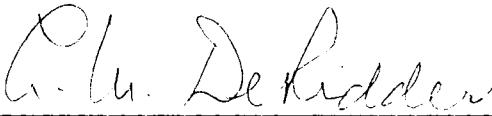


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INDICATORS OF SEXUAL ABUSE IN CHILDREN'S
HOUSE, TREE, PERSON AND
KINETIC FAMILY DRAWINGS

A Thesis
Presented for the
Master of Science
Degree
The University of Tennessee, Knoxville

William H. Swiggart IV
June 1986

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ABSTRACT

The sexual abuse of children is a national problem receiving attention from many sources. A major concern in this area is the detection of sexual abuse in children. Children often find it difficult to report abusive incidents, particularly if the abuser is a friend or family member. Can drawings be used to identify the victim of familial sex abuse or incest? Do certain indicators exist which will distinguish the sexually abused child from other children? These questions were investigated at the University of Tennessee, Knoxville, during a twelve-month period, from May 1985 through May 1986.

House-Tree-Person and Kinetic Family Drawings were collected from thirty-one control subjects and seventeen children who had been victims of incest. The age ranged between six and nineteen years in the groups. The drawings of the two groups were analyzed by three raters for the presence or absence of fifteen indicators. The two groups were compared using a t-test and a significance level of .01 was chosen. A significant difference was found between the two groups.

This study shows that an objective scoring system is possible with high interrater reliability. Also, the

indicators taken as a whole do discriminate between the two groups. Further research is required to develop an instrument that will accurately identify the sexually abused child.

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CHAPTER 1

INTRODUCTION

STATEMENT OF THE PROBLEM

The sexual mistreatment of children is reaching epidemic proportions. The rise in reported cases would indicate a greater number of incidents, recent increased awareness of abuse or a combination of the two. Estimates of the number of cases of sexual abuse has varied significantly in the past 30 years. However, most agree that the number of actual cases is far greater than the number of reported cases. Landis (1956) believed one-third of the population suffered some form of sexual abuse before adulthood was reached. The children's division of the American Humane Association (1967) reported that between 80,000 and 100,000 children were sexually abused in the United States each year. As recognition increases, the number of reported cases rises also (Kempe & Kempe, 1978). Giarretto (1981) estimated that more than a quarter million children are being abused in their homes each year.

Interest in incest has focused on the family, the law, treatment, and prognosis (Mrazek & Kempe, 1981). Little systematic study, however, has focused on

detection (Johnson, 1979). Renshaw (1982) reports that incest is discovered primarily in three ways: 1) crisis, 2) incidentally, or 3) as the result of research journalism and other investigation. DeVine (1980) states that incest is often discovered because of a runaway incident, pregnancy, or a suicide attempt. In general, children do not inform others. Much of the literature on incest deals with treatment after the child is identified. In a recent review of incest-related studies (Rubin R., & Byerly, G., 1983), very few articles were found dealing with detection.

An inherent problem with the detection of incest is one of definition because it is so inadequately described. This problem of definition is one cause of the discrepancy between differing incident rates which have been reported. In one state, the definition of incest may be quite different than in another. The results of research data suffers from the same problem. Incest is defined in some instances as sexual intercourse with a blood relative (deYoung, 1982). Others include sexual advances or interest, but not intercourse, between blood relatives. Varying definitions of incest in current laws range from sexual intercourse with only close blood relatives to intercourse with adoptive relatives (Mrazek, 1981). Thormon (1983) reported that

the National Center on Child Abuse and Neglect uses intra-family sexual abuse to mean the same as incest: any sexual act perpetrated on a child by a member of that child's family group. This type of definition serves to protect the child by not describing prohibited behavior or specifying relationships. Some other definitions attempt to delineate degrees. Three types have been suggested:

- Type I: Battered child whose injuries are primarily in the genital area.
- Type II: A child who has experienced attempted or actual intercourse or other inappropriate genital contact with an adult.
- Type III: A child who has been inappropriately involved with an adult in sexual activities not covered by I or II.

(Mrazek, Lynch & Bentovim, 1981, p. 36).

As indicated, the approach to defining incest varies between states as well as between therapists and researchers. Because of the different needs of the different agencies and professionals, one definition for incest may never arise. For the purpose of this study, the definition of incest used by the National Center on

Child Abuse and Neglect has been chosen: any sexual act perpetrated on a child by a member of that child's family group. From this point forward, sexual abuse and incest are used interchangeably, defined by the previous statement.

PURPOSE OF THE STUDY

The purpose of the present research is to discover whether the Kinetic Family Drawing test and the House-Tree-Person test may be used to identify the victims of incest.

Children's drawings are thought to be important avenues to their internal worlds. The drawings by incest victims will be studied to identify possible indicators that may be used in the future to discover the occurrence of incest. Others (Stember, 1978b; Burgess, McCausland, & Wolbert, 1981) have used art with abused children. The use of drawings for both diagnosis and therapy is well documented. The art of children seems to be able to reflect important events (Burgess et al., 1981) as well as be an avenue of expression about those events. It follows that art can aid the abused child in dealing with the trauma of incest. The incest experienced may be evident in a child's drawings. It is hypothesized that

the drawings of incest victims will be different, and this difference can help in the early detection of abuse. This difference can be identified by the presence of objective criterion. It is believed that the presence of several indicators will significantly predict the occurrence of sexual abuse.

ASSUMPTIONS AND LIMITATIONS

Sexual abuse differs from physical abuse in many cases. Quite often sexual abuse, particularly incest, leaves no visible scars or bruises. Physical and sexual abuse can intersect when the sexual encounter is assaultive and brutal. When visible evidence exists, the problem of detection decreases. However, many times sexual abuse is well hidden to the outside world. The reasons children do not tell are numerous. Fear is often a factor affecting disclosure. The children or adolescents may fear for their safety or the safety of a family member. This fear results from direct threats from the abuser. Fear that the family will disintegrate if the abuse is revealed may be present. Children may not feel able to say no. An adult authority figure is to be respected. The child, in most cases, is taught to obey the adult. The problem is complicated when the adult is a trusted, respected member of the family.

Just as children may feel responsible for a divorce or other crises, they may feel responsible for the incest. The abuser may add to this view by blaming the victim for the abuse. This view is often upheld by society at large and the mental health profession in particular. In some instances, the incest may be the only affection being experienced. The alternative is viewed as worse than the abuse. In addition, the incest may be rewarded with gifts and favors. Higher status in the family is a powerful influence on any child. Being in an incestuous relationship may place the child in an adult role, possibly displacing the mother and removing certain responsibilities from her. This may also punish a passive or neglectful mother.

Failure to be believed or taken seriously is sometimes given as a reason for non-disclosure. Families, schools, and professionals may be too willing to overlook some of the warning signs. A mother may be aware and unwilling to intervene. The hostility with which disclosure is met may cause some victims to change their story. This reinforces the idea that they (the victims) are wrong.

The harmful effect of sexual abuse can vary greatly, based on the extent of the abuse, the length of the abuse, and how the abuse is viewed by the victim. Is incest in

general harmful in all cases? There is some debate regarding the effects of incest on children. The opinions expressed represent extremes from pro-incest (DeMott, 1980) to the view that incest always victimizes children (Sgroi, Blick & Porter, 1982). The majority of recent literature reports the incest relationship as harmful to the child involved. Several related problems have been identified (Kaufman, 1954; Heins & Kaufman, 1963; and Meiselman, 1978), running away, self-abusive behavior, sexual acting out, being victimized by others, psychological disturbances, physical complaints, family disturbances, frigidity, and promiscuity. A major pattern seems to be continued victimization (deYoung, 1982) by teachers, the law, therapists, and other social agencies. The effects of incest are not simple cause and effect relationships. The amount of harm is dependent on several factors. They include (DeVine, 1980) the child's age, developmental status, the relationship with the abuser, the amount of force or violence, the degree of guilt or shame, and the reaction of the parents and professionals who become involved.

Despite the harmful effects of child sexual abuse, a number of organizations are in favor of child-adult sexual contacts. For example, the René Giuon society

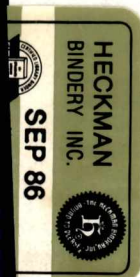
(Densen-Gerber & Hutchinson, 1978) has stated that they have 2,500 affidavits from their members who have had intercourse with male and female children below the age of eight. Other groups such as the North American Man-Boy Love Association and the Childhood Sexuality Circle hold similar views.

One problem with detection involves the consequences of the incest accusation. According to Meiselman (1978), children should be believed when they say they have been abused. In the past, children have not been removed from incestuous homes because they were not believed. However, because of the seriousness of an incest charge, most feel the need to be very sure that incest has occurred before a charge is made. This need for certainty, coupled with a child's ambivalence, can cause problems at every turn; innocent people might be jailed or persecuted.

Often incest is discovered after prolonged occurrence. In other cases, it is revealed long after the victim has left home. Long-term abuse is more harmful than abuse of short duration. The ongoing abuse seems to produce the most severe pathology (Pozanski & Blos, 1975; Lieske, 1981). Early detection becomes increasingly important due to the effects of long-term abuse.

The benefit to children and their families is impossible to gauge. The magnitude of the incest and presence or absence of violence makes a difference. However, if incest can be discovered earlier and stopped sooner, much pain could be avoided. A question being raised is, do children's drawings reflect the presence of an incestuous relationship? The many ways a child can be abused as well as the many responses to that abuse suggest that several kinds of indicators may exist. This study does not differentiate the type of incest that might be occurring. The drawings will be examined to determine if certain indicators can distinguish between victims of incest and children in a control group.

There are several factors which may confound the results of this study. Children experience stress and trauma in different ways; therefore it is not expected that a single indicator will reveal sexual abuse. The type of abuse, the severity, and duration are not the same. The length of time between the discovery of the abuse and the execution of the drawings varies greatly. The age of the subjects in the experimental group ranges from five to nineteen, while the control group age range is six to eleven. However, the average ages of the two groups are 10.9 and 8.5 respectively.



The subjects for this study come from rural and urban backgrounds. This may limit the usefulness of the findings to other populations. It is possible also that the control group may contain incest victims which would confound the results. One limitation concerns the types of abuse. The experimental group may not cover the broad range of incest experiences in any depth. The range of ages may not be adequately represented in order to generalize from one age group to another. The size of the experimental group, being small, makes definite conclusions risky.

The control group is being taken from an elementary school in a rural setting. The children most able to gain from this study would be similar groups. School psychologists and mental health professionals may find what might result from this study helpful as a screening device with their child clients. Often drawings, as are used in this study, are eliciting as part of the typical diagnostic evaluation of the child's presenting problem.

CHAPTER 2

REVIEW OF THE SELECTED LITERATURE

The use of drawings to show the effect of abuse is not new. A few researchers have attempted to use drawings to demonstrate the effects of physical and sexual abuse. Hjorth and Harway (1981) studied the human figure drawings of adolescents who had been physically abused. These drawings were compared with a normal group. Eight aspects of the human figure drawing were examined in relation to the subject's body image. Hjorth and Harway stated that "the findings are supportive of clinical descriptions of abused adolescents as having poor interpersonal relationships, introversive tendencies, insecurity, anxiety, poor body image, poor adjustment, poor self-concept, and sex-role confusion" (p. 866). Other drawings have been useful in detecting physical abuse. Blain, Bergner, Lewis, and Goldstein (1981) observed the need to determine which child within a family might be the victim of abuse. They studied certain indicators in the House-Tree-Person Test. Their results yielded a six-item test which predicted physical abuse reasonably well.

The Kinetic Family Drawing is another example of using drawings with abused children. Schornstein and Derr (1977) used this drawing in several ways. They found the drawing useful with adults as well as children. Having the parents complete the Kinetic Family Drawing has proved quite helpful:

Drawings can be used to assess impulse control, judgment, where responsibility is perceived to repose (not infrequently with the child), reality testing, interpersonal skills, and degree of organization. We have discovered siblings who were in danger. Drawings have shown who perpetrated the abuse when responsibility has been unclear, unknown, or denied. (Schornstein et al., 1977, p. 298)

Different indicators were mentioned, some of which are incorporated in the present study.

Johnson (1979) studied ten children who had been sexually abused. Three tests were given to these children. The Kinetic Family Drawing test was one of the three. Johnson found that:

The Kinetic Family Drawings revealed dysfunctional families or disturbances in roles or family relationships in all but one case. Examples of these responses include leaving out family members, drawing such an extended family that there were no primary attachments, compartmentalizing family members and not being able to complete or even start the task. The positioning of figures in the family and the omission of figures were two of the most diagnostic aspects of the drawings. (p. 946)

Johnson, in part, was looking for measurable differences between children abused by a family member and children abused by someone outside the family. No difference was found between the two groups. Two of the three tests were found useful: "Evaluations of sexually mistreated children should focus on family dynamics. The Kinetic Family Drawing test and the Conger Sentence Completion test are effective diagnostic tools" (p. 949).

Goodwin (1982) requested several drawings from children, including the Kinetic Family Drawing. This drawing helps to expose the abuse as well as identify a possible hoax. Goodwin, Sahd, and Rada (1982) reported:

We have found Kinetic Family Drawings particularly useful in identifying family pressures that may be motivating the daughter. Children who have experienced incest have great difficulty drawing the perpetrator, and their drawings often reflect fears of men or of being in their own houses.
(p. 23)

A similar instrument, the Draw a Family Test, was used among others by Reisinger (1981) in comparing young female incest victims with siblings, with a school sample, and with an outpatient group. This study sought to "assess the possible immediate psychological effect of the incestuous experience on these victims." Reisinger (1981) found that:

The incest' group scored significantly higher than the outpatient group in the family drawings in the areas of comparison between actual and drawn family and the size of the child figure.

The incest and siblings groups drew families significantly less like their own than the other three groups while the incest group drew the child figure significantly larger than any of the other groups. The incest group and sibling group only differed on this latter dimension and two others. The incest victims significantly more often had positive themes and significantly less frustration of goals themes than the siblings. (p. 12)

Reisinger indicated that the incest victims were categorically a pathological group. However, this study was unable to produce a picture of a "typical incest victim."

Other researchers have noted the difference in a child's drawing after abuse has occurred (Burgess et al., 1981; Stember, 1978a), as well as two specific ways which made the drawings unusual:

The assessment of drawings done by children can help determine how they are responding to stress, whether they are using ego controls, intellectualizing their feelings, regressing, isolating themselves, are reacting in some other manner to stress. Although there is a variety of indicators that raise the question of possible sexual victimization, we believe a high index of suspicion should be maintained with children whose drawings are unusual in two ways. First, the drawing shows a marked shift from age-appropriate figures to disorganized objects that require interpretation by the child... Second, suspicions should be raised with children's drawings that show repeated stylized sexualized figures. (Burgess et al., 1981, p. 56)

Burgess et al. (1981) reports further that: "...the primary reasons for the use of children's drawings as indicators of sexual trauma are twofold. First, the use of art has the advantage of gaining access to the

unexpressed thoughts, feelings and reactions of the child, and second, drawing takes the pressure off the child to verbalize" (p. 58).

Drawings may free children to express their experiences when they have been told to "keep quiet."

Sexually abused children commonly perceive the usual verbal methodology for assessment and treatment as threatening and emotionally "loaded." Verbal communication during assessment and treatment may demand a skill level and specificity not always available to the child. In addition, victims may be cautioned or threatened by family members and perpetrators not "to talk" about the traumatizing incident. Through the creative arts, victims may feel free to express--symbolically or realistically--the perpetrator and the sexual abuse in modalities not perceived to be covered by the cautionary injunction. (Naitove, 1982, p. 272)

Most of the studies have used the drawings to show the effects of abuse, knowing beforehand of the abuse. These studies, while informative, do not identify objective criteria that would enable others to know about abuse before it has been revealed. However, throughout the articles, different indicators were suggested.

One of the first attempts to put the clinical experience of art therapists to statistical scrutiny was done by Cohen and Phelps (1984). Working with a grant from the Texas Research Institute of Mental Sciences, they collected drawings and indicators from art therapists across America. From these suggestions, a list of twelve

indicators was compiled. An additional ten indicators were added later. This research project was transferred to Wright State University under the direction of Dr. Lewis Shupe. At the time of this writing, the research was still in the initial phase (L. K. Shupe, personal communication, April, 1985). The statistical analysis of the data has not been performed. The study of drawings for specific indicators that reveal the occurrence of sexual abuse is in the infant stage. The current body of research consists of unrelated studies. Many of these do not present objective criteria for others to test. In order to fill this void, this study uses standardized instructions and objectively defined criteria.

CHAPTER 3

METHODS AND PROCEDURES

SUBJECTS

Referrals of sexually abused children for this study were solicited from schools, churches, protective service departments and social agencies dealing with teen pregnancy and sexual abuse. During the seven month period between May of 1985 and February, 1986, data were collected from these students in the form of drawings. The subjects were almost all female because sexual abuse largely happens to female children. Each of the children was assigned to one of two experimental conditions. The experimental (abused) group consisted of 17 children who were judged to have been sexually abused by a member of that child's family group. The experimental group were clients in two agencies that serve a rural and metropolitan area in the same proximity as the cities where the control group was drawn. The control group consisted of 31 children from a local elementary school and local church who were judged by their teachers to be exceptionally well adjusted. The majority of the subjects fall within the 6-15 age range. Three subjects in the experimental

group were adolescents with an age range of 16 to 19. The characteristics of the two groups are presented in Table I and Table II. The control subjects came from a city elementary school in a rural county.

TABLE I
Characteristics of the Control Group

N = 31	Age*	Female		Male	
		No.	%	No.	%
	6	2	6.4	0	0
	7	6	19.3	0	0
	8	6	19.3	1	3.2
	9	9	29.0	0	0
	10	6	19.3	0	0
	11	1	3.2	0	0
	12-19	0	0	0	0

*Average age is 8.5

TABLE II
Characteristics of the Experimental Group

N = 17	Age*	Female		Male	
		No.	%	No.	%
	5	2	11.7		
	6			2	11.7
	7	1	5.8		
	8			2	11.7
	9	1	5.8		
	10	2	11.7		
	12			1	5.8
	14	1	5.8		
	15	2	11.7		
	16	1	5.8		
	17	1	5.8		
	19	1	5.8		

*Average age = 10.7

PROCEDURE

After gaining permission from school officials, subjects and their parents, each child in both groups was requested to do four drawings. (See Appendix.) The instructions given each child were, "I would like

for you to draw three pictures: one of a house, one of a tree, and one of a person. Then I would like you to draw a picture of everyone in your family, including you, doing something. You may use a regular pencil or the colored ones. Do not put your name on your picture." This procedure differs somewhat from the original instructions by giving the child the choice of using color or not.

Therapists from the different agencies obtained the majority of the experimental drawings. The author obtained the majority of the control drawings. All of the drawings were identified with a number. Each child's demographic data was assigned a number which was entered into a master list. Each set of drawings, stapled together, had only its number to identify the author of the drawings. The mixed sets were given to three raters who independently rated each set for the absence or presence of 15 predetermined variables or features. A variable was not considered absent or present unless two of the three raters agreed.

DEFINITIONS OF VARIABLES

The following definitions were provided to the raters.

- * 1. Red house--75% of the house in a hue of red, ie. orange, red, pink, etcetera.
- * 2. One window only--only one window in the whole house.
- * 3. One window differs from the others--one window different from the others in shape, color, size. The item is not scored if each window is different and there are 3 or more windows.
- * 4. Phallic tree--must obviously resemble a phallus.
- * 5. Phallic chimney--must be disproportionate in size and shape to the house.
- * 6. Face colored in--completely colored in, not just eyes, lips, etcetera.
- * 7. Person hidden or enclosed in an object or space--an object is anything the child is enclosed in (car, house, tree, etcetera). A person drawn or colored over is enclosed.
- * 8. Obvious violent content--this includes destructiveness displayed by weapons, lightning, catastrophic events, blood, dismembered body parts of animals or humans, person-to-person combat. Note: rockets, space ships, battle ships, war planes are excluded.
- * 9. Absence of color--black and/or pencil only. Any color at all in the picture counts.
- * 10. Absence of house in H.T.P. only--subject does not draw a house.

- * 11. Child missing from the K.F.D.--the child who drew the family picture leaves herself out.
- * 12. Absence of K.F.D.--this constitutes a refusal to draw the picture.
- 13. Absence of window--no windows in the house.
- 14. Child larger--the child is drawn larger or equal to in size of the father, or the mother, or is the largest family member.
- 15. Tree--highly stylized, unusual, unlike what would occur in nature.

(*--definition taken from Cohen & Phelps, 1984)

INSTRUMENTATION

Two drawing techniques were used in this study. The House-Tree-Person technique (Buck, 1966) and the Kinetic Family Drawing (Burns & Kaufman, 1972). The H.T.P. and K.F.D. techniques seemed appropriate to use because: 1) these tests require little time to administer; 2) no special training is required to obtain the drawings; and 3) many clinics, hospitals, etcetera, will have one or both sets of drawings on file as part of the child's evaluation.

In a similar study with physically abused children Blain et al. (1981) stated:

Because the abused child is not likely to report openly his mistreatment, a disguised unobtrusive measure seemed indicated. Because available evidence tells us that the abused child typically is young and unsophisticated, a test that made minimal intellectual demands seemed advisable. Finally, because the abused child may repress or suppress his or her abuse from consciousness, a test that did not rely on conscious report seemed indicated. The H.T.P. test, particularly when it is utilized not as a projective device but in a fashion that simply established the empirical correlations between cues and a criterion, seemed particularly suitable from all of these standpoints. (p. 668)

This rationale is equally applicable to the Kinetic Family Drawing.

The Kinetic Family Drawing has been used in varied settings (Schornstein et al., 1977; Wright & McIntyre, 1982) and is widely used clinically (Ames, 1973). Gersten (1978) related the need to be able to score "the more structural aspects of the drawing rather than the more symbolic aspects emphasized by the K.F.D. authors" (p. 883). Ames (1973) stated: "...they do not at this time offer any systematic scoring or analysis. Though this was published only in 1970, the test is already gaining rather wide acceptance by clinicians. I have found it extremely helpful" (p. 261). In a later publication, Burns (1982) addressed reliability and validity by reporting on different studies:

The most recent Annual Review of Psychology dealing with projective tests (3) says, "a

reliable objective scoring method for Kinetic Family Drawings has been developed" (p. 560). Many K.F.D. variables allow for obvious and high reliability between raters. For example, the family size, number of sibs, size of figures, distance of figures, number of barriers, direction of figures, actions of figures, activity level of figures, and many others may be reliably measured (p. 65).

Other studies have focused on validity. Sims (1974) studied 100 K.F.D.'s drawn by children between the ages of 5 and 15. He compared the K.F.D. with the Family Relations Indicator and found it a valid technique to investigate disturbed parental relationships. Ames (1982) observed,

The ample illustrations in the present volume show dramatically the extent to which a child can reveal his or her feelings, not only in ordinary living, but in such special circumstances as divorce, child abuse, alcoholism or other aberrations within the family (p. vi).

Wohl and Kaufman (1985) in their work with abused children, stated that "In the Kinetic Family Drawing, the child's perception of family alliances, coalitions, and family disharmonies is projected" (p. 51).

The House-Tree-Person technique was used for many of the same reasons. Buck (1966) believed:

that the validity of the principle of the H.T.P. method as a whole has been satisfactorily established (although the evidence is almost wholly clinical). The evidence of the validity of the individual differential items and their interpretations is less well-established but is certainly sufficient to justify the conclusion that the H.T.P. is a mature clinical instrument (p. 165).

The H.T.P. and the K.F.D. seem quite suitable for use, particularly since the instruments are not used as projective devices, but in a manner that establishes the presence or absence of indicators that are associated with abuse or non-abuse. This study will add to the small amount of research that has been carried out with regard to the validity of specific items in the drawings.

CHAPTER 4

RESULTS AND DISCUSSION

RESULTS

Three raters were used to evaluate the drawings. Two of the raters have master's degrees and work in the mental health field, one in private practice and the other in a local mental health center. The third rater has a bachelor's degree in special education and is employed by a local school system. The raters were trained using three sets of drawings and a definition sheet (see Chapter 3). Most of the drawings, used for training, were partial sets obtained during the data gathering period although some drawings were contrived to demonstrate appropriate variables. The raters were instructed to read and ask questions about the definitions. They were then instructed to rate the three training sets using a rating form (see Appendix). A percent of agreement (Mostkoff and Lazarus, 1983) was calculated for each possible pair of raters using the following formula:

$$\text{Percent agreement} = \frac{\text{Number of scoring agreements} \times 100}{\text{Total possible agreements}}$$

Table III contains the results of the interrater reliabilities on the training sets. The raters were

then allowed to look at the training drawings and discuss various discrepancies. The training was completed in approximately forty-five minutes. The raters then scored the forty-eight sets of drawings, which were randomly stacked.

TABLE III

Percent of Agreement Between the Three
Raters on the Training Drawings

	Rater 1 & 2	Rater 1 & 3	Rater 2 & 3	Mean
Percent Agreement	93.06	92.06	92.06	92.57

Interrater reliabilities were assessed using all the drawings. Percent of agreement was used to calculate the reliability between the raters. The percentages are represented in Table IV.

TABLE IV

Percent of Agreement Between the Three Raters
on Both the Control and Experimental Groups

	Rater 1 & 2	Rater 1 & 3	Rater 2 & 3	Mean
Percent Agreement	96.73	96.96	97.16	96.95

An indicator was considered present or absent only when at least two of the three raters were in agreement. Five of the indicators were not observed in the control group's drawings. Three of the indicators were not observed in the experimental group's drawings. The majority of indicators can only appear in one of the drawings. However, three indicators, face colored in, person enclosed, and violent content, may be observed in both the Person and/or in the Kinetic Family Drawing. The no color indicator could of course appear in all four drawings. The fifteen items used, the actual frequencies in which they occurred across groups and the percentage of occurrence are presented in Table V. All the experimental sets presented at least one indicator while fifteen drawing sets in the control group had none. The total number of indicators and the average per subject are presented in Table VI.

A t-test was chosen to analyze the data and a significance level of .01 was chosen. The t-test is most frequently used in comparing means (Cohen, 1977). The t-test has a variety of assumptions (Siegel, 1956); when these are met there is a better chance of rejecting the null hypothesis when it is false. The t-test is said to be robust (Downie & Heath, 1983), that is, it is relatively unaffected by violations of its underlying

TABLE V

Number of Drawings in Which an Indicator Appeared^a,
The Number of Children Including an Indicator
If Different, and the Percent of Each Group
Including an Indicator

Indicator	Control Group N = 31		Experimental Group N = 17	
	N	%	N	%
1. Red House	3	9.6	3	17.6
2. One Window	0	0	3	17.6
3. One Window Differs	2	6.0	4	23.0
4. Phallic Tree	2	6.0	0	0
5. Phallic Chimney	0	0	0	0
*6. Face Colored In	2	6.0	4(3) ^b	17.6
*7. Person Enclosed	5	16.0	3	17.6
*8. Violent Content	1	3.0	1	5.8
°9. No Color	8(4) ^b	12.9	11(6) ^b	35.2
10. No House	0	0	0	0
11. Child Missing	1	3.0	1	5.8
12. No K.F.D.	0	0	1	5.8
13. No Window	1	3.0	1	5.8
14. Child Larger	11	35.0	8	47.0
15. Tree Strange	0	0	3	17.6

*This indicator may appear in both the person and/or the K.F.D. drawing.

°This indicator may appear in all four drawings.

The remaining indicators may appear in one drawing only.

^aThe number of drawings and number of subjects is the same except where indicated.

^brepresents the actual number of subjects.

TABLE VI
Number and Average of Indicators
Found Across Groups

Group	Number	Mean
Control Group N = 31	36	1.16
Experimental Group N = 17	43	2.53

assumptions. One assumption, that of equal variances, is assumed when the groups are the same size. This assumption was tested, because of the unequal size (Huck, Cormier, and Bounds, 1974), by means of an F test. The null hypothesis of no difference was not rejected ($F[16,30] = 1.211, P > .05$). (See Table VII.)

TABLE VII
Results of F Test on the Group Variances

Group	df	Variance
Experimental	16	1.776
Control	30	2.329

Table VIII represents the results of the t-test. These results indicate that the drawings by the experimental group are significantly different from the non-abused control group, when considering the average number of indicators for the two groups.

TABLE VIII
t Test for Significance of the Difference
Between Means

Group	N	M	SD	df	t
Control	31	1.16	2.526	46	3.044*
Experimental	17	2.53	2.332		

* $P < .01$

Referring to Table V it becomes obvious that some indicators did not discriminate between the two groups very well. Items 5, and 10 did not appear in the drawings of either group. Item 4 appeared twice in the control group and was absent from the experimental drawings. Three items, 2, 12, and 15 were absent from the control drawings and appeared with varying frequency in the experimental group. Some indicators appear to be of almost equal value. Items 8, 11, and 13 were presented by only one member of each group. It appears that no one

indicator or drawing will easily identify the abuse victim. However, a combination of drawings and indicators may be able to identify the abuse victim. Items 2, 3, 6, 9, and 15 in combination emerged from this study as the most useful in both number and percent.

Items 1 through 12 are indicators that were identified by Cohen & Phelps (1984). Their analysis of those variables has not been performed, making a comparison between their findings and this study impossible at this time. Item 13, absence of window, was included because of the interest in windows expressed by Blain et al. (1981) and Cohen & Phelps (1984). However, this item was the least discriminating of the three window items. Item 14 was included because Reisinger (1981) identified it as significant. The item appeared more often in the control group, but in a higher percentage of the experimental group. Item 15 was included due to the author's own experience in looking at drawings of abused adolescents.

DISCUSSION

The present study attempted to explore the relationship of certain objective indicators to the drawings of incest victims and a normal control group. The results indicate that, taken as a whole, the indicators do discriminate between the two groups.

This data should be interpreted with caution and used to encourage further research. The experimental group was small in number and their drawings were difficult to gather. Several agencies expressed interest but were unable to supply any drawings. Almost a full year elapsed before seventeen sets were gathered. This implies that careful planning should precede the data gathering process.

This study shows that an objective scoring system is possible with high interrater reliability. This indicates that educators and therapists could be taught a scoring procedure that would yield consistent results. A score, or number of indicators present, would have to be established. Other indicators and combinations would have to be explored to obtain an instrument that could accurately identify the incest victim.

In order to properly study the relationship between children's drawings and sexual abuse, several areas should be controlled that were not in this study:

- 1) The extent of the abuse;
- 2) the age and developmental maturity;
- 3) the affective nature of the relationship;
- 4) the length of the abuse; and
- 5) the time between the discovery of the abuse and the completion of the drawings.

Drawings can be quite sensitive to change

and it is expected that some indicators would diminish after time and treatment. All of this would require a large sample. Another confounding issue is the drawings of non-abused and emotionally and/or developmentally handicapped children. The present study compared only two groups. The drawings of developmentally and emotionally handicapped children also need to be compared. There may be more difficulty in identifying the abuse victim within these populations. Many victims of sexual and physical abuse are handicapped in some way. It would be important to be able to identify these children, who in many cases cannot communicate well on a verbal level.

The findings here suggest that the presence of several indicators can be used as a tentative hypothesis of sexual abuse. However, the indicators, individually, may have dual meaning. For example, item 14, child larger, may reflect a child's elevated position in the family. Sex abuse, however, is only one possible explanation from a field of many explanations. The drawings of sexually abused children are different but are they different in a predictable way from all other children's drawings? This research is intended to add to a body of knowledge which will eventually create an instrument that will identify accurately the sexually abused child.

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APPENDIX

Rating Form*

Rater _____

Drawing No. _____

Item	House	Tree	Person	K.F.D.
1. Red House		xxx	xxx	xxx
2. One Window		xxx	xxx	xxx
3. One Window Differs		xxx	xxx	xxx
4. Phallic Tree	xxx		xxx	xxx
5. Phallic Chimney		xxx	xxx	xxx
6. Face Colored In	xxx	xxx		
7. Person Enclosed	xxx	xxx		
8. Violent Content	xxx	xxx		
9. No Color				
10. No House		xxx	xxx	xxx
11. Child Missing	xxx	xxx	xxx	
12. No K.F.D.	xxx	xxx	xxx	
13. No Window		xxx	xxx	xxx
14. Child Larger	xxx	xxx	xxx	
15. Tree Strange	xxx		xxx	xxx
TOTAL				

*Only empty spaces may be checked.

THE UNIVERSITY OF TENNESSEE
KNOXVILLE 37996-3400
COLLEGE OF EDUCATION

DEPARTMENT OF
EDUCATIONAL AND COUNSELING PSYCHOLOGY

TELEPHONE
(615) 974-6131

INDICATOR PROJECT
CHILD'S CONSENT FORM

I am a graduate student at the University of Tennessee. I am interested in how children draw. I think that drawings can sometimes tell a story about people. Things that happen good or bad may show up in the way we draw a picture. I would like to look at some drawings done by different children. You will be asked to draw four pictures which will usually take about twenty minutes. The pictures are of a house, tree, person and a drawing of your family. I want to write a book about the drawings and how they are different. I may also use your drawings in other ways like an article in a magazine. Your name will not be used under any circumstance. Your pictures will not have any names or marks that will show who you are on them. You may decide you want to do this and then change your mind. It is fine for you to change your mind any time before the book is printed. There will not be any penalty or punishment. I will not be angry or disappointed if you decide not to draw the pictures or change your mind after you draw the pictures. I will need to know your age, whether you are a boy or girl, your parents' occupation and your race. The forms and drawings will stay in my office in my file cabinet. After three years we will destroy them. I hope this project will help children. Remember you can decide if you want to be in the project or not. If you think of any questions you would like to ask me you may call me at my office or at home. My office number is 984-3334 and my number at home is 983-9253.

Child's signature

Bill Swiggart
P.O. Box 101
Walland, TN 37886

THE UNIVERSITY OF TENNESSEE
KNOXVILLE 37996-3400
COLLEGE OF EDUCATION

DEPARTMENT OF
EDUCATIONAL AND COUNSELING PSYCHOLOGY

TELEPHONE
(615) 974-5131

INDICATOR PROJECT

PARENT OR GUARDIAN CONSENT FORM

As one of the requirements of my graduate program at the University of Tennessee, I wish to do a research study comparing the drawings of children. Each child in this study will be asked to draw four pictures. The pictures are of a house, a person, a tree and a picture of everyone in their family doing something. It usually takes about twenty minutes to complete all four drawings. Some of the drawings will be used in the final thesis without identification to demonstrate the findings. This study may be helpful to others and the results published and used in educational settings. You or your child's identity will not be revealed under any circumstances. The only information, besides the drawings, that will be used is age, sex, economic status, and race. The pictures may be used in reports or publications resulting from this study in that case your or the child's identity will be protected. The signed consent forms and the drawings will be kept for a three year period in a locked file. You or your child may withdraw from this study at any time, until the results are published, without any penalty or hard feelings. You and your child's participation is completely voluntary. You may sign the form and then change your mind without fear of harrassment.

I have read and understand the above statements concerning my child's involvement in this research project and willingly give my consent for my child to participate in this research, and for the drawings to be used in any publication resulting from this study.

Parent or Guardian

Date

Mr. Swiggart can be reached at the following numbers. Home 983-9253 office 984-3334. Please feel free to contact me with any questions or concerns.

Bill Swiggart
P.O. Box 101
Walland, TN 37886

VITA

William Harris Swiggart IV was born in Nashville, Tennessee on January 1, 1949. He attended schools in that area and was graduated from Battle Ground Academy in June, 1967. He received a Bachelor of Science in Education with a major in Special Education from the University of Tennessee in March of 1980. The following fall he accepted a teaching position with Alcoa High School. In 1982 he began a part-time position with the Oak Hill Center for Adolescents in St. Mary's Medical Center providing art therapy and educational services for that program. In 1983 he entered the University of Tennessee graduate program in Educational Psychology and began study towards a Master's degree.

The author is a registered art therapist and will continue his practice with the Christian Counseling Center after graduation.