CHAPTER II

Methodology

The purpose of this research study was to examine cutoff in three generations to gain a longitudinal view of families with teenagers who use or abuse alcohol or other drugs.

The objectives of the research are the following:

1) To examine whether the degree of cutoff of parents from each of their parents is related to the degree of cutoff of their teenager with them.
2) To examine whether the degree of cutoff of the parents from each of their parents is related to the level of impairment in the teenager.
3) To examine whether the degree of cutoff of the parents from each of their parents is related to their level of self-functioning.

This research is guided by the following research questions:

1) Is there a significant relationship between the degree of cutoff of the mother from her parents and her level of self-functioning?
2) Is there a significant relationship between the degree of cutoff of the father from his parents and his level of self-functioning?
3) Is there a significant relationship between the degree of cutoff of the mother from her parents and the level of impairment in the teenager?
4) Is there a significant relationship between the degree of cutoff of the father from his parents and the level of impairment in the teenager
5) Is there a significant relationship between the degree of cutoff of the mother from her parents and the degree of cutoff of the teenager from her?
6) Is there a significant relationship between the degree of cutoff of the father from his parents and the degree of cutoff of the teenager from him?

Recording patterns of cutoff in several generations contributes to a broader understanding of the emotional patterns in families with children who are impaired with substance abuse.

This chapter is divided into six sections. The first section discusses the research design. The second section discusses the participants, followed by the instrumentation, data collection procedures, data analysis, and summary of the chapter.

Design of the Study

A quantitative (survey) design along with a correlational design was used in this study to assess the level of cutoff with mothers, fathers, and teenagers using the Emotional Cutoff Scale (ECS), which is a self-report paper and pencil instrument. Interviews were held in addition to the ECS with each of the mothers and fathers to determine their Global Assessment of Functioning (GAF). Interviews were also held with the adolescents to determine their score on the Child and Adolescent Functional Assessment Scale.

The interactions in families, which affect the behavior of teenagers, are extremely complex. Since no one factor in family life can determine a child's outcome, this research is not appropriate for cause and effect analysis. It lends itself to a correlational analysis, as the purpose of correlational research is to discover co-relationships between two or more variables. Correlation means that the variables are present together and that an

individual's status on one tends to reflect his or her status on the other (Langenbach, Vaughn, & Aagaard, 1994). In this study, relationships between parental cutoff, the parents' self-functioning, and the level of impairment of the teenager are examined.

Sample

The sample was composed of 60 families who were seeking an outpatient substance abuse evaluation of a teenager. The interviews were conducted in a county building, which provides medical, social, and mental health services for children and their parents. The building is centrally located and accessible to mass transit.

To meet the criteria for this study, participants were required 1) to live in the county in which services were provided, 2) to have a teenager between the ages of 13-17 identified as needing a substance abuse evaluation, and 3) to have at least one parent willing to participate. The adolescents were referred by the courts, the school system, parents, and/or other community services. Some families requested services voluntarily, while others were ordered by a court.

Data was gathered from 48 single mothers, four single fathers, and from both parents in eight families. Data was also collected on 60 teenagers who participated in the study. The participants were interviewed between May 1, 1999 and December 29, 2000.

Instrumentation

Three instruments were used in this study: the Emotional Cutoff Scale (ECS), the Global Assessment of Functioning (GAF), and the Child and Adolescent Functional Assessment Scale (CAFAS). The following is a detailed description of each of the instruments.

Emotional Cutoff Scale (ECS)

The Emotional Cutoff Scale (ECS), designed by (McCollum in 1991, was used in this study to measure cutoff. The author generated instrument items to measure self report of cutoff based on this definition: "Emotional cut-off describes the way one generation cuts off emotional contact with the previous generation in order to avoid potential relationship problems" (Kerr, 1981, p. 273).

Ten questions were developed by a panel of judges familiar with Bowen's ideas to assess the cognitive component of emotional cutoff. Examples of these questions include: 1) desire for contact, 2) mood during contact, 3) time in contact, and 4) personal quality of relationship with each parent. Subjects respond to the ten items on a 5-point Likert scale from 1=Strongly Agree to 5=Strongly Disagree. Five questions are asked about the relationship with the mother; the same questions are asked about the relationship with the father. A score is obtained for each set of five questions with the highest score of 25 representing the most cutoff (Appendix A).

Several studies by McCollum (1986), Day (1987), and Weiner (1990) were conducted using the ECS. McCollum (1986) undertook a research study with undergraduate students in a family studies class using the ECS along with the Kansas Family Life Satisfaction Scale (KFLSS), which is a measure of satisfaction with nuclear family relationships. Results indicated a Cronbach's *alpha* of .82 (n = 145). In McCollum's study, the distribution of scores did not differ from normal when tested by the Kolmogorov-Smirnow Goodness of Fit Test (z = .902, n = 145, p = .390, two tailed)

(McCollum, 1991). An inverse relationship was found between scores on the ECS and the KFLSS (r. =-.35, n = 128, p = .001, one-tailed). This finding fits with Bowen's theory that those who are cutoff from the parental generation experience difficulties in their marital and parent-child relationships.

For validity, McCollum (1986) factor analyzed (principal component analysis with varimax rotation) the ECS scores in his sample, again with the instruction that two factors be extracted. This analysis confirmed the two factors found in the pilot study. A subscale of the Personal Authority in the Family System Questionnaire, the Intergenerational Intimacy Scale (IIS), (Bray, Williamson, & Malone, 1984) was administered in each of these studies. The IIS had a strong correlation with the ECS— those who were more cutoff reported less intimacy with their parents (McCollum, r = -.82, n = 134, p = .000; Day, r = -.85, n = 74, p = .000; Weiner, r = -.86, n =104, p = .000). This result lends credibility to the validity for the ECS.

Weiner (1990) used two measures in his work that linked cutoff to physical well being. The researcher found a low, but significant correlation between the ECS and a measurement of the seriousness of illness (r = -.21, n = 104, p=.016, one-tailed), and an alpha of .86 (n=104). The finding was consistent with Kerr's (1981) concept that suggested that those who are more cutoff from the parental generation are more likely to have health problems. In assessing physical well being, Weiner asked his divorced subjects if they made the decision to separate, and found that the spouse who reported more cutoff were more likely to make the decision to separate. This was consistent with Bowen's assertion that those who use cutoff in parental relationships will also use it in future.

Day (1987) used a four-item scale written specifically for the study to assess a subject's attitude toward geographical distance from their parents. Day's scale, called the "Willingness to Relocate Scale", researched the participants' willingness to live geographically close to parent. Day's scale and the ECS were positively correlated (r = .61, n =74, p = .000, one-tailed). Bowen's Theory would predict that those who handle their relationships with their parents through cutoff would be further away geogrpahically, as opposed to closer proximity. Bowen's Theory was consistent with the results of Day's study.

Global Assessment of Functioning (GAF)

The GAF, Diagnostic and Statistical Manual for Mental Disorders IV, Axis 5, (American Psychiatric Association, 1994) assesses the overall level of psychological, social, and occupational functioning present on a hypothetical continuum of mental health to mental illness. The person is rated on a scale of 0-100 by the interviewer. Persons who score 1-10 on the scale fall in the range of those with a persistent danger of hurting self or others, 10-20 some danger of hurting self or other, 20-30, behavior influenced by delusions or inability to function in all areas, 30-40, some impairment in reality testing, 40-50, serious symptoms, 50-60, moderate symptoms, 60-70, some mild symptoms, 70-80, transient symptoms, 80-90, minimal symptoms, 90-100, superior functioning in a wide range of activities (Appendix B).

The scale is widely used in mental health assessments and provides a level of functioning for an individual as a background for a more specific diagnosis from the Manual, such as depression or psychosis. The rating of overall psychological functioning

on a scale of 0-100 was first used by Luborsky in the Health Sickness Rating Scale (Luborsky, 1962). When the DSM IV was being developed, every patient was to receive a diagnosis on five axes. Axis 5 was a measure of social functioning. In 1992, a committee of the American Psychiatric Association reviewed 30 measures of social functioning, and found that the GAF was superior to other measurements (Goldman, Skodol, & Lave, 1992). It was incorporated into DSM IV and has been universally used as a diagnostic tool in mental health settings.

The American Psychiatric Association (1994) publishes this scale in the *Diagnostic Criteria from DSM IV*. Assessment is made by the interviewer, based on descriptors on a scale of functioning. The clinician is instructed to consider psychological, social, and occupational functioning on a hypothetical continuum running from mental health on one end of the scale to illness on the other end of the scale, when the impairment is not due to physical or environmental limitations. The purpose was to provide a measure of overall social functioning, while Axes I-IV measured emotional, personality, and physical disorders and stresses specific to the individual.

The Child and Adolescent Functional Assessment Scale (CAFAS)

The Child and Adolescent Functional Assessment Scale (Hodges, 1989) assesses the degree of impairment in functioning in children and adolescents on eight dimensions: school, home, community, behavior toward others, moods—self-harm/ emotions, moods—self-harm/behavior, substance abuse, and thinking (Appendix C). The major advantage of a multidimensional measure is that different areas of functioning can be rated, permitting more precise descriptions of the specific areas of impairment. The rater reviews a list of behaviors and chooses the items that describe the child's functioning. Each area is rated according to specific criteria in levels of impairment and given a numerical equivalent. Minimal is 0-10, Mild 10-20, Moderate 20-30, and Severe 30-40. The scores may be considered by area of impairment or may be combined for a multidimensional measurement of the functioning of the adolescent. Since the total score is derived from computing the individual scale scores, the total score is potentially less vulnerable to rater bias or demand characteristics.

Reliability and predictive validity data have been previously reported in Chapter II for the CAFAS, based on the sample of youth assessed in the Ft. Bragg Demonstration Evaluation Study, which is referred to as the Evaluation Study (Bickman et al., 1994). Hodges and Wong (1996) correlations of .84, .89, .88, and .87 on the Total Child Score with four training samples on the CAFAS. Data on the CAFAS was reported from two large evaluations: the Ft. Bragg Evaluation Project (FBEP) (Hodges & Wong, 1996, 1997) and the national evaluation being conducted of the demonstration grants funded by the Center for Mental Health Services (CMHS; Hodges, Doucette-Gates, & Liso, 1996). These studies have used the *CAFAS Self-Training Manual* (Hodges, 1994) to train raters and demonstrate reliability.

According to Hodges (1995), good test-retest validity was demonstrated in a study in which lay interviewers rated the CAFAS after administering the CAFAS interview by way of telephone. Contrast group validity has been demonstrated in both evaluations. Inpatients scored more impaired than youth in alternative care (e.g. home-based services, day treatment), who in turn scored more impaired than youth in out-patient care (Hodges & Wong, 1996). In the CMHS evaluation, children living in residential placements were
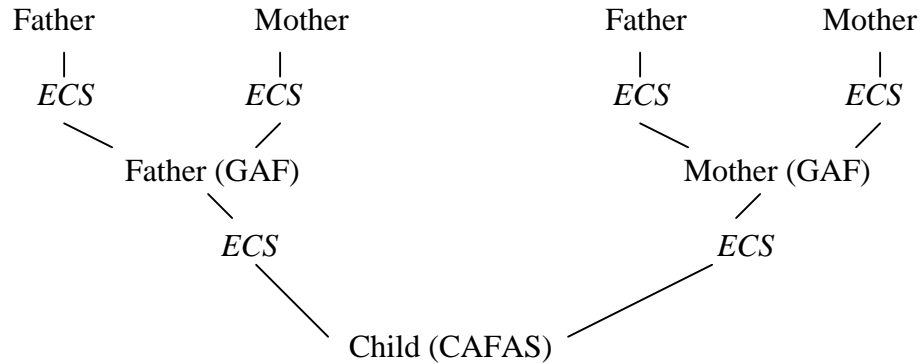
more impaired than youth who were in specialized foster care, who in turn were more impaired than youth living in their own home or in regular foster care. In the CMHS study, youth diagnosed with schizophrenia or a pervasive developmental disorder were more impaired than depressed, anxious, and conduct-disordered youth, who in turn scored as more impaired than youth with adjustment disorders.

Summary of Hypotheses and Instrumentation

There are 12 null hypotheses on which the statistical data were being compiled (the measurement scale testing each variable in indicated in parentheses).

1) There is no significant relationship between the degree of cutoff of the mother from her mother (ECS) and her level of self-functioning (GAF).
2) There is no significant relationship between the degree of cutoff of the mother from her father (ECS) and her level of self-functioning (GAF).
3) There is no significant relationship between the degree of cutoff of the father from his mother (ECS) and his level of self-functioning (GAF).
4) There is no significant relationship between the degree of cutoff of the father from his father (ECS) and his level of self-functioning (GAF).
5) There is no significant relationship between the degree of cutoff of the mother from her mother (ECS) and the level of impairment of the teenager (CAFAS).
6) There is no significant relationship between the degree of cutoff of the mother from her father (ECS) and the level of impairment in the teenager (CAFAS).
7) There is no significant relationship between the degree of cutoff of the father from his mother (ECS) and the level of impairment in the teenager (CAFAS).
8) There is no significant relationship between the degree of cutoff of the father from his father (ECS) and the level of impairment in the teenager (CAFAS).
9) There is no significant relationship between the degree of cutoff of the mother from her mother (ECS) and the degree of cutoff of the teenager from her (ECS).
10) There is no significant relationship between the degree of cutoff of the mother from her father (ECS) and the degree of cutoff of the teenager from her (ECS).
11) There is no significant relationship between the degree of cutoff of the father from his mother (ECS) and the degree of cutoff of the teenager from him (ECS).
12) There is no significant relationship between the degree of cutoff of the father from his father (ECS) and the degree of cutoff of the teenager from him (ECS)

<div align="center">Procedures</div>

<div align="center">
Father   Mother   Father   Mother

| | | |

ECS   *ECS*   *ECS*   *ECS*

Father (GAF)   Mother (GAF)

ECS   *ECS*

Child (CAFAS)
</div>

Instruments to measure self-functioning: GAF, CAFAS
Instrument to measure cutoff: ECS

<u>Figure 1</u>. Diagram of Use of Instruments

Once the study was approved by the IRB Board at Virginia Tech and by the Department of Human Services in the county, interviews were conducted with participants who voluntarily agreed to participate. The researcher contacted the family and scheduled an appointment for an evaluation. The parent(s) and the teenager came for an initial assessment interview. The researcher met with the parents and the adolescent to discuss the referral for the assessment. An interview was conducted with the parent(s), in which an intake was completed according to the protocol of the mental health center. A data sheet of demographic data was compiled, as well as a record of the family background, health, education, substance abuse, psychiatric, and legal facts on the adolescent and family. At this time, the family portion of the CAFAS was completed, and a GAF was assigned for each parent. The researcher also asked the parents to complete the Emotional Cutoff Scale. The researcher assessed the adolescent with the completion of the CAFAS, a multidimensional assessment tool for adolescent functioning. The adolescent also completed the ECS to measure the degree of cutoff with his or her parents.

Although trained in family therapy and in the research instruments, the researcher was not the assigned clinician for the interviewed families. She was assisted by a graduate student. The researcher met with the participants only once to collect intake information, which included the ECS, the GAF, and the CAFAS.

A file with all of the completed information was developed for each family member and secured in a locked file that was secured in the researcher's office to insure confidentiality.

Each instrument used in the study was scored by the researcher. The ECS was measured for each participant, with scores ranging from 5-25 with 25 indicating the highest degree of cutoff with a parent. Each parent was scored on the GAF which

indicated the parenta' level of functioning. The scores on the CAFAS ranged from 0-30 for each of eight areas of functioning. A detailed explanation of the scoring is discussed in Chapter 4.

Data Analysis

Data from the various instrument were analyzed using a Number Cruncher Statistical data base (NCSS). Correlations were used to test each of the 12 null hypotheses listed in the section entitled Summary of Hypotheses and Instrumentation. Seventeen variables were correlated to test the 12 hypotheses to $p \pm .05$ in a correlation matrix. The means of the ECS, the GAF, and the CAFAS were determined using a multiple regression analysis. Tables were constructed to illustrate the results of the correlations between the variables. These are located in Chapter 4.

Summary

Families seeking outpatient evaluations for teenagers at a Community Mental Health Center were interviewed to measure the patterns of emotional cutoff of each parent to each of his or her parents and between the teenager and each of his or her parents. In addition, self-functioning of each parent and the level of impairment in the teenager were measured in a structured interview format. Several instruments were used: the Emotional Cutoff Scale to measure the degree of cutoff of the parents with their parents, and the degree of cutoff of the teenager from his or her parents, the Global Assessment of Functioning to measure the self-functioning of the parents, and the Child and Adolescent Family Assessment Scale to measure the degree of impairment of the teenagers. The scores of these instruments were analyzed using Number Cruncher Statistical data base.