USE OF PROJECTIVE DRAWINGS TO DETECT EMOTIONAL ISSUES

DEBORAH DIXON ANDERSON

To the Graduate Council:

I am submitting herewith a thesis written by Deborah Dixon Anderson entitled "Use Of Projective Drawings To Detect Emotional Issues." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Education Specialist.

Janice D. Martin

Janice D. Martin, Major Professor

We have read this field study
and recommend its acceptance:

George Rawlins

Garland E. Blair

Accepted for the Council:

Dean of The Graduate School

STATEMENT OF PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for an Education Specialist Degree at Austin Peay State University, I agree that the Library shall make it available to borrowers under rules of the Library. Brief quotations from this thesis are allowable without special permission, provided that accurate acknowledgment of the source is made.

Permission for extensive quotation from or reproduction of this thesis may be granted by my major professor, or in her absence, by the Head of Interlibrary Services when, in the opinion of either, the proposed use of the material is for scholarly purposes. Any copying or use of the material in this thesis for financial gain shall not be allowed without my written permission.

Signature Peggie D. Anderson

Date 5-07-98

USE OF PROJECTIVE DRAWINGS TO DETECT EMOTIONAL ISSUES

A Field Study

Presented for the

Education Specialist

Degree

Austin Peay State University

Deborah Dixon Anderson

May 1998

DEDICATION

This field study for an Educational Specialist Degree

is dedicated to my parents,

Mr. and Mrs. Seldon Thomas Dixon, Senior,

who supported my first college degree

and

to my husband

Mr. Joseph Altsheler Anderson

who has supported my post-graduate degree.

ACKNOWLEDGMENTS

I would like to thank my major professor, Dr. Janice Martin, for her patience and guidance. Dr. Martin has encouraged and supported my educational experience while working toward this degree over the past three years. I would also like to thank the other committee members, Dr. Garland E. Blair and Dr. George Rawlins, for their comments and assistance with this study.

Special thanks are extended to Sara Ellen Anderson and Linda Campos for their time, hard work, and continuous support.

ABSTRACT

The research was designed to explore the use of projective drawings as valid indicators of emotional issues in adolescent. Adjudicated adolescents from the ages of twelve to seventeen years of age will be the focus in this study. It was hypothesis that emotional issues reported by adjudicated adolescents or by diagnosis were highly correlated to any specific indicators in their drawings of people, houses, or trees at a level higher than chance (alpha .05). If issues are noted but no consistent indicators are used it would suggest that drawings are not valid evaluations of emotional issues in referred adjudicated adolescents. Archival data from a state certified facility serving adjudicated youth from 1990 thru 1995, will be used to complete the field study. Approximately 50 subject's records will be evaluated with the field study's scoring profile. An Ex-post-factor design was used. Statical analysis of the study required that 31 indicators were necessary to be significant at the .05 level. The study only revealed 24 significant correlations. This suggests that further research is needed.

TABLE OF CONTENTS

Chapter 1

INTRODUCTION

Children's drawings are believed to provide a valuable assessment tool because they are a common and frequent mode of inner expression for children. Attempting to understand individuals based on interpretations they make of their world has a long and honored history. Interpretation of drawings (and projective testing in general) draws heavily on psychoanalytic theory. One of the assumptions is that many aspects of the personality are not available to conscious self-report and thus questionnaires and inventories are of limited value. From the psychoanalytic perspective, an indirect approach such as projective drawings, is essential. Although intuitive methods of interpreting drawings have a history extending back many years and in many countries, a more empirically based approach has been popular within the past 30 or 40 years. Numerous studies and papers by psychologists and educators have appeared with several comprehensive reviews of literature on projective drawings. Currently, the research emphasis appears to be on children's drawings. These are used as a projective assessment tool to focus on the inner psychological and personality dynamics of the child rather than their intellectual abilities.

Children are more apt to give unconscious signs of emotional issues than to discuss them openly because they have either been told to not report or because of shame and/or guilt. Many authors consider projective drawings a technique of the past, and they state that newer instruments are more reliable and valid (Gresham 1993). The multiple-choice type emotional issues inventories may appear to be more reliable and valid. However, on any self-reported instrument reliability and validity are always a question. Adolescents

may 'fake good' or 'fake bad' on these instruments. Some instruments address the issues of 'faking' better than others, again these instruments are more of a conscious report on the part of the subject. As far as projective drawing techniques being used as a measure of intelligence, the latest review of literature seems to agree that there are more effective measurement techniques. Therefore, this study has addressed the issue of using projective drawings as a means of detecting emotional issues.

Motta, Tobin, and Little (1993) agree with Gresham (1993) that projective drawings are a part of our past and belong in the shelves of history. There seems to be no scientific reason for the continued use of projective drawings, because of questionable psychometric properties. The number one argument against the use of drawings as a measure of emotional issues is that the APA code of ethics (1992) espouses the use of valid test instruments and the psychometric validity of drawings has always been controversial. Many authors use the APA ethics as a basis against drawings and clinical judgement in clinical practice. The purpose of the current study was to evaluate the validity of drawings as measures of emotional issues. Do projective drawings have a place in the science of psychology is a question that still seems to merit further consideration.

Definition of Terms

Projective Techniques: Projective techniques are composed of ambiguous stimuli, which are presented so that a person must project inner thoughts and feelings to accomplish a task.

Emotional Issues: Emotional issues are factors of concern that affect one's personality,

behavior and outlook on life. (E.g. depression, aggression, hostility, self-esteem, and potential harm to self). For the purpose of the current study emotional issues were any issues so designated by the participant's archival record.

Projective Drawings: Projective drawings are one type of projective technique that asks a subject to simply draw a picture. The most popular are pictures of a person, a house, a tree and the family doing something. The subject is asked questions about their drawings to enhance the evaluator's understanding of the client's symbols.

Draw a Person (D-A-P): Draw a person is a projective drawing technique that requires the subject to draw "a person the best person you can draw" at the request of and in the presence of the examiner. The instructions given to the subject are of significance and must be followed. D-A-P was originally developed by Machover (1949,1953,1960) but greatly expanded by Hammer (1958), Handler (1985), Urban (1963) and Koppitz (1968). Quantitative scoring systems have been developed recently but most clinicians are far more likely to use intuitive judgment.

Kinetic Family Drawing (KFD): Burns and Kaufman (1970) developed The KFD technique. The subject is asked to draw his or her family "doing something" on a blank sheet of paper with a pencil. This type of projective drawing is usually analyzed subjectively by trained clinicians based on type of activity, position of family member and order in which the figures were drawn.

House-Tree-Person (H-T-P): The H-T-P was developed by Buck (1948). The subject is requested to draw a house, a tree and a person on a blank sheet of paper with a pencil. Then the subject is given a post-drawing interview of a series of specific questions about

the drawing. (E.g. "Whose house is it? How old is the person?")

Research Question

Are projective drawings valid indicators of emotional issues in adolescents? This overall research question was addressed by the following:

In a group of referred adjudicated adolescent students do projective drawings correlate significantly with emotional issues defined by their diagnosis using current scoring criteria?

Null Hypotheses

Emotional issues reported by adjudicated adolescents or determined by diagnosis were not highly correlated to any specific indicators in their drawings of people, houses or trees at a level higher than chance (alpha.05).

Research Problem

Since projective drawings continue to be used as indicators of emotional issues and psychological disturbance, research is long overdue on the psychometric reliability and validity of different indicators. If there is a high correlation between issues and indicators the validity of drawings will be supported. If, however, there are high numbers of indicators, but issues are not noted, further research will be necessary. If issues are noted, but no consistent indicators are evident, drawings would not appear to be a valid technique for assessing emotional issues in referred adjudicated adolescents.

Analysis

"Do projective drawings suggest emotional issues based on current scoring criteria? The research question was evaluated by correlating issues found in the mental health records of the participants and the indicators currently used to assess those issues. For example, if a child was convicted of assault, a correlation would be conducted between the indicators of aggression, (sharp teeth and large hands etc.) and the child's record. (Alpha is set at the conventional (.05).

Limitations

The limitations of the current study included the geographical location of the study, multi-cultural issues that were not addressed and the stress of adjudication that may overwhelmed other issues. The current sample came from only one adolescent mental health facility in the Southern United States. The students from this facility came from both urban and rural areas, which included a large military population. Also no consideration was given to multi-cultural issues, intelligence or socioeconomic information for the population in the study. Only limited background information was available to interpret the drawings. However, what was available was used to define the population. The most significant limitation was that stress of adjudication may have overwhelmed other factors. Additionally, the examiner was unable to note such critical behavior factors as sequence of drawings, what behaviors the student exhibited during the study or the amount of time spent on each drawing. Since the records used were archival, the current investigation did not have access to the participants themselves.

Chapter 2

REVIEW OF LITERATURE

Projective drawing studies have been conducted for approximately 40 years. Tests used today must meet reliability and validity standards (American Education Research Association, AERA, American Psychological Association, APA, and National Council on Measurement in Education, NCME, 1985) and adequate norms are especially important (McNeish & Nagliere 1993). Lack of studies documenting psychometric properties continues to be the main issue in using drawings for assessment (Handler & Habenicht 1994). Proponents of using drawings point out that the many variations in drawings are influenced by the affect of a given moment. Children's moods and feelings change frequently. Projective drawings reflect emotional changes and therefore are unstable yet clinically important. An instrument that is too stable and cannot be influenced by affective state lacks sensitivity. Handler and Habenicht (1994) appear to provide the most recent review of literature on drawings as a projective test. Despite non-significant findings in many of the studies completed, there were a number of significant findings. It appears that psychologists continue to use projective drawings because they have come to recognize that there is no single methodological solution to the complex problems children and adolescents have and that a multi-method approach will yield better results.

History of Projective Drawings

The history of the use of drawings as a psychological technique began with Goodenough's development of the Draw-A-Person (D-A-P) technique (Hutton, 1994).

Goodenough's book, Measurement of Intelligence by Drawing, served as a training and instruction manual for administering and scoring projective drawings. Specimen drawings and their scores were also provided. Goodenough's D-A-P test quickly became an accepted and widely used technique for assessing intelligence. Harris in 1963 attempted to revise and extend the D-A-P but found that Goodenough's work was so thorough that relatively little could improve his technique. Hence, both Harris and Goodenough maintained that the D-A-P was a test of intellectual development only and not a measure of underlying emotional conflicts or personality characteristics.

Hutton (1994) reveals that from 1926 to 1993 the literature on projective drawing techniques could be grouped into eight general topics. Those topics were (a) projective drawings as measures of intelligence/development; (b) projective drawings as indicators of personality/emotional characteristics, especially in identifying psycho pathology; (c) projective drawings as measures of gender identity; (d) cross-cultural applications of projective drawings; (e) projective drawings as a tool to target emotional characteristics in persons (especially children) with medical conditions and under medical treatment; (f) scoring methodology; (g) opinions about the uses of projective drawings; and (h) various miscellaneous derivatives of the original projective drawing techniques. Hutton focused the previous literature on the measurement of personality/emotional characteristics. From her review she discovered that Koppitz developed a list of 30 emotional indicators for the analysis of human figure drawings. Further validation was provided by Fuller, Preuss and Hawkins (1970), which showed that the Koppitz system was useful in differentiating the drawings of normal children from those of disturbed children. From the Koppitz system

emerged three categories of emotional indicators: (a) quality signs such as broken lines and integration of lines; (b) special features such as vacant, nonexpressive eyes; small head; and (c) omission of items such as arms or legs.

Other clinicians and researchers have used the D-A-P as a personality assessment technique. The foremost proponents of the D-A-P as a projective technique were Machover, (1949,1953,1960), Levy (1958) and Hammer (1958). Machover published Personality Projection in the Drawing of Human Figure which has become the most widely quoted book in the field of projective drawings and has equaled Goodenough's book in significance and influence. Machover's approach is strictly qualitative (Hutton, 1994).

J. N. Buck developed the House-Tree-Person technique in 1948. The H-T-P technique asks the subject to draw a house, a tree, a person and a person of the opposite sex. The client is given freedom in the manner in which they complete the task. The specific items - house, tree, person - were selected because they are items familiar to children and universally accepted by all groups. Some psychologists feel that the request to draw is accompanied by a reduction of tension during the testing procedures (Pynoos and Eth, 1986). Children react to drawing with pleasure and enthusiasm. It invokes feelings of security as an activity they feel comfortable accomplishing. House drawings have been found to arouse associations within the subject regarding his home life and familiar relationships. The tree drawings appear to reflect projection from deeper, more unconscious levels of the personality (Groth-Marnat, 1990). Wide agreement exists that human figure drawings are primarily a manifestation of the subject's perception of current self or the ultimate self. Certainly, no singular characteristic should be held as conclusive

indicators of the presence of certain personality traits. Instead, the pattern across all drawings and consisting of many signs should be considered.

A post-drawing interview provides another indicator. It gives the child an opportunity to describe his or her drawings in response to a series of specific questions about the drawings. Buck felt that, through the analysis of the drawing of the person, the test aided the clinician in obtaining information concerning the child's sensitivity, maturity, flexibility and degree of personality integration. He felt that the tree drawing provides information concerning the child's growth, and the drawing of the house provides information about the feelings that the child has about his or her environment. Buck also found that it was possible to gain useful information about the child's intellectual level and non-intellectual aspects of the total personality from the H-T-P technique. In addition, Buck developed a point system for the H-T-P, much like Goodenough's system for the D-A-P, as a quantitative measure for intellectual abilities.

Burns and Kaufman Draw-A-Family and the Kinetic Family Drawing (Burn & Kaufman, 1970,1972) have gained wide acceptance for clinical use (Grath-Marnat, 1990). With these techniques, the child is asked to draw his or her family doing something and the projective drawings are used to assess interpersonal relationships.

Several variations of projective drawings have involved the client depicting groups of significant people in his or her environment. For example, Draw-An-Animal Test by Campo and Vilar (1977), Kinetic School Drawings by Knoff and Prout (1985), the Color a Person Body Dissatisfaction Test by Wooley and Roll (1991) Idiosyncratic Projective Drawings tests, Frank Drawing Completion Test (Bonifacio & Schefer, 1969),

Draw-A-Face Test (Burns and Zweig, 1980), Loney Draw-A-Car Test (Loney, Comly and Simon, 1975), A Favorite Kind of Day Drawing Test (Manning, 1987), and Draw-A-Story Test (Silver, 1988) marked an important beginning for the creation of diagnostic instruments unique to the field of art therapy (Neale & Rosal & Rosal , 1993).

Projective drawings are analyzed subjectively by trained clinicians. However, the only techniques beside the D-A-P and H-T-P that have gained wide acceptance and continuous clinical use are Draw-A-Family (DAF) and Kinetic Family Drawings (KFD). Very few validity studies have been performed on the DAF. The KFD has been used in the evaluation of therapy for abused children, family relationships and children with perceptual-motor delays.

A review of the literature of the various projective drawing techniques suggests that many studies continue to research projective drawings. To list a few studies from the last five years: Children in remarriage families and understanding familial roles (Cobia & Brazetta, 1994), working with males with Attention Deficit Disorder (Resta & Eliot, 1994), potential child sexual abuse (Sadowski & Loesch, 1992), children at war (Hickson, 1992), adjudicated and non-adjudicated adolescents (Marsh, Linberg & Smeltzer, 1991), assessment of childhood suicidal potential (Pfeffer & Richman, 1991), adolescents that are substance abusers (Cox & Price, 1990), screening for emotional disturbance in individuals (McNeish & Naglieri, 1993) and working with children with conduct disorders Fey & Holmes, 1994).

Projective Drawing for Assessment of Specific Populations or Issues of Sexual and Physical Abuse

With regard to abused children there has been an increasing focus in the literature on the use of projective drawings, particularly with children who have been sexually abused. Two different studies from 1980 found that sexually abused children were more likely to draw explicit sexual features on their drawings of people. These studies suggested that the drawings of genitalia by children should alert clinicians to explore the possibility of sexual abuse because drawing explicit sexual features may reflect not only sexual knowledge beyond expected age-appropriate levels, but also preoccupation with sexually explicit material.

Authors representing a variety of professional perspectives (Sadowski & Loesch, 1993) have presented drawing elements potentially indicative of sexual abuse. Sidun and Rosenthal (1987) suggests that clinicians need to address their attention to the inclusion and exclusion of five individual graphic features: omitted hands, omitted figures, head only, circles and line pressure. Cohen and Phelps (1985) concluded that sexually abused children included greater numbers of human physical features in their drawings. Yates, Beutler, and Crago (1985) suggested that "incest seems to exaggerate the child's sensitivity or insensitivity to the sexual characteristics of others." Hibbard and Hartman (1990) have suggested that legs pressed together, oversized hands and genitalia in drawn human figures are indicators of sexual abuse. Authors that examined the drawings of abused children noticed that they were able to identify indicators such as signs of tension by excessive shading, signs of hostility and aggression by impulsive lines, and signs of

withdrawal by drawings of barriers such as fences. These indicators are strongly believed to suggest abuse of a sexual or physical nature in children. Children's drawings are readily obtained and may be considered "clues" about sexual abuse. They provide only clues not necessarily evidence, and should be used only within the context of other effective counseling techniques (Sadoeski and Loesch, 1993).

Babiker and Wilkinson (1994) attempted to distinguish drawn indicators of emotional issues in three different populations of children, the physically abused, the sexually abused and the non-abused. Children who were either physically or sexually abused were not always easy to differentiate. The sexually abused group stood out more clearly, showing signs of guilt, shame and anxiety. The indicators from drawings of children who suffered physical abuse were less clear and less defined. In general the study showed a lower degree of emotional-perceptual maturity in abused children than their non-abused peers. Frequently abused children suffered emotional setbacks and traumas, which delayed their emotional maturation. This was evidenced in their drawings that were often regressed, vulnerable, naked and poorly proportioned, reflecting negative life experiences. The sexually abused girls showed the most suffering and appeared more vulnerable. Their drawings were often small, off center and poorly proportioned. However, contrary to what was expected sexual and/or genital content was not presented directly.

Van Hutton (1994) published a quantitative scoring system as a measure of abuse in children's drawings. Hutton's scoring system was based on a review of the literature on projective drawing techniques that suggests certain aspects of personality/emotional

characteristics. The derived personality/emotional characteristics that she reported as indicative of child abuse were preoccupation with sexually relevant concepts, aggression, hostility, withdrawal, guarded accessibility, alertness to danger, suspiciousness and lack of trust. The aspects of the drawings that appeared reflective of the aforementioned characteristics were complied and grouped into four scales.

Sadowski (1993) lists indicators that counselors can begin to look for in children's drawings which may be potential indicators of sexual abuse and could help identify sexual abuse in the school. Some indicators listed for the counselors to be aware of were huge circular mouths, hair emphasis or excitement, omission of hands or overemphasis of hands, omission of lower body parts, attention to or detail in the midbody area, unusual treatment of the waistline area, large clouds drawn spontaneously and phallic symbolism.

Babiker & Wilkinson (1994) suggested that drawings should be included in a battery of techniques to identify child abuse because it is such a complex and difficult issue to assess appropriately. The snags and pitfalls in the areas of assessment of child abuse were very evident. The authors encourage clinicians to treat signs with great caution.

Remarriage Families

A study was conducted to assess the perception of children and adolescents in remarried families. Cobia & Brazetta (1994) found that family drawings provided information to assist counselors of children in remarriages (REM). This information was used to reframe problems and resolve conflicts, leading to greater acceptance of and a sense of belonging to the REM family. In this study, subjects were asked to draw

pictures; the counselor then talked about issues of concern and afterwards, requested that the subject redraw the pictures. The pictures evaluated the subject's ability to incorporate themselves in the new family.

Suicidal Indicators

Pfeiffer and Reichmann (1991) reported that their research in the assessment of suicidal behaviors with the human figure drawings suggests that suicidal people often draw details of the neck. Machover (1949) stated that individuals who are disturbed about their lack of impulse control often single out the neck for graphic emphasis. More explicitly, she stated that "the more serious efforts at suicide aim at the neck," suggesting that the neck elaboration of the drawings may be related to self-destructive behavior. Others, Reichmann, 1972; Schildkrout, Senker, & Sonenblich, 1972; Virshup, 1976 commented upon the presence of slash lines.

Pfeiffer and Reichmann evaluated eight variables as specific suicidal indicators: depression, impulse control disturbances, organic indicators, decompensating ego defenses and denial of projection and dissociative signs. The eight variables were classified along several 5-point scales, ranging from absent or minimum to severe. A score for each variable and a total score were derived. The findings suggested that human figure drawings were an acceptable technique to distinguish suicidal from non-suicidal pre-adolescent psychiatric inpatients. Pfeiffer and Reichmann found three personality types in their 80 hospitalized children. One was the undifferentiated child, whose drawings were awkward and imbalanced with indications of severe impulse control

disorders. Another personality type was the acute decompensated, psychotic child, whose drawings were bizarre and inhuman. The third personality type involved neurotic elements that included the most structured and age appropriate drawings. These children displayed problems in impulse control, dissociated features and clear slash lines.

Substance Abuse

Cox and Price (1990) used adolescents substance abusers to evaluate use of Incident Drawings following the concept of Incident Writings from Trauma Resolution Therapy (Collins & Carson 1989). Incident writing is a descriptive process involving writing and reading of trauma-causing experiences resulting from drinking and/or drugging. Addicts are asked to select one incident that stands out to them and to write about it. Incident Drawings have been developed in an effort to bring unconscious material to consciousness and to access emotions that may have been intellectualized, thereby breaking through denial. The population for this study was substance abusers in a private psychiatric hospital aged 13 to 18 years. Groups contained 6 to 8 patients. The goal of the technique was to get the patients to deal with a sufficient number of incidents in order to gain insight into the unmanageability of their disease, and to see that many of their problems were a result of their chemical use.

Incident Drawings were generally introduced by instructing the adolescents to "draw about an incident that occurred during the time you were drinking/drugging." The contents of the Incident Drawings were quite diverse, but themes of destruction and loss, and feelings of shame and guilt were the most common. The subjects were asked to

explore five questions that related to their drawings. Such questions as, "What was your thinking pattern at the time? What were you feeling at the time? What relationships were affected? What were the values contradicted? and What would a sober person do in this situation?"

In conclusion, the author stated that this technique was not limited to use with adolescent substance abusers and their families. Incident drawing has been used successfully with adult substance abusers, co-dependents, adult children of alcoholics, individuals with eating disorders and victims of trauma and/or abuse. Cox and Price (1990) who are art and family therapists concluded that Incident Drawings provide an opportunity to take an inner experience to an outer visualization and its associated emotions. They also stated that patients were able to break through the feelings and selves that had been lost through substance abuse.

Witnesses of Violence

Children (n = 200), who had witnessed violence, were participants in a study by Pynoos and Spencer (1986) which incorporated a three-stage approach that allowed for proper exploration, support and closure within a 90-minute initial interview. The format proceeded from projective drawings and story-telling, to discussion of the actual traumatic situation. The drawings and story-telling proved to provide clues to the source of the child's anxiety and means of coping. Through the use of free drawings and story-telling, the consultant was able to engage the child in an exploration of the events associated with the experience of overwhelming anxiety.

Conduct Disorder

Feyh and Holmes (1994) conducted a study with HFD's and 40 children with conduct disorder and 40 children without conduct disorder. Two independent judges rated the drawings for presence or absence of indicators of aggressiveness that should accompany a conduct disorder. No significant differences were found in this study. Valerie Van Hutton, Ph.D. (1994) developed a quantitative scoring system. Using observation, general descriptors of each picture and individual drawing, Dr. Hutton's four scales included; a) preoccupation with sexually relevant concepts (SRC), b) aggression and hostility (AH), c) withdrawal and guarded accessibility (WGA), and d) alertness for danger, suspiciousness and lack of trust (ADST). This scoring system was not meant to be a definitive indicator of behavior or emotional disturbance or of trauma, such as child abuse, but as a piece of potentially useful and important evidence to supplement other sources such as a clinical history. The characteristics measured by each of the four scoring systems are both general to the population and specific to non-abused children who are emotionally disturbed, as well as to children who have been abused. Dr. Hutton's system is designed specifically to assess personality/emotional characteristics of sexually abused children. The House-Tree- Person and Draw-A-Person as Measures of Abuse in Children: A Quantitative Scoring System was formed with a sample population of 145 normal children. The conversion of raw scale scores to percentile ranges can be facilitated through the conversion table. Data is given separately for males and females because of the significant effect of gender. Percentile score ranges provide information about the child's score relative to the scores of children in the normal sample. Scores obtained

below the 84th percentile indicate that the child scored within expectations. Scores from the 84th through 94th percentile range indicate that the child scores higher than one standard deviation from the mean. These scores may be considered borderline and, therefore, suggestive of possible sexual abuse. Scores at or above the 95th percentile are considered to be significant or in the probable range for sexual abuse.

Hutton reports that two psychologists using her quantitative scoring system were able to score subjects' drawings with 93.2% agreement. Means and standard deviations of scale scores for normal, emotionally disturbed and sexually abused samples were illustrated for each of the four indicators. Interrater reliability correlation coefficients were high for preoccupation with sexually relevant concepts (SRC), .97 for aggression and hostility (AH), .95 for withdrawal and guarded accessibility (WGA) and .70 for alertness for danger, suspiciousness and lack of trust (ADST).

Psychometric Property Studies:

Review of the literature on the projective drawings, such as the Human Figure Drawings and the Kinetic Family Drawings, suggests there are obvious pros and cons for the use of these instruments. Motta, Little and Tobin (1993) acknowledge the fact that Human Figure Drawings are often seen as important parts of a psychological evaluation and have been used for over one hundred years to describe and assess human behavior. Despite continued use, Motta and colleagues argue that the drawings have not demonstrated satisfactory reliability and validity. Motta and colleagues conclude in their article that there is ample evidence that figure drawings should not be used as personality

test instruments because they do not provide valid descriptions of personality, behavior or social-emotional functioning. Despite the arguments, figure drawings continue to be among the most popular of personality assessment devices (1993). However, Motta and colleagues feel that the reason drawings are so widely used is based on ease of administration and anecdotal reports of instances in which figure drawings do correlate with real world outcomes. Nevertheless, it is difficult to imagine that any instrument in the psychologist's battery would continue to be as extensively used and respected as the HFD in the absence of meaningful empirical support.

Attempts to rectify the problem of psychometric qualities for Draw-A-Person have been made by Koppitz (1968) and more recently by Naglieri, McNeish and Bardos, (1992) who provided evidence of increased reliability, validity and national norms. Draw-A-Person: Screening Procedure for Emotional Disturbance (DAP: SPED) scores were compared for 54 normal students and 54 students with conduct and appositional defiant disorders who attended a psychiatric day treatment facility. The samples ranged from 7 to 17 years of age and were matched by sex, race and geographic region. The DAP: SPED mean T score earned by the 54 subjects in the clinical sample (M=56.63, SD = 10.27) was significantly higher than that of the 54 normal subjects (M= 49.37, SD = 8.68), indicating that the clinical group produced more signs associated with emotional disturbance than did the normal group. Further analysis suggested that the use of the DAP: SPED increased diagnostic accuracy by 25.8%. The internal (coefficient alpha), interrater and intrarater reliability coefficients of the DAP: SPED were reported to be good to excellent. The DAP: SPED were also found to yield very similar scores for

African-American and White samples, as well as Hispanic and Non-Hispanic Groups (Naglieri and Pfeiffer, 1992).

Koppitz (1968) began significant work on the development and testing of a quantitative system for human figure drawings. Thirty emotional indicators were grouped into three different categories; quality of the drawings, items not usually found in the human figure drawings of children such as grotesque figures and omissions of basic items. Naglieri, McNeish and Bardo's (1991) developed the Draw a Person: Screening Procedure for Emotional Disturbance (DAP: SPED). The DAP: SPED was designed to provide a screening measure to aid in the identification of children and adolescents who may have emotional or behavioral difficulties. The specific objectives of this system for scoring the drawings of a man, woman and the self are to provide a human figure drawing comprised of items that can be objectively and easily scored. Another objective is that the scoring system has recently been normed with nationally representative standardization sample and a system that is reliable. This is accomplished by two means: a) having ample numbers of concise items for each of the man, the woman and self-drawings and b) provide a DAP: SPED total score, which is obtained from the combination of the man, woman and self-drawings. Finally, to provide a system for emotional adjustment that, by design, also lends itself to the assessment of cognitive functioning. The DAP: SPED standardized administration instructions are identical to those of the Draw a Person: A quantitative Scoring System (DAP: QSS) (Naglieri, 1988), which is used as a measure of cognitive ability. This permits scoring the same subject's drawings obtained during one administration using both systems. These scores are then useful in assessing both

emotional status and cognitive development.

The DAP: SPED standardization sample comprised of 2,260 individuals was used to standardize the DAP: QSS in 1988, about 200 subjects at each one-year age range from 5 year-olds to 17 year olds was used. The DAP: SPED raw scores for the man, woman and self-drawing were combined to yield a T score. T scores were then converted to percentile ranks with the aid of a conversion table. Confidence Intervals were given for three different age groups by gender; 6 -8 years, 9-12 years and 13-17 years.

DAP: SPED also takes into consideration a subject's drawing time. Scoring templates are included for different age groups for size of drawings as well as position and degree of positions. The rating for the man, woman and self are based on 55 characteristics. Because the DAP: SPED is intended to be used as a screening measure to identify those individuals who would likely benefit from additional evaluation, the scores are classified into three categories: less than 55 suggests that further evaluation is not indicated, 55 to 64 suggests that further evaluation is indicated and scores above 65 suggest that further evaluation is strongly indicated.

Others studies have been completed for the Kinetic Family Drawings. The authors Burns and Kaufman (1972), presented examples for the classification of 7 styles of interpretive dimensions of Kinetic Family Drawings which were amenable to an objective scoring procedure. O'Brien and Patton (1974) developed an extremely complex objective scoring system for the Kinetic Family Drawings using stepwise regression analysis. Myers (1978) developed a quantitative scoring procedure for the Kinetic Family drawings. Hence, findings from studies examining the use of projective drawing techniques for

measuring personality traits and emotional indicators have been mixed. However, the development of quantitative scoring systems for projective drawings has resulted in substantial evidence in support of their utility.

The current study looked at the validity of all the indicators currently considered to predict emotional issues. All proposed indicators revealed by the current literature review was used.

Chapter 3

METHODOLGY

Participants

Data was obtained from archival mental health records obtained from adjudicated adolescents attending a state certified facility. Data was collected as part of the adolescents' intake into the facility or at a diagnostic center prior to placement. No names or other identifying data were left on the protocols. Protocols were collected between 1990 and 1995. No attempt was made to determine the current status of the adolescents prior to removing identifying information. Protocols include psychiatric diagnosis, personality assessment data and some demographic and judiciary information as well as the projective drawings of the adolescents.

Design

An Ex-post-facto design was used. Psychological files were collected from one adolescent mental health facility in the Southern United States. Only files from the years of 1990 to 1995 were included in the current study. The adolescents' ages range from 12 to 17 years of age. The numbers of files obtained were based on availability and approximately fifty files were scored for the study.

Materials

A scoring sheet (Appendix A) was developed for this study using Hutton (1994), Ogden (1986), Naglieri, McNeish and Bardos (1991) indicators of emotional issues.

Descriptive Information about the Construction of the Scoring System

The scoring system for this study combined the scoring of Hutton, Naglieria, and Ogden scoring criteria. A total of 1,043 indicators were included. The score sheet refers to each clinician that used indicators by including the letter of their last name in front of the indicators. For example all three clinician used Clenched fingers, made into fists. On the score sheet, it is noted by (O, Ha, N) in front of Clenched fingers, made into fists. Because of the limited number of files obtained for this study, The Human Figure Drawings indicators were divided into cluster scores. Appendix B illustrated how the 1,043 indicators were divided into 27 cluster scores to evaluate the drawings. Table 1 illustrates how each cluster would correlate to each disorder.

Each youth completed the Human Figure Drawings, and Draw a House and Tree, as well as The Kinictic Family Drawing. Four different graduated students evaluated the drawings. These students had previous training in scoring such drawings. The raters used a score sheet of 1,043 indicators to rate each drawing. Because of the limited number of files used in this study, these indicators were later divided into 27 cluster scores (see Appendix B).

Procedure

To insure confidentiality no names were associated with final data and at no time was a subject's name associated with their protocol. No attempts were made to determine individual responses. Data cannot be tracked back to individual subjects, this will eliminate any potential harm to participants.

Scoring

Criteria used to score the drawings of the sample population was gathered from currently available literature and scoring systems (Ogden 1977, Van Hutton 1994 and Naglieri, McNeish and Bardos 1991). Each item found was incorporated into a scoring sheet. The drawings were evaluated by looking at indicators on the Score Sheet. The presence or absence of signs was compared to the issues found in the child's records (See Appendix A for the scoring sheet).

A correlation matrix was analyzed to determine relationships between indicators and issues. Alpha was set at .05 by convention.

Current study did not include probability corrections for multiple statistics. Since no adjustments were made one would expect appropriately 31 correlations to be significant by chance. Therefore individual correlations can not be generalized and further study is warranted. So the probability report can be used for heuristic purposes only.

Chapter 4

RESULTS

Descriptive Information about Sample

Archival data of adjudicated adolescents from a mental health facility was used for the current study. Of the fifty adolescents, from the ages of 12 to 17, only two were females. These adjudicated adolescents were not only in trouble with the law, (sex offenders, assault offenders, robbery, etc.), but also had a DSM-IV diagnosis (Appendix C). Most students had more than one diagnosis: forty had two or more diagnoses; twenty-two adolescents had two diagnoses; twelve adolescents had three diagnoses; five had four diagnoses and one adolescent had six diagnoses.

Demographic analysis of the fifty adolescents revealed that Conduct Disorder was the most frequent diagnoses with twenty students. Attention Deficient Hyperactivity was the next frequent diagnoses with thirteen students. (See Table 2 for a further breakdown of diagnostic categories.)

Given the population of the current study, one might expect high scores on indicators of aggression and hostility. Due to the large number of adolescents that were diagnosed with Behavior Disorders, Abuse and Mood Disorders, the cluster of aggression, Anxiety, Depression, Acting out and Sexual Issues, indicators would be expected to show significant high correlations. However, only Aggression and Acting out were found to be significantly correlated. Table 3 reports all correlations that were found in the current study. These correlations include expected correlations that were found, expected correlations that were not found and correlations that were found but not expected.

Table 2

Frequencies of Diagnostic Categories

Diagnosis	Number of Participants
Conduct Disorder	20
Attention Deficient Hyperactivity	13
Depression	12
Polysubstance Abuse	12
Antisocial Behaviors	7
Dsthymia	7
Mild Mental Disability	5
Oppositional Defiant Disorder	5
Cannabis Abuse	4
Learning Disability	3
Alcohol Abuse	3
Anxious Mood	3
Physical Abuse	3
Sexual Abuse	3
Bereavement	2
Intermittent Explosive Disorder	2
Impulse Control Problems	2
Psychotic Thought Disorder	2
Attention Deficit Hyperactivity, Predominantly Inattentive Type	1
Posttrumatic Stress Disorder	1
Bipolar	1
Identity Problems	1
Pyromania	1

Expected Correlations that were Found in Current Study

Organic diagnosis was shown to be highly correlated to the cluster of dependence indicators ($r = .323$; $p < .03$).

Acting Out diagnosis was shown to be highly correlated to the cluster of somatic complaints indicators ($r = .573$; $p < .01$) and cluster of psychotic thought indicators ($r = .290$; $p < .05$).

Aggressive diagnosis was shown to be highly correlated to the cluster of psychotic thought indicators $r = .697$; $p < .01$).

Attention-Deficit/Hyperactivity Disorder was shown to be highly correlated to the cluster of acting out indicators ($r = .343$; $p < .05$) .
Attention Deficit/Hyperactivity Disorder, Predominantly Inattentive type, was shown to be highly correlated to the cluster of obsessive-compulsive behavior indicators ($r = .301$; $p < .04$).

Rigidity diagnosis was shown to be highly correlated to the cluster of psychotic thought indicators ($r = .456$; $p < .00$).

Dissatisfaction with Self diagnosis was shown to be highly correlated to the cluster of impulse control indicators ($r = .423$; $p < .01$).

Anxious diagnosis was shown to be highly correlated to the cluster of inhibition indicators ($r = .294$; $p < 04$).

Inferiority diagnosis was shown to be highly correlated to the cluster of dependency indicators ($r = .559$; $p < .01$).

Dependence was shown to be highly correlated to the cluster of inhibition indicators ($r = .493$; $p < .00$) and cluster of narcissistic indicators ($r = .167$; $p < .00$).

Introvert diagnosis was shown to be highly correlated to the cluster of dependent indicators ($r = .426$; $p < .01$).

Uncertainty diagnosis was shown to be highly correlated to the cluster of dependency indicators ($r = .350$; $p < .02$).

Inhibition diagnosis was shown to be highly correlated to the cluster of sex abuse indicators ($r = .319$; $p < .03$).

Anxiety diagnosis was shown to be highly correlated to the cluster of acting out indicators

(r = .022; p < .05).

Obsessive-Compulsive Behavior was shown to be highly correlated to the cluster of psychotic thought indicators (r = .486; p < .01) and cluster of dependent indicators (r = .783; p < .00).

Physical abuse diagnosis was shown to be highly correlated to the cluster of anxious indicators (r = .508; p <.01).

Sex Abuse diagnosis was shown to be highly correlated to the cluster of acting out indicators (r = .396; p < .01), the cluster of introvert indicators (r = .364; p < .01) and the cluster of aggressive indicators (r = .529; p < .00).

Psychosis diagnosis was shown to be highly correlated to the cluster of inhibition indicators (r = .511; p < .01) and the cluster of acting out indicators (r=.498; p < .01).

Paranoid diagnosis was shown to be highly correlated to the cluster of dependency indicators (r = .342 ; p <.02).

Correlations Found but Not Expected in Current Study

Aggressive diagnosis was shown to be highly correlated to the cluster of dependant indicators (r=.410; p <.01).

Dependence was shown to be highly correlated to the cluster of acting out indicators (r = .378; p < .00).

Introvert diagnosis was shown to be highly correlated to the cluster of behavior disorder indicators (r = .300; p < .04).

Impulse Control diagnosis was shown to be highly correlated to the cluster of dependent indicators (r = .341; p < .02).

Table 3. Correlations that were expected and not expected in current study

Diagnoses

	ADD	ADHD	Behavior	Drug Related	Psychotic	Dependent	Bipolar	Panic	Phobia	Anxiety
Acting Out		1	2		1	3	2			1
Aggression		2	2		1	3				2
Anxiety	2	2	2	2	2		2	2		2
Dependent				2	3	2				
Depressive	2		2	2	2			2	2	2
Dissatisfaction with Self	2	2	2							
Eating Disorder					2					
Impulsively	2	2	2		2		2			
Inferiority	2		2			1				
Infantile					2	2				
Inhibition	2				3	3	2			1

Indicators

Denotes: 1 Expected correlations that were found in current study.

2 Expected correlations that were NOT found in current study.

3 Not expected correlations that were found in current study.

Table 3 (continued) Correlations that were expected and not expected in current study

Diagnoses

	Somatic	Identity	Sex Issues	Eat Disorders	Sleep Disorders	Impulse Control	Physical Abuse	Sex Abuse	ID Gender
Acting Out	1						2	1	
Aggression					2	2	1	2	
Anxiety	2	2	2	2	2		1	2	2
Dependent						3			
Depressive	2	2		2	2		2	2	
Dissatisfaction with Self			2	2		3	2	2	2
Eating Disorder				2					
Impulsively	2	2				2			
Inferiority				2					2
Infantile									
Inhibition	3							1	

Indicators

Denotes: 1 Expected correlations that were found in current study.

2 Expected correlations that were NOT found in current study.

3 Not expected correlations that were found in current study.

Table 3 (continued) Correlations that were expected and not expected in current study

Diagnoses

	ADD	ADHD	Behavior	Drug Related	Psychotic	Dependent	Bipolar	Panic	Phobia	Anxiety
Insecurity									2	
Introvert	2		3			1				
Obsessive Compulsive Behaviors	1				1	1			2	2
Organic			2		1	1				
Narcissistic					2	1				
Paranoid					1	1				
Psychosis					2				2	2
Regression										
Rigididty					1					
Schizophrenic										
Psychosomatic									2	2
Sexual Issues										
Uncertainty			2			1	2			

Indicators

Denotes: 1 Expected correlations that were found in current study

2 Expected correlations that were NOT found in current study.

3 Not expected correlations that were found in current study.

Table 3 (continued) Correlations that were expected and not expected in current study

	Diagnoses								
	Somatic	Identity	Sex Issues	Eat Disorders	Sleep Disorders	Impulse Control	Physical Abuse Abuse	Sex Abuse Abuse	Gender ID
Insecurity							2	2	
Introvert				2				1	
Obsessive Compulsive Behaviors				2		2	2	2	
Organic								2	
Narcissistic						2			
Paranoid				2		2			
Psychosis									
Regression									2
Rigididty				2					
Schizophrenic						2			
Psychosomatic									
Sexual Issues								2	2
Uncertainty							2	2	

Indicators

Denotes: 1 Expected correlations that were found in current study.
2 Expected correlations that were NOT found in current study.
3 Not expected correlations that were found in current study.

Chapter 5

DISCUSSION

A brief description and associated features of each of the diagnoses found in the current study is listed below, based upon the Diagnostic and Statistical Manual of Mental Disorders - IV. Correlation and probabilities are given, if significant, based on the findings from this study.

Disorders Usually First Diagnosed in Infancy, Childhood or Adolescence

Conduct disorder has the essential feature of a repetitive and persistent pattern of behavior in which the basic rights of others or major age appropriate societal norms or rules are violated. Children with this disorder often have problems beginning before the age of 13 years. These behaviors fall into four main groupings: aggressive conduct that causes or threatens physical harm to other people or animals, nonaggressive conduct that causes property loss or damage, deceitfulness or theft and serious violations of rules. Three (or more) characteristic behaviors must have been present during the past 12 months, with at least one behavior present in the past 6 months. The disturbance in behavior must cause clinically significant impairment in social, academic or occupational functioning. The behavior pattern is usually present in a variety of settings such as home, school or the community. Children or adolescents with this disorder often

initiate aggressive behaviors and react aggressively to others. Deceitfulness or theft is also common (APA, 1994, pp. 85-91). No significant correlation was shown in the current study between Conduct disorder and any cluster of indicators.

Attention-Deficit/Hyperactivity Disorder is a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequent and severe than is typically observed in an individual at a comparable level of development. Some hyperactive-impulsive or inattentive symptoms that cause impairments must have been present before the age of 7 years, although many individuals are diagnosed after the symptoms have been present for a number of years. Also, some of these symptoms or impairments must be present in at least two settings with clear evidence of interference with developmentally appropriate social, academic or occupational functioning. For example, inattention may be manifested in academic, occupational or social situations; hyperactivity may be manifested by fidgetiness or squirming in one's seat; impulsivity may manifest itself as impatience. Behavioral manifestations usually appear in multiple contexts and are more likely to occur in group situations (APA, 1994, pp. 78-85).

As expected: Attention-Deficit/Hyperactivity Disorder was shown to be highly correlated to the cluster of acting out indicators ($r = .343$; $p < .05$).

> The mood in a Major Depressive Episode is often described by the person as depressed, sad, hopeless, discouraged, down in the dumps, having no feelings or feelings of anxiousness. Some individuals emphasize somatic complaints, irritability, loss of interest or pleasure, insomnia, agitation or motor retardation. The sense of worthlessness or guilt, decreased energy, tiredness, fatigue, impaired ability to think, concentrate or make decisions is associated with a Major Depressive Episode. Associated features of individuals with a Major Depressive Episode are frequently presented with tearfulness, irritability, brooding, obsessive rumination, anxiety, phobias, excessive worry over physical health and complaints of pain. Some individuals have Panic Attacks and in children, separation anxiety may occur.

The most serious consequence of a Major Depressive Episode is attempted or completed suicide. (APA, 1994, pp. 320)

Dysthymic Disorders and Major Depressive Disorders are differentiated based on severity, chronicity and persistence. Often Dysthymic Disorder must be present more days than not over a period of at least 2 years (one year for children or adolescents), and any symptom-free interval last no longer than two months. The differential diagnosis between Dysthymic Disorder and Major Depressive Disorder is made particularly difficult by the fact that the two disorders share similar symptoms, and the differences between them in onset, duration, persistence and severity are not easy to evaluate retrospectively. Dysthymic Disorder is characterized by chronic, less severe depressive symptoms that

have been present for many years. As expected: Anxious diagnosis was shown to be highly correlated to the cluster of inhibition indicators ($r = .294$; $p < .04$). Inferiority diagnosis was shown to be highly correlated to the cluster of dependency indicators ($r = .033$; $p < .01$). Dependence was shown to be highly correlated to the cluster of inhibition indicators ($r = .493$; $p < .00$). Dependence was shown to be highly correlated to the cluster of narcissistic indicators ($r = .167$; $p < .01$). Introvert diagnosis was shown to be highly correlated to the cluster of dependent indicators ($r = .426$; $p < .01$). Uncertainty diagnosis was shown to be highly correlated to the cluster of dependency indicators ($r = .350$; $p < .02$). Inhibition diagnosis was shown to be highly correlated to the cluster of sex abuse indicators ($r = .319$; $p < .03$).

Polysubstance Abuse is a diagnosis reserved for individuals who repeatedly use at least three groups of substances, (not including caffeine or nicotine), and no single substance is predominate (APA, 1994). No significant correlations were noted in this study that related to any Substance-Related disorders.

Child or Adolescent Antisocial Behavior is used when the focus of clinical attention is antisocial behavior in a child or adolescent that is not due to a mental disorder such as Conduct Disorder or an Impulse-Control Disorder. Examples include isolated antisocial acts of children or adolescents not a pattern of antisocial behavior (APA, 1994, pp. 684). No significant correlations were noted in the study with Antisocial Behaviors.

Mental retardation is a disorder that is characterized by significantly

sub-average intellectual functioning (an IQ of approximately 70 or below) with onset before the age of 18 years and concurrent deficits or impairments in adaptive functioning (APA, 1994, pp. 39-41).

As expected: Organic diagnosis was shown to be highly correlated to the cluster of acting out indicators ($r = .343$; $p < .05$). Organic diagnosis was shown to be highly correlated to the cluster of dependence indicators ($r = .049$; $p < .02$).

Oppositional Defiant Disorder is defined as a recurrent pattern of negativistic, defiant, disobedient and hostile behavior toward authority figures that persists for at least six months. Oppositional Defiant Disorder is characterized by losing one's temper, arguing with adults, actively defying or refusing to comply with the requests or rules of adults, deliberately doing things that annoy other people and blaming others for ones' mistakes or misbehavior. Associated features are problematic temperaments, high motor activity, low self-esteem, mood liability, low frustration tolerance, swearing and the precocious use of alcohol, tobacco or illicit drugs. There are often conflicts with parents, teachers and peers. Oppositional Defiant Disorder is more prevalent in families in which child care is disrupted or in families in which harsh, inconsistent or neglectful child-rearing practices are common. Attention-Deficit/Hyperactivity Disorder, learning problems and communication disorders are common in children with Oppositional Defiant Disorder (APA, 1994, pp. 91-94).

As expected: Acting Out diagnosis was shown to be highly correlated to the cluster of

somatic complaints indicators ($r = .573$; $p < .01$). Acting Out diagnosis was shown to be highly correlated to the cluster of psychotic thought indicators ($r = .290$; $p < .05$). Aggressive diagnosis was shown to be highly correlated to the cluster of psychotic thought indicators ($r = .697$; $p < .01$). Not expected: Aggressive diagnosis was shown to be highly correlated to the cluster of dependant indicators ($r = .410$; $p < .01$).

"Cannabis Abuse is the use of marijuana whose intoxication can interfere with performance at work or school and may be physically hazardous. It may also create legal problems and frequent arguments with a spouse or parents" (APA, 1994). No significant correlations were noted in this study that related to any Substance-Related disorders.

Learning disorders are disorders that are characterized by academic functioning that is substantially below that expected given the person's chronological age, measured intelligence and age-appropriate education (APA, 1994). No significant correlation between any cluster of indicators was shown for learning disorders.

The Substance-Related disorders include disorders related to the taking of a drug, abuse of drugs (including alcohol), to the side effect of a medication and to toxin exposure. The substances are grouped into eleven classes. Many prescribed and over-the-counter medications can also cause Substance-Related Disorders. Exposure to a wide range of other chemical substances can also lead to the development of Substance-Related Disorders. Toxic substances that may cause Substance-Related Disorders

include heavy metals, rat poisons, pesticides, antifreeze and volatile substance (APA, 1994, pp 175-194). Substance Abuse is a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of a substance. A diagnosis of Substance Abuse is more likely in individuals who have only recently started taking the substance. Nicotine and caffeine are not included. Individuals with Alcohol Abuse suffer from the after-effects of drinking or from actual intoxication on the job or at school. Responsibilities may be neglected and frequent absences from school or work may occur (APA, 1994, pp. 175-194).

No significant correlation between any cluster of indicators was shown for substance abuse.

The Mood Disorders include disorders that have a disturbance in mood as the predominant feature. The criteria sets for most of the Mood Disorders requires the presence or absence of the mood episodes, describes the mood and finally specifies either the most recent mood episode or the course of recurrent episodes. The essential feature of a Major Depressive Episode is a period of at least two weeks during which there is either depressed mood or the loss of interest or pleasure in nearly all activities. In children and adolescents, the mood may be irritable rather than sad. The individual must also experience at least four additional symptoms drawn from a list that includes changes in appetite or weight, sleep and

psychomotor activity; decreased energy; feelings of worthlessness or guilt; difficulty thinking, concentrating or making decisions; or recurrent thoughts of death or suicidal ideation, plans or attempts. The symptoms must be accompanied by clinically significant distress or impairments in social, occupational or other important areas of functioning (APA, 1994, pp. 317-339).

As expected: Rigidity diagnosis was shown to be highly correlated to the cluster of psychotic thought indicators ($r = .456$; $p < .00$). Dissatisfaction with Self diagnosis was shown to be highly correlated to the cluster of impulse control indicators ($r = .423$; $p < .01$).

Problems Related to Abuse or Neglect

Physical abuse "is physical abuse of a child" (APA, 1994). As expected: Physical abuse diagnosis was shown to be highly correlated to the cluster of anxious indicators ($r = .508$; $p < .01$).

Sexual abuse "is used when the focus of clinical attention is sexual abuse of a child (APA, 1994) As expected: Sex Abuse diagnosis was shown to be highly correlated to the cluster of acting out indicators ($r = .396$; $p < .01$). Sex Abuse diagnosis was shown to be highly correlated to the cluster of introvert indicators ($r = .364$; $p < .01$). Sex Abuse diagnosis was shown to be highly correlated to the cluster of aggressive indicators ($r = .529$; $p < .01$).

Bereavement "is used when the focus of clinical attention is reaction to the death

of a loved one. Associated features may include depression, insomnia, poor appetite, weight loss or anorexia," (APA, 1994). No significant correlations were noted in the study with Bereavement.

Intermittent Explosive Disorder is characterized by discrete episodes of failure to resist aggressive impulses resulting in serious assaults or destruction of property. The degree of aggressiveness expressed during an episode is grossly out of proportion to any provocation or precipitating psychosocial stressor. Signs of generalized impulsivity or aggressiveness may be present between explosive episodes. Individuals with narcissistic, obsessive, paranoid or schizoid traits may be especially prone to having explosive outbursts of anger when under stress (APA, 1994, pp. 609-612).

Not expected: Impulse Control diagnosis was shown to be highly correlated to the cluster of dependant indicators ($r = .341$; $p < .02$).

The essential feature of Impulse-Control Disorders is the failure to resist an impulse, drive or temptation to perform an act that is harmful to self or to others. The individual feels an increasing sense of tension or arousal before committing the act and then experiences pleasure, gratification or relief at the time of committing the act. Following the act there may or may not be regret, self-reproach or guilt (APA, 1994, pp. 609).

Psychotic Disorders are restricted to delusions or prominent hallucinations, with hallucinations occurring in the absence of insight into a

> pathological nature. Because of the difficulty inherent in developing an objective definition of "thought disorder", and because in a clinical setting inferences about thought are based primarily on the individual's speech, the concept of disorganized speech may be so severe that it is nearly incomprehensible and resembles receptive aphasia in its linguistic disorganization. Grossly disorganized behavior may manifest itself in a variety of ways, ranging from childlike silliness to unpredictable agitation (APA, 1994, pp. 273-274).

As expected: Psychosis diagnosis was shown to be highly correlated to the cluster of inhibition indicators ($r = .511$; $p < .01$). Paranoid diagnosis was shown to be highly correlated to the cluster of dependency indicators ($r = .342$; $p<.02$).

> Attention Deficit/Hyperactivity Disorder, Predominantly Inattentive type is a subtype of Attention Deficit/ Hyperactivity Disorder that is used as a diagnosis when six (or more) symptoms of inattention (but fewer than six symptoms of hyperactivity- impulsively) have persisted for at least six months (APA, 1994, p. 78).

As expected: Attention Deficit/Hyperactivity Disorder, Predominantly Inattentive type, was shown to be highly correlated to the cluster of obsessive compulsive behavior indicators ($r =. 301$; $p<. 04$).

> Posttraumatic Stress Disorder is an anxiety disorder that is characterized by the re-experiencing of an extremely traumatic event accompanied by symptoms of increased arousal and by avoidance of stimuli

associated with the trauma. The essential feature of Posttraumatic Stress Disorder is the development of characteristic symptoms following exposure to an extreme traumatic stress. The stress involves direct personal experience of an event that includes actual or threatened death or serious injury; or threat to one's physical integrity; or witnessing an event that involves death. The injury or threat may be due to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or close associate. In children, the response to the event must involve disorganized or agitated behavior. The full symptoms must be present for more than one month and the disturbance must be of clinically significant distress or impairment in social, occupational, or other important areas of functioning. Individuals with Posttraumatic Stress Disorders may describe guilt feelings about surviving when others did not survive or about the things they had to do to survive. Phobic avoidance of situations or activities that resemble the original trauma may interfere with relationships. There is a constellation of symptoms that are associated with interpersonal stressors: impaired affect modulation; self-destructive and impulsive behavior; dissociative symptoms; somatic complaints; feelings of ineffectiveness, shame, despair or hopelessness; feelings permanently damaged; a loss of previously sustained beliefs; hostility; social withdrawal; feeling constantly threatened; impaired relationships with others; or a change from an individual's

goals, career choices, friendship patterns, sexual orientation and behavior, moral values and group loyalties (APA, 1994, p. 685).

No significant correlations were noted.

Pyromania is characterized by a pattern of fire setting for pleasure, gratification, or relief of tension. The essential feature of Pyromania is the presence of multiple episodes of deliberate and purposeful fire setting. Individuals with this disorder experience tension or affective arousal before setting a fire. There is a fascination with, interest in, curiosity about or attraction to fire and its situational contexts. The fire setting is not a result from impaired judgment (APA, 1994, p. 614).

No significant correlations were noted.

Due to many cases having multiple diagnoses, shown significant but not expected were: Dependence was shown to be highly correlated to the cluster of acting out indicators ($r = .132$; $p < .00$). Introvert diagnosis was shown to be highly correlated to the cluster of behavior disorder indicators ($r = .300$; $p < .04$). Inhibition diagnosis was shown to be highly correlated to the cluster of somatic complaints indicators ($r = .282$; $p < .05$).

Summary

Overall, the result of the current study suggested some usefulness of projective drawing for predicting diagnoses using current scoring criteria. Table 1 illustrates which criteria seem to be associated with each diagnosis according to the DSM-IV manual. (Due to the length of the chart, it was divided into four smaller charts to fix margin

requirements). Table 3 illustrates which criteria that were expected and found in this study, which was expected and was not found in this study and was found that was not expected in this study.

The research in this field study is preliminary and additional research should be conducted on the projective drawing techniques. Due to the limited number of cases, the dual diagnoses of most subjects and since many factors loaded on each other, additional study is needed on projective drawing techniques. Current study did not include probability corrections for multiple statistics. Since no adjustments were made, one would expect appropriately correlations to be significant by chance. Therefore individual correlations can not be generalized and further study is warrant. So the probability report can be used for heuristic purposes only. Additional data should be collected from both normal and clinical samples. Populations could be stratified in terms of age, ethnic/racial background, socioeconomic status and across various geographic regions. The current study simply focused on one age group, adolescents from 12 to 17 years of age.

With a much larger sample size, a discriminate analysis could be used to identify specific items that discriminate among specific groups. With 1,042 indicators, a sample population of 10,420 protocols would be required for such an analysis. In addition, an expert sort similar to the one used in the current study could be conducted to identify items that are agreed upon by experts as belonging in the scales for which they were designed. With a larger sample, the addition of a normal population and more specific diagnosis one may be better able to determine which specific indicators are reflective.

Discussion

In future studies, it would be of interest and use to clinicians and researchers to include a comparison measure in which adolescents assess their own outward behaviors. The adolescent's reports could then be compared with the reports of other instruments.

In conclusion, a number of possibilities for future studies exist. For example, drawings could be collected before and after interventions such as individual and group therapy or the use of medication. One would expect to see less emotional indicators from the drawings after therapy. As for the current study, projective drawings may communicate their usefulness as an initial screening test so that the adolescent can be appropriately referred for further in-depth clinical assessment. As literature review for this study has suggested, many clinicians are using projective drawings. Instead of putting them on the shelf, clinicians are developing creative uses for drawings to improve their assessment of a child's emotional issue.

REFERENCES

REFERENCES

American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders; Fourth Edition. Washington, DC 20005.

Babiker, G., & Wilkinson, N. W. (l994). The psychological detection of abuse: snags and . British Journal of Projectile Psychology, 39 (1), 10- 22.

Bonifacio, P.P., & Schaefer, C.E. (1969). Creativity and the projection of movement responses. Journal of Projective Techniques and Personality Assessment, 33 (4), 380-384.

Buck, J.N. (1948). The H-T-P technique: A qualitative and quantitative scoring manual. Journal of Clinical Psychology, 4, 317 - 396.

Burns, R.C., & Kaufman, S.H. (1970). Kinetic Family Drawings (K-F-D): An introduction to understanding children through kinetic drawings. New York: Brunner/Mazel.

Burns R.C., & Kaufman, S.H. (1972). Action, Style and symbols in Kinetic Family Drawings (K-F-D): An interpretive manual. New York: Brunner / Mazel

Burns W.J., & Zweig, A.R. (1980). Self-concepts of chronically ill children. The Journal of Genetic Psychology, 137, 179 -190.

Campo, V., & Vilar, N. (1977). Clinical usefulness of the Draw-An- Animal Test. British Journal of Projective Psychology and Personality Study, 22, 79-86.

Cobia, D.C., & Brazetta, E.W. (1994). The application of family drawing tests with children in remarriage families: understanding familial roles. Elementary School Counseling Psychology, Vol. 29, 129-136.

Cohen, F.W., & Phelps, R.E. (1985). Incest markers in children's artwork. The Arts in Psychotherapy, 12(4), 265 - 283.

Collins, J., & Carson, N. (1989). Trauma resolution therapy. Houston: Self-published.

Cox, K. L., & Price, K. (1990). Breaking through: Incident drawings with adolescent substance abusers. The Arts in Psychotherapy. Vol.17, 333-337.

Feyh, J. M., & Holmes, C. B. (1994). Use of the draw-a-person with conduct-disordered children. Perceptual and Motor Skills 78, 1353-1354.

Fuller, G., Preuss, M., & Hawkins, W. (1970). The validity of the human figure drawings in disturbed and normal children. Journal of School Psychology, 8, 54-56.

Goodenough, F.L. (1926). Measurement of intelligence by drawings. New York: Harcourt, Brace and World.

Gresham, F. M. (1993). "What's Wrong in this picture": Response to Mottaetal.'s review of human figure drawings. School Psychology Quarterly, 8 (3), 182-186.

Groth - Marnat, G. (1990). Handbook of Psychological Assessment (2nd ed.). New York: A Wiley-Interscience Publication.

Hammer, E. (Ed.). (1958). The clinical application of projective drawings. Springfield, IL: Thomas.

Handler, L. (1958). The clinical application of projective drawings. Springfield, IL: Thomas.

Handler, L., & Habenicht, D. (1994). The kinetic family drawing technique: A review of literature. Journal of Personality Assessment 62 (3), 440-464.

Harris, D.B. (1963). Children's drawings as measures of intellectual maturity. New York: Harcourt, Brace and World.

Hickson, J. (1992) Children at war. Elementary School Guidance & Counseling. Vol.26, April 1992, 259 -268.

Hutton, V.V. Ph.D. (1994). House-Tree-Person and Draw-A-Person as measures of abuse in children: A quantitative scoring system. Odessa, FL: Psychological Assessment Resources, Inc.

Knoff, H.M., & Prout, H.T. (1985). The kinetic drawing system: A review and integration of the kinetic family and school drawings techniques. Psychology in the Schools, 22, 50-59.

Koppitz, E. M. (1968). Psychological Evaluation of children's human figure drawings. Yorktown Heights, N.Y. Grune & Stratton.

Levy, S. (1958). Projective figure drawing. In E.F. Hammer (Ed.), The clinical application of projective drawings (pp. 83-112). Springfield, IL: Charles C. Thomas.

Loney, J., Comly, H.H., & Simon, B. (1975). Parental management, self-concept, and drug response in minimal brain dysfunction. Journal of Learning Disabilities, 8 (3), 187-190.

Machover, K. (1949). Personality projective in the drawings of the human figure. Springfield, IL: Thomas.

Machover, K. (1951). Drawings of the human figure: A method of personality investigation. In H.M. Anderson (Eds.), An introduction to projective techniques (pp. 341- 369). Englewood Cliffs, NJ: Prentice-Hall.

Machover, K. (1953). Human figure drawings of children. Journal of Projective Techniques, 17, 85-91.

Machover, K. (1960). Sex differences in the developmental pattern of children as seen in the human figure drawings. In A.I. Rabin & E. Hayworth (Eds.), Projective techniques with children (pp. 238 257). New York: Grune & Stratton.

Manning, T.R. (1987). Aggression depicted in abused children drawings. The Arts in Psychotherapy, 14 (1), 15 -24.

Marsh, D.T., Linberg, L. M., Smeltzer, J. K. (1991). Human Figure drawings of adjudicated and non-adjudicated adolescents. Journal of Personality Assessment, 57(1), 77-86.

McNeish, T. J., Naglieri, J. A. (1993). Identification of individuals with serious emotional disturbance using the draw a person: Screening procedure for emotional disturbance. The Journal of Special Education, Vol. 27 (1), 114- 121.

Motta, R. W., Little, S. G., & Tobin, M. I. (1993). A picture is worth less than a thousand words: response to reviewer. School Psychology Quarterly, 8 (3), 197-199.

Motta, R. W., Little, S. G., & Tobin, M. I. (1993). The use and abuse of human figure drawings. School Psychology Quarterly, 8, (3) 162-168.

Myers, D. (1978). Toward an objective evaluation procedure of the Kinetic Family Drawings (KFD). Journal of Personality Assessment, 38, 156 - 164.

Naglieri, Jack A. (1993). Human figure drawings in perspective. School Psychology Quarterly, Vol.8, (3), 170 -176.

Naglieri, J. A., & Pfeiffer, S. I. (1992). Performance of disruptive behavior disordered and normal samples on the draw a person: screening procedure for emotional disturbance. Psychological Assessment, 4 (2), 156-159.

Naglieri, J. A., McNeish, T. J., and Bardos, A. N. (1991). DAP: SPED Draw A Person: Screening Procedure for Emotional Disturbance. Austin, Texas, PRO-ED, Inc.

Neale, E. L., Rosal, M.L., & M. Rosal, PhD. (1993). What can art therapists learn from the research on projective drawing techniques for children? A review of the literature. The Arts in Psychotherapy, 20. 37- 49.

O'Brien, R., & Patton, W. (1974). Development of an objective scoring system for the Kinetic Family Drawing. Journal of Personality Assessment, 38, 156 - 164.

Ogden, D. P., Ph.D., (1986) Psychodiagnostics and Personality Assessment: A Handbook. Los Angeles, CA: Western Psychological Services.

Pfeiffer, C. R., M.D. & Richaman, J. R., Ph.D. (1991). Human figure drawings: an auxiliary diagnostic assessment of childhood suicidal potential. Comprehensive Mental Health Care, 1, (2) 77-90.

Pynoos, R. S., & Eth, S. (1986). Witness to violence: The child interview. Journal of the American Academy of Child Psychiatry. Vol. 25, 306-319.

Resta, S.P., & Eliot, J. (1994). Written Expression in Boys with Attention Deficit Disorder. Perceptual and Motor Skills, 79, 1131 -1138.

Richman, J. (1972). The clinical uses of human figure drawings in the evaluation of suicide potential. In E. Litman (Ed.) Proceedings of the Sixth International Conference for Suicide Prevention. Ann Arbor: Edwards Brothers.

Richman, J., & Pfeffer, C.R. (1977). Figure drawings in the evaluation of suicidal latency age children. Presented at the Ninth Annual Meeting of the International Association of Suicide. Prevention and Crisis Intervention, Helsinki, Finland, June 1977.

Sadowski, P. M., & Loesch, L. C. (1993). Using children's drawings to detect potential child sexual abuse. Elementary School Guidance & Counseling 28, 115-124.

Schildkrout, M. S., Shenker, I.R., & Sonnenblich, M. (1972). Human figure drawings in adolescence. New York: Brunner / Mazel.

Sidum, N.M., & Rosenthal, R.H. (1987). Graphic indicators of sexual abuse in draw-a-person tests of psychiatrically hospitalized adolescents. The Arts on Psychotherapy, 14 (1), 25-34.

Silver, R.A. (1988). Screening children and adolescents for depression through draw-a-story. The American Journal of Art Therapy, 26, 119 -124.

Urban, W.H. (1963). The Draw-A-Person catalogue for interpretive analysis. Los Angeles: Western Psychological Services.

Virshup, E. (1976). On graphic suicide plans. Art Psychotherapy, 3, 17 - 22.

Wooley, O. W., & Roll, S. (1991). The Color-A-Person Body Dissatisfaction Test: Stability, internal consistency, validity, and factor structure. Journal of Personality Assessment, 56, 395 - 413.

Yates, A., Beutler, L.E., & Crago, M. (1985). Drawings by child victims of incest. Child Abuse & Neglect, 9 (2), 183 -189.

APPENDIX

Appendix A

Scoring for Drawings
General Considerations

Graphomotor

Erasing Responses

(O) Erasing in Moderation ____
(O) Excessive Erasing ____

Placement of Drawn Work

(O) Central Placement -----
(O,N) On right Side of Page -----
(O,N) On left Side -----
(O) High on Page -----
(O) Low on Page -----
(O) In upper Left Corner -----
(O) In upper Right Corner -----
(O,N) On edge or bottom of paper -----
(O) In a lower Corner -----
(O) In lower Left Hand -----
(N) Top placement -----

Pressure Factors

(O) Consistent Pressure -----
(O) Unusually Variable Pressure -----
(O,Ha) Unusually heavy pressure -----

Stroke, Line and Shading

(O) Marked directional preferences -----
(O) Horizontal -----
(O) Vertical ----
(O) Curving -----
(O,Ha) Rigid straight line -----
(O) Continuous change -----

Quality of strokes

(O) firm, unhesitating -----
(O) Interrupted, curvilinear -----
(O) Jagged lines -----
(O) Sketchy strokes -----
(O) straight uninterrupted strokes -----
(O) tremulous, shaky stokes -----
(O) Vacillating direction -----
(Ha) Impulsive lines -----

Length of Strokes

(O) Long -----
(O) Short discontinuous strokes -----
(O) Very short, circular -----

Excessive Shading Shaded Strokes

(O,Ht) Unusually light pressure -----
(O) Shading never used -----
(N) Outside shading -----

Size of Drawings

(O) Average -----
(O,Ha,N)Unusually large or tall -----
(O,Hw,N)Unusually Small or short -----
(N) Slanting figure -----

GENERAL

Detailing

(O) Lack of detail -----
(O) Excessive detail Bizarre Detail -----
(O) Labeling of Details -----
(Hs) Emphasis on Barriers -----

Distortions and Omissions

(O) Gross Distortion -----
(O) Moderate -----
(O) Omissions -----
(Hw) Drawing very distant -----

Edge of Paper

(O,N) Drawing on Bottom Edge -----
(O) Drawing Utilizing Side Edge -----
(O) Edge Preventing Drawing
(O) Completion -----

Groundline Treatment

(O) Groundliness Spontaneously -----
(O,N) Very heavy Groundline -----
(O) Groundlines Sloping Downward -----

Midline Emphasis

(O) Stressing midline -----
(O) When drawings by a male -----
(O) Row of irrelevant buttons -----
(O) Crude midline -----

Symmetry

(O,Hw) Extreme Bilateral Symmetry -----
(O) Marked Disturbance of Symmetry -----
(O,N) **Transparencies** ____

Miscellaneous Factors

(O) Clouds fragmentation inadvertently
(O) Introduce -----
(O) Impotency -----
(O) Mutilation or Degradation -----
(O) Perseverations -----
(O) Refusal to draw or complete -----
(O) Shadows Spontaneously -----
(O) Sun -----
(O,N) Turning Paper from presented orientation -----
(N) Lettering/Numbering -----
(Hw) Inanimate objects drawn bigger

	and better than people	-----
(Hw)	Animals drawn bigger& better than people	-----

PERSON # 1

Head drawn unusually

(O) Large -----
(O,Hs) Small -----
(O) Irregular contour -----
(O) Drawn last -----
(O,N) Head omitted -----
(O) Out of alignment -----
(O) Floating in space -----
(O) Head only -----
(O) Back of head -----

Hair treated unusually

(O,Hs) Hair emphasis -----
(O) Shaded heavy -----
(O,N) Omitted of inadequate -----
(O) In disrray -----
(Hs) Hair on body -----

Facial Features Treated Unusually

(O) Omission of facial features with rest drawn adequately -----
(O,Hw) Dim facial features -----
(O) Overemphasis -----
(O,Ha) Strong reinforcement of facial features -----
(O) Displacement of facial features -----
(O) Non-human -----
(O) Animal - like -----
(O) Bizarre -----
(O) Shading of entire face -----

Eyes and Eyebrows Drawn Unusually

(O,Ht) Large or strongly reinforced eyes -----
(O,Hw) Unusually small of closed eyes -----
(O,N) Eyes omitted -----
(O,Hw,N) Closed eyes -----

Miscellaneous Treatment of Eyes

(O) Pupils omitted -----
(O) Pupil form one eye only missing -----
(O,Ht) Outline of eye emphasized -----
(O,N) Wide-eyed stare -----
(O) Placed on side of head -----
(O) 2 eyes in a profile -----
(Ht) "Picasso" eyes -----
(Ha,N) Crossed eyes -----
(N) Gazing left/right eyes -----

Eyebrows and Eyelashes treated unusually

(O) Elaborated -----
(O) Bushy -----
(O) Raised -----
(O) Frowning -----
(O) Eyelashes detailed in male -----

Ears and Nose Drawn Unusually

(O,Ht) Large or Unusual Ears -----
(O,Ht) Strongly reinforced -----
(O) Omission of Ears -----

Miscellaneous Treatment of Ears

(O) ? Mark as ears -----
(O) Dark dots on ear area -----

General considerations of Nose

(O,Hs) Nose emphasis -----
(O) Shaded , dim, or truncated nose -----
(O,N) Nose omitted -----

Miscellaneous Treatment of Nose

(O) Button nose -----
(O) Triangle nose -----
(O) Sharply pointed -----
(O) Long, phallic -----
(Ha) Nostrils emphasized -----

(O) **Mouth and Chin Treated Unusually**

(O) Mouth emphasis -----
(O) Mouth omitted -----
(O) Miscellaneous treatment of mouth -----
(O) Concave -----
(O) Cupid bow -----
(O) Full lips in male -----
(O) Objects in mouth -----
(O) Open mouth -----
(O) Protruding lips -----
(O) Short, heavy line -----
(O) Single line -----
(O) Sneering -----
(O) Teeth showing -----
(O) Tiny mouths -----
(O) Wide upturned line -----
(O) Chin usually emphasized -----
(O) Chin appearing weak -----
(N) Frowning mouth -----
(N) Slash mouth -----

Neck and Adam's Apple treated unusually

(O,Ha) Unusually short, thick necks -----
(O,Hs) Unusually long neck -----
(O) Exceptionally long and thin neck -----
(O) One-dimensional neck -----
(O) Neck omitted -----
(O) Shaded necks -----
(O) Adam's apple emphasis -----

Torso and Body treated unusually

(O) Trunk treated unusually -----
(O) Angular figures -----
(O,Ha) Asymmetry of body or limbs -----

(O) Double body contour in females -----
(O) Confused body contour in females -----
(O,N) Grossly disorganized -----
(O) Large trunks -----
(O,N) Omission of trunk -----
(O,Hs) Reluctance to close bottom -----
(O) Rounded trunk -----
(O) Shading of trunk -----
(O) Small -----
(O) Squared-shape body -----
(O) Thin -----
(O) Upper part of 2 parallel unbroken lines -----
(Hs) Body parts "cut-off" or occluded by an object -----
(N) Multiple figures -----
(N) Crotch erasure -----
(N) Crotch shading -----
(Hs) Legs or body below waist not drawn -----

Shoulders treated Unusually

(O) Absence of shoulders -----
(O) Erasures /reinforcement -----
(O) Especially large -----
(O) Pointed shoulders -----
(O, Ha) Squared shoulders -----
(O) Tiny shoulders -----
(O) In females, shoulder emphasis -----
(O) In males, massive or excessively broad -----

Breasts treated Unusually

(O) Large -----
(O) Small -----
(O) Omitted -----
(Hs) Emphasized -----

Waistline treated unusually

(O) Heavy or excessive emphasis -----
(O) High or low waistline -----
(O) Broken line -----
(O) Reinforced waistline -----
(O) Excessively tightened waistline -----
(O) Wasp waist in males -----
(O) Shading excessive at waist -----
(O) Belts -----

Hip Emphasis

(O) By males -----
(O) By females -----
(O) Shading -----
(O) Buttocks emphasized -----
(O,HS) Genitalia are rarely drawn but when present -----

Joints treated unusually

(O) Joints emphasis -----
(O) Indications of internal anatomy -----

Anterior Appendages (arms, hand, fingers)

(O,Ha) Arms treated unusually -----
(O) Akimbo -----
(O) Broad arms -----
(O) Behind back -----
(O,Ht) Folded -----
(O) Frail, flimsy, thin -----
(O) Limp -----
(O) Long, strong -----
(O,Ha) Long arms and hands -----
(O) Mechanical horizontal extension -----
(O,Ha,N) Omission -----
(O) Omission in opposite sex -----
(O,N) Outstretched -----
(O,Ha) Reinforced arms -----
(O) Short, very short -----
(O) Stiff at sides -----
(O) Transparent -----
(O) Unattached to trunk -----
(O) Unequal in length -----
(O) Wing like -----
(N) Inconsistent position -----
(N) Pressed to torso -----

Hands treated unusually

(O,N) Behind back -----
(O,Hs) Covering the genital region -----
(O,Hw) Drawn last -----
(O) Large, very large -----
(O) Mitten-type hands -----
(O,N) Pocketed hands -----
(O,N) Shaded hands -----
(O) Small hands -----
(O) Swollen hands -----
(O) Vague or dim -----
(Hs,N) Omitted hands -----

Fingers treated unusually

(O,Ha,N) Clenched fingers, made into fists -----
(O) Detailing of joints -----
(O) Fewer than 5 -----
(O,Ha) Fingers without hands -----
(O,Ha) Large, very large -----
(O) Long ,especially long -----
(O) More than 5 -----
(O,N) Omission of fingers -----
(O) Petal or grape-like -----
(O) Scribbled fingers -----
(O,N) Shaded heavily -----

(O,Ha,N) Talon-like -----
(O) Spiked, dark straight lines -----

Locomotor Appendages and Stance Characteristics

(O) Legs treated unusually -----
(O) Chopped off by bottom of page -----
(O) Crossed legs -----
(O) Disparity in size -----
(O) Long, especial long -----
(O) Muscular legs on female -----
(O,N) Omission of legs -----
(O,N) Pressed close together -----
(O) Reinforced legs -----
(O) Short, very short -----
(O) Thin, tiny, shaded -----
(O) Transparent pants -----
(Hs) Sketchy lines as legs -----

Feet Treated unusually

(O) Detailed more that rest of figure -----
(O) Bare feet -----
(O,Hs) Elongated feet -----
(O) Emphasis on feet -----
(O) Large feet -----
(O,N) Omission of feet -----
(O) Overdetailing of feet -----
(O) Pointed sharply feet -----
(O) Pointing in opposite directions -----
(O) Resistance to draw -----
(O,Hw) Small -----
(O) V-shaped feet -----
(O) Pointed downward -----
(N) Feet shading -----

Toes Treated Unusually

(O) Toes in a figure that is not intended to be nude -----
(O) Pointed toes -----
(O) Pointed drawn and circumscribed by a line -----

Stance Characteristics

(O,N) Legs pressed closely together -----
Slanting stance, when legs -----
(O) Float into space -----
(O) Tiptoe stance -----
(O,Ha) Wide stance -----

Posture, Movement and View Perspective

(O) Various postures -----
(O) Relaxed -----
(O) Grotesque and incongruous -----
(O) Leaning -----
(O) Seated -----
(O) Stiff posture -----
(O) Vertical, rigid figures with -----
(O) Arms and legs straight -----
(O) Down and close -----

Action Figures

(O) Moderate, non-violent -----
(O) Whirling movement -----
(O) Violent action -----
(Hw) "Cartoon" figure -----

Front View -----

(O) Over-dress figures -----
(O,Hw,N) Profile View -----
(O) Profile of Head with body in Front View -----
(O) Confusion of Profile and Full Face -----
(O,N) Back of person to Viewer (Facing away) -----

Clothing and Other Appurtenances

(O) Over-clothed figures -----
(O,Hs) Under-clothed or Nude Figures -----
(O) Clothes too big for figure -----
(O) Transparent Clothing -----
(O) Striped Clothing -----
(O) Button Emphasis -----
(O) Pocket Emphasis -----
(O) Tie Emphasis -----
(O) Shoe Emphasis -----
(N) Uniformed figure -----

Miscellaneous Appurtenances Emphasized

(O) Belt -----
(O) Belt buckles -----
(O) Cap visor elongated -----
(O) Phallic hats -----
(O,N) Weapons -----
(O) Cigarettes -----
(O) Canes -----
(O,N) Guns -----
(O) Pipes -----
(O) Very large pipe -----
(O) Earrings emphasis -----
(O) Gloves -----
(O) Hat on female -----
(O) Recreational equipment emphasis in HFD -----
(O) Trouser fly -----
(N) Object attached -----
(N) Background filled in ----

Miscellaneous Modes

(O) Clown -----
(O) Soldiers -----

(O)	Witches	-----
(O)	Cowboys	-----
(O)	Older appearing drawing	-----
(O)	Peanut-man	-----
(O)	Snow-man	-----
(O,N)	Dehumanized figures (Monster)	-----
(O,N)	Seductive figures, nude	-----
(O)	Stick figures	-----
(O,N)	Weakly synthesized figures	-----
(O)	Younger appearing than age	-----
(Ha)	Scars	-----
(Hs)	Shading specific body parts	-----

Scoring for 2nd Drawings
General Considerations

Graphomotor

Erasing Responses

(O) Erasing in Moderation ____
(O) Excessive Erasing ____

Placement of Drawn Work

(O) Central Placement -----
(O,N) On right Side of Page -----
(O,N) On left Side -----
(O) High on Page -----
(O) Low on Page -----
(O) In upper Left Corner -----
(O) In upper Right Corner -----
(O,N) On edge or bottom of paper -----
(O) In a lower Corner -----
(O) In lower Left Hand -----
(N) Top placement -----

Pressure Factors

(O) Consistent Pressure -----
(O) Unusually Variable Pressure -----
(O,Ha) Unusually heavy pressure -----

Stroke, Line and Shading

(O) Marked directional preferences -----
(O) Horizontal -----
(O) Vertical ----
(O) Curving -----
(O,Ha) Rigid straight line -----
(O) Continuous change -----

Quality of strokes

(O) firm, unhesitating -----
(O) Interrupted, curvilinear -----
(O) Jagged lines -----
(O) Sketchy strokes -----
(O) straight uninterrupted strokes -----
(O) tremulous, shaky stokes -----
(O) Vacillating direction -----
(Ha) Impulsive lines -----

Length of Strokes

(O) Long -----
(O) Short discontinuous strokes -----
(O) Very short, circular -----

Excessive Shading Shaded Strokes

(O,Ht) Unusually light pressure -----
(O) Shading never used -----
(N) Outside shading -----

Size of Drawings

(O) Average -----
(O,Ha,N) Unusually large or tall -----
(O,Hw,N) Unusually Small or short -----
(N) Slanting figure -----

GENERAL

Detailing

(O) Lack of detail -----
(O) Excessive detail Bizarre Detail -----
(O) Labeling of Details -----
(Hs) Emphasis on Barriers -----

Distortions and Omissions

(O) Gross Distortion -----
(O) Moderate -----
(O) Omissions -----
(Hw) Drawing very distant -----

Edge of Paper

(O,N) Drawing on Bottom Edge -----
(O) Drawing Utilizing Side Edge -----
(O) Edge Preventing Drawing
(O) Completion -----

Groundline Treatment

(O) Groundliness Spontaneously -----
(O,N) Very heavy Groundline -----
(O) Groundlines Sloping Downward -----

Midline Emphasis

(O) Stressing midline -----
(O) When drawings by a male -----
(O) Row of irrelevant buttons -----
(O) Crude midline -----

Symmetry

(O,Hw) Extreme Bilateral Symmetry -----
(O) Marked Disturbance of Symmetry -----
(O,N) **Transparencies** ____

Miscellaneous Factors

(O) Clouds fragmentation inadvertently
(O) Introduce -----
(O) Impotency -----
(O) Mutilation or Degradation -----
(O) Perseverations -----
(O) Refusal to draw or complete -----
(O) Shadows Spontaneously -----
(O) Sun -----
(O,N) Turning Paper from presented orientation -----
(N) Lettering/Numbering -----
(Hw) Inanimate objects drawn bigger and better than people -----
(Hw) Animals drawn bigger& better than people -----

PERSON # 2

Head drawn unusually

(O) Large -----
(O,Hs) Small -----
(O) Irregular contour -----
(O) Drawn last -----
(O,N) Head omitted -----
(O) Out of alignment -----
(O) Floating in space -----
(O) Head only -----
(O) Back of head -----

Hair treated unusually

(O,Hs) Hair emphasis -----
(O) Shaded heavy -----
(O,N) Omitted of inadequate -----
(O) In disrray -----
(Hs) Hair on body -----

Facial Features Treated Unusually

(O) Omission of facial features with rest drawn adequately -----
(O,Hw) Dim facial features -----
(O) Overemphasis -----
(O,Ha) Strong reinforcement of facial features -----
(O) Displacement of facial features -----
(O) Non-human -----
(O) Animal - like -----
(O) Bizarre -----
(O) Shading of entire face -----

Eyes and Eyebrows Drawn Unusually

(O,Ht) Large or strongly reinforced eyes -----
(O,Hw) Unusually small of closed eyes -----
(O,N) Eyes omitted -----
(O,Hw,N) Closed eyes -----

Miscellaneous Treatment of Eyes

(O) Pupils omitted -----
(O) Pupil form one eye only missing -----
(O,Ht) Outline of eye emphasized -----
(O,N) Wide-eyed stare -----
(O) Placed on side of head -----
(O) 2 eyes in a profile -----
(Ht) "Picasso" eyes -----
(Ha,N) Crossed eyes -----
(N) Gazing left/right eyes -----

Eyebrows and Eyelashes treated unusually

(O) Elaborated -----
(O) Bushy -----
(O) Raised -----
(O) Frowning -----
(O) Eyelashes detailed in male -----

Ears and Nose Drawn Unusually

(O,Ht) Large or Unusual Ears -----
(O,Ht) Strongly reinforced -----
(O) Omission of Ears -----

Miscellaneous Treatment of Ears

(O) ? Mark as ears -----
(O) Dark dots on ear area -----

General considerations of Nose

(O,Hs) Nose emphasis -----
(O) Shaded , dim, or truncated nose -----
(O,N) Nose omitted -----

Miscellaneous Treatment of Nose

(O) Button nose -----
(O) Triangle nose -----
(O) Sharply pointed -----
(O) Long, phallic -----
(Ha) Nostrils emphasized -----

(O) **Mouth and Chin Treated Unusually**

(O) Mouth emphasis -----
(O) Mouth omitted -----
(O) Miscellaneous treatment of mouth -----
(O) Concave -----
(O) Cupid bow -----
(O) Full lips in male -----
(O) Objects in mouth -----
(O) Open mouth -----
(O) Protruding lips -----
(O) Short, heavy line -----
(O) Single line -----
(O) Sneering -----
(O) Teeth showing -----
(O) Tiny mouths -----
(O) Wide upturned line -----
(O) Chin usually emphasized -----
(O) Chin appearing weak -----
(N) Frowning mouth -----
(N) Slash mouth -----

Neck and Adam's Apple treated unusually

(O,Ha) Unusually short, thick necks -----
(O,Hs) Unusually long neck -----
(O) Exceptionally long and thin neck -----
(O) One-dimensional neck -----
(O) Neck omitted -----
(O) Shaded necks -----
(O) Adam's apple emphasis -----

Torso and Body treated unusually

(O) Trunk treated unusually -----
(O) Angular figures -----
(O,Ha) Asymmetry of body or limbs -----

(O) Double body contour in females -----
(O) Confused body contour in females -----
(O,N) Grossly disorganized -----
(O) Large trunks -----
(O,N) Omission of trunk -----
(O,Hs) Reluctance to close bottom -----
(O) Rounded trunk -----
(O) Shading of trunk -----
(O) Small -----
(O) Squared-shape body -----
(O) Thin -----
(O) Upper part of 2 parallel unbroken lines -----
(Hs) Body parts "cut-off" or occluded by an object -----
(N) Multiple figures -----
(N) Crotch erasure -----
(N) Crotch shading -----
(Hs) Legs or body below waist not drawn -----

Shoulders treated Unusually

(O) Absence of shoulders -----
(O) Erasures /reinforcement -----
(O) Especially large -----
(O) Pointed shoulders -----
(O, Ha) Squared shoulders -----
(O) Tiny shoulders -----
(O) In females, shoulder emphasis -----
(O) In males, massive or excessively broad -----

Breasts treated Unusually

(O) Large -----
(O) Small -----
(O) Omitted -----
(Hs) Emphasized -----

Waistline treated unusually

(O) Heavy or excessive emphasis -----
(O) High or low waistline -----
(O) Broken line -----
(O) Reinforced waistline -----
(O) Excessively tightened waistline -----
(O) Wasp waist in males -----
(O) Shading excessive at waist -----
(O) Belts -----

Hip Emphasis

(O) By males -----
(O) By females -----
(O) Shading -----
(O) Buttocks emphasized -----

Genitalia are rarely drawn

(O,HS) but when present -----

Joints treated unusually

(O) Joints emphasis -----
(O) Indications of internal anatomy -----

Anterior Appendages (arms, hand, fingers)

(O,Ha) Arms treated unusually -----
(O) Akimbo -----
(O) Broad arms -----
(O) Behind back -----
(O,Ht) Folded -----
(O) Frail, flimsy, thin -----
(O) Limp -----
(O) Long, strong -----
(O,Ha) Long arms and hands -----
(O) Mechanical horizontal extension -----
(O,Ha,N) Omission -----
(O) Omission in opposite sex -----
(O,N) Outstretched -----
(O,Ha) Reinforced arms -----
(O) Short, very short -----
(O) Stiff at sides -----
(O) Transparent -----
(O) Unattached to trunk -----
(O) Unequal in length -----
(O) Wing like -----
(N) Inconsistent position -----
(N) Pressed to torso -----

Hands treated unusually

(O,N) Behind back -----
(O,Hs) Covering the genital region -----
(O,Hw) Drawn last -----
(O) Large, very large -----
(O) Mitten-type hands -----
(O,N) Pocketed hands -----
(O,N) Shaded hands -----
(O) Small hands -----
(O) Swollen hands -----
(O) Vague or dim -----
(Hs,N) Omitted hands -----

Fingers treated unusually

(O,Ha,N) Clenched fingers, made into fists -----
(O) Detailing of joints -----
(O) Fewer than 5 -----
(O,Ha) Fingers without hands -----
(O,Ha) Large, very large -----
(O) Long ,especially long -----
(O) More than 5 -----
(O,N) Omission of fingers -----
(O) Petal or grape-like -----
(O) Scribbled fingers -----
(O,N) Shaded heavily -----
(O,Ha,N) Talon-like -----
(O) Spiked, dark straight lines -----

Locomotor Appendages and Stance Characteristics

(O) Legs treated unusually -----
(O) Chopped off by bottom of page -----
(O) Crossed legs -----
(O) Disparity in size -----
(O) Long, especial long -----
(O) Muscular legs on female -----
(O,N) Omission of legs -----
(O,N) Pressed close together -----
(O) Reinforced legs -----
(O) Short, very short -----
(O) Thin, tiny, shaded -----
(O) Transparent pants -----
(Hs) Sketchy lines as legs -----

Feet Treated unusually

(O) Detailed more that rest of figure -----
(O) Bare feet -----
(O,Hs) Elongated feet -----
(O) Emphasis on feet -----
(O) Large feet -----
(O,N) Omission of feet -----
(O) Overdetailing of feet -----
(O) Pointed sharply feet -----
(O) Pointing in opposite directions -----
(O) Resistance to draw -----
(O,Hw) Small -----
(O) V-shaped feet -----
(O) Pointed downward -----
(N) Feet shading -----

Toes Treated Unusually

(O) Toes in a figure that is not intended to be nude -----
(O) Pointed toes -----
(O) Pointed drawn and circumscribed by a line -----

Stance Characteristics

(O,N) Legs pressed closely together -----
Slanting stance, when legs -----
(O) Float into space -----
(O) Tiptoe stance -----
(O,Ha) Wide stance -----

Posture, Movement and View Perspective

(O) Various postures -----
(O) Relaxed -----
(O) Grotesque and incongruous -----
(O) Leaning -----
(O) Seated -----
(O) Stiff posture -----
(O) Vertical, rigid figures with -----
(O) Arms and legs straight -----
(O) Down and close -----

Action Figures

(O) Moderate, non-violent -----
(O) Whirling movement -----
(O) Violent action -----
(Hw) "Cartoon" figure -----

Front View -----

(O) Over-dress figures -----
(O,Hw,N) Profile View -----
(O) Profile of Head with body in Front View -----
(O) Confusion of Profile and Full Face -----
(O,N) Back of person to Viewer (Facing away) -----

Clothing and Other Appurtenances

(O) Over-clothed figures -----
(O,Hs) Under-clothed or Nude Figures -----
(O) Clothes too big for figure -----
(O) Transparent Clothing -----
(O) Striped Clothing -----
(O) Button Emphasis -----
(O) Pocket Emphasis -----
(O) Tie Emphasis -----
(O) Shoe Emphasis -----
(N) Uniformed figure -----

Miscellaneous Appurtenances Emphasized

(O) Belt -----
(O) Belt buckles -----
(O) Cap visor elongated -----
(O) Phallic hats -----
(O,N) Weapons -----
(O) Cigarettes -----
(O) Canes -----
(O,N) Guns -----
(O) Pipes -----
(O) Very large pipe -----
(O) Earrings emphasis -----
(O) Gloves -----
(O) Hat on female -----
(O) Recreational equipment emphasis in HFD -----
(O) Trouser fly -----
(N) Object attached -----
(N) Background filled in ----

Miscellaneous Modes

(O) Clown -----
(O) Soldiers -----
(O) Witches -----
(O) Cowboys -----
(O) Older appearing drawing -----
(O) Peanut-man -----

(O)	Snow-man	-----
(O,N)	Dehumanized figures (Monster)	-----
(O,N)	Seductive figures, nude	-----
(O)	Stick figures	-----
(O,N)	Weakly synthesized figures	-----
(O)	Younger appearing than age	-----
(Ha)	Scars	-----
(Hs)	Shading specific body parts	-----

Treatment of Male and Female Drawing

DRAWN BY EITHER SEX

(O) Same sex -----
(O) Opposite sex -----
(Hs) Figure not childs own sex -----
(O,Hs) Confusion of sexual -----
(O) Characteristics on both drawings -----
(O) Minimized sex differences between male and female -----
(O) Adult's same sex drawing depicting a child -----
(O) The sex drawn with a larger head -----
(O) Omission of arms in opposite sex -----
(O) Opposite sex looks older than subjects' age -----
(O) Same sex appears significantly older -----
(O) Same sex appears significantly younger -----
(O) Refusal to draw opposite sex -----
(O) Refusal to draw opposite sex below waist -----
(O) Same sex drawn with considerable neatness & opposite sex is smaller & dilapidated -----
(O) Female drawings lager when opposite sex is drawn by a child -----
(O) By children, inconsistent treatment of male & female -----
(O) Shading of same sex figure -----
(Hs) Drawn more mature than child's actual age -----
(Hs) Drawn less mature than child's actual age -----

BY MALE SUBJECTS

(O) Male figure in profile& female figure in front view -----
(O) Male figure detailed kindly, perhaps in profile, while female figure is in front view -----
(O) When male figure is grandiose, exhibitionistic, and self-inflated while female , smaller -----
(O) Male figure off balance -----
(O) Male figure without hands -----
(O) Female figure larger, more muscular or with wide stance while same sex figure is puny -----
(O) Shading of female trunk -----
(O) Female characterized by hair emphasis, large breasts and leg exposure -----
(O) Female figure much smaller than male -----
(O) A faceless female -----
(O) Male figure twisted in perspective to emphasized hips and buttocks -----
(Hs) Tie emphasized -----
(Hs) Uncertainly in drawing shoulder (erasures, or reinforcement) -----
(Ha) Massive shoulders -----

BY FEMALE SUBJECT

(O) When male figure is smaller, deformed, or with neglect of aggressive or assertive contact features -----
(O) A female figure is usually drawn first, when a male figure is drawn first -----
(O) Masculine same sex drawings -----
(O) Female figure is devoid of feminine contours -----
(O) Heavily shaded figures of opposite sex -----
(Hs) Cupid-bow mouth -----
(Hs) Unusual cosmetic emphasis -----
(Hs) Excessive Adornment

Comments

Scoring for Drawings
General Considerations

Graphomotor

Erasing Responses

(O) Erasing in Moderation _____
(O) Excessive Erasing _____

Placement of Drawn Work

(O) Central Placement _____
(O,N) On right Side of Page _____
(O,N) On left Side _____
(O) High on Page _____
(O) Low on Page _____
(O) In upper Left Corner _____
(O) In upper Right Corner _____
(O,N) On edge or bottom of paper _____
(O) In a lower Corner _____
(O) In lower Left Hand _____
(N) Top placement _____

Pressure Factors

(O) Consistent Pressure _____
(O) Unusually Variable Pressure _____
(O,Ha) Unusually heavy pressure _____

Stroke, Line and Shading

(O) Marked directional preferences _____
(O) Horizontal _____
(O) Vertical ____
(O) Curving _____
(O,Ha) Rigid straight line _____
(O) Continuous change _____

Quality of strokes

(O) firm, unhesitating _____
(O) Interrupted, curvilinear _____
(O) Jagged lines _____
(O) Sketchy strokes _____
(O) straight uninterrupted strokes _____
(O) tremulous, shaky stokes _____
(O) Vacillating direction _____
(Ha) Impulsive lines _____

Length of Strokes

(O) Long _____
(O) Short discontinuous strokes _____
(O) Very short, circular _____

Excessive Shading Shaded Strokes

(O,Ht) Unusually light pressure _____
(O) Shading never used _____
(N) Outside shading _____

Size of Drawings

(O) Average _____
(O,Ha,N)Unusually large or tall _____
(O,Hw,N)Unusually Small or short _____
(N) Slanting figure _____

GENERAL

Detailing

(O) Lack of detail _____
(O) Excessive detail Bizarre Detail _____
(O) Labeling of Details _____
(Hs) Emphasis on Barriers _____

Distortions and Omissions

(O) Gross Distortion _____
(O) Moderate _____
(O) Omissions _____
(Hw) Drawing very distant _____

Edge of Paper

(O,N) Drawing on Bottom Edge _____
(O) Drawing Utilizing Side Edge _____
(O) Edge Preventing Drawing
(O) Completion _____

Groundline Treatment

(O) Groundliness Spontaneously _____
(O,N) Very heavy Groundline _____
(O) Groundlines Sloping Downward _____

Midline Emphasis

(O) Stressing midline _____
(O) When drawings by a male _____
(O) Row of irrelevant buttons _____
(O) Crude midline _____

Symmetry

(O,Hw) Extreme Bilateral Symmetry _____
(O) Marked Disturbance of Symmetry _____
(O,N) **Transparencies** _____

Miscellaneous Factors

(O) Clouds fragmentation inadvertently
(O) Introduce _____
(O) Impotency _____
(O) Mutilation or Degradation _____
(O) Perseverations _____
(O) Refusal to draw or complete _____
(O) Shadows Spontaneously _____
(O) Sun _____
(O,N) Turning Paper from presented orientation _____
(N) Lettering/Numbering _____
(Hw) Inanimate objects drawn bigger and better than people _____
(Hw) Animals drawn bigger& better than people _____

House

Unusual Modes of Presentation

(O) Anthropomorphic houses -----
(O) Blueprint presentation -----
(O) Floor plan -----
(O) Rear of house -----
(O) Outhouse -----
(O) Difficulty drawing angles -----
(O) Sitting on a cloud-like ground line -----
(O) Toppling over -----
(O) Transparent house with furniture -----

Apparent Distance

(O) Very distant appearance -----
(O) Close appearance -----

Perspective

(O) Seen from below, worm's eye view -----
(O) Seen from above, bird's eye view -----

Size and Placement of House

(O) Very small house -----
(O, Ha) Very large house -----
(O) House at bottom edge of page -----
(O) House high on page -----
(O) House on left side of page -----

Parts of house treated Unusually

Chimney

(O) Drawn quickly -----
(O, Hs) Emphasis through reinforcement or size -----
(O) Angled chimney -----
(O) Multiple chimneys -----
(O) Omission of chimney -----
(O) 2-dimensional chimneys -----
(O) Smoking chimneys -----
(O) Smoke rising from home with no chimney -----

Door

(O, Hw) Absence of doors -----
(O,Hw) Drawn last -----
(O) Very large -----
(O, Hw) Very small -----
(O, Ht) Heavily hinged -----
(O, Ht) Locked doors -----
(O) Drawn above baseline without steps -----
(O) Open doors -----
(O) Door knob emphasis -----
(Ht) Door with peephole -----
(Hw) Door on side of house -----

Rain spouts and gutters

(O) Emphasized and reinforced -----

Roof

(O) Apex of roof not closed -----
(O) Emphasis through size or shading -----
(O) Blown down roofs -----
(O) House drawn only as roof -----
(O) Single line of roof -----
(O) Eaves emphasis -----
(O) Shaded roof -----

Shutters

(O) Closed shutters -----
(O) Open shutters -----

Steps and Walkways

(O, Hw) Steps leading to a blank wall -----
(O) Walkways -----
(Hw) Long walkway or steps leading to house -----

Walls

(O) Absence of walls -----
(O) Baseline to wall emphasis -----
(O) Disconnected walls -----
(O) Double perspective, with narrow en walls -----
(O) Double perspective, with both end walls exaggerated -----
(O) Peripheral lines faint and inadequate -----
(O) Peripheral lines overemphasized -----
(O) Single perspective, only one wall shown -----
(O) Transparent walls -----
(O) Horizontal dimension, Over emphasized -----
(O) Vertical dimension, Over emphasized -----
(O) walls unconnected, With a base line -----

Windows

(O) Adequate in number and size -----
(O,Hw) Absence of windows -----
(O) Few in number -----
(O,Hs) Large in number -----
(O) Curtains and shades absent -----
(O) Curtained windows -----
(O) Shades extending outside the window -----
(O) Heavily reinforced -----
(O, Hs) Open windows -----
(O) Oval shaped -----
(O,Hw) Very small in size -----
(O) Without panes -----
(O) With many panes -----
(O) Triangular shaped -----
(O, Hw) Many interstices giving a barred effect; curtain, shuttered -----
(O) Locks emphasized -----

Room

(Hs) Emphasis on bedroom -----

Scoring for Drawings
General Considerations

Graphomotor

Erasing Responses

(O) Erasing in Moderation -----
(O) Excessive Erasing -----

Placement of Drawn Work

(O) Central Placement -----
(O,N) On right Side of Page -----
(O,N) On left Side -----
(O) High on Page -----
(O) Low on Page -----
(O) In upper Left Corner -----
(O) In upper Right Corner -----
(O,N) On edge or bottom of paper -----
(O) In a lower Corner -----
(O) In lower Left Hand -----
(N) Top placement -----

Pressure Factors

(O) Consistent Pressure -----
(O) Unusually Variable Pressure -----
(O,Ha) Unusually heavy pressure -----

Stroke, Line and Shading

(O) Marked directional preferences -----
(O) Horizontal -----
(O) Vertical ----
(O) Curving -----
(O,Ha) Rigid straight line -----
(O) Continuous change -----

Quality of strokes

(O) firm, unhesitating -----
(O) Interrupted, curvilinear -----
(O) Jagged lines -----
(O) Sketchy strokes -----
(O) straight uninterrupted strokes -----
(O) tremulous, shaky stokes -----
(O) Vacillating direction -----
(Ha) Impulsive lines -----

Length of Strokes

(O) Long -----
(O) Short discontinuous strokes -----
(O) Very short, circular -----

Excessive Shading Shaded Strokes

(O,Ht) Unusually light pressure -----
(O) Shading never used -----
(N) Outside shading -----

Size of Drawings

(O) Average -----
(O,Ha,N) Unusually large or tall -----
(O,Hw,N) Unusually Small or short -----
(N) Slanting figure -----

GENERAL

Detailing

(O) Lack of detail -----
(O) Excessive detail Bizarre Detail -----
(O) Labeling of Details -----
(Hs) Emphasis on Barriers -----

Distortions and Omissions

(O) Gross Distortion -----
(O) Moderate -----
(O) Omissions -----
(Hw) Drawing very distant -----

Edge of Paper

(O,N) Drawing on Bottom Edge -----
(O) Drawing Utilizing Side Edge -----
(O) Edge Preventing Drawing
(O) Completion -----

Groundline Treatment

(O) Groundliness Spontaneously -----
(O,N) Very heavy Groundline -----
(O) Groundlines Sloping Downward -----

Midline Emphasis

(O) Stressing midline -----
(O) When drawings by a male -----
(O) Row of irrelevant buttons -----
(O) Crude midline -----

Symmetry

(O,Hw) Extreme Bilateral Symmetry -----
(O) Marked Disturbance of Symmetry -----
(O,N) **Transparencies** -----

Miscellaneous Factors

(O) Clouds fragmentation inadvertently
(O) Introduce -----
(O) Impotency -----
(O) Mutilation or Degradation -----
(O) Perseverations -----
(O) Refusal to draw or complete -----
(O) Shadows Spontaneously -----
(O) Sun -----
(O,N) Turning Paper from presented orientation -----
(N) Lettering/Numbering -----
(Hw) Inanimate objects drawn bigger and better than people -----
(Hw) Animals drawn bigger& better than people -----

DRAWINGS OF TREES

Type of Tree

(O) Apple Tree -----
(O) Christmas Tree -----
(O) Dead Tree -----
(O) Dog urinating on tree -----
(O) Enormous Tree -----
(O) In a depression drawn tree-----
(O) Isolated on a hilltop tree -----
(O) Keyhole Tree -----
(O) Large Trees -----
(O) Leaning to left -----
(O) Leaning to Right -----
(O) Nigg's Tree -----
(O) Partly Up a Hill Tree -----
(O) Phallic Tree -----
(O, Ha) Sapling -----
(O) Shadows cast by a tree -----
(O) Small Tree -----
(O) Split Tree -----
(O) Swing in Tree -----
(O) Tiny Tree -----
(O) Viewed from above, drawn tree -----
(O) Weeping Willow tree -----
(O) Windblown Trees -----
(Hs) Palm tree -----

Treatment of Parts of Trees

Branches Modes of Treatment

(O, Hs) Broken or Cut-off -----
(O) Falling branches -----
(O) Neglect of branches -----
(O) Short club-like -----
(O) Spear-like -----
(O) Shortened, bleak branch -----
(O) Very tall branches -----
(O) Tall, Narrow branches -----
(O) Turning Inward -----
(O) Excessive branches and leaves -----
(O) Excessive branches on small Trunks -----
(O) Overemphasis on left branches -----
(O) Overemphasis on right branches -----
(O) Tiny branches on large trunks -----
(O) Very faint branches -----
(O) Pointed limbs -----
(O) Thick, Very short "cut-off" ------
(O) Broken -----
(O) Dead -----
(O) Thickening to the outside -----
(O) A branch low on the trunk -----
(O) Extending off the top of the page ------
(O) Branches not connected to the trunk ------
(O) One dimensional branches inadequately related and inadequately joined to trunk-----
(O) Two dimensional branches not closed at distal end -----
Two dimensional branch system which are partially
(O) drawn with foliage -----

Stylistic treatment of tree crown

(O) Cloud-like -----
(O) Confused jumbled -----
(O) Curlicue -----
(O) Flattened crown -----
(O) Shading-hatching crown -----

Leaves

Absence of leaves,
(O) Foliage Omitted -----
(O) Falling or fallen leaves -----
(O) Many leaves -----
(O) Not attached to branches -----
(O,Ha) Sharply pointed leaves -----
Two-dimensional &
(O) Meticulously drawn -----
Two-dimensional and
(O) too large -----
Very sparse leaves,
(O) nearly barren limbs -----

Tree Trunks Modes of treatment

In children,
Animals peeking from
(O) hole -----
(O) Barren or Truncated -----
(O) Broad based -----
(O) Dead trunk -----
(O) Discontinuous trunk -----
(O) Enormous trunk -----
Faintly Drawn Large
(O) trunks -----
(O) Long trunks -----
Narrow at base than
(O) elsewhere -----
(O) One-dimensional -----
(O) Periphery reinforced ------

(O) Sack-Like -----
(O) Scars -----
(O) Shading -----
(O) Short trunks -----
(O) Slender -----
(O) Thickening -----
(O) Tiny, thin -----
(O) Two -dimensional trunk with one, Two-dimensional branch -----

Bark Modes of treatment

(O) Easily drawn -----
(O) Inconsistently drawn -----
(O) Meticulously drawn -----
(O) Depicted with vine-like vertical lines -----

Roots Modes of root treatment

(O) Tapering easily into the ground -----
(O) Dead roots -----
(O) Omission of roots and baseline -----
(O) Overemphasis on roots entering the ground -----
(O) Poorly organized root structures -----
(O) Roots on edge of paper -----
(O) Paper based trees -----
(O) Shaded roots -----
(O) Talon-like roots -----
(O) Thin roots making tenuous contact with ground -----
(O) Transparent roots -----
(O) Trunks seen through groundline -----

Scoring for Drawings
General Considerations

Graphomotor

Erasing Responses

(O) Erasing in Moderation -----
(O) Excessive Erasing -----

Placement of Drawn Work

(O) Central Placement -----
(O,N) On right Side of Page -----
(O,N) On left Side -----
(O) High on Page -----
(O) Low on Page -----
(O) In upper Left Corner -----
(O) In upper Right Corner -----
(O,N) On edge or bottom of paper -----
(O) In a lower Corner -----
(O) In lower Left Hand -----
(N) Top placement -----

Pressure Factors

(O) Consistent Pressure -----
(O) Unusually Variable Pressure -----
(O,Ha) Unusually heavy pressure -----

Stroke, Line and Shading

(O) Marked directional preferences -----
(O) Horizontal -----
(O) Vertical ----
(O) Curving -----
(O,Ha) Rigid straight line -----
(O) Continuous change -----

Quality of strokes

(O) firm, unhesitating -----
(O) Interrupted, curvilinear -----
(O) Jagged lines -----
(O) Sketchy strokes -----
(O) straight uninterrupted strokes -----
(O) tremulous, shaky stokes -----
(O) Vacillating direction -----
(Ha) Impulsive lines -----

Length of Strokes

(O) Long -----
(O) Short discontinuous strokes -----
(O) Very short, circular -----

Excessive Shading Shaded Strokes

(O,Ht) Unusually light pressure -----
(O) Shading never used -----
(N) Outside shading -----

Size of Drawings

(O) Average -----
(O,Ha,N) Unusually large or tall -----
(O,Hw,N) Unusually Small or short -----
(N) Slanting figure -----

GENERAL

Detailing

(O) Lack of detail -----
(O) Excessive detail Bizarre Detail -----
(O) Labeling of Details -----
(Hs) Emphasis on Barriers -----

Distortions and Omissions

(O) Gross Distortion -----
(O) Moderate -----
(O) Omissions -----
(Hw) Drawing very distant -----

Edge of Paper

(O,N) Drawing on Bottom Edge -----
(O) Drawing Utilizing Side Edge -----
(O) Edge Preventing Drawing
(O) Completion -----

Groundline Treatment

(O) Groundliness Spontaneously -----
(O,N) Very heavy Groundline -----
(O) Groundlines Sloping Downward -----

Midline Emphasis

(O) Stressing midline -----
(O) When drawings by a male -----
(O) Row of irrelevant buttons -----
(O) Crude midline -----

Symmetry

(O,Hw) Extreme Bilateral Symmetry -----
(O) Marked Disturbance of Symmetry -----
(O,N) **Transparencies** -----

Miscellaneous Factors

(O) Clouds fragmentation inadvertently
(O) Introduce -----
(O) Impotency -----
(O) Mutilation or Degradation -----
(O) Perseverations -----
(O) Refusal to draw or complete -----
(O) Shadows Spontaneously -----
(O) Sun -----
(O,N) Turning Paper from presented orientation -----
(N) Lettering/Numbering -----
(Hw) Inanimate objects drawn bigger and better than people -----
(Hw) Animals drawn bigger& better than people -----

Comments on Family Drawings:

Activity:

Other Comments :

Appendix B

HFD Indicators Divided into Clusters

Uncertainty	Excessive erasing - On left side - High on page - Sketchy strokes - Very short, circular strokes - Ground lines sloping downward
Dissatisfaction with Self	Excessive Erasing Excessively tightened waistline
Chronic Illness	Excessive Erasing
Obsessive- Compulsive	Excessive Erasing - Unusually light pressure - Drawings unusually small or short - Excessive and Bizarre Detail -Extreme Bilateral symmetry - Tiny mouths - Detailing of joints on fingers - Striped clothing
Rigidity	Central placement - Curving lines and strokes - Labeling of details - Marked disturbance of symmetry - Unusually short thick neck - Unusually long neck - Folded anterior appendages - legs pressed close together - Stiff posture - Vertical rigid figures with arms and legs straight - Drawing on right side of paper
Aggression	Central placement - Unusually heavy pressure - Unusually large or tall - Drawing utilizing side edge Midline emphasis - When drawing by a male - Mutilation or degradation - Turning paper from presented orientation - Head drawn unusually large - Hair shaded heavy - Facial features overemphasis - Eyes omitted - Eyebrows frowning - Mouth as a short heavy line - Mouth sneering - Teeth showing - Chin usually emphasized - Squared shoulders - In males massive or excessive broad shoulders - Anterior appendages behind back - Arms reinforced - Mitten-type hands - Very large hands - Clenched fingers made into a fists - Detailing of finger joints -

	More than five fingers - Fingers without hands - Reinforced legs - Emphasis on feet - Pointed sharply feet - Toes in a figure that is not intended to be nude Pointed toes - Pointed drawn and circumscribed by a line - Wide stance - Violent action - Tie emphasis - People drawn as witches - Stick figures - When drawing by male row of irrelevant buttons - Nostrils of nose emphasized - Inconsistent position of anterior appendages
Anxiety	Excessive Erasing - In upper left corner - On edge or bottom of paper - Jagged lines - Vacillating direction - Very short, circular strokes - Unusually light pressure - Excessive and Bizarre Detail - Moderate distortions and Omissions - Very heavy ground line - Groundliness spontaneously - Transparencies - Included sun - Clouds fragmentation inadvertently introduce - Shadows spontaneously - Head drawn unusually large - Hair shaded heavy - Large or strongly reinforced eyes - Buttocks emphasized - Anterior appendages wing like - Drawings unusually small or short
Introvert	Placement of drawing on right side of paper - Eyes closed or unusually small - Pupils omitted from eyes Under-clothed or nude figures - Outline of eyes emphasized
Impulsively	Drawing on left side of paper - Jagged lines - Unusually short and thick neck - Unusually long neck - Neck omitted - Very large hands - Feet pointing in opposite directions - Striped clothing
Depression	Drawing low on paper - Drawing on edge or bottom of paper - Drawing in lower left hand corner - Very short circular strokes - Unusually light pressure - Unusually small or short drawings - Lack of details in drawings - Bizarre details - Drawing on bottom edge of paper - Extreme bilateral symmetry - Nose emphasis - Mouth emphasis or omitted - Single line for mouth - Hands omitted - Resistance to draw fingers - V-shaped feet - Slanting stance when legs float into space

Regression	In upper left corner - unusually short or small - Head drawn large - Mouth emphasis - Protruding lips - Rounded trunk of torso - Thin unbroken lines of torso and body - Anterior appendages drawn as mechanical horizontal extension - Hands drawn very large - Transparent clothing on figure - Button emphasis on clothing or other appurtenances - Scars on figures - Mitten type hands - Figures drawn younger appearing than age
Insecurity	Low on page - In upper left corner - On edge or bottom of paper - Unusually variable pressure - continuous change of pressure - Sketchy strokes - Vacillating direction of pressure factors - Unusually light pressure - Unusually small or short figures - Drawing on bottom edge of paper - Groundliness spontaneously - Extreme bilateral symmetry - Marked disturbance of symmetry - Hands omitted - Marked directional preferences of stroke, line and shading - Continuous change in stroke, line, and shading.
Inferiority	Drawings in lower corner - Unusually large or tall drawings - Unusually small or short - Stressing midline of figures - When drawing by a male, midline emphasis - Shadows drawn spontaneously - Head drawn small - Overemphasis of facial features - Torso and body treated small - Thin torso and body Tiny shoulders on human figures - Omissions of anterior appendages - Anterior appendages drawn very short - Anterior appendages unattached to trunk - Anterior appendages transparent - Locomotor appendages drawn very short - Hands omitted - Hands shaded - Locomotor appendages drawn thin, tiny or shaded - Clothes too big for figure - Excessive branches and leaves on tree - Sun drawn as a miscellaneous factor on any drawing -
Schizophrenic	Pressure consistent on drawings - Short discontinuous strokes - Unusually light pressure - Unusually small or short drawings - Excessive and bizarre detailing - Gross distortions in drawings - Rows of irrelevant buttons - Only head drawn - Hair is omitted or inadequate - Non-human like facial

	features - Animal like facial features - Bizarre facial features - Two eyes drawn in a profile view of head Teeth showing in mouth on drawings - Exceptionally long and thin neck - Squared shaped torso or body - Absence of shoulders - Breast omitted - Indications of interior anatomy - Omission of anterior appendages - Wing like anterior appendages - Hands omitted - Omission of legs - Omission of feet - Figure drawn as action figure with whirling movement - Confusion of profile and full face - Back of person to viewer(facing away) - Transparent clothing - Dehumanized figures (monsters) - Shading of entire face
Organic Condition	Unusually heavy pressure - Tremulous shaky stokes Short discontinuous strokes - Unusually large or tall drawings - Lack of details - Excessive or bizarre details - Gross distortions - Transparencies - Impotency - Perseverations - Head drawn large - Irregular contour - Head omitted - Neck omitted - Torso and body drawn grossly disorganized - Hands omitted - Petal or grape like fingers - Omission of feet - Slanting stance, when legs float into space - Confusion of profile and full face - Weakly synthesized figures - Drawings appear younger than age of student - Unusually light pressure - Outstretched anterior appendages - Stick figures
Paranoid	Unusually heavy pressure - Unusually light pressure Unusually large or tall drawings - Head drawn large Back of head drawn - Large or strongly reinforced eyes - Outline of eye emphasized - Eyes placed on side of head - Large or unusual ears - ? As ears - Hips emphasized by females - Hips shaded - Joints emphasized - Legs pressed closely together - Back of person to viewer (facing away) - Earrings emphasized
Psychosis	Unusually heavy pressure - Tremulous shaky stokes Unusually large or tall drawings - Excessive and bizarre details - Labeling of details - Gross distortions of detailing - Transparencies - Head drawn large - Irregular contour of head - Head drawn last - Omissions of facial features with rest

	drawn adequately - Overemphasized of facial features - Pupil from one eye missing - Torso and body grossly disorganized - Genitalia area drawn Indications of internal anatomy - Hands behind back Confusion of profile and full face - Back of person to viewer (facing away) - Over-clothed figures - Dehumanized figures (monster) - Stick figures - Arms treated unusually - Omission of anterior appendages - Wing like anterior appendages - Omitted hands Omission of legs - Omission of feet - Figures drawn as action figure with whirling movement
Weak and Fearful	Horizontal stroke, line, and shading - Unusually light pressure - Excessive and bizarre details - Head drawn small Dim facial features - Chin usually emphasized - Exceptionally long and thin neck - Adam's apple emphasis - Frail, flimsy, thin anterior appendages
Dependent	Strokes quality are interrupted, curvilinear - Size of drawing are short or small - Groundliness sloping downward - Head drawn unusually large - Button nose - Concave mouth - Large breast - Joints emphasis - Legs treated unusually - Belt buckles included as appurtenances on figures - Frowning eyebrows - Omission of feet
Acting Out	Jagged lines - Unusually large or tall drawings - Sharply pointed nose - Teeth showing - Pointed shoulders - Excessively broad shoulders - Talon like fingers - Spiked dark lines as fingers - Bare feet
Inhibition	Long strokes - Unusually light pressure - Size of drawing are short or small - Head drawn unusually large -Arms stiff at side - Swollen hands - Gloves drawn on figure
Psychosomatic	Mouth emphasized - Mouth omitted - Nostrils emphasized - Cupid bow as mouth - Waistline treated unusually with a broken line - Large feet - Small feet - Unusually large or tall drawings -Lack of detail - Excessive or bizarre details - Extreme bilateral symmetry - Open mouth - Unusually long

	neck - Shoulders are reinforced - Erasures of shoulders - Joints emphasized - Indications of internal anatomy
Narcissistic	Figure drawn with crude midline - Unusually large head - Hair emphasized - Full lips in male - Large breast - Belt included in waistline - Emphasis on joints - Anterior appendages akimbo style - Over-detailing of feet - Over clothed figures - Underclothed or nude figures - Seductive figures, nude
Infantile	Drawings have crude midline on figures - Button nose Concave mouth - Teeth showing - One-dimensional neck - Petal or grape like fingers - Talon like fingers - Spiked ,dark lines as fingers - Over clothed figures - Underclothed or nude figures Emphasis on pockets - Drawing on bottom edge of paper - Over-detailing of feet - Akimbo type arms
Eating disorders	Emphasis on mouth - Unusually long neck - Double body contour in females - Confused body contour in females - Squared shape body - Under-clothed or nude figures - Person drawn as peanut man - Stick person - Waistline drawn with a broken line - Belts drawn on waistline - Torso drawn thin
Sexual Issues	Marked Disturbance of symmetry - High or low waistline - Crossed legs - cigarettes or pipes included in figure drawings - Transparencies - Large or strongly reinforced eyes - Eyes omitted - Emphasis on nose - Emphasis on mouth - In males drawings massive of excessively broad shoulders - Heavy or excessive emphasis on waistline - Shading excessive at waist -Belt include at waist - Buttocks emphasized - Covering the genital area - Head omitted - Hair is omitted or inadequate - Shaded, dim, or truncated nose - Nose omitted - Short anterior appendages - Anterior appendages unattached to trunk - Hands omitted - Emphasis on hair - Cupid bow for mouth - Reluctance to close bottom of body torso - Chin appearing weak - Emphasis on tie - Legs pressed closely together

Appendix C

Diagnostic and Statistical Manual of Mental Health Disorders - Fourth Edition

Disorders	Diagnosis
Behavior Disorders	ADD - ADHD - Conduct - Tourette's Oppositional Defiant- Disruptiveness
Cognitive Disorders	Learning Disorders and Mental Retardation Motor Skills Disorders - Communication - Pervasive Developmental
Drug Related Disorders	Alcohol-Induced Disorders - Amphetamine - Caffeine - Cannabis - Cocaine - Hallucinogen Inhalant - Nicotine - Opioid - Phencycline - Sedative - Anxiolytic - Polysubstance - Unknown Substance Related
Schizophrenia and Other Psychotic Disorders	Schizophrenia - Schizophreniform - Schizoaffective - Delusional - Brief Psychotic - Shared Psychotic - Psychotic Due to... - Psychotic NOS
Mood Disorders	Bipolar Disorders - Depression - Dysthymic-Cyclothymic
Anxiety Disorders	Panic Disorders - Agoraphobia - Specific Phobia - Social Phobia - Obsessive/Compulsive - Posttraumatic Stress Disorder - Acute Stress Disorder - Generalized Anxiety - Anxiety Due to... Substance-Induced Anxiety
Somatoform Disorders	Somatization Disorders - Conversion - Pain Disorders - Hypochondriasis - Body Dysmorphic Disorder - Somatoform Disorders NOS
Sex and Gender Disorders	Sexual Dysfunctions - Paraphilias - Masochism - Sexual Sadism - Paraphilia NOS - Gender Identity Disorders Gender Identity Disorders NOS - Sexual

	Disorders NOS
Eating Disorders	Anorexia Nervosa - Bulimia Nervosa Eating Disorders NOS
Sleep Disorders	Dyssomnias - Parasomnias - Sleep Disorders Related to another Mental Disorder - Other Sleep Disorders
Impulse Control Disorders Not Elsewhere Classified	Intermittent Explisive Disorder - Kleptomaina - Pyromania - Pathological Gambling - Trichotillomania - Impulse-Control Disorders NOS
Adjustment Disorder	With Depressed Mood - With Anxiety With Depressed Mood and Anxiety With Disturbance of Conduct With Mixed Disturbance of Emotions and Conduct - Unspecified
Other Conditions That May Be a Focus of Clinical Attention	Physical Abuse of Child - Sexual Abuse of Child - Neglect of Child - Physical Abuse of Adult - Sexual Abuse of Adult
Additional Conditions That May Be A Focus of Clinical Attention	Bereavement - Identity Problems - Religions or Spiritual Problem - Child or Adolescent Antisocial Behavior