Interactions of Sexually Abused and Nonabused Children
with Anatomically Correct Dolls

A Thesis
Presented in Partial Fulfillment of the Requirements for
the degree Master of Arts in the
Graduate School of the Ohio State University
by
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* * * * *
The Ohio State University
1991

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To Gail S. Goodman and Joseph J. Campos, who introduced me to the wonders of research in psychology
ACKNOWLEDGEMENTS

I would like to express thanks and appreciation to Keith Kaufman, my graduate advisor, for his guidance and encouragement during this project and his support throughout my education at the Ohio State University. I would also like to thank the staff of the Family Support Program at Children’s Hospital, who generously allowed me to recruit subjects through their program. A special thanks goes to the families who unselfishly agreed to participate in this research in the hopes of improving the assessment of child sexual abuse. I am deeply indebted to Patty Ewart, whose loyalty and commitment to this project went far beyond expectations and greatly facilitated data collection. I appreciate the data coding completed by Julie Mong and Julie Winkelman, and thank them for their efforts. I would also like to thank Steve Beck and Tom Linscheid for their words of encouragement, helpful advice and valuable feedback. I am grateful to my parents for challenging me to become a critical thinker and for their continued support of my educational pursuits. Finally, I would like to thank my husband, Paul Ormsby, who has provided me with a stable foundation from which to work. His patience, humor and reassurances were very valuable to me while I was completing this project.
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Interactions of Sexually Abused and Nonabused
Children with Anatomically Correct Dolls

As the reported incidence of child sexual abuse continues to rise, child protection professionals are faced with an ever-increasing need to perform efficient and accurate evaluations of children presented as alleged victims. One of the tools that has been used in sexual abuse investigations for over ten years is anatomically correct dolls (ACDs) (Friedemann & Morgan, 1985). In spite of this lengthy history, little scientific data regarding the reliability or validity of ACDs has been published. A paucity of empirical support for their usefulness has resulted in several recent judicial challenges to the use of ACDs in the investigatory and prosecutorial phases of child abuse cases (i.e., in re Angel Rhinesmith and James Rhinesmith v. Rose Williams and Douglas Williams, 1985; in re Amber B. and Teela B. v. Ron B., 1987). The validity of ACD use in clinical settings is also of importance, since therapists rely on the findings of a preliminary investigation (often including a doll interview) to design treatment plans for alleged victims. This study was designed to provide preliminary data regarding the behavior of two contrasted groups of children (victims of sexual abuse and children who have no history of suspected abuse) while interacting with ACDs.
Published articles concerning the use of ACDs focus on issues as diverse as professionals’ use of ACDs and their training (Boat & Everson, 1988); variations in child-doll interactions based upon different ACD characteristics (Boat & Everson, 1986; Friedemann & Morgan, 1985; MacFarlane & Krebs, 1986; White, Strom, Santilli & Quinn, 1987); children’s accuracy in reporting neutral events with the aid of ACDs (Goodman & Aman, 1987) and guidelines for interviewing children with ACDs (Boat and Everson, 1986; Shamroy, 1987; White, Strom, Santilli & Halpin, 1986; White, Santilli & Quinn, 1987). Survey data (Boat & Everson, 1988) indicates that 95% of children’s services agencies and 40% of law enforcement agencies regularly use ACDs in sexual abuse evaluations. While this would seem to support the use of the ACDs as accepted by the majority of the scientific community, existing studies fail to address the fundamental issue of whether children’s behavior with ACDs is a valid means of making decisions for use in a clinical and legal framework. In fact, it is this lack of scientific support which has fueled the criticisms leveled in recent court decisions (White, 1988).

Experts in the assessment of child sexual abuse have identified a number of empirical questions regarding ACDs that have yet to be addressed in the published literature. These questions reflect topics that include: the "average" ability of children to label body parts (Schor & Sivan, 1989); interview factors (such as length of interview and method of ACD introduction) which might influence the amount and quality of information obtained (White and Santilli, 1988); and the characteristics of children (such as age, gender & verbal ability) with
whom the ACDs seem to be the most useful (White and Santilli, 1988). Of these questions, however, the one in most immediate need of being addressed concerns the behavioral descriptions of children's ACD interactions. This topic can be further divided into two issues — the nonabused children's "normal" play patterns, and what differentiates them from those of abused children.

In order to be a valid assessment tool, data concerning the play of nonabused children with ACDs must be collected to form a normative baseline against which to judge the age-appropriateness of any individual child's doll interactions. Further, there remains a need for studies comparing the play patterns of carefully matched abused and nonabused children. Such an investigation would determine if a history of sexual victimization was associated with a significantly different pattern of ACD related behaviors than when there is no history of sexual contact.

**Normative Studies**

Four published articles have begun the process of establishing a normative baseline regarding the play of nonabused children with ACDs. Gabriel (1985) interviewed 16 children between 2 and 5 years of age with ACDs. The interview questions, however, were not included in the article, and appeared to vary widely from child to child. The interviewer made "careful notes" about the children's behavior during the sessions (p. 42) instead of using a more objective tool such as video- or audio-taping. Later scrutiny of these notes resulted in the identification of a list of behaviors (e.g., "actively handled dolls" and "overt interest in genitals"), which were defined by single examples
rather than operational definitions. Frequency counts of these behaviors were scored from the notes and reported for each child. Gabriel (1985) concluded that "most of the children showed most behaviours... including activities...similar to those described by examiners in sexual abuse investigations" (p.45). Although this type of descriptive data is potentially useful, methodological flaws such as the lack of a prespecified coding scheme and a single observer/coder who was not blind to the hypotheses of the project leaves this study open to criticisms regarding the reliability of the observations and possible bias due to expectancy effects.

Sivan, Schor, Koeppel and Noble (1988) also focused exclusively on the interaction of nonabused children with ACDs and corrected some of the methodological flaws that limited the usefulness of Gabriel’s (1985) study. One hundred forty four children between 3 and 8 years of age were observed and rated during three conditions of play (1. adult present, 2. adult absent & doll dressed, and 3. adult absent & doll undressed). Gender of the child and the adult were controlled for in an effort to ascertain whether ACD interaction was systematically related to the child’s gender or to that of the adult interviewer. Data analyses revealed that the girls spent more time with the ACDs than did the boys, although in general all the children interacted with other toys more than with the ACDs. The most significant finding of this study was that sexually explicit behaviors were not exhibited by any of the children in their interactions with the dolls. Further, little doll directed aggression was exhibited, and significantly, not one aggressive act was observed when the dolls were undressed. The authors report that
clinical anecdotes indicate that abused children show more aggression toward naked ACDs than dressed ACDs. These findings suggest that there may be differences in the level of aggression as well as the presence of sexualized behavior between abused and nonabused children engaging in free play behavior with ACDs. This study offers important information about the reactions of nonabused children to ACDs, and contributes significantly to the normative database. Unfortunately, the procedures used in this study do not mimic those used in actual child abuse cases. The children were not asked any specific question about the dolls, nor was there any structured interaction between the interviewer and the child. All of the behaviors described resulted from an unstructured, free play situation. Therefore it cannot be said with any certainty that these are the behaviors one would actually observe in a nonabused child interviewed as part of an abuse investigation. It can be concluded, however, that nonabused children do not respond to ACDs as an irresistible cue for sexual behavior in a free play situation. This directly counters the argument of many defense attorneys who claim that ACDs act as a suggestive stimulus for sexualized play in and of themselves.

Similar results were obtained in another study investigating the behaviors of nonabused children with ACDs (Glaser & Collins, 1989). Ninety-one children between 2 and 6 years of age participated in this study, in which their behavior with ACDs was recorded in a number of situations including naming body parts and free play. Only five children demonstrated any sexually explicit behavior during the sessions, and three children acted in an aggressive manner toward the
dolls. Unfortunately, the researchers never directly asked whether or not the child participants had experienced sexual abuse, despite the fact that parents were interviewed as part of the study. The researchers note that they assumed parents would not give informed consent for a child who had experienced sexual abuse to participate in the study. Since they did not ask directly, however, it is possible that some of the participants had a history of sexual contact unknown to the researchers. In fact, it was later discovered that one of the children who demonstrated sexual acts had been sexually abused by her stepfather. Although it is assumed that this sample provides normative data, there is reason to question whether or not all of the children were free from a history of sexual victimization.

Finally, in the largest normative study published to date (Everson and Boat, 1990), only 12% of the 209 participants demonstrated sexually explicit behavior with the ACDs during a 30-minute doll interview. This led the authors to conclude that there is a low incidence of "normal" sexually explicit play in nonabused children when interacting with anatomically correct dolls. None of the children under 4 years of age demonstrated any sexual behaviors with the dolls, suggesting that such behaviors in very young children should not be interpreted as "normal" sexual play. This study provided additional evidence against the claim that ACD interviews cause false reports of sexual abuse by nonabused children due to the sexually suggestive nature of the dolls.

**Comparative Studies**

Although four studies have compared abused children's interactions with ACDs to those of nonabused children in a structured
interview format, only two of these studies have used the behavior of the children as the dependent measure. The remaining two studies used a probability rating of the coder's certainty that the child had experienced sexual abuse as the dependent variable. These studies provided information regarding the ability of a rater to differentiate abused from nonabused children rather than a description of any behavioral differences between the groups.

August and Forman (1989) rated 32 children (16 sexually abused and 16 nonabused) on types of ACD play in two situations, 1) when asked to change the doll's clothes with no adult present, and 2) when asked to tell a story with the dolls after the adult returned to the room. Four categories of play (aggression, avoidance, private parts reference, and free play) were coded for each subject in each situation. Subjects were girls between 5 and 8 years old, and were age- and race-matched. The results of this study indicated that although the nonabused children played with ACDs significantly more than their sexually abused peers, they demonstrated significantly less aggression toward the dolls. In addition, the abused children displayed significantly more behaviors coded as private parts reference in the unsupervised situation in this study.

Findings from August and Forman's (1989) study are limited by several methodological flaws. First, the children were matched only on age and race, which leaves several important variables uncontrolled. For example, intellectual functioning is not controlled despite findings which indicate significant differences between abused and nonabused children's IQ scores (Kempe & Kempe, 1978). The broad nature of the
coding system also limits these data’s usefulness. Since the category entitled private parts reference included giggling at the private parts, and looking at or touching the underwear of the dolls, information regarding the more ominous sexually explicit play of the children is mixed with data that may describe a more normative developmental pattern.

A study conducted by Jampole and Weber (1987) also examined differences between sexually abused and nonabused children’s interactions with ACDs. Twenty 3 to 8 year olds, half of whom had histories of sexual abuse, participated in this study. The children were observed individually for one hour in a free play situation in a room containing ACDs as well as other age appropriate toys. If the child did not play with the ACDs after a specified period of time, the adult in the room presented the dolls to the child. The child’s play with the ACDs was globally rated as sexual or nonsexual by a rater blind to the child’s abuse status. Results of the study indicate that the abused children were significantly more sexualized (e.g., more demonstrations of intercourse between dolls and more penetration of the dolls’ genitals) in their interactions with ACDs than were the nonabused children.

Several methodological problems undermine the usefulness of Jampole and Weber’s (1987) results. First, although the subjects were matched for age, sex and race, the children’s socio-economic status was uncontrolled. Since almost half of the control group was made up of children of the experimenters or their co-workers, there are serious doubts about the similarities between the two groups on variables other
than their abuse status. In addition, subjects were not divided on developmental dimensions (i.e., age or developmental level), nor by gender, despite the published literature that suggests that the child’s age has a significant effect on the child’s reaction to ACDs (Goodman & Aman, 1987) and that male victims respond differently to sexual abuse than do female victims (Freeman-Longo, 1986; Johnson & Shrier, 1985; Pyle & Goodman, 1987). It is possible that some specific behavioral differences were not found to be significant due to the number of variables that were left uncontrolled. Finally, since this study did not include a structured interview, it does not mimic what occurs in actual investigations of abuse. Although the differences between abused and nonabused children are important and interesting, the question of whether these behavioral differences will be present during an investigatory interview remains unanswered.

ACD play patterns of children referred for suspected sexual abuse versus nonreferred children resulted in different levels of suspicion about the possibility of sexual abuse by the interviewer in a study conducted by White and colleagues (1986b). This investigation utilized a structured interview format with 50 children between the ages of 2 and 6, half of whom were referred for suspected sexual abuse. Based upon the results of the interview, an assessment of the level of suspicion that sexual abuse occurred was coded by two independent raters. Results of this study suggested that ratings of suspected abuse history differ as a result of referral status, and that observers can make reliable judgments about the sexual abuse status of a child based upon the child’s responses during the interview. Unfortunately, there were
significant differences in SES between the two groups, and verbal ability was uncontrolled. It is also unclear whether or not the coders were blind to the status (referred or nonreferred) of the child when the ratings were made.

The final study comparing abused to nonabused children also utilizes a structured interview with the ACDs and an abuse-nonabuse rating as the dependent measure (Realmuto, Jensen & Wescoe, 1990). Six sexually abused children, five nonclinic controls and four psychiatric controls were interviewed by child psychiatry resident blind to their abuse status. The interviewer completed a 20-minute structured interview with each child and estimated the level of suspicion (0 through 4, with 0 indicating no suspicion) that the child had experienced sexual abuse. Sixty-seven percent of the abused children were not correctly identified through the structured interview, indicating a substantial Type I error rate. The Type II error rate (33%) indicates that approximately one-third of the nonabused children were classified as abused based upon their responses to the interview. In total, only 53% of the children were correctly diagnosed as abused or nonabused. Unfortunately, with such a small sample, unusual behavior on the part of even one child could have biased the results of this study. In addition, the interviewer in this study used only the information gathered in the interview to form a judgement, and did not include any other data (such as corroborating medical findings, etc.) in the decision making process which would typically be followed in an abuse investigation.

A joint criticism of the final two studies relates to the use of a
rating scale as the dependent measure. Presumably, the raters in these studies were relying on behavioral differences between abused and nonabused children to make their judgments. Since data on the differential behaviors of abused and nonabused children with ACDs is scant and limited by methodological flaws, these classifications were made by looking for behavioral differences which have yet to be empirically validated. It would have been interesting to rescore the data from these studies using the behaviors of the children with the dolls as the dependent measure. It may be that there were subtle behavioral differences between the groups which were masked by the relatively broad and vague score on the suspicion scale.

Although there is published literature on the validity of ACDs as a diagnostic tool, further research is necessary to replicate these preliminary results and to better control the methodological flaws that limit the generalizability of previous findings. Many previous studies have adopted paradigms that are quite dissimilar from actual investigatory interviews, which has resulted in an overall lack of ecological validity in the ACD studies. Another problem is that previous studies have compared abused and nonabused children who differ on variables other than abuse status. It is therefore not clear whether the observed behavioral differences were related to a history of sexual abuse or the child’s SES or verbal abilities. Jampole and Weber’s (1987) study exemplifies an additional sampling problem. Participants in this study were between the ages of 3 and 8 years of age, and were not divided by any developmental measure. Findings from other studies (eg., Sivan et. al., 1988) indicate that doll interaction patterns
change as children grow older, typically becoming longer and more complex. It is possible that Jampole and Weber's (1987) findings were weakened by combining children of such diverse ages into a single group.

In addition to subject characteristics, the dependent measures included in previous studies have been problematic. In general, the behavioral observation studies have used coding systems that are quite vague (e.g., private parts reference instead of sexualized play). Although there are reliable differences in the levels of sexualization and aggression exhibited by abused as compared to nonabused children, a coding system that addressed the multiple aspects of these behaviors would provide the level of specificity necessary for a valid assessment tool. A further problem with previous studies is the premature use of abuse-nonabuse ratings as dependent variables. Until a solid base of descriptive data on the behavioral differences between abused and nonabused children with ACDs exists, no interpretable data will result from studies utilizing a rating system as the only dependent measure.

Research is needed to fill the gaps left by previously conducted studies. For example, it is important to divide children by age and gender so that children of only one gender and a relatively homogenous age group are combined to form a group. It is essential to match the experimental and control groups on key variables such as intellectual functioning and parental SES for increased experimental control. To the extent that it is possible, experimental sessions should mirror the procedures of actual interviews assessing the possibility of sexual abuse. In addition, a data coding system which incorporates the findings from previous studies (such as the differential levels of
sexualized play and aggression) should be used to code the child-doll interactions. Ideally, the coding system would be more specific than those used in previous studies to present a more detailed picture of the types of behaviors which are observed when young children play with ACDs.

Statement of Purpose

The purpose of this study was to continue the process of validating the diagnostic usefulness of ACDs in child sexual abuse cases. Specifically, this study investigated the behavioral differences in doll interactions by two contrasted groups of subjects (sexually abused versus nonabused).

Although this study utilized a paradigm similar to those of previous studies, the purpose was not simply replication. Experimental and control group children were matched on key variables (age, race, gender, SES, and intellectual functioning) to ensure that the only significant difference between the groups was a history of abuse. Younger children were included as subjects because ACDs are more often necessary to support their statements as compared with older children (Shamroy, 1987; White et. al., 1986b). Four, five and six year olds were chosen in particular because they are still within the primary age range for clinical use of ACDs, and previous studies have indicated that children at this age interact with the dolls significantly more than younger children (Sivan et. al., 1988).

Within ethical limitations, this study mimicked procedures typical of actual abuse investigations. The session included both a structured and a free play component. Additionally, there was a balanced focus on
the dolls since other toys were present in the room and played with during the session. Finally, the children interacted with the dolls for an amount of time comparable to that in an actual investigatory interview. The behavioral coding system (See Appendix C) devised for this study incorporated the findings from previous studies, but increased the specificity by identifying important components of the central behaviors (i.e., sexualization and aggression).

Hypotheses

1. Abused children will engage in more sexual interactions with the ACDs than will the nonabused children. The number of sexual interactions will depend both on the status of the child (abused versus nonabused) and the experimental phase (introduction versus storytelling versus unsupervised). Specifically, it is predicted that more sexual interactions will occur during the unsupervised phase than the other phases.

2. Abused children will spend more time interacting sexually with the ACDs than will their nonabused peers. The amount of sexualized behavior with the dolls will depend both on the status of the child and the experimental phase. Longer sexualized interactions are predicted during the unsupervised phase than the other two phases.

3. Abused children will engage in more aggressive interactions with the ACDs than will the nonabused children. The number of aggressive behaviors will depend upon the experimental phase as well as the status of the child. More aggression will be demonstrated during the unsupervised phase than the storytelling or introductory phases.
4. Abused children will spend more time interacting aggressively with the ACDs than will their nonabused peers. The amount of time spent engaging in aggressive behaviors will be contingent upon the experimental phase as well as the status of the child. The children will spend more time being aggressive during the unsupervised phase than the other phases.

5. Although the abused children will exhibit more sexualized play with the ACDs, nonabused children will exhibit more sexual exploration in their interactions with the ACDs.

6. Abused children will spend more time engaging in sexualized behaviors with the ACDs, while nonabused children will spend more time exhibiting sexual exploratory play with the ACDs.

7. The nonabused children will engage in more caregiving behavior with the dolls than will the abused children.

8. The nonabused children will spend more time exhibiting caregiving behaviors than will the abused children.
Method

Subjects

Twenty (20) four, five and six year old girls participated in this study. Ten children were victims of sexual abuse, the remaining children had no history of abuse or suspected abuse. Inclusion in the experimental group was based upon substantiation of abuse by Franklin County Children's Services communicated via the staff of Children's Hospital's Family Support Program. Inclusion in the control group was based upon verbal and written statements from the parents of control group participants indicating their belief that their child had never experienced any type of sexual contact. The abused children were recruited from the Family Support Program (FSP) at Children's Hospital. A member of FSP contacted families who were eligible to participate and obtained consent to allow the investigator to contact the family directly to provide details of the study. The nonabused children were recruited from the Pediatric Clinic at Children's Hospital. Each family received $20.00 for participating in the study.

The data from every abused child who participated in this study were included in the final analyses. Although data was collected from 31 nonabused children, the only data included in the analyses were those from the nonabused children who matched a child in the experimental group. The children were matched on age, gender, race, intellectual functioning (as measured by the PPVT-R) and parental SES.
Procedures

Parents were contacted and informed of the purpose and procedures for the study. A brief pre-screening inventory (including the child’s date of birth and parental level of education) was completed for control group participants during the initial telephone contact to maximize the availability of usable matches.

Families were scheduled for individual experimental sessions, all of which were held at Children’s Hospital. Informed consent (from the parent) and verbal assent (from the child) were obtained from every family before the experimental session began (See Appendix A).

The investigator escorted each child to the testing room and introduced her to the interviewer (who was blind to the child’s status). In addition to the dolls, there were toys such as crayons and paper, playdough, puppets and a toy telephone available and accessible in the testing room (as per the recommendations of Boat and Everson, 1986). These toys were used as warm-up material while the child became comfortable with the surroundings and to balance the amount of adult attention directed toward the dolls. After rapport was established, current intellectual functioning was measured using the Peabody Picture Vocabulary Test (PPVT).

Interactions with the dolls began immediately after the administration of the PPVT. Each child participated in a standardized introduction of the dolls based on the clinical protocol suggested by Boat and Everson (see Appendix B). Each child was presented with 2 child (1 male and 1 female) and 2 adult (1 male and 1 female) anatomically correct dolls. The introduction to the dolls included
asking the child to name a subset of body parts on each doll. This part of the session usually lasted about 10 minutes.

In addition to the standardized introduction, each child participated in two brief phases with the dolls. There is minimal information in the literature about the optimal amount of time to allow for doll interactions, in fact, only two published studies have included timed phases in their protocols. Jampole and Weber (1987) used 1 hour sessions, which they report were too long for young children. Sivan and associates (1988) used 5- and 7-minute segments and reported no time-related problems. For this reason, each phase ("story" and "unsupervised" free play) was limited to 5 minutes. In the "story phase," children were asked to tell a story using the dolls. Children were given the dressed dolls and told "I want you to use the dolls to show me a story. It can be about something you’ve done, someplace you’ve gone, or anything else you’d like to tell me. I want you to act out the story with one or two or three or all of the dolls. " To control for time exposure, stories were limited to 5 minutes. Many children’s stories were shorter than 5 minutes; they were encouraged to tell a second story with the dolls until the time limit expired. The interviewer provided prompts to the child (e.g., "what happened next?" and "what is the other doll doing now?") throughout the story phase as needed by the child.

The "unsupervised phase" consisted of the interviewer leaving the child alone in the room with the dolls and other toys for 5 minutes. The dolls were always dressed when the investigator left the room. Before leaving the room, the investigator told the child "I need to be
gone for a few minutes. Please stay here and play with the toys until I get back."

The order of the phases was counterbalanced to control for any possible order effects. Half of the children in each group participated in the "story phase" before the "unsupervised phase," the other half experienced the reverse order. The PPVT and the standardized introduction always occurred first.

After the session was complete, each child received a token gift and parents were paid and debriefed. The entire session usually lasted approximately 45 minutes.

All child-doll interactions were videotaped. Each child’s behavior with the dolls in all three phases was coded by raters blind to the subjects’ abuse status as well as to the hypotheses of the study.

**Measures**

All children completed the Peabody Picture Vocabulary Test (PPVT-R) to provide a screening of general intellectual functioning. Experimental and control children were matched on their performance on this measure to ensure equal intellectual functioning across groups.

Parental socio-economic status (SES) was determined using the Four Factor Index of Social Status (Hollingshead, 1975). To ensure a comparable level of social status between the experimental and control groups, parental SES was used as a matching variable.

The data coding system used to score the children’s behaviors was designed specifically to test for the above mentioned hypotheses. The frequency and duration of eight behavioral categories were coded. The
categories were selected based upon results from previous studies (August & Forman, 1989; Everson & Boat, 1990; Jampole & Weber, 1987) and pilot data collected for this study. The categories included aggression, aggressive verbalizations, sexual exploration, sexualized behavior (child-doll), sexualized behavior (doll-doll), sexualized behavior (child), sexual verbalizations and caregiving behaviors (See Appendix C for operational definitions).
Results

Interrater reliability

Two raters who were blind to the abuse status of the children and the hypotheses of the study coded the videotapes using the data coding system described in Appendix B. Each rater independently scored 70% of the videotapes. Interrater reliability was established on the overlapping 40% of the tapes. The reliability segments were interspersed throughout the tapes, and the raters were not informed of which segments were used to establish reliability. The following formula was used to establish interobserver reliability:

\[ \frac{\text{agreements}}{\text{agreements} + \text{disagreements}} \]

The proportion of agreement between the two observers for the frequency of behaviors was .91, indicating a high degree of reliability. The duration of behaviors was coded as an agreement if the coders were within one second of each other; the proportion of agreement for duration was .84.

Demographics

Children were matched on age, gender, intellectual functioning (as measured by the PPVT-R), and parental SES. T-test comparisons revealed no significant differences between the groups on any matching variable. (See Table 1 for mean values).
Dependent Measures

Preliminary analyses were conducted to examine the effect of phase order (story telling and unsupervised free play were counterbalanced) on the main dependent measures. No significant order effect emerged. Therefore, data were collapsed across phase order for all analyses.

Due to the small sample size of this study, a Cochran's C was done to test for Homogeneity of Variance. Results indicated that data from this sample violates the homogeneity of variance assumption (Cochran's C = 2.9748, p < .05). According to several statistical summaries (Keppel, 1982; Rogan, Keselman & Mendoza, 1979), however, Monte Carlo studies have demonstrated that the F distribution is adequately robust to withstand even flagrant violations of this assumption. Violating the homogeneity of variance assumption is especially problematic when comparing groups with different sample sizes. Since the present study is testing two groups of equal size, parametric statistics have been used despite the violation of the homogeneity of variance assumption.

Because of the low base-rates of many behaviors of interest, and to decrease the number of necessary comparisons, data from the aggression category and the aggressive verbalizations category were combined to form a variable entitled "total aggression". Likewise, the variable "total sexualization" is the combination of sexualized behavior (child-doll), sexualized behavior (doll-doll), sexualized behavior (child) and sexual verbalizations. The collapsed variables were used for all analyses except those to test hypotheses five and six, which compared the rates of sexualized behavior (child-doll) to rates of sexual exploration.
Unless indicated to the contrary, all comparisons of means described below were planned comparisons.

Hypothesis One

For each child, the number of total sexualization contacts with the dolls was entered into a 2 (status) x 3 (phase) analysis of variance. The abused children (M = 1.43) displayed more sexualized interactions with the dolls than did the nonabused children (M = .03). The main effect of status was significant [F (1, 54) = 9.716, p < .01]. The main effect of phase was also found to be significant [F (2, 54) = 3.806, p < .05]. Abused children displayed more sexualized behaviors during the introductory phase (M = 3.00) than either the storytelling phase (M = .10, p < .05) or the unsupervised phase (M = 1.20, p < .05). There was no difference between the phases for the nonabused children. (See Table 2 for mean values).

The interaction between status and phase was significant, [F (2, 54) = 3.29, p < .05]. Planned comparison t-tests revealed that the abused children displayed more sexualized behaviors during the introductory phase than did the nonabused children (p < .05). The two groups did not differ reliably on the storytelling phase (p = .33) or the unsupervised phase (p = .12). (See Figure 1).

Hypothesis Two. The duration of total sexualization behaviors of each child was entered into an analysis of variance as described above. The main effect of status was significant [F (1, 54) = 144.15, p < .01] with abused children engaging in sexualized play for longer periods of time (M = 3.37 seconds) than the nonabused children (M = 0.27 second). The main effect of phase was also significant [F (2, 54) = 63.017, p <
.05]. The abused children engaged in longer periods of sexualization with the dolls in the introductory phase ($M = 6.40$ seconds) than in either the storytelling phase ($M = 0.10$ second) or the unsupervised phase ($M = 3.60$ seconds). There was no reliable difference in the amount of time the nonabused children spent in sexualized interactions with the dolls across phases. In general, the nonabused children spent little time exhibiting these behaviors ($M = 0.27$ second). (See Table 2 for mean values).

**Hypothesis Three.** For each child, the number of behaviors coded as total aggression was entered into a 2 (status) by 3 (phase) analysis of variance. The abused children displayed more aggression toward the dolls ($M = .47$) than did the nonabused children ($M = .03$) resulting in a significant main effect of status [$F (1, 54) = 4.358, p < .05$]. The main effect of phase was not significant [$F (2, 54) = .650, p = .37$].

**Hypothesis Four.** The amount of time each child spent engaging in total aggression was entered into an analysis of variance as described above. The main effect of status was significant [$F (1, 54) = 4.770, p < .05$] with the abused children spending more time acting aggressively toward the dolls ($M = .90$ second) than the nonabused children ($M = .07$ second). The main effect of phase was not significant [$F (2, 54) = 1.980, p = .15$].

**Hypothesis Five.** For each child, the number of sexual exploratory interactions was entered into a 2 (status) X 3 (phase) analysis of variance. The main effect of status was not significant [$F (1, 54) = .03, p = .85$], nor was the main effect of phase [$F (2, 54) = 24.617, p = .
The number of child-doll sexualized behaviors exhibited by each child was entered into an analysis of variance as specified above. The main effect of status was significant \( F(1, 54) = 7.99, \ p < .01 \) with abused children demonstrating more sexualized behaviors (\( M = 1.07 \)) than the nonabused children (\( M = .03 \)). The main effect of phase was also significant \( F(2, 54) = 5.46, \ p < .01 \). The abused children displayed more sexualized behaviors with the dolls during the introductory phase (\( M = 2.70 \)) than with the storytelling phase (\( M = .10, \ p < .05 \)) or the unsupervised phase (\( M = .40, \ p < .05 \)). The latter two means did not differ reliably from one another (\( p < .36 \)). The nonabused children’s performance did not differ reliably between the phases. (See Table 3 for mean values).

The interaction between phase and status was significant \( F(2, 54) = 9.317, \ p < .05 \). The abused children exhibited more sexualized behaviors with the dolls during the introductory phase than did the nonabused children (\( M = 2.70 \) and \( M = .10 \), respectively). There was no difference between the groups during the storytelling and unsupervised phases. (See Figures 3 and 4).

Hypothesis Six. For each child, the duration of sexual exploration exhibited with the dolls was entered into an analysis of variance as described above. The main effect of status \( F(1, 54) = .05, \ p = .825 \) and the main effect of phase \( F(2, 54) = 1.96, \ p < .15 \) were not significant.
The duration of child-doll sexualization was also entered into an analysis of variance as described above. The abused children participated in sexualized acts with the dolls for longer ($M = 2.57$ seconds) than did the nonabused children ($M = .27$ second). The main effect of status was significant [$F (1, 54) = 5.55$, $p < .05$]. The main effect of phase was also significant [$F (2, 54) = 4.15$, $p < .05$]. The abused children engaged in sexualized behavior with the dolls more often during the introductory phase ($M = 5.90$ seconds) than during the storytelling phase ($M = .10$ second, $p < .05$) but not more often than during the unsupervised phase ($M = 1.70$ seconds, $p = .15$). There was no reliable difference between the storytelling phase and the unsupervised phase ($p = .30$). Likewise, there were no differences displayed by the nonabused children in the amount of time they spent interacting sexually with the dolls across the phases. (See Figures 5 and 6).

**Hypothesis Seven.** For each child, the number of caregiving behaviors was entered into a 2 (status) X 3 (phase) analysis of variance. The main effect of status was not significant [$F (1, 54) = .744$, $p = .39$]. The main effect of phase was significant [$F (2, 54) = 5.38$, $p < .01$]. Regardless of status, the children exhibited more caregiving behaviors in the introductory phase ($M = 2.55$) than during the unsupervised phase ($M = .15$, $p < .001$). The children also exhibited more caregiving behaviors during the storytelling phase ($M = 1.9$) than the unsupervised phase ($p < .05$). There was no reliable difference between the introductory phase and the storytelling phase ($p = .50$). (See Table 4 for mean values).
Hypothesis Eight. For each child, the duration of caregiving behaviors was entered into an analysis of variance as described above. The main effect of status was not significant \( F (1, 54) = .110, p = .74 \). The main effect of phase, however, was significant \( F (2, 54) = 30.12, p < .001 \). Regardless of status, the children spent more time engaged in caregiving behaviors during the introductory phase (\( M = 170.05 \) seconds) than the storytelling phase (\( M = 59.70 \) seconds, \( p < .001 \)) or the unsupervised phase (\( M = 2.85 \) seconds, \( p < .001 \)). There was also significantly more time spent exhibiting caregiving behaviors during the storytelling phase than the unsupervised phase (\( p < .05 \)).
Discussion

The primary question of interest in this research concerned the difference of ACD play patterns of abused and nonabused children. The results of this study support those reported in previous studies that sexually abused children exhibit different behaviors with the ACDs than do children with no history of sexual abuse.

Of general interest was one consistent finding that was contrary to prediction: the abused children tended to demonstrate more sexualized and aggressive doll behaviors during the introductory phase than the storytelling phase or the unsupervised phase. Significant differences were also found between the storytelling phase and the unsupervised phase for some behaviors, with more behaviors demonstrated during the storytelling phase. It is quite possible that this is an artifact of the experimental paradigm, in which the first phase was the only phase when a specific request regarding interactions with the dolls ("please choose one of the dolls to dress") was made.

Although the children were instructed to use the dolls to enact a story during the storytelling phase, many children simply held the doll on their laps while narrating a story. Most of the children chose to play with toys other than the dolls during the unsupervised phase, the only experimental phase in which the child was free to choose play material. This finding contradicts some studies (i.e., Jampole & Weber, 1987) which indicate that adult absence is a key factor in the
expression of aggression and sexual behavior toward the dolls by abused children, but is consistent with other studies which report that little attention is directed toward the dolls when other toys are available (i.e., Sivan et. al., 1988).

As predicted by the first and second hypotheses, the abused children were observed in sexualized interactions with the ACDs more often and for longer periods of time than were the nonabused children. Interestingly, the two groups were significantly different during the introductory phase, but not during the storytelling phase or the unsupervised phase. This supports the conclusion of White and colleagues (1986) that a structured interview with the dolls (such as the one outlined by Boat and Everson, 1986, and used for the present study) produces important information and should be included as part of all abuse investigations. This finding revealed that the request to "tell a story" with the dolls did not result in many demonstrations of sexual acts from either abused or nonabused children. As noted above, many of the children did not use the dolls as a tool for "showing" the story, but relied rather on verbal communication. It may be that young children associate "stories" with something that is heard rather than seen, and that different instructions would have resulted in more doll involvement in the storytelling phase for all children. The question remains, however, of how nonabused children would use the ACDs to respond to questions regarding suspicions of abuse. Although ethical standards greatly limit the extent to which this question can be tested, research conducted by Saywitz and colleagues (in press) indicate that when nonabused children are asked to recount an annual physical
examination (half the children’s physicals included genital and anal examination, half did not) with the aid of an ACD, the dolls did not improve accuracy of the children who had experienced genital touching, but did not lead to false reports from the children who had not experienced genital touching. The results of the present study are consistent with the Saywitz and Goodman findings which suggest that while the dolls may not be helpful in terms of increasing the amount of communication about an event, they do not result in an inflated rate of sexualized behaviors reported about the event.

As noted earlier, most children did not even touch the dolls during the unsupervised phase. This finding is directly contrary to the first four hypotheses of this study and to the results of previous investigations (August & Forman, 1989; Jampole & Weber, 1987). It may be, however, that this finding is a result of the methodology employed in this study. At the beginning of the unsupervised phase all the children had completed at least the introductory phase with the dolls, and some had completed the storytelling phase as well (the order of phases had no effect on the dependent measures). Perhaps the children were bored with the dolls and therefore chose other toys to play with during this phase. August and Forman (1989) controlled for this possibility by limiting the toys in the room to the ACDs only; while Jampole and Weber (1987) included other toys but increased the time of the phases so that the child would have ample time to be bored with all the toys by the end of the session. Both of these studies report an increase in sexualized behaviors by abused children when there is no adult in the room. This suggests that if other toys are present in the
room in future studies, it is advisable to devote equal amounts of time
during the session to the exploration of all toys.

As predicted by the third and fourth hypotheses, abused children
were significantly more aggressive toward the dolls than were the
nonabused children. The pattern of means across phases supports
previous findings that indicate that aggression is particularly
diagnostic when it is directed toward the undressed dolls (August &
Forman, 1989; Sivan et. al., 1988). The introductory phase was the only
phase in which the dolls were always undressed. The nonabused children
did not demonstrate a single aggressive act during this phase, while
significantly more aggression was demonstrated by the abused children.
Of particular interest in this study was the difference between the two
groups on sexual exploratory behaviors (touching/feeling the dolls’
genitals and nipples) as opposed to sexualized behaviors (eg.,
manipulation of genitals/nipples, digital penetration of vagina or anus,
 kissing/sucking/licking genitals/nipples). There was no difference
between the two groups on the amount of sexual exploration evoked by the
dolls, but the abused children displayed significantly more behaviors
coded as sexualized than did the nonabused children. This indicates
that there is a qualitative difference in the interest expressed in the
"private parts" of the dolls by abused and nonabused children that can
be operationalized and scored reliably. August and Foreman (1989) did
not attempt to subcategorize sexual behaviors, including everything from
giggling at the genitals to demonstrations of intercourse in a category
entitled "private parts reference." Jampole and Weber (1987) found
significant differences between abused and nonabused children when
comparing "nonsexual behavior" (which included digital penetration of genitals as well as exploratory touching) and "sexual behavior" (which required demonstrations of intercourse). Although the categories are somewhat disparate, the findings of the present study and those of Jampole and Weber (1987) agree that there is a difference between "normal" exploration of the dolls' private parts and the more intense sexualization demonstrated by many children who have been sexually abused.

In terms of the phase effect for sexualization, the pattern is consistent with previous results which indicate that more behaviors are observed in the introductory phase than either the storytelling phase or the unsupervised phase. Although the abused children exhibited more sexualized behaviors during the introductory phase than the unsupervised phase, there was no difference in the total length of sexualized interactions between the introductory and unsupervised phases. This indicates that although there were fewer discrete sexualized behaviors when the child was unsupervised, the behaviors that were demonstrated tended to last longer, resulting in no significant difference between the phases in total time engaged in sexualized behavior. August and Forman (1989) indicate that the abused children in their sample displayed more avoidance of the dolls while an adult was present. Perhaps the presence of the adult in the first phase in the present study had a similarly inhibitory effect on the length of time an abused child spent engaging in sexualized behaviors with the dolls. Counterbalancing the order of supervised versus unsupervised phases in future studies would provide more information about this issue.
Hypotheses seven and eight concerned the number and length of caregiving behaviors the children directed toward the ACDs. As reported, there were no differences between the groups on this dependent variable. One interpretation of this finding is that abused and nonabused children are equally compliant when asked to dress the dolls. This does not explain, however, the similarity in caregiving behaviors during phase two, when no instruction is given which directly impacts the demonstration of a dependent variable. This finding instead appears to suggest that although abused children are more aggressive and sexualized with the dolls than nonabused children, this behavior is in addition to, rather than in place of, the more nurturing behaviors typically evoked in young children when playing with dolls. This finding also suggests that the dolls elicit a variety of behaviors from young children, and are not simply a discriminative stimulus for sexual or aggressive stories.

The phase effect for caregiving behaviors mirrors the overall pattern of doll interaction in this study, with the largest amount occurring in the introductory phase, the next highest being observed in the storytelling phase, and the fewest doll interactions occurring in the unsupervised phase.

Although the results of this study support previous studies which have identified aggression and sexualization as the major differences between the interactions of abused and nonabused children with ACDs, it is important to note the extremely low rates of occurrence of these behaviors. For example, abused children spent an average of about 3.5 seconds interacting in a sexualized way with the dolls across the entire
experimental session. The average number of aggressive acts exhibited by an abused child during the session was less than 1! It is possible that stronger results would have been obtained if there was more variability in the expression of the dependent measures. As it was, this study may have been limited by the "basement effect" because some behaviors were never demonstrated. The frequencies of these types of behaviors in the August and Forman (1989) study were slightly higher (e.g., private parts reference, M = 7.73 (unsupervised) and 0.64 (storytelling)), but AODs were the only toys available to the child during the session. Jampole and Weber (1987) do not report means, instead relying on absolute present/absent ratings of the target behaviors. Future research should take into account the low occurrence rates of these behaviors when developing experimental protocols. It is possible that increasing the number or length of structured phases would address this issue while still maintaining ecological validity by including a variety of toys in the testing room.

A related question concerns the ecological validity of emphasizing behaviors which are observed so seldomly. The low base-rate of these target behaviors might raise doubts about the clinical utility of watching for demonstrations of sexual or aggressive acts with the dolls to support a suspicion of sexual abuse. Since research has indicated that these behaviors are rarely seen in general, and virtually never seen in some nonabused subgroups (Everson & Boat, 1990), this study would suggest that any demonstration of these behaviors warrants attention. It is important to remember, however, that as with any diagnostic tool, information from doll interviews is most valuable when
combined with evidence gathered in a multi-method, multi-informant
assessment in which evidence offered by different people in response to
different tests is accumulated and integrated.

It is also possible, however, that the mean values of these
behaviors are low because of some unidentified sampling error. Whitet al. (1986) report that there may be a subgroup of sexually abused
children who demonstrate avoidance of ACDs. Similarly, Jampole and
Weber (1987) note that elements of the abuse endured by a particular
child may influence his/her specific reactions to the dolls. As in the
present study, previous investigations have not included sample sizes
adequate to test for differences among children with a history of sexual
abuse. Small sample size appears to be associated with comparative
studies of doll interaction due to the difficulty of recruiting eligible
subjects. (It should be noted, however, that despite small sample
sizes, consistent differences between the groups have been reported in
published studies). Although the difficulty with subject recruitment
will probably persist, future research which addresses the possibility
of subtypes among abused children would be very helpful to further the
understanding of children's interactions with the dolls.

Although many questions remain unanswered, the results of this
study indicate that abused children do interact with ACDs in a
measurably different way than do children with no history of sexual
abuse. In general, abused children tend to engage in more aggressive
and sexualized behaviors with ACDs than nonabused children. Abused and
nonabused children demonstrate equivalent amounts of sexual exploratory
behaviors and caregiving behaviors. Both abused and nonabused children
direct little attention toward the dolls when they have the option of selecting an alternate toy. These results support previous studies which have indicated that AODs are a valid tool to be used in the differentiation of abused and nonabused children.
### TABLES

**Table 1**

**Mean Values of Matching Variables for Experimental and Control Groups**

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<tr>
<th>STATUS</th>
<th>Age in months</th>
<th>Intellectual Functioning</th>
<th>SES</th>
<th>Race</th>
<th>White</th>
<th>Black</th>
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**Note:** There were no significant differences between the groups on the matching variables.
### Table 2

**Mean Values of Total Sexualization and Aggression**

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<tr>
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<td>.00 ns</td>
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<td>(S.D.) 2.30</td>
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* p < .05

** p < .01
Table 3

Mean Values of Sexual Exploration and Child-Doll Sexualization

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* p < .05  
** p < .10
Table 4

Mean Values of Caregiving Behaviors

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Figures
Figure 1  Frequency Total Sexualization
Figure 2  Duration Total Sexualization

- Abused
- Nonabused
Figure 3  Frequency Sexual Exploration
Figure 4  Frequency Child-Doll Sexualization
Figure 5  Duration Sexual Exploration
Figure 6  Duration Child-Doll Sexualization
References


Hollingshead, A. (1975). Four factor index of social status. *Department of Sociology, Yale University, New Haven, CT.*


White, S.; Strom, G. & Santilli, G. (1986a). Clinical Protocol for interviewing preschoolers with sexually anatomically correct dolls. School of Medicine, Case Western Reserve University, Cleveland, Ohio.


Appendix A
Dear Parent:

Thank you for your interest in our research. This letter will explain in writing the information which has just been presented to you orally by the researcher. If you have any questions after you have read this letter, please ask them before signing the attached consent form.

Your child will be participating in a study designed to investigate the play patterns of young girls with anatomically correct dolls. As part of this project, your child will be videotaped while interacting with a female college student who will be supervised by Leslie Rudy, a clinical psychology graduate student and by Dr. Keith Kaufman, a licenced clinical psychologist.

After your child gets comfortable with the experimenter, she will be asked to look at and identify a number of pictures. The purpose of this is to give the researchers an idea of your child's academic development. After this, the experimenter and your child will play with some anatomically correct dolls. Your child will be asked to name the body parts that the experimenter points to on the dolls. After this is complete, your daughter will do two additional things. She will be asked to tell a story using the dolls to act out the events. She will also be left alone in the room for seven minutes at which time she can play with any toys she chooses. Your daughter will never be unsupervised in the room, as the researcher will continue to monitor her actions through the video recorder.

When the session is complete, the researcher will escort your daughter back to the waiting room, where you will be waiting. You will be paid $20.00 for your participation in the study.

If anything in this letter is unclear, or if you have questions, please ask the researcher now. If you would like to participate, please complete the attached consent form. Thank you for your time and attention.

Sincerely,

Keith L. Kaufman, Ph.D.  Leslie Rudy, B.A.
Licensed Clinical Psychologist  Clinical Graduate Student
& Assistant Professor of  The Ohio State University
Pediatrics and Psychology
The Ohio State University
CONSENT TO RESEARCH TREATMENT OR PROCEDURES

STUDY TITLE: Interactions of young children with Anatomically Correct Dolls.

General Information
1. Child’s Full Name

Date of Birth: __________/__________/________

2. Full title of study to be approved:
   Interactions of young children with Anatomically Correct Dolls.

3. Expected duration of subject’s participation in the study
   Each session is expected to last 35 - 45 minutes.

4. Principle Investigator of study:
   Keith L. Kaufman, Ph.D.

5. FDA Investigational New Drug (IND)/Investigational Device (IDE) number:
   Not applicable

6. Experimental products/procedures to be used that are NOT part of standard practice.
   Not applicable

7. Approved or accepted procedures which entail some risk to the subject.
   There is a chance that your child may be distressed by the dolls, although published research reports a very low incidence of such an occurrence. If any distress occurs, the session will be discontinued immediately. A licensed clinical psychologist will be available at all times during the study, and will provide a referral if necessary.

   Your child’s behavior in the testing room will be videorecorded so that our researchers can observe the tapes at a later time. Your daughter will be identified with a number, her name and other identifying information will not be associated with her tape. All tapes will be erased upon completion of the study.

   If a child discloses previously unreported abuse, the research team is obligated by law to notify Children’s Services.

Specific Information:
1. Purpose of the study:
   The purpose of this research is to begin the process of validating the diagnostic usefulness of Anatomically Correct Dolls. This study will compare the way previously abused
CHILDREN'S HOSPITAL RESEARCH FOUNDATION  
Columbus, Ohio 43205

CONSENT TO RESEARCH TREATMENT OR PROCEDURES

STUDY TITLE: Interactions of young children with Anatomically Correct Dolls

Purpose, cont.
children play with the dolls to the interactions of children who have never been abused. If there is a difference in the ways the children play with the dolls, results from this study will help psychologists perform better assessments and offer more effective treatment to (other) children who have been abused.

2. Appropriate Alternative Treatment:  
This is not a treatment.

3. Possible Risks:
As stated above, there is a chance that your child may become distressed by the dolls. If this occurs, the session will be stopped immediately, and your daughter will be brought to you immediately. In addition, if your child reports any abuse which has not been reported previously, we are required by law to report the case to Children's Services.

4. Possible Benefits:
You will be given a general idea of your daughter's academic development, as well as her pattern of social interactions. We will provide you with some written materials about children and families to read while you are waiting. Parents typically enjoy the opportunity to help us improve the services available for children and families who experience sexual abuse. Finally, you will be paid $20.00 for your time and travel.

5. Method used to maintain confidentiality:
To ensure confidentiality, results from this study will report only group findings, no single child's performance will be identified or analyzed. Each child will be assigned an identification number, and all data coding and analysis will utilize that number for any and all identification purposes. All videotapes will be erased upon the completion of this study.

6. Describe possible additional costs to the subjects or third-party payers that might result from participation in this study:
Costs for food, travel, parking and lodging will not be covered beyond the $20.00 subject payment. If a treatment referral would be necessary, it will also not be covered by the researchers or Children's Hospital.
CHILDREN'S HOSPITAL RESEARCH FOUNDATION
Columbus, Ohio 43205

CONSENT TO RESEARCH TREATMENT OR PROCEDURES

STUDY TITLE: Interactions of young children with Anatomically Correct Dolls.

INFORMATIVE STATEMENTS AND SIGNATURES

STATEMENT OF CONFIDENTIALITY: I understand that all records will be maintained in a confidential manner. The records will be available only to the investigator and, when appropriate to the US Food and Drug Administration and Children's Services. They will be revealed to other people only if personal identifiers have been removed.

COMPENSATION STATEMENT: In the unlikely event of injury resulting from participation in this study, I understand that immediate medical treatment is available at Children's Hospital. I also understand that costs of such treatment will be at my expense and that financial compensation is not available. For further explanations and for any questions concerning your rights or possible research-related injuries, please contact the Director of Risk management at (614) 461-2557.

I have had the opportunity to ask questions, and the researchers have answered them to my full satisfaction. Any further questions I may have in regard to this study will be answered by Dr. Keith Kaufman or Leslie Rudy (461-2100).

Principal Investigator: Keith L. Kaufman, Ph.D.
Phone Number: (614) 461-2100.

Further, I understand that both my child and I are free to withdraw our consent at any time, and that the session will be stopped immediately if we decide to do so. If I do so, I know that no negative consequences will result from my request. I know that my consent does not prevent me from exercising my legal rights.

Finally, I acknowledge that I have read and fully understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

Parent's Signature: ___________________________ Date ______

Witness: ________________________________

Principal Investigator or authorized Representative: ____________________________

I certify that I have explained this research, its purposes, and procedures to the subject or his/her representative or both before requesting the subject or representative to sign it.

Signed ____________________________

Page 3 of 3
Appendix B
Appendix B
Standardized Doll Introduction


B. Introducing the dolls

Once you feel that the child is fairly comfortable and you have assessed the child’s understanding of key concepts, it is time to direct the child’s attention to the dolls if he/she has not already discovered them. In such a case, put the other toys away if they are distracting and say to the child, "Let’s look at the dolls now," as you move over next to the dolls. Once the child’s attention is on the dolls, direct the child to choose one of them "to look at and touch." In order to avoid leading the child, be sure that the child, rather than you, selects the doll. In addition, do not give the name of the possible perpetrator to a doll prior to the child’s identifying the doll with that person’s name.

Comments like "These are my special dolls," "Let’s play," "Let’s pretend," "those dolls look just like real people," and "These dolls have all their parts," are being questioned in court as leading and influencing the child. We do not know the effects of words like "special" or "play" in creating a particular mind set in young children. They may also be the same words the perpetrator used in coaxing the child. It is better to avoid such statements and instead limit yourself to phrases like "look at" and "touch."

C. Doll Identification

Starting with the doll the child first picks up, ask:
"Is this a girl or a boy doll?" (regardless of whether the child has selected an adult doll).
"How do you know it is a ______ doll?"
"What is the doll’s name?"
Accept any answer. You do not need to correct a miscalculation.

D. Body/Functions Inventory

With the doll still dressed, assess the child’s knowledge of several visible body parts and their functions by asking:
"What is this called?"
"What do we do with our ______?" (using child’s words)
Ask about the hair, eyes, mouth, ears, hands, and fingers. Accept any answer. If the child does not respond to your questions or says that he/she doesn’t know, go on to the next question or body part. Some gentle prodding can be used with a shy child, but if the child remains unresponsive, continue with the next interview as if the child answered correctly.

Next, guide the child in undressing the doll in stages: "Let’s take off the doll’s shirt." Point to the nipples, breasts (in adult female), and belly button, and ask the same two questions
above.

Help the child in removing the doll’s remaining clothing and assess the child’s knowledge of the *penis, vagina, anus, legs,* and *feet.* Record the child’s names for the sexual parts and use these terms throughout the interview. At least three dolls should be undressed in this way — a boy or girl doll (pick the same gender as the child), and an adult male and female doll.
Appendix C
Appendix C

Data Coding System

1. Aggression
Hit/stab/poke doll (With hands)
Squeeze/twist/pull any part of doll (With hands)
Kick/step on doll (With feet)
Slam/throw/bounce doll (Through the air)
Pound/hit/hammer doll (With object)

2. Sexual Exploration
Touch/feel doll’s genitals
Touch/feel doll’s breasts/nipples

3. Sexualized Behavior: Child-Doll
Touch/manipulate doll’s genitals
Lick/kiss/suck doll’s genitals or nipples
(Child) genital-(doll) genital contact
(Child) genital-(doll) oral contact
(Child) oral-(doll) genital contact
Child inserts object or body part (eg., child’s finger) into
doll’s vagina or anus

4. Sexualized Behavior: Doll-Doll
Genital-genital contact (including genital-anal)
Oral-genital contact (including oral-anal)
Digital manipulation/penetration (genital or anal)

5. Sexualized Behavior: Child
Rubbing genital area with hand
Rubbing genital area with object

6. Aggressive Verbalizations
Any statement made by the child toward the dolls that has
aggressive content.

7. Sexual Verbalizations
Any statement made by the child toward the dolls that has
sexual content or is referring to the genitals/breasts/nipples
of the dolls.

8. Caregiving Behaviors
"Feeding" doll
Dressing/undressing doll
Rocking/hugging doll
Singing/speaking to doll (not ABOUT the doll)