices of ξ_4 are identified as components of the Sarason Social Support questionnaire (x_4 and x_5) with the childhood scenario. Error perturbations for all measures in x are designated by δ_1 - δ_5 .

The effects between the endogenous (η) factors are designated by the β (beta) parameters. The baseline model (Figure 1) shows Shame effecting

Distress through β_{12} , and reciprocally, Distress effecting Shame through β_{21} .

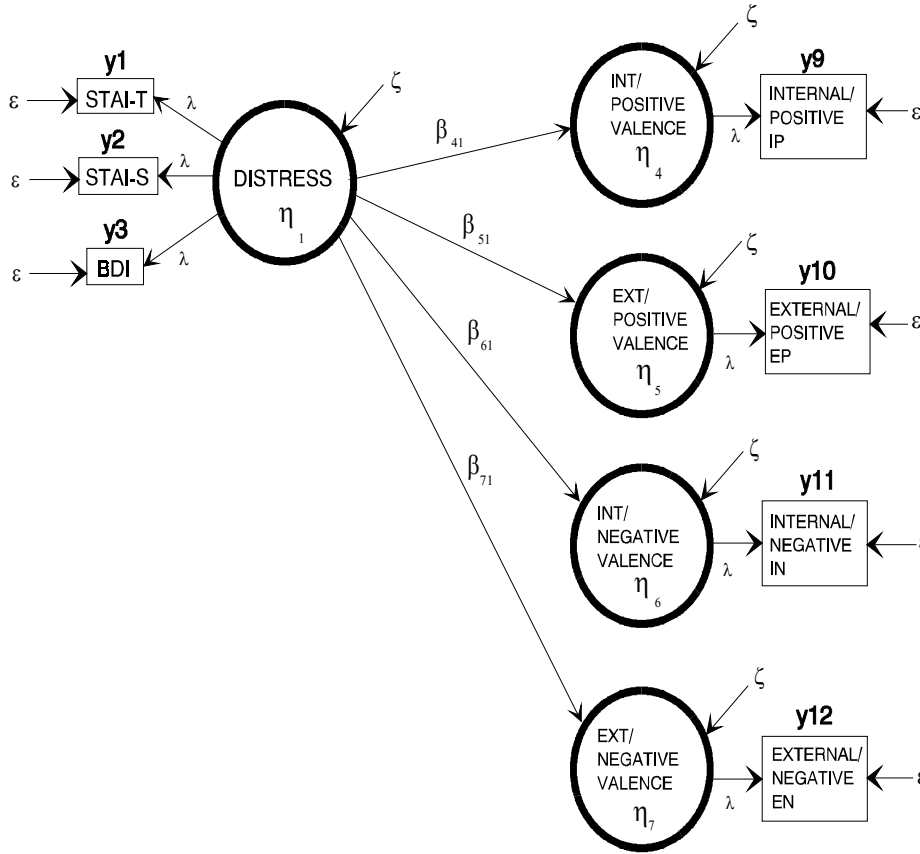


Furthermore, Shame effects Current Social Support through β_{32} , and Current Social Support effects Shame through β_{23} .



Since the level of distress in concert with the other mediating factors was expected to determine attributional pattern, this pattern is shown with

effects ($\beta_{41}, \beta_{51}, \beta_{61}, \beta_{71}$) from Distress (η_1) to the polarized components of locus of control (η_4 - η_7).



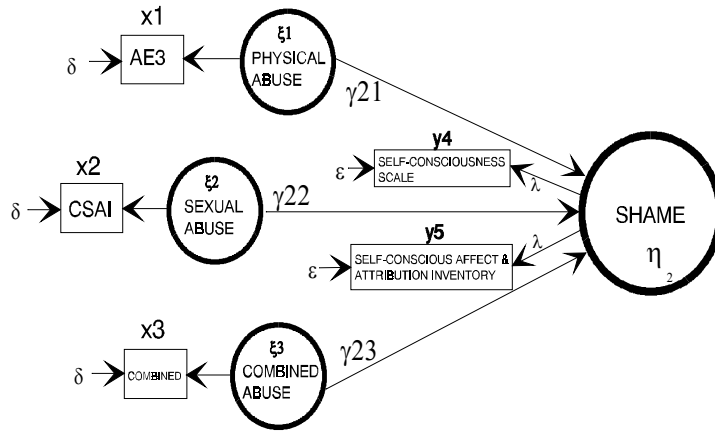
The proposed model assumes measurement both in x and y . Hence, the parameter estimates incorporate the three matrix equations shown above. Endogenous latent factors are represented by the matrix η ; exogenous latent factors are represented by the matrix ξ . Measurement error is in ϵ and δ . Coefficients which link observed indicators in y to latent variables (η)

are in Λy ; coefficients which link observed measures in x to exogenous latent variables (ξ) are in Λx . Effects between η factors are β parameters. Effects from ξ factors to η factors are γ parameters.

The baseline model in Figure 1 shows the expected relationships among various indicators, factors, and parameters labeled. The Distress factor is identified as η_1 , and its observed indices are Trait Anxiety (STAI-T) (y_1), State Anxiety (STAI-S) (y_2), and Depression (BDI) (y_3). The Shame factor is identified as η_2 , and its associated observed measures are the SCS (y_4) and the SCAAI (y_5). The Current Social Support factor is identified as η_3 . Its indices are Social Support-Number (SQN) (y_6) and Social Support-Satisfaction (SQS) (y_8). The factor that represents internal locus of control for positively valanced events is η_4 , and its indicator is IP (y_9). External locus of control for positively valanced events is η_5 , with EP (y_{10}) as its observed measure. The factor designated for internal locus of control for negatively valanced events is labeled η_6 , and its indicator is IN (y_{11}). External locus of control for negatively

valanced events is η_7 , and its observed measure is EN (y_{12}). Error perturbations for all measures in y are designated by ε_1 - ε_{12} .

As suggested in the hypotheses, the type of childhood abuse was expected to effect shame. These separate effect parameters are designated by the paths from Physical Abuse to Shame (γ_1), Sexual Abuse to Shame (γ_2), and Combined Abuse to Shame (γ_3).



Of particular interest during the analysis will be the differential fit of nested models where $\gamma_1=\gamma_2=\gamma_3$ versus $\gamma_1\neq\gamma_2\neq\gamma_3$. This analysis was designed to suggest whether there are differential effects from being sexually abused, physically abused, or a combination of the two.

CHAPTER 4

Results

Structural analysis of model with shame as a mediating
latent variable (Figure 1)

Various structural analysis representations and nestings of this model were attempted, and an adequate fit was not obtained. The best maximum likelihood fit rendered for this model was $\chi^2=249.50$, $df=36$, $p<.0001$ (Table 7). In most cases, the model simply was not determined (i.e., Σ , Φ , or Ψ was indefinable). Minimum start values necessary to run the model were unobtainable since the number of interactions required to calculate a fit were unbounded. Therefore, modification indices were not obtained in order to fix or free appropriately designated parameters. This model was abandoned for a model which did not incorporate shame as a mediator between Distress and Current Social Support. Furthermore, an exogenous latent variable, Abuse, was defined with the sexual and physical abuse measures as its indicators (Figure 2).

Structural analysis of model without shame as a mediating latent variable: The alternate hypothesis (Figure 2)

After various unsuccessful attempts to find a fit for a model with Shame as a mediating variable between Distress and Social Support, the model was abandoned. Based on the findings from these results, it was replaced by the behaviorally-oriented alternate hypothesis model As was represented in Figure 2, it included the following changes: (1) there was direct reciprocation between Distress and Social Support, and the shame mediating variable was eliminated; (2) a single Abuse exogenous latent variable was created with sexual abuse and physical abuse as its indicators; (3) a single Attributional Style endogenous latent variable was created with locus of control (N-SLC) and expectancy (GESS) as its indicators. A re-examination of Figure 2 (next page) depicts this revised unrestricted baseline model where the path parameters shown in the figure were free and unrestricted.

Figure 2

Thus the psychodynamic concept was not supported as necessary to prediction. However, the alternate, more parsimonious model yielded a relatively good fit, $\chi^2=46.5$, $df=29$, $p=.021$ (Table 7). The path parameters between measures and factors are depicted by the lambda (λ) coefficients. Lambda x are the path parameters between exogenous latent factors and their associated loadings; lambda y are the path parameters between endogenous latent variables and their associated factor loadings. These parameters are elements of a full matrix, Λ_x and Λ_y respectively. Relative factor loadings between exogenous (independent) and endogenous (dependent) latent variables and their associated measures are shown in Table 4. The significance of each path is shown by the associated t-value in parentheses.

Parameters between endogenous latent variables (beta's, β), and parameters between exogenous and endogenous latent variables (gamma's, γ) are presented in Table 5. The beta (β) parameters show direction and strength of effect between endogenous factors. The gamma (γ) parameters show strength of effect from independent (exogenous) to dependent (endogenous)

latent variables. The significance of each path is also represented by the associated t-value in parentheses. The error variances associated with each measurement term in x are δ_1 through δ_4 .

Table 4

Free parameter estimates of Lambda y (Λ_y) to Eta (η) and Lambda x (Λ_x) to Ksi (ξ).

| LAMBDA Y | | | |
|----------|-----------------|-----------------|-----------------|
| | ETA 1 | ETA 2 | ETA 3 |
| STAI_S | .623 * | .000 - | .000 - |
| BDI | .821 (8.04) | .000 - | .000 - |
| STAI_T | .879 (9.27) | .000 - | .000 - |
| SSQS | -.411 (4.94) | .129 (1.62) | .000 - |
| SSQN | .000 - | .737 * | .000 - |
| LOC | .000 - | .000 - | -.794 (2.70) |
| EXP | .000 - | .000 - | .273 * |
| LAMBDA X | | | |
| | KSI 1 | KSI 2 | |
| PA | .539 (4.25) | -.334 (4.28) | |
| SA | .492 * | .000 - | |
| SSQS_C | -.327 (3.22) | .213 (2.31) | |
| SSQN_C | .000 * | .856 - | |

t-values are in parentheses. (-) designate unestimated parameters. (*) designates parameters whose variance was set to one (1) for scaling.

Table 5

Parameters of free paths between Eta's (beta's) and between Ksi's and Eta's (gammas).

| BETA | | | |
|-------|-----------------|-----------------|-----------|
| | ETA 1 | ETA 2 | ETA 3 |
| ETA 1 | .000 - | -.337 (3.29) | .000 - |
| ETA 2 | .109 (1.07) | .000 - | .000 - |
| ETA 3 | -.395 (1.66) | .000 - | .000 - |
| GAMMA | | | |
| | KSI 1 | KSI 2 | |
| ETA 1 | .709 (3.22) | .000 - | |
| ETA 2 | .000 - | .938 (8.85) | |
| ETA 3 | -.393 (1.47) | .000 - | |

t-values are in parentheses. (-) indicate unestimated parameters.

$(\delta_1-\delta_4)$; error variances associated with each measurement term in y are epsilon 1 through epsilon 7 ($\epsilon_1-\epsilon_7$). The error variance-covariance is represented by a symmetric matrix with elements theta delta ($\theta\delta$) and theta epsilon ($\theta\epsilon$) respectively. These parameter values are shown in Table 6. Parameters with values of zero were fixed in the model, and were not estimated. Typically, values not estimated were statistically insignificant, and were subsequently fixed in order to provide fewer degrees of freedom to the model.

Error disturbance (residuals) on the endogenous variables is represented by the zeta (ζ) parameters, $\zeta_1-\zeta_3$. Psi (ψ) is the variance-covariance symmetric matrix associated with endogenous latent variable error disturbance. These values are also shown in Table 6.

Table 6

THETA EPSILON ($\theta\epsilon$)

| | STAI_S | BDI | STAI_T | SSQS | SSQN | LOC |
|--------|--------|------|--------|------|------|------|
| STAI_S | .613 | | | | | |
| BDI | .160 | .328 | | | | |
| STAI_T | .285 | .000 | .234 | | | |
| SSQS | -.130 | .000 | .000 | .787 | | |
| SSQN | .000 | .000 | .000 | .196 | .500 | |
| LOC | .000 | .000 | -.085 | .000 | .000 | .373 |
| EXP | .000 | .108 | .000 | .000 | .000 | .000 |
| | | EXP | | | | |
| EXP | | .923 | | | | |

THETA DELTA ($\theta\delta$)

| | PA | SA | SSQS_C | SSQN_C |
|--------|-------|------|--------|--------|
| PA | .599 | | | |
| SA | .000 | .758 | | |
| SSQS_C | -.264 | .000 | .862 | |
| SSQN_C | .000 | .000 | .319 | .270 |

Exogenous Path ParametersLoading comparison of sexual abuse and physical abuse measures on the Abuse factor

The psychodynamic model predicted differential loading of their effects through shame. The behavioral model predicted an Abuse factor which was loaded by sexual and physical abuse. Physical abuse and sexual abuse have almost equal path parameters with the exogenous variable, Abuse. The path coefficient between Abuse and the measure for physical abuse was 1.1, and the coefficient between Abuse and sexual abuse was 1.0 (Figure 2 and Table 4). These findings seem to suggest that sexual abuse and physical abuse play equal roles in defining Abuse as it was presented in our model. However, physical abuse also had a deleterious impact on the child's ability to derive social support, as shown by the negative coefficient (-.39) between physical abuse and the exogenous latent variable, Child Social Support (Figure 2). A similar path between sexual abuse and Child Social Support was not identified. Furthermore, when the parameters between

Abuse, physical abuse, and sexual abuse were forced to be equal ($\lambda_{x11}=\lambda_{x21}$), the resulting model estimation was a significantly worse fit (Table 7) compared to the baseline model in that it was unidentifiable.

Relative loadings of satisfaction and size on childhood social support factor

It was hypothesized that there would be differential loadings of satisfaction and size measures on Childhood Social Support. The results indicated that Childhood Social Support was affected by three indicators: social support satisfaction, social support size, and the recollection of the extent of physical abuse (Figure 2). The relative values of the coefficients estimated in the model suggest that the effect of social support size had four times the effect of social support satisfaction ($\lambda_{x42}=1.0$; $\lambda_{x32}=0.25$) on Childhood Social Support. However, the amount of satisfaction could have been an indirect artifact of the effect of physical abuse on Childhood Social Support, since the relation between the physical abuse indicator and Child Social Support was negative ($\lambda_{x12}=-$

-.39). The indicator for social support satisfaction has a negative effect on the exogenous latent variable, Abuse ($\lambda_{31} = -.68$; Figure 2). Estimates indicate that these maximum likelihood paths are all statistically significant ($p < .05$).

As a further test of the relationship between social support satisfaction and size on the child social support latent variable, a model was estimated where the two social support indicator coefficients were forced to be equal. The resulting estimation yielded a model with $\chi^2 = 85.84$, $df = 29$ (Table 7). The difference in fit to the baseline model is $\Delta\chi^2 = 39.34$, $\Delta df = 1$. The difference of fit between the baseline model and the nested model is highly significant, where $p < .01$.

Effect of Childhood Social Support on Current Social Support

It was predicted for both the psychodynamic and behavioral model that Childhood Social Support would have a direct effect on Current Social Support. The subsequent analysis supported that social support

derived as a child had a direct positive impact on an individual's current social support. The path coefficient (γ_{22}) between Child Social Support (ξ_2) and Current Social Support (η_2) is .81 ($t=8.85$, $p<<.01$) (Table 5 and Figure 2). A direct path between Abuse and Current Social Support was not significant. The modification index for the path (γ_{21}) between Abuse and Current Social Support was .08. This finding suggested that there was no statistical motivation in freeing this parameter. In our model the most important determiner of adult social support was social support developed as a child. Hence, development of a strong and satisfying social support structure as a child endures to a functional adult support system.

Dual effects of Abuse on Distress and Attributional Style

As predicted from the behavioral model (and contraindicated in the psychodynamic model), Abuse affected Distress positively and directly. It affected Attributional Style directly, and indirectly through Distress (Figure 2). The path coefficient between

Abuse (ξ_1) and Distress (η_1) is both strong and significant, $\gamma_{11}=.90$, $t=3.44$, $p<.01$ (Table 5). The coefficient between Abuse and Attributional Style is appropriately negative ($\gamma_{31}= -.22$), but it was not as significant as the path between Abuse and Distress ($t=1.47$, $p<.1$). In order to compare the baseline model to a nested model with a direct path only between Abuse and Distress, the path from Abuse to Attributional Style was fixed, and this nested model was estimated. The fit resulted in $\chi^2=50.17$, $df=30$. The difference in fit between the baseline model and the nested model was $\Delta\chi^2=3.67$, $\Delta df=1$, $p<.1$. Inversely, another nested model where γ_{11} was fixed, and γ_{31} was freed, was also estimated. The resulting fit was $\chi^2=87.69$, $df=30$. This difference was $\Delta\chi^2=41.19$, $\Delta df=1$, $p<<.01$. Hence, the existence of γ_{31} does not yield a significantly better or worse model; however, γ_{11} must exist for the model to fit the data. These results suggest that the direct effect of Abuse on Attributional Style is not as essential as the indirect effect of Abuse through Distress.

Endogenous Path ParametersIndicators of distress: state anxiety, trait anxiety,
and depression

The path coefficients between Distress and its indicators were: state anxiety (STAI-S), $\lambda_{y11}=1.0$; depression (BDI), $\lambda_{y21}=1.3$; trait anxiety (STAI-T), $\lambda_{y31}=1.4$ (Table 4 and Figure 2). It appeared from these findings that Distress contributed the greatest relative portion of its effects to trait anxiety, secondly to depression, and finally to state anxiety. Furthermore, there was a negative contribution to current social support satisfaction (SSQS) from Distress (Table 4 and Figure 2).

Relative loadings of satisfaction and size on current
social support factor

Current Social Support was affected by two indicators: social support satisfaction and social support size (Figure 2). The relative values of the coefficients estimated in the model suggest that the effect of social support size had more than five times

the effect of social support satisfaction ($\lambda_{y52}=1.0$;
 $\lambda_{y42}=0.18$) on Current Social Support (See figure, next
page).

Figure 2

Furthermore, estimates indicate that these maximum likelihood paths are all statistically significant ($p < .05$).

As a further test of the relationship between social support satisfaction and size on the current social support latent variable, a model was estimated where the two social support indicator coefficients were restricted to equality ($\gamma_{42} = \gamma_{52}$). The resulting estimation yielded a model with $\chi^2 = 87.69$, $df = 30$ (Table 7). The difference in fit to the baseline model is $\Delta\chi^2 = 41.19$, $\Delta df = 1$. Clearly, the difference of fit between the baseline model and this nested model is markedly significant, where $p < .01$.

Relationship of locus of control and expectation to Attributional Style

The psychodynamic relationship of shame to attributional style was not supported in this analysis. The analysis portrayed that a more positive locus of control measure indicated a more externally oriented locus of control. The more positive the expectation measure became, the more likely the respondent expected

successful results from his/her actions and future. The static perspective of Attributional Style as it was represented in our model was one of positively oriented internal locus of control. A negative effect on locus of control predicted a more internal orientation. Likewise, a positive effect on expectation predicted a positive expectation of one's actions in the future. Thus, any negative effect on Attributional Style caused locus of control to become more external (a negative times a negative is a positive effect), and expectation to become more negative. Thus, a person would come to expect negative events from his/her environment which are out of his/her control. The results reveal that this view of the world was enhanced by the negative direct effects of Distress and Abuse, and through the indirect effect of Abuse through Distress.

Reciprocal effects between Distress and Current Social Support

Whereas the psychodynamic model predicted Shame as the intervening variable between Current Social Support and Distress, the behavioral model predicted direct

reciprocation. The analysis supported the model predicting direct interaction. The endogenous latent variables Distress and Current Social Support interacted with one another reciprocally through the paths β_{21} and β_{12} (Figure 2). Distress affected Current Social Support positively through $\beta_{21}=.13$; Current Social Support affected Distress negatively through $\beta_{12}=-.29$ (Table 5). These findings supported the alternate hypothesis that social support should have a direct negative effect on Distress.

Separate nested analyses with $\beta_{12}=\beta_{21}$ and $\beta_{12}\neq\beta_{21}$ were performed in order to confirm the significance of unequal and reciprocal paths between Distress and Current Social Support. The nested model was estimated where β_{21} and β_{12} were held equal. The resultant fit was $\chi^2=52.94$, $df=30$. The comparison of fit between the reciprocal pathway model and the equal pathway model was $\Delta\chi^2=6.44$, $\Delta df=1$, $p<.01$. These results suggest that the reciprocal pathways between Distress (η_1) and Social Support(η_2) are significantly not equal, and that the feedback loop model is a better fit for the data.

Table 7

Summary of Competing Model Goodness of Fit Parameters

| MODEL | χ^2 | df | χ^2/df | p |
|--|----------------|-----------|-------------|--------------|
| "Psychodynamic" model shown in Figure 1 | 249.50 | 36 | 6.92 | .0001 |
| "Behavioral" model shown in Figure 2 | 46.50 | 29 | 1.60 | .021 |
| $\beta_{12} = \beta_{21}$ | 52.94 | 30 | 1.76 | <.006 |
| γ_{31} fixed (path not estimated) | 50.17 | 30 | 1.67 | <.012 |
| $\gamma_{11} = \gamma_{22}$ | 46.61 | 30 | 1.55 | .027 |
| $\lambda_{x11} = \lambda_{x21}$ | Not identified | -- | -- | -- |
| $\lambda_{x32} = \lambda_{x42}$ | 85.84 | 29 | 2.96 | <.0001 |
| $\lambda_{y42} = \lambda_{y52}$ | 80.05 | 29 | 2.76 | <.0001 |
| γ_{11} fixed - (path not estimated) | 87.69 | 30 | 2.92 | <.0001 |

Hence, there was a significant improvement in the model when $\beta_{12} \neq \beta_{21}$, and the two parameters are allowed to vary freely.

Several models were analyzed where parameters of $\theta\epsilon$, ψ , and $\theta\delta$ were either freed or allowed to vary. The model shown in the present study resulted in the best χ^2 estimate and goodness of fit. Changes in χ^2 ($\Delta\chi^2$) relative to differences in degrees of freedom (df) did not present a significant improvement in fit over comparable models analyzed. In the final model (Figure 2) $\chi^2 = 46.50$ with 29 degrees of freedom ($p = .021$). The goodness of fit index was .957; the adjusted goodness of fit index was .902.

CHAPTER 5

Discussion

In summary, a model representing a behavioral orientation to the interaction of feelings of distress, childhood abuse, and social support was supported over a more psychodynamic representation where shame mediated between feelings of distress and social support. The psychodynamic model required shame and current social support to interact in concert with distress to organize an individual's internal and external attributions of personal expectancies for success or failure. From the analysis of our original model we found that Shame was not a factor of mediation, and that Distress and Current Social Support interacted directly. Shame was subsequently removed from the model.

Likewise, childhood sexual abuse, physical abuse, and combined physical and sexual abuse were hypothesized to impact shame differentially, thus having varying degrees of effects on distress. Childhood sexual abuse was thought to have a greater negative impact on adult functioning. This interaction

is a mute point in the behavioral representation since Shame was not incorporated into the model. However, results from the analysis of the model suggested that physical abuse has a more profound effect on adult pathology than sexual abuse. There may be confounding features in these otherwise elucidating findings, however.

It could be argued that the physical abuse measure and the sexual abuse measure were targeted at different perpetrators. The physical abuse measure was very specific about parental physical abuse. The sexual abuse measure was more global in its scope. It queried the respondent about all sexual abuse from all sources, including close relatives, friends, and strangers. Hence, the difference in relationship of the perpetrator to the victim may confound the effects of the type of abuse. In the present study physical abuse may appear more profound only because the relationship of the perpetrator was closer to the victim.

Another limitation to our study was that only relatively high functioning young adults were sampled. Hence, the spectrum of distress may have a narrow band

relative to the individuals who were not sampled in this study. On the other hand, a clinical population has probably been outfitted with an armory of therapeutic tools and gimmicks to help cope with distress and conflict. Responses from this group could be biased based on therapy already received. Other sampling issues may bias our sample as well. Most subjects were behavioral science students. One could surmise that many of these individuals, although not formally a clinical population, have read techniques and theories relative to various treatment modalities. This general knowledge alone sets the stage for certain response bias.

It was expected that the effects of shame augment the effects of distress, escalating levels of depression and anxiety. Contrary to this supposition, the effects of Distress in the place of Shame was found to enhance Current Social Support. Thus, Distress actually augments the availability and satisfaction of social support.

The hypothesis that increased social support would help to mitigate the effects of shame was supported.

Furthermore, it was expected that the effect of childhood social support on current social support would be significantly influential and direct. This supposition was also strongly supported.

Generally, findings from this study showed that subjects who had no significant prior history of psychiatric treatment but believed they were sexually or physically abused as children had increased levels of negative affect and different attributional patterns than individuals who had no beliefs about childhood abuse. Despite using a nonclinical sample, results from this study showed that 33% of subjects believed they were abused as children. This frequency is concurrent with recent epidemiological reports which suggest that as many as one out of four girls are molested by a parent, family member, or close friend by the time she is an adult (Finkelhor, 1988). As many as one out of six boys suffer similar abuse, and recent studies suggest even higher prevalence of molestation for boys.

Alarming, recent research suggests that epidemiological studies of childhood sexual victimization might underrepresent the base rates of the

problem (Finkelhor & Browne, 1985). These data are supported by the statements of many reporting agencies that the instances of child abuse and neglect are probably underreported. Alternately, an adult child's recollection and perception of problems experienced in childhood may alter perception of the actual severity of the abuse. Either way, these findings suggest that children who perceived their parents or trusted others as having sexually or physically abused them have greater adjustment problems in young adulthood.

Effects of sexual and physical abuse

The differential effects of physical and sexual abuse were examined. The original hypothesis posited that sexual abuse would have a more profound effect on adult functioning. Alternately, the findings indicated that although the effects of physical abuse and sexual abuse are equal abuse indicators, physical abuse acts through additional paths to compound adult pathology. These findings suggest that not only does physical abuse abrogate an individual's ability to assuage ultimate negative affect through establishing social

support channels as a child, but also it's overall indirect impact on the effects of Distress through Abuse are greater. Furthermore, physical abuse may serve to diminish the child's ability of derive satisfaction from the available social support network. This interpretation was supported by the finding that conversely, the indicator for social support satisfaction had a negative effect on the exogenous latent variable, Abuse ($\lambda_{31} = -.68$; Figure 2).

Alternate to our original supposition, the indirect mediating effects of social support on feelings of distress through reduction of negative self-focus (shame) was shown to be insignificant and noninstrumental in our model. Rather, there is direct reciprocating interaction between current social support and feelings of distress. This finding is significant relative to the treatment of individuals suffering from feelings of negative affect due to childhood abuse. If shame were indeed an important and influential mediating variable between Distress and Current Social Support, then treatment techniques might be targeted at reducing levels of shame through the

induction of cognitive modification and schematic reorientation. These techniques would be used to alter an assumed underlying negative belief system which would likely be chronic and long-standing in nature. However, our model suggests that changes in one's current social support status has a direct and negative impact on feelings of depression and anxiety.

Moreover, the model facilitates a direct behavioral approach for these maladies. The model implies that an increase in the numbers of individuals available in one's social support network is more effective than increasing satisfaction in one's existing social repertoire. Changing the number of social contacts lends itself to more empirical and direct procedures than changing how an individual affectively perceives his/her social topology. Moreover, as Distress is attenuated by the augmentation of Current Social Support through increased social contacts, the negative effect of Distress on social support satisfaction is reduced. Hence, increased personal contacts are reinforced not only through

decreased anxiety and depression , but also from more satisfaction derived from one's encounters.

Hence, social support contributes in alleviating feelings of anxiety and depression. Moreover, the effect occurred for both acute (state) anxiety as well as the more chronic and personality-entrenched (trait) anxiety.

Distress facilitates social support

The surprising finding was that Distress did not diminish one's ability to establish adequate and satisfying social support. On the contrary, Distress mildly facilitated social support as shown by the positive effect of $\beta_{21}=.13$ (Figure 2, next page).

Figure 2

These findings could be interpreted as the an interactive feedback loop between Distress and Current Social Support. As distress in the form of negative affect increased in one's life due to historical circumstances, the effect of social support is enhanced. Reciprocally, social support performed an attenuating action on distress, reducing the symptoms of negative affect.

Since the latent endogenous factor, Distress, impeded one's ability to derive satisfaction from one's available social support, one could argue that Distress had a negative impact on the adult's ability to derive satisfaction from available social support in the same way that Abuse had a detrimental effect on the child's ability to derive satisfaction from past available social support. Interestingly, the effects were almost equal: the parameter (λ_{x31}) between Abuse and the child social support indicator (SSQS-Child) was $-.68$, and the parameter (λ_{y41}) between Distress and current social support satisfaction (SSQS) was $-.66$ (Figure 2).

Although the effect of social support size had more than five times the effect of social support

satisfaction ($\lambda_{52}=1.0$; $\lambda_{42}=0.18$) on Current Social Support, the amount of satisfaction could be an indirect artifact of the effect of Distress on SSQS. The relation between Distress and the indicator for current social support satisfaction (SSQS) was negative ($\lambda_{41}=-.66$). Distress may function to diminish the adult's ability of derive satisfaction from the available social support network.

This model provides an optimal treatment enhancement through change of action rather than change of thought or feeling. It represents change as a process of doing, and one's thinking subsequently changes in order to accommodate the action. Alcoholics Anonymous has prescribed this edict since its inception through one of its many slogans, "Bring your body, and your head will follow."

This model not only has treatment implications for adults who were victims of abuse, but also for children who are currently being seen in clinical environments as a result of severe mistreatment. In our model the most important determiner of adult social support was social support developed as a child. Hence,

development of a strong and satisfying social support structure as a child endures to a functional adult support system. The model depicts Child Social Support not only as a curative factor, but also as a preventative factor. Child Social Support has a strong and significant effect on adult social support potency. Establishing a foundation of effective social behaviors in childhood can serve as a vaccine, as well as a cure, against future adult dysfunction.

The psychodynamic model posited that through the mediating effect of shame on distress, childhood sexual abuse was more detrimental to adult functioning than physical abuse. However, the hypothesized endogenous variable, Shame, had to be removed since the original model did not fit the data. The revised model, the behavioral model, suggested that physical abuse was slightly more pernicious than sexual abuse in facilitating debilitating negative affect (loading coefficient for physical abuse was $\lambda_{x11}=1.1$; loading coefficient for sexual abuse is $\lambda_{x21}=1.0$). However, our original supposition was still partly valid. Child Social Support appeared to act as an inhibitor of

physical abuse, since the loading of Child Social Support on the physical abuse indicator was negative and significant ($\lambda_{12} = -.39, p < .01$). Child Social Support did not have the same negative effect on the sexual abuse indicator. This pattern of path coefficients suggested that sexual abuse may be resilient to the environmental influences of the child. Thus, a large and rewarding social support network in a child's life may retard the potential for physical abuse, but not sexual abuse. Hence, sexual abuse appeared to proceed without as much social buffer. The dual effects of sexual and physical abuse served to increase the impact of the abuse factor on distress, as well as decreasing the child's ability to secure satisfying social relationships. As one might expect, individuals who were both physically and sexually abused were at much higher risk of experiencing unmoderated distress as adults.

Contrary to the notion that feelings of depression and anxiety disable one's ability to seek relief through social intercourse, the path coefficients of our model suggested that distress embellishes Current

Social Support. Within this specific sample, as one experiences more feelings of negative affect, one is more prone to turn to social outlets for redress. This model does not reinforce the idea of the abused and shamed self-destructive automaton who withdraws further and further into a whirlpool of distress and self-loathing because of self-blaming memories of childhood trauma. Rather, this model addresses an adaptive, functional, and self-corrective approach that would appear to parallel other survival characteristics of human beings. People are drawn to aspects of life that serve to provide refuge or alleviation from distressing experiences and feelings. Social support serves such a function.

A compelling finding of this study was that although the differential effects of attribution between the Abused and Unabused groups were different, all paths to all attributional categories for both groups were significant. These findings support literature which refutes claims of some attributional theorists that only depressed or distressed individuals attribute positive events to external causes and

negative events to internal causes. Research with depressed populations indicates that about one-third of all depressed people exhibit this attributional style, and those who do, change their style in periods when they are not depressed (Hamilton & Abramson, 1983). Indeed, our study accounted for a more conditional and adaptable model of attribution. That is, all causal paths were open, and represent potential attributional routes. The prevalence of the pattern was contingent upon the mediation of social support. Situational circumstances could enhance distress in an unabused individual as shown by our model. Likewise, the distress of abused individuals could be diminished through the attenuating action of social support on distress. Consequently, a shift in attributional pattern would result.

A preferred analytical procedure would have been comparative structural analysis with different samples. The fit of the model could have been compared across different abused groups. Hence, there could have been differential fit from sexually abused, physically abused, dually abused, and unabused subjects.

Unfortunately, the sample size for each group would have to be as large as the entire sample of our study. Since each abuse category represented a relatively small percentage of our sample, our sample size would have to be increased at least 10 fold to have performed these procedures.

An additional drawback to our model is that we did not consider the effect of attribution on distress, shame, and social support. Negative attributions may tend to perpetuate distress, and impair one's ability to derive adequate ameliorating effects from potentially available social support. Future research should address these paths as separate issues, or our model could be integrated with feedback paths from attributions to form a more comprehensive model. In either event, increased sample sizes would have to account for the additional parameter estimates.

The results of the estimated model provided potential insight into multiple pathways for the mediating effects of social support on feelings of distress. Furthermore, the model provided an explanation for differential outcomes of attributional

schematic processing across individuals who have experienced traumatic events in their childhoods.

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Appendix A

Instructions and Questions Booklet

INSTRUCTIONS FOR COMPLETING THIS
ASSESSMENT

You have been provided the following set of documents:

1. These *Instructions*
2. A set of *Answer Sheets* which are stapled together. The front page is a sheet with a bunch of circles to fill in.
3. A *Question "Booklet"* with the pages stapled together also.

-
-
1. All the questions in the Questions Booklet can be answered on the front page of the Answer Sheets (page with the circles).

2. Please do not write in the Questions Booklet.
3. Once you have answered all the questions in the Questions Booklet, put it aside.
4. Turn the front page of the "circled answer sheet" over. All sheets are two-sided, so be sure to turn each page over to continue. Additional prompts are provided at the end of each section.
5. All other questions, and answer locations are provided on the remaining answer sheets. The Questions Booklet is not required after the "circled side" (front page) of the Answer Sheets is complete.
6. Remember to complete each side of all the answer sheets.

7. Please make marks that are clear and dark (Use #2 pencil or black ink). You may fill in the circles or just make "X" s.

Please provide all responses on the ANSWER SHEET,
and not on the TEST BATTERY BOOKLET.

DEMOGRAPHICAL INFORMATION

1. Your sex.
 1. Male
 2. Female

2. Your race, or what you consider yourself.
 1. Native American
 2. Asian
 3. Black, or Afro-American.
 4. Latin (Mexican, Central, or South American)
 5. White, or Caucasian.

3. Number of years you have attended school, not including Kindergarten.

Number of years: _____

4. Your age: _____

5. Family income. What is your approximate current family income per year?

Income: _____

6. Number of years you have been in individual or group therapy. Include 12-Step Programs and any other support groups nonprofessionally sponsored.

Number of years (fractions OK) _____

Childhood Abuse Structural Model

115

7. Do you currently attend 12-Step Program Meetings (Adult Children of Alcoholics, Adults Molested as Children, Al-Anon, CODA, Alcoholics Anonymous, Ala-Teen, Narcotics Anonymous, etc.)?
 1. Yes
 2. No

RESPOND IN **BLOCK 1** OF THE ANSWER SHEET

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Fill in the circle on the ANSWER SHEET that corresponds to the number beside the statement you picked. If several statements in the group seem to apply equally well, fill in each circle that applies. *Be sure to read all the statements in each group before making your choice.*

1. 0 I do not feel sad.
 1 I feel sad.
 2 I am sad all the time and I can't snap out of
it. 3 I am so sad or unhappy that I can't stand it.
2. 0 I am not particularly discouraged about the
 future.
 1 I feel discouraged about the future.
 2 I feel I have nothing to look forward to.
 3 I feel that the future is hopeless and that
things cannot improve.
3. 0 I do not feel like a failure.
 1 I feel I have failed more than the average
person.
 2 As I look back on my life, all I can see is a
lot of failures.
 3 I feel I am a complete failure as a person.
4. 0 I get as much satisfaction out of things as I
used to.
 1 I don't enjoy things the way I used to.
 2 I don't get real satisfaction out of anything
 anymore.
 3 I am dissatisfied or bored with everything.
5. 0 I don't feel particularly guilty.

Childhood Abuse Structural Model

117

- 1 I feel guilty a good part of the time.
- 2 I feel quite guilty most of the time.
- 3 I feel guilty all of the time.

6. 0 I don't feel I am being punished.
 1 I feel I may be punished.
 2 I expect to be punished.
 3 I feel I am being punished.
7. 0 I don't feel disappointed in myself.
 1 I am disappointed in myself.
 2 I am disgusted with myself.
 3 I hate myself.
8. 0 I don't feel I am any worse than anybody
 else.
 1 I am critical of myself for my weaknesses or
 mistakes.
 2 I blame myself all the time for my faults.
 3 I blame myself for everything bad that
 happens.
9. 0 I don't have any thoughts of killing myself.
 1 I have thoughts of killing myself, but I
 would not carry them out.
 2 I would like to kill myself.
 3 I would kill myself if I had the chance.
- 10.0 I don't cry anymore than usual.
 1 I cry more now than I used to.
 2 I cry all the time now.
 3 I used to be able to cry, but now I can't cry
 even though I want to.
- 11.0 I am no more irritated now than I ever am.
 1 I get annoyed or irritated more easily than I
 used to.
 2 I feel irritated all the time now.
 3 I don't get irritated at all by the things
 that used to irritate me.
- 12.0 I have not lost interest in other people.
 1 I am less interested in other people than I
 used to be.
 2 I have lost most of my interest in other
 people.

3 I have lost all of my interest in other people.

13.0 I make decisions about as well as I ever could.

1 I put off making decisions more than I used to.

2 I have greater difficulty in making decisions than before.

3 I can't make decisions at all anymore.

14.0 I don't feel I look any worse than I used to.

1 I am worried that I am looking old or unattractive.

2 I feel that there are permanent changes in my appearance that make me look unattractive.

3 I believe that I look ugly.

15.0 I can work about as well as before.

1 It takes an extra effort to get started at doing something.

2 I have to push myself very hard to do anything.

3 I can't do any work at all.

16.0 I can sleep as well as usual.

1 I don't sleep as well as I used to.

2 I wake up 1-2 hours earlier than usual and find it hard to go back to sleep.

3 I wake up several hours earlier than I used to and cannot get back to sleep.

17.0 I don't get more tired than usual.

1 I get tired more easily than I used to.

2 I get tired from doing almost anything.

3 I am too tired to do anything.

18.0 My appetite is no worse than usual.

Childhood Abuse Structural Model

120

- 1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all anymore.
- 19.0 I haven't lost much weight, if any lately.
1 I have lost more than 5 pounds.
2 I have lost more than 10 pounds.
3 I have lost more than 15 pounds.
4 I am purposely trying to lose weight by
eating less.
- 20.0 I am no more worried about my health than
usual.
1 I am worried about physical problems such as
aches and pains; or upset stomach;
or constipation.
2 I am very worried about physical problems and
it's hard to think of much else.
3 I am so worried about my physical problems,
that I cannot think about anything
else.
- 21.0 I have not noticed any recent change in my
interest in sex.
1 I am less interested in sex than I used to
be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

RESPOND IN BLOCK 2 OF THE ANSWER SHEET

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle on the answer sheet to indicate how you GENERALLY feel. There are no right or wrong answers. Do not spend too

Childhood Abuse Structural Model

121

much time on any one statement but give the answer which seems to describe how you GENERALLY feel.

- 1 = ALMOST NEVER
- 2 = SOMETIMES
- 3 = OFTEN
- 4 = ALMOST ALWAYS

1. I feel pleasant
2. I feel nervous and restless.
3. I feel satisfied with myself.
4. I wish I could be as happy as others seem to be.
5. I feel like a failure.
6. I feel rested.
7. I am "calm, cool, and collected."
8. I feel that difficulties are piling up so that I cannot overcome them.
9. I worry too much over something that really doesn't matter.
10. I am happy.
11. I have disturbing thoughts.
12. I lack self-confidence.
13. I feel secure.
14. I make decisions easily.
15. I feel inadequate.
16. I am content.

Childhood Abuse Structural Model

122

17. Some unimportant thought runs through my mind and bothers me.
18. I take disappointments so keenly that I can't put them out of my mind.
19. I am a steady person.
20. I get in a state of tension or turmoil as I think over my recent concerns and interests.

RESPOND IN BLOCK 3 OF THE ANSWER SHEET

Please blacken the circle on the ANSWER SHEET corresponding to Yes or No as it applies to you.

1=YES

2=NO

1. Do you believe that most problems will solve themselves if you just don't fool with them?
2. Do you believe that you can stop yourself from catching a cold?
3. Are some people just born lucky?
4. Most of the time do you feel that getting good grades means a great deal to you?
5. Are you often blamed for things that just aren't your fault?
6. Do you believe that if somebody studies hard enough he or she can pass any subject?
7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?

Childhood Abuse Structural Model

123

8. Do you feel that if things start out well in the morning it's going to be a good day no matter what you do?
9. Do you feel that most of the time your parents listened to what you had to say when you were a child?
10. Do you believe that wishing can make good things happen?
11. When you got punished as a child did it usually seem it was for no good reason at all?
12. Most of the time do you find it hard to change a friend's opinion?
13. Do you think that cheering more than luck helps a team to win?
14. Do you feel that it's nearly impossible to change your significant other's mind about anything?
15. Do you feel that when you do something wrong there's very little you can do to make it right?
16. Do you believe that most people are just born good at sports?
17. Are most of the other people your age in better shape than you are?
18. Do you feel that one of the best ways to handle most problems is just not to think about them?
19. Do you feel that you have a lot of choice in deciding who your friends are?
20. If you find a four-leaf clover do you believe that it might bring you good luck?

21. Do you often feel that whether you do your homework has much to do with what kind of grades you get?
22. Do you feel that when a person decides to do you harm, there is little you can do to stop him or her?
23. Have you ever had a good luck charm?
24. Do you believe that whether or not people like you depends on how you act?
25. Will your family members usually help you if you ask them to?
26. Have you felt that when people were mean to you it was usually for no reason at all?
27. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?
28. Do you believe that when bad things are going to happen they just are going to happen no matter what you try to do to stop them?
29. Do you think that people can get their own way if they just keep trying?
30. Most of the time do you find it useless to try to get your own way at home?
31. Do you feel that when good things happen they happen because of hard work?
32. Do you feel that when somebody wants to be your enemy there's little you can do to change matters?
33. Do you usually feel that it's easy to get friends to do what you want them to?
34. Do you usually feel that you have little to say about what you get to eat at home?

Childhood Abuse Structural Model

125

35. Do you feel that when someone does not like you there's little you can do about it?
36. Do you usually feel that it is almost useless to try in work/school because most other people are just plain smarter than you are?
37. Are you the kind of person who believes that planning ahead makes things turn out better?
38. Most of the time, do you feel that you have little to say about what your family decides to do?
39. Do you think it's better to be smart than to be lucky?

RESPOND IN BLOCK 4 OF THE ANSWER SHEET

Please indicate the degree to which you believe each statement would apply to you personally by filling in the appropriately numbered circle, according to the following key:

- 1=Highly improbable
- 2=Improbable
- 3=Equally improbable and probable, not sure
- 4=Probable
- 5=Highly probable

In the future I expect that I will:

1. Find that people don't seem to understand what I am trying to say.
2. Be discouraged about my ability to gain the respect of others.
3. Be a good parent.
4. Be unable to accomplish my goals.
5. Have a stressful marital relationship.
6. Deal poorly with emergency situations.
7. Find my efforts to change situations I don't like are ineffective.
8. Not be very good at learning new skills.
9. Carry through my responsibilities successfully.
10. Discover that the good in life outweighs the bad.
11. Handle unexpected problems successfully.

12. Get the promotions I deserve.
13. Succeed in the projects I undertake.
14. Not make any significant contributions to society.
15. Discover that my life is not getting much better.
16. Be listened to when I speak.
17. Discover that my plans don't work out too well.
18. Find that no matter how hard I try, things just don't turn out the way I would like.
19. Handle myself well in whatever situation I'm in.
20. Be able to solve my own problems.
21. Succeed at most things I try.
22. Be successful in my endeavors in the long run.
23. Be very successful working out my personal life.
24. Experience many failures in my life.
25. Make a good first impression on people I meet for the first time.
26. Attain the career goals I have set for myself.
27. Have difficulty dealing with my superiors.
28. Have problems working with others.
29. Be a good judge of what it takes to get ahead.
30. Achieve recognition in my profession.

RESPOND IN BLOCK 5 OF THE ANSWER SHEET

Please fill in the appropriate numbered circle for each item indicating the extent to which that item is like you, according to the following key:

0=Not at all like me

1=A little like me

2=Somewhat like me

3=A lot like me

1. I'm always trying to figure myself out.
2. I'm concerned about my style of doing things.
3. It takes me time to get over my shyness in new situations.
4. I think about myself a lot.
5. I care a lot about how I present myself to others.
6. I often daydream about myself.
7. It's hard for me to work when someone is watching me.
8. I never take a hard look at myself.
9. I get embarrassed very easily.
10. I'm self-conscious about the way I look.
11. It's easy for me to talk to strangers.
12. I generally pay attention to my inner feelings.
13. I usually worry about making a good impression.
14. I'm constantly thinking about my reasons for doing things.

15. I feel nervous when I speak in front of a group.
16. Before I leave my house, I check how I look.
17. I sometimes step back (in my mind) in order to examine myself from a distance.
18. I'm concerned about what other people think of me.
19. I'm quick to notice changes in my mood.
20. I'm usually aware of my appearance.
21. I know the way my mind works when I work through a problem.
22. Large groups make me nervous.

RESPOND IN BLOCK 6 OF THE ANSWER SHEET

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle on the ANSWER SHEET corresponding to the statement to indicate how you feel *right now*, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

- 1 = ALMOST NEVER
- 2 = SOMETIMES
- 3 = OFTEN
- 4 = ALMOST ALWAYS

1. I feel calm.
2. I feel secure.
3. I am tense.

4. I feel strained.
5. I feel at ease.
6. I feel upset.
7. I am presently worrying over possible misfortunes.
8. I feel satisfied.
9. I feel frightened.
10. I feel comfortable.
11. I feel self-confident.
12. I feel nervous.
13. I am jittery.
14. I feel indecisive.
15. I am relaxed.
16. I feel content.
17. I am worried.
18. I feel confused.
19. I feel steady.
20. I feel pleasant.

RESPOND IN **BLOCK 7** OF THE ANSWER SHEET

Please indicate whether any of the following experiences happened to you as a child. The purpose of this survey is to determine the prevalence of childhood

Childhood Abuse Structural Model

131

incidents. You may fill in more than one answer.

Indicate whether you experienced the situation:

1. less than age 14 2. ages 14 to 18 3. not by age 18

1. Were you ever upset by anyone exposing his/her genitals?

1. less than age 14 2. ages 14 to 18 3. not by age 18

2. Did anyone ever try or succeed in having any kind of sexual intercourse with you against your wishes?

1. less than age 14 2. ages 14 to 18 3. not by age 18

3. In those years, did anyone ever try or succeed in getting you to touch their genitals against your wishes (besides anyone you've already mentioned)?

1. less than age 14 2. ages 14 to 18 3. not by age 18

4. Did anyone ever try or succeed in touching your breasts or genitals against your wishes (besides anyone you've already mentioned)?

1. less than age 14 2. ages 14 to 18 3. not by age 18

5. Did anyone ever feel you, grab you, or kiss you in a way you feel was sexually threatening (besides anyone you've already mentioned)?

1. less than age 14 2. ages 14 to 18 3. not by age 18

Childhood Abuse Structural Model

132

6. Did you have any (other) upsetting sexual experiences that you haven't mentioned yet? Briefly describe in the extra space provided on the ANSWER SHEET.

1. less than age 14 2. ages 14 to 18 3. not by age 18

7. Has an uncle, brother, father, grandfather, or other relative ever had any kind of sexual contact with you?

1. less than age 14 2. ages 14 to 18 3. not by age 18

8. Has anyone less closely related to you such as a stepparent, stepbrother, stepsister, inlaw or first cousin had any kind of sexual contact with you?

1. less than age 14 2. ages 14 to 18 3. not by age 18

RESPOND IN BLOCK 8 OF THE ANSWER SHEET

Please indicate whether any of the following experiences happened to you as a child by filling in the circles labeled **T** (True) or **F** (False) on the ANSWER SHEET.

T F 1. When I was bad, my parent(s) used to lock me in a closet.

T F 2. I required medical attention (at least once) for injuries caused by my parents.

T F 3. My parent(s) used to punch me when they got angry with me.

- T F 4. I was severely beaten by my parents.
- T F 5. My parents used to hit me with something other than their hands when I did something wrong.
- T F 6. My parents used physical discipline with me.
- T F 7. My parent(s) used to hit me with their hands (other than spanking).
- T F 8. My parent(s) used to spank me.
- T F 9. My parent(s) used to kick me when they got angry with me.
- T F 10. When my parent(s) were angry, they sometimes grabbed me by the throat and started to choke me.
- T F 11. When I did something wrong, my parent(s) sometimes tied me up.
- T F 12. I never received any kind of injury from the discipline used by my parents.

RESPOND IN **BLOCK 9** OF THE ANSWER SHEET

Please respond by filling in the appropriate circled number:

1=Yes

2=No

1. Do you consider that either of your parents may have had or may have an alcohol abuse problem?

2. Do you consider that either of your parents may have had or may have a serious mental disorder other than alcoholism?

YOU HAVE COMPLETED THE FIRST PHASE OF THIS RESEARCH ASSESSMENT. NOW PLEASE CONTINUE ON THE OPPOSITE SIDE OF THE CIRCLED ANSWER SHEET WITH THE "SOCIAL SUPPORT" QUESTIONNAIRES.

SOCIAL SUPPORT

INSTRUCTIONS:

The following questions ask about people in your environment who provide you with help or support. Each question has two parts. For the first part, list all the people you know, excluding yourself, whom you can count on for help or support in the 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 numbers beneath the question.*

For the second part, circle how satisfied you are with the overall support you have.

If you have no support for a question, check the words "No one," but still rate your level of satisfaction. Do not list more than none persons per question.

Please answer ALL questions as best you can. All your responses will be kept confidential.

EXAMPLE:

Who do you know whom you can trust with information that could get you in trouble?

| | | |
|-----------------|-----------------|-----|
| No one | 4) E.N. mother | 8) |
| 1) T.N. brother | 5) L.M employer | 9) |
| 2) L.M friend | 6) R.N. father | 10) |
| 3) R.S. friend | 7) | 11) |

How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

1. Whom can you really count on to be dependable when you need help?

| | | |
|--------|----|-----|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

2. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

3. Whom can you really count on to help you feel more relaxed when you are under pressure or tense?

| | | |
|--------|----|-----|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

4. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

5. Who accepts you totally, including both your worst and your best points?

| | | |
|--------|-----|------|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

6. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

7. Whom can you really count on to care about you, regardless of what is happening to you?

| | | |
|--------|-----|------|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

TURN PAGE OVER TO CONTINUE

8. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

9. Whom can you really count on to help you feel better when you are feeling generally down-in-the-dumps?

| | | |
|--------|-----|------|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

10. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

11. Whom can you count on to console you when you are very upset?

| | | |
|--------|-----|------|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

12. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

INSTRUCTIONS:

To respond to the following set of questions we ask you to close your eyes, relax, and visualize yourself and your life on your tenth (10th) birthday. Take your time to fully visualize your social surroundings, and the people you knew and were close to at that time. Once you have accomplished that frame of mind the best you can, proceed with the next set of questions.

The following questions ask about people in your environment who provided you with help or support when you were a child. Each question has two parts. For the first part, list all the people you knew, excluding yourself, whom you could count on for help or support in the 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 numbers beneath the question.*

For the second part, circle how satisfied you were with the overall support you had.

If you had no support for a question, check the words "No one," but still rate your level of satisfaction. Do not list more than nine persons per question.

Please answer ALL questions as best you can. All your responses will be kept confidential.

EXAMPLE:

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

| | | |
|----------------|-----------------|----|
| No one | 4) E.N. mother | 8) |
| 1) T.N. uncle | 5) L.M aunt | 9) |
| 2) L.M friend | 6) R.N. grandma | |
| 3) R.S. friend | 7) | |

How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

1. Whom could you really count on to be dependable when you needed help?

| | | |
|--------|-----|------|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

2. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

3. Whom could you really count on to help you feel more secure when you were scared or confused?

| | | |
|--------|-----|------|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

4. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

5. Who accepted you totally, including both your worst and your best points?

| | | |
|--------|-----|------|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

6. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

7. Whom could you really count on to care about you, regardless of what was happening to you?

| | | |
|--------|-----|------|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

8. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

9. Whom could you really count on to help you feel better when you were feeling generally down-in-the-dumps?

| | | |
|--------|-----|------|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |
| 3) | 7) | 11) |

10. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

11. Whom could you count on to console you when you were very upset?

| | | |
|--------|-----|------|
| No one | 4) | 8) |
| 1) | 5) | 9) |
| 2) | 6) | 10) |

Childhood Abuse Structural Model

141

| | | |
|----|----|-----|
| 3) | 7) | 11) |
|----|----|-----|

12. How satisfied?

| | | | | | |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|
| 6-Very satisfied | 5-Fairly satisfied | 4-A little satisfied | 3-A little dissatisfied | 2-Fairly dissatisfied | 1-Very dissatisfied |
|------------------|--------------------|----------------------|-------------------------|-----------------------|---------------------|

You have completed the assessment. Thank you very much for your participation.

Appendix B

Answer Sheet

Childhood Abuse Structural Model

143

Appendix C
Consent Form

April, 1993

ID_____

Dear Research Associate,

You are invited to participate in a study on child abuse and emotional adjustment. The study involves completing the attached series of questionnaires on the answer sheets provided. The assessment should take about one hour to complete.

Findings from this research will be used in a Doctoral dissertation. All information will be strictly confidential. However, one goal of this pilot study is to validate some "child abuse category" measures. Consequently, the Principal Investigator of this study will need to discuss some of your responses with you at a later date. Your name and responses will not be published or made public in any manner whatsoever. Your answers are strictly between you and the researcher. You are asked to provide your name, address, and telephone number at the bottom of this form so that you may be contacted later.

Another goal of this pilot study is to determine the validity and reliability with which an adult can recollect primary figures in his/her social support when he/she was ten years old. Your responses on a childhood social support measure will be matched with the responses of an individual who completed the same social support questionnaire with you in mind, and who knew you well when you were 10 years old. This social support questionnaire is provided for you in a self-addressed and stamped envelope. Please forward it to an individual who knew you when you were 10 (mother, father, brother, sister, or any close relative or family friend).

No risks or disadvantages to you as a participant are foreseen, although not all benefits or risks of research can be known ahead of time, even when the research is well conducted.

Participation in this research is **voluntary** and you may withdraw your consent at any time. If you are not satisfied with your participation you may inform me or Dr. Larry E. Beutler at the University of California, Santa Barbara, who is an independent advisory person to this research.

Please sign below if you agree to participate in this research, understand its nature and purpose, are aware that you can withdraw at any time. If you have any questions or want additional information you may ask now or contact Oliver Williams at (805) 987-6416 at any time. Thank you for your participation and help in this study.

SIGNED NAME

DATE

PRINT NAME

ADDRESS

CITY,STATE,ZIP

Appendix D

Letter to Parent

April, 1993

Dear _____

The person whose name is listed on this form provided your name as one who knew him/her well during his/her childhood. We would like you to respond to a brief questionnaire which will help us to establish the accuracy with which individuals can recall specifics of their Childhood Social Environment.

The enclosed 12 item questionnaire to which we would like you to respond is identical to a questionnaire filled out by _____ Read each question as if _____ were responding. Visualize _____ when he/she was ten years old. Then respond to each question the way you believe _____ would respond. The validity of this study depends upon you not corresponding with _____ regarding his or her responses. Please read the instructions and provide responses based on the directions, and how you knew _____ at ten years old.

When you have completed the questionnaire, please insert it in the self-stamped and self-addressed envelope provided, and mail it. Your participation in this study is greatly appreciated.

If you have any questions or concerns, you may contact the Principal Investigator for the study:

Oliver Williams

University of California, Santa Barbara
Clinical/Counseling/School Psychology
(805) 893-8064 or (805) 987-6416