The Use of Anatomical Dolls as a Demonstration Aid in Child Sexual Abuse Interviews: A Study of Forensic Interviewers' Perceptions

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The Use of Anatomical Dolls as a Demonstration Aid in Child Sexual Abuse Interviews: A Study of Forensic Interviewers' Perceptions.

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Abstract

Given that most cases of child sexual abuse lack external corroborating evidence, children's verbal accounts of their experiences are of paramount importance to investigators. Forensic interviewers are charged with interviewing child victims and oftentimes use anatomical dolls. Yet, research on dolls has not caught up to practice in the field. Using a multimethod approach, this study presents new evidence on the function and value of using anatomical dolls as a demonstration aid. With a standardized protocol, forensic interviewers from an urban Midwestern Children's Advocacy Center evaluated the purpose and value of anatomical dolls in a forensic setting. Relationships between child characteristics and interviewer-perceived value were examined using descriptive, bivariate findings and case examples. Using a large and diverse sample of children, the study found that forensic interviewers perceived children as able and willing to use dolls for purposes of clarification, consistency, distancing, and communication. Results are discussed in the context of real-world applications and best practices and provide an evidence-based foundation for future research.

Keywords

sexual abuse; interviewing techniques; children; disclosure; anatomical dolls

While child sexual abuse (CSA) is widely recognized as a social problem, many children fear disclosing the abuse to others (e.g., Faller, Cordisco-Steele, & Nelson-Gardell, this issue; Fontes & Plummer, this issue; [49]; [64], [65]; Tishelman, Meyer, Haney, & McLeod, this issue). Children's abilities to verbalize their experiences are often compromised by feelings of shame, stigma, embarrassment, culpability, perpetrator threats, or family pressure not to tell (e.g., [28]; [33]; [56]; [57]). Child victims may also have cognitive, social, developmental, physical, or language limitations that further hamper their ability or willingness to disclose sexual abuse (SA) ([37]; [52]; [64]). CSA investigations often involve a number of professional agencies, including law enforcement, child protection services (CPS), and treatment services (Kuehnle & Connell, this issue). In turn, investigations can be exhausting and stressful for children and their families.

Beginning in the 1980s, many professionals and child advocates voiced their concerns that traditional investigative practices might further traumatize child victims of SA (e.g., see [67]). Children's Advocacy Centers (CACs) developed in an effort to coordinate multiple agencies and improve methods for interviewing children. Nationwide, CACs implemented a number of investigative reforms supported by the National Children's Alliance (NCA) and the American Professional Society on the Abuse of Children (APSAC) (for reviews of best practices, see [20], and [40]). Professional training and practice is generally standardized among over 600 accredited CACs in the United States ([20]).

Given the significance and complexity of the forensic interview process, professionals are eager for evidence on best practices. The present study responds to recent calls for research on investigative practices in CAC settings (e.g., [20]; [27]; [30], 2007b; [40]). Jones and colleagues reviewed a number of innovative methods for interviewing children and noted that "child abuse professionals now need to educate themselves on the research behind these developments" (p. 255). Despite widespread training and utilization, the field lacks empirical data on how and why practitioners use anatomical dolls as demonstration aids in interviews with children. Furthermore, there are no studies of interviewer perceptions of the value of anatomical dolls to help clarify and corroborate verbal statements. The purpose of this study was to have experienced forensic interviewers who have been trained in a standardized protocol document the function and value of using anatomical dolls with child victims of SA. As such, this study is an attempt to clarify practitioner use of anatomical dolls based on CAC purposes and practices and, for the first time, examine interviewer perceived value of the use of dolls as demonstration aids in real-world forensic interviews. To do so, four demonstration aid functions practiced by forensic interviewers were examined: clarification, consistency, distancing, and
The four functions help to facilitate descriptive information, clarify verbal statements, and provide crucial internal corroborating information that augments children's verbal disclosures. Using a large and diverse sample of children, this study offers practitioners information on best practices and provides researchers with a solid foundation for future research.

THE USE OF ANATOMICAL DOLLS IN INVESTIGATIVE INTERVIEWS

Controversy over the use of anatomical dolls with children during investigative interviews began in the early 1980s. At that time, it was commonly but inaccurately thought that anatomical dolls were used as a diagnostic test for SA ([26]; [45]; [46]; [47]; [59]), and much of the clinical research focused on interviewer question types and suggestibility as well as the amount and accuracy of details provided by children (e.g., [26], 2002; [34]; [68]). Results on whether anatomical dolls are useful tools for conducting investigative interviews with children were mixed. Some research indicated that dolls were suggestive and may result in false reports of abuse (e.g., [43]; [63]), while other studies reported that anatomical dolls were effective for improving the content of children's responses to questions about touching (see reviews by [26]; [29]). Researchers continue to disagree about the function and value of anatomical dolls, although "the assertion that anatomical dolls cause nonabused children to state they have been abused is not supported by the existing research" ([31], p. 128).

Methodological inconsistencies (e.g., sample size and diversity, standardization of practice and protocol, analogue versus field studies, measurements of function and value) also affect studies that both support and question the use of anatomical dolls in investigative interviews (for a review, see [31]). A number of studies failed to address evaluation of young children's abilities to properly use dolls (commonly termed representational shift) or whether interviewers told children that anatomical dolls are not for "play," "pretend," or "make believe" ([11]; [24]; [41]; [48]; [50]; [51]; [66]). Other studies confounded the use of dolls with the use of additional interview aids, props, and/or leading questions (e.g., [12]; [13]; [34]; [35]; [36]; [60]; [62]). While past research is pioneering, investigative interviewers should be cautious when applying these findings in practice for a number of reasons.

The child abuse field has matured beyond much of the research that investigated doll techniques in conflict with currently accepted practices. By the mid-1990s, standardized protocols guiding anatomical doll practice were widely disseminated and employed by SA investigative interviewers ([1]; [2]; [6]; [7]; [9]; [15]; [16]; [21]; [29]; [42]). Subsequently, research addressed when to introduce anatomical dolls to children during interviews, age guidelines for using the dolls, the type and appearance of the dolls, and the function served by using anatomical dolls (e.g., [12]; [14]; [27]; [34]; [60]; [62]). Guidelines for the use of anatomical dolls continue to improve the standardization of practice ([2], [3], [4]; [16]; [27]; [31]). Still, the various functions of dolls have yet to be empirically evaluated despite routine national training and increased consistency across CACs in the United States.

THE FUNCTION AND MEASUREMENT OF ANATOMICAL DOLLS

In the past, researchers typically examined the value of anatomical dolls based solely on the number of new added verbal details provided by child victims (e.g., [61]; [66]). Currently, forensic interviewers use dolls for reasons beyond added verbal detail. In practice, anatomical dolls are often used as an icebreaker, an anatomical model, a demonstration aid, a memory stimulus, and a screening tool (see [3], [4]; [17], [18]; [25], 1997; [29], 2007b; Holmes, 2002). [27]) addressed this gap between research and practice and concluded that much past research "has failed to make proper distinctions between different doll functions in the interview process ... [and] between acceptable and unacceptable interview practice with the dolls" (p. 384). Although not systematically evaluated, using dolls as a demonstration aid has received wide practitioner support ([31]), and [3] guidelines stipulate: "The dolls can serve as props to enable children to 'show' rather than 'tell' what
happened, especially when limited verbal skills or emotional issues, such as fear of telling or embarrassment about discussing sexual activities, interfere with direct verbal description" (pp. 4–5). When utilized as a demonstration aid, anatomical dolls primarily function to clarify, facilitate, and/or corroborate (internal consistency) children's SA disclosures ([17], [18]; [29], [31]). However, empirical research generally focuses on the use of dolls as a memory stimulus and measures "added value" as new verbal details rather than assessing the variety of practice in the field. The disconnect between research, measurement, and practice is clear; when anatomical dolls are used as a demonstration aid, "One would ... not expect the use of dolls to elicit more information than verbal communication only, but rather to elicit additional, clarifying, and corroborating information" ([31], p. 124). Examining anatomical dolls for a variety of functions, specifically in SA investigative interviews, must be a priority for future research on anatomical dolls.

STRATEGIES FOR USING ANATOMICAL DOLLS AS A DEMONSTRATION AID

Effectively using anatomical dolls as a demonstration aid requires training on when it is appropriate to introduce the dolls and how to provide children with specific instructions about their use. While guidelines for the use of anatomical dolls in forensic interviews reflect current knowledge in the field, there is no single correct way to interview a suspected child victim of SA; state statutes, local practice, and the specifics of a case may dictate modifications ([3], [4]). Professionals urge interviewers to wait for a child's verbal disclosure before introducing dolls (e.g., [3]; [29], 2007b; [39]; [59]), yet this protocol is not mandated for all practitioners ([3]; [53]; [69]) and there is variation in practice ([10]; [66]).

When introducing young children to anatomical dolls, forensic interviewers need to establish a mapping relationship between the doll and the child. For a child to effectively use an anatomical doll as a demonstration aid, the child must have the ability to use the doll as a representation of one's own body. This cognitive skill is referred to as representational capacity ([54]), representation of self ([38]), symbolic representation ([22]), or representational shift ([39]). By four years of age, most children typically have the ability to shift representation from themselves to an object ([24]; [38]). The use of anatomical dolls with children younger than four is thus cautioned ([3]; [23]; [26]; [48]; [51]; [54]). Choosing a doll that most resembles the child, informing the child of the symbolic use of the doll, and providing a thorough introduction of the doll, including body part identification, are all vital steps in improving a child's ability to use the dolls as a demonstration aid ([23]). Past research did not comment on tests for representational shift ability in samples of children under four years of age ([11]; [13], [12]; [24]; [34]; [35]; [36]; [41]; [48]; [50]; [51]; [66]). If the children in these studies were unable to use anatomical dolls due to representational shift limitations, illustrations of children's general use of the dolls may be erroneous.

In addition, many practitioners insist that children should be provided with doll instructions that avoid words such as pretend, imagine, or make believe ([3]; [8]; [32]). Concerns about children playing with the dolls are compounded by the simultaneous use of other props (e.g., toy stethoscopes, puppets, teacups, ribbons) and/or misleading (or suggestive) questions. [27]) argued that professionals should avoid the use of props in conjunction with anatomical dolls, yet a number of studies combined anatomical dolls with other interview aids (e.g., [35]; [36]), and still others combined the use of dolls with both interview aids and leading questions (e.g., [13]; [14]; [34]; [60]; [62]).

When properly used, anatomical dolls can be a valuable interview aid. [3] recommends the child be told that the dolls are not for play but rather are for showing what happened. Once the child has made a verbal statement ([3]) or has exhausted verbal recall ([29], [31]), the dolls can then be used as demonstration aids for the purposes of clarification, consistency, distancing, and communication (e.g., [16], [18]; [31]). These four distinct functions are commonly practiced and nationally trained (see [5]) Finding Words training; [18]; and [55]).
Using a standardized protocol, forensic interviewers use anatomical dolls as clarification of information previously provided by a child during her verbal disclosure ([2], [4]; [39]; [18]; [29]; [54]; [59]). For instance, an interviewer may need to clarify a child's vocabulary or terminology for the type of touching or sexual act, body parts, body position, and/or clothing. Anatomical dolls can also function to demonstrate a child's consistency during the forensic interview. This function was motivated by research that indicates anatomical dolls can provide both an additional means of communication of SA and internal consistency between a child's verbal statements and doll demonstrations ([3]; [17]; [29]; [51]; [59]). Providing a child the opportunity to first "tell" and then "show" may bolster a child's credibility, especially for purposes of prosecution. As Poole and Lamb noted, "The dolls serve as props ... to demonstrate what happened after the child has given a verbal description ... to function as a separate modality for assessing consistency of a child's disclosure" (p. 191).

Anatomical dolls can also help children gain distance from their own bodies ([18]). Distancing is useful for children who attempt to communicate SA details to interviewers using their own body parts. Thus, the dolls provide children an alternative to demonstrating on their own bodies during interviews. [39] noted, "[T]he consensus of most professionals [is] that it is not in the child's best interest to remove their own clothing in order to demonstrate [sexual abuse details]" (p. 2) due to inherent implications of further exploitation. Anatomical dolls also function as means of communication, especially for children who cannot or will not fully verbalized their SA experiences ([3]; [17]; [23]; [29]; [45]; [54]). Interviewers often provide dolls for children who have language and/or emotional barriers to aid further communication of his abuse experience. Certainly, given the reporting and disclosure barriers faced by child victims (e.g., [52]; [64], [65]) anatomical dolls function to help children continue to communicate in a way that might be more comfortable for them ([16], [17]; [29]; [39]; [54]).

CACs were developed to improve on investigative methods, practices, and forensic interviewing of child abuse victims. This study aims to incorporate ongoing research into CSA investigative interviews by systematically examining the use of anatomical dolls as a demonstration aid in a real-world forensic interview setting. Best practices in investigations need to be expanded and evaluated as CAC guidelines are increasingly standardized and disseminated across the country.

**THE PRESENT STUDY**

The lack of scope in research on the use of dolls as a demonstration aid contributes to the critical gap between best practices and empirical evidence. To begin to fill this gap, the current study addressed the following question: For what reasons and under what conditions do forensic interviewers perceive anatomical dolls valuable as demonstration aids for child victims of SA?

This study explored the relationship between doll function and value. The functions of clarification, consistency, distancing, and communication were examined. These four distinct functions are commonly practiced and have been cited in professional work and training as valuable to SA forensic investigations but remain largely unexamined. In order to capture doll functions unidentified in current practice, an "other" category was included. This study employed a diverse sample to explore interviewers' assessments of children's use of dolls in SA forensic interviews. In line with [31] review, it was expected that interviewers would perceive anatomical dolls valuable for clarifying and internal corroborating information to augment children's verbal disclosures in the forensic interview. In order to explore how and under what conditions the dolls were perceived as valuable, associations between demographic and case characteristics and several outcome measures were investigated, including (a) interviewers' reason for introducing anatomical dolls to children (function) and (b) interviewer assessment of children's use of anatomical dolls in SA forensic interviews (value).
METHODS

Data Description and Participants
Data for this study came from a nonprofit CAC located in an urban Midwest community and included 500 videotaped forensic interviews of children seen for reported SA from 2003 to 2004. The CAC provides investigative interviews and medical examinations for children who may have been sexually or physically abused or witnessed a violent crime. Only cases of CSA were included in the study; cases of physical abuse, witness to violent crime, and cases involving vulnerable adult victims were excluded from the study sample. Children were referred to the CAC by law enforcement or child protection investigators, and in all cases there was substantial reason to believe that SA had taken place (e.g., child’s verbal disclosure, reports by witnesses, medical evidence, or perpetrator confessions).

CAC forensic interviews occurred between one child and one forensic interviewer. The CAC videotaped the forensic interviews using audiovisual equipment located in the room, and members of the multidisciplinary team observed the interviews through closed-circuit television. The CAC interviewer was provided a copy of the videotape at the end of the interview at which point she wrote a synopsis of the interview. Case files included information on child and alleged offender demographics and case characteristics, CAC assessment, and recommendations. For the present study, forensic interviewers (N = 10) completed a written questionnaire (N = 500) for every SA interview they conducted over the two-year calendar period (see Appendix for questionnaire). The ten forensic interviewers were female and included nine Caucasian interviewers and one Asian interviewer. The interviewers had an average of 7.6 years of forensic interviewing experience (range: 2–20 years). Collectively, forensic interviewers in this study had experience interviewing over 8,000 children. All participants had received extensive CAC training regarding the use of anatomical dolls according to [3] Practice Guidelines.

This study was reviewed and approved by the CAC’s board of directors. All data were collected in-house and interviewer consent was obtained. Human subjects protocol and social scientific data protections were taken to assure confidentiality and anonymity for children, interviewers, family members, friends, and alleged offenders. Confidentiality procedures included assignment of unique code numbers accessible only to study authors through a password-protected computer. Data were stored on a personal computer, and procedures were put in place to protect against linking case files with study information.

Interview Setting and Procedures
Forensic Interview Protocol
The forensic interviewers utilized the CornerHouse RATAC1 semistructured forensic interview protocol ([17]). Components of the interview protocol included some or all of the following fitting with a child’s developmental and cognitive capabilities: the utilization of drawings to establish rapport with the child, body part identification using anatomical diagrams, and/or allowing the child to communicate about touches. Practices and protocols used by forensic interviewers at the CAC were not changed or modified for the purposes of the present study. If a child verbally disclosed SA, an interviewer elicited the details of the child’s reported experiences. Following a child’s verbal disclosure, an interviewer could choose to introduce anatomical dolls for any of the four accepted functions or for an "other" reason. Anatomical dolls were not used in conjunction with other props.

Anatomical Dolls and Their Introduction
Twenty-four Teach-a-Bodies brand anatomical dolls were made available to the forensic interviewers during each interview.2 The dolls were kept inside a covered wooden chest in the interview room and were not readily visible or accessible to children. If a child verbally disclosed SA, forensic interviewers could introduce anatomical dolls at their discretion. Anatomical dolls were not introduced if a child did not first verbally disclose SA. Interviewers made representational shift assessments with all children at or below preschool age or abilities
including the child's ability to use the doll as a representation of his or her own body and body part identification. Furthermore, interviewers did not introduce dolls when children demonstrated inability or unwillingness to utilize the dolls given their overall engagement in the interview process or with the dolls themselves. Upon introduction of anatomical dolls, interviewers routinely instructed children that the dolls were neither toys nor for play but rather to "show" their experiences.

Anatomical doll introduction consisted of several steps. Together, the child and interviewer chose the appropriate dolls for demonstration based on age, gender, and race/ethnicity. Following doll selection, and as part of representational shift assessment, the child and the interviewer established a common language for the names of body parts. The interviewer then prompted the child to show what the child previously verbally reported using the anatomical dolls. Following CAC protocol, forensic interviewers used age-appropriate, nonleading questions and follow-up verbal clarification, such as "What are you showing me now?" If at any time the child's level of comfort using the anatomical dolls faded or the child appeared to use the dolls for something other than demonstration (e.g., play), the interviewer removed the dolls and placed them out of the child's reach. After the child completed demonstration of his or her reported experiences, the dolls were placed back in the storage box.

Interviewers were instructed to immediately complete questionnaires following every forensic interview that solely involved reported SA. A case was inapplicable to the study if it was suspected that the child experienced or had been exposed to multiple forms of abuse. The questionnaire elicited information on the child's demographics, case characteristics, and the interviewer's use or nonuse of anatomical dolls. Forensic interviewers completed 500 written questionnaires over approximately a two-year period.

Measures

Independent Variables: Demographics and Case Characteristics
Information on demographics and case characteristics included the child's age, gender, race/ethnicity, disability, type of SA, and the child's relationship to the perpetrator (see Table 1). Children ranged in age from 2 to 17 years ($M = 7.8$ years, $SD = 5.0$). Eighty-two percent of the children in this study had no reported disability; the remaining children either were diagnosed with a developmental disability (5%), a mental health diagnosis (2%), or a type of disability that remained unspecified at intake (11%). Over half of alleged perpetrators were intrafamilial and over one-third were extrafamilial (including parents' former partners, babysitters, teachers, or other acquaintances); only one child reported that the alleged perpetrator was a stranger.

| TABLE 1 Sample Demographic and Case Characteristics |
|-----------------|-----------------|
| Variable        | Sample (N = 500) |
| Gender          |                 |
| Female          | 74%             |
| Male            | 26%             |
| Race/ethnicity  |                 |
| Caucasian       | 47%             |
| African American| 30%             |
| Multiracial     | 8%              |
| Hispanic/Latino | 7%              |
| Native American | 4%              |
| Asian           | 3%              |
| Age             |                 |
| Preschool (2–4) | 39%             |
| School-age (5–12)| 48%            |
| Adolescent (13–17)| 13%           |
Perpetrator Relationship

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrafamilial</td>
<td>56%</td>
</tr>
<tr>
<td>Extrafamilial</td>
<td>39%</td>
</tr>
<tr>
<td>Unknown</td>
<td>5%</td>
</tr>
</tbody>
</table>

Type of abuse

<table>
<thead>
<tr>
<th>Type of Abuse</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetration</td>
<td>36%</td>
</tr>
<tr>
<td>Oral contact</td>
<td>25%</td>
</tr>
<tr>
<td>Genital contact</td>
<td>27%</td>
</tr>
<tr>
<td>Exposure</td>
<td>12%</td>
</tr>
</tbody>
</table>

The sample of children described in the present study closely approximates the CAC’s general SA case population. During the study years 2003 and 2004, 72% of the total CAC SA population was female and 28% was male. Regarding race/ethnicity, 42% were Caucasian, 31% were African American, and 27% were identified as "other." Twenty-nine percent of the population was preschool age, 58% was school age, and 13% were adolescents. Approximately 60% of the alleged perpetrators were intrafamilial and 40% were extrafamilial. Seventy percent of the children in the 2003–2004 CAC SA case population had no reported disability.

Outcome Measures: The Function and Value of Anatomical Dolls as Demonstration Aids

According to the CAC protocol, it may not always be appropriate to introduce anatomical dolls during forensic interviews. When dolls were not introduced, interviewers were instructed to provide a written rationale as to why. When anatomical dolls were introduced to children, forensic interviewers indicated which of the five measures prompted them to introduce the dolls. Referred to as interviewer prompts, this outcome measure assessed interviewer initial reason(s) to introduce the dolls to a child during the forensic interview (function). Because anatomical dolls can be used as a demonstration aid for multiple functions, interviewers also indicated the primary prompt for introducing the dolls. The outcome measure, interviewer perceived value, assessed how and under what conditions interviewers perceived anatomical dolls were valuable for children during the forensic interviews according to the five identified functions. Interviewers were also instructed to provide written narratives further explaining why they perceived dolls were effective when interviewing child victims of SA.

Table 2 provides definitions of demonstration aid functions given to forensic interviewers based on [3] and [17] practice guidelines. An anatomical doll can be used for purposes of clarification ([3]; [17]; [29]; [54]; [59]), consistency ([3]; [17]; [29]; [51]; [59]), distancing ([17]), and communication ([3]; [17]; [23]; [29]; [45]; [54]). Acknowledging that anatomical dolls may be helpful for child victims of abuse beyond the four distinct functions, an other category was included.
### Table 2: Definitions and Measurements for the Function and Value of Using Anatomical Dolls as a Demonstration Aid

<table>
<thead>
<tr>
<th>Function</th>
<th>Definition</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarification</td>
<td>An attempt to understand information that the child provided in all or part of the verbal disclosure. For example, a child may have stated, &quot;He pinched my pee pee,&quot; and the interviewer chooses to introduce the dolls to clarify what &quot;pinched&quot; means.</td>
<td>Clarification of: clothing details; sexual contact/nonsexual contact, including clarification of children's vocabulary for contact (e.g., &quot;humping&quot;); body positions; body-part details such as children's vocabulary for body parts; and penetration, specifically.</td>
</tr>
<tr>
<td>Consistency</td>
<td>Includes offering a child the opportunity to demonstrate consistency within what the child has already communicated to the interviewer. For example, a child might point to the buttocks on the diagram as a place he was touched. The interviewer offers the doll as another opportunity for the child to show what he has reported. This prompt of consistency is typically used with children who are age-appropriately limited in their abilities to verbally describe their experiences.</td>
<td>Consistency of verbal disclosure in three situations: (a) young age of child, (b) limited verbal abilities of child, and (c) child had indicated a body part that he had previously verbalized.</td>
</tr>
<tr>
<td>Distancing</td>
<td>Allows the child to distance from his or her own body, including a child who begins to demonstrate actions with his or her own body. For example, an interviewer asks a child where she was touched and the child says, &quot;I'll show you,&quot; at which point she pulls open the snap on her jeans. An interviewer may choose to introduce the dolls so that the child can show on something other than her own body.</td>
<td>Distancing includes a child's shift from his or her own body to the anatomical doll representing the child.</td>
</tr>
<tr>
<td>Communication</td>
<td>Allows the child to communicate what cannot or will not be said. The inability to tell or give details may be due to limited verbal or cognitive abilities, a fear of telling, embarrassment, and so forth. For example, a child might say, &quot;It's too hard to talk about it.&quot; An interviewer may introduce the dolls, after a verbal disclosure, to alleviate some of the difficulty by allowing the child to show what happened.</td>
<td>Increased communication in response to the following situation(s): child's general tentativeness, unwillingness to provide details due to emotional affect, or the lack of language skills either because of very young age or lack of interview engagement.</td>
</tr>
<tr>
<td>Other</td>
<td>Any other reason that could not be adequately categorized by the identified four functions.</td>
<td>Effective for the reason identified in the other category.</td>
</tr>
</tbody>
</table>
To calculate the joint-probability of agreement, 10% \((n = 50\) cases\) of videotaped interviews from the sample were randomly selected and independently coded by a trained, nonemployee of the CAC. The rater was blind to forensic interviewer ratings. The rater coded for clarification, consistency, distancing, and communication and calculated interrater and item reliability. Of the 50 interviews coded, 70\% \((n = 35)\) involved the introduction of anatomical dolls, and 30\% \((n = 15)\) did not involve doll use. There was 100\% reliability between blind rater and forensic interviews regarding whether an anatomical doll was properly introduced in an interview. This finding was not surprising based on the strict CAC forensic interview protocol that dictates anatomical doll introduction only after a child's verbal disclosure of abuse. The interrater reliability between the blind rater and the CAC interviewers was 95\% for all possible prompting reasons to introduce anatomical dolls, 82\% for the primary prompting reason, and 95\% for effectiveness measurements.

Using the criterion in Table 2, authors also independently coded the questionnaires \((N = 500)\) completed by CAC interviewers to ensure the four functions were valid and reliable measures. Each author compared interviewers' prompting reasons to introduce anatomical dolls to children with interviewers' written narratives. The interrater validity between authors and the CAC interviewers was 99\% for clarification as a prompting reason to introduce anatomical dolls, 95\% for consistency and communication measures, and 90\% for distancing.

**Data Analysis**

Basic descriptive data was compiled on the following outcome measures: (a) interviewer primary prompts for the introduction of anatomical dolls in forensic interviews; (b) interviewer perceived value of the use of dolls as demonstration aids; and (c) concordance between interviewer primary prompt and perceived value. As a nonparametric discrete variable, the relationships between demographic and case characteristics and interviewer perceived value of anatomical dolls were explored using Pearson's chi-square \((\chi^2)\). Being an exploratory study, preliminary findings rest on descriptive, bivariate findings and are generally suggestive. To provide a more complete picture of how forensic interviewers use anatomical dolls as demonstration aids in SA interviews, interviewers' written narratives and case examples are included.

**RESULTS**

**Overall Use of Anatomical Dolls in Forensic Interviews**

Of the 500 forensic SA interviews with children, interviewers introduced anatomical dolls in 49\% \((n = 244)\) of cases. Of the interviews in which dolls were not introduced, 64\% \((n = 164)\) of the children did not verbally disclose SA. In 72 (28\%) of these cases, interviewers found the child's verbal statements sufficiently detailed without the use of anatomical dolls. In 14 cases (5\%), the child interviewed was preschool age and interviewers assessed the child as unable to make the representational shift necessary to use anatomical dolls. In the remaining six cases, interviewers provided other reasons for not introducing anatomical dolls, such as complex interview issues or because the child displayed limited interest in the interview process.

**The Function of Anatomical Dolls as Demonstration Aids in Forensic Interviews**

While interviewers frequently introduced anatomical dolls for more than one function, clarification was the most frequently reported primary prompt (65\%; \(n = 158\) cases). Consistency was the primary prompt for 30 cases (12\%), while interviewers reported distancing as the primary prompt for nine cases (4\%). Introducing dolls for communication purposes was the primary prompt in 44 of cases (18\%), and "other" was noted as the primary prompt for three cases (1\%). In order to explore associations between demographic and case characteristics and interviewers' primary prompt for introducing anatomical dolls, cross-tabulations were calculated within and across categories. When compared within categories, clarification was often interviewers' primary prompt for SA cases when the victim was female (77\%), Caucasian (43\%), and school-age (52\%) and when the case involved penetration (41\%) by an alleged intrafamilial offender (93\%). In cases of male SA,
clarification was the primary prompt in 23% of cases in which dolls were introduced. When compared across primary prompt categories (see Table 3), dolls were more frequently introduced for purposes of clarification in male compared to female cases of SA (71% and 64% respectively); interviewers more often introduced female children to dolls for consistency compared to male children (14% and 8% respectively).

**TABLE 3 Demographic and Case Characteristics Associated with Interviewers' Primary Prompt for the Introduction of Anatomical Dolls in Forensic Interviews**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Clarification (n = 158)</th>
<th>Consistency (n = 30)</th>
<th>Distancing (n = 9)</th>
<th>Communication (n = 44)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (n = 241)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>64% (121)</td>
<td>14% (26)</td>
<td>4% (8)</td>
<td>18% (34)</td>
</tr>
<tr>
<td>Male</td>
<td>71% (37)</td>
<td>8% (4)</td>
<td>2% (1)</td>
<td>19% (10)</td>
</tr>
<tr>
<td>Race/ethnicity (n = 240)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>66% (67)</td>
<td>15% (15)</td>
<td>4% (4)</td>
<td>15% (15)</td>
</tr>
<tr>
<td>African American</td>
<td>64% (47)</td>
<td>10% (7)</td>
<td>4% (3)</td>
<td>22% (16)</td>
</tr>
<tr>
<td>Other</td>
<td>65% (43)</td>
<td>12% (8)</td>
<td>3% (2)</td>
<td>20% (13)</td>
</tr>
<tr>
<td>Age (n = 241)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preschool (2–4)</td>
<td>60% (57)</td>
<td>20% (19)</td>
<td>2% (2)</td>
<td>18% (17)</td>
</tr>
<tr>
<td>School-age (5–12)</td>
<td>67% (82)</td>
<td>8% (10)</td>
<td>5% (6)</td>
<td>20% (25)</td>
</tr>
<tr>
<td>Adolescent (13–17)</td>
<td>83% (19)</td>
<td>4% (1)</td>
<td>4% (1)</td>
<td>9% (2)</td>
</tr>
<tr>
<td>Perpetrator Relationship (n = 229)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrafamilial</td>
<td>65% (138)</td>
<td>13% (28)</td>
<td>3% (7)</td>
<td>17% (35)</td>
</tr>
<tr>
<td>Extrafamilial</td>
<td>47% (10)</td>
<td>10% (2)</td>
<td>10% (2)</td>
<td>33% (7)</td>
</tr>
<tr>
<td>Type of abuse (n = 241)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penetration</td>
<td>59% (64)</td>
<td>15% (16)</td>
<td>3% (3)</td>
<td>23% (25)</td>
</tr>
<tr>
<td>Oral contact</td>
<td>76% (28)</td>
<td>13% (4)</td>
<td>2% (1)</td>
<td>11% (4)</td>
</tr>
<tr>
<td>Genital contact</td>
<td>69% (56)</td>
<td>11% (9)</td>
<td>4% (3)</td>
<td>16% (13)</td>
</tr>
<tr>
<td>Exposure</td>
<td>67% (10)</td>
<td>7% (1)</td>
<td>13% (2)</td>
<td>13% (2)</td>
</tr>
</tbody>
</table>

Note: Descriptive information provided does not include three cases in the "other" category across all variables. Sample sizes vary due to missing data.
*Other includes multiracial, Native American, Hispanic/Latino, and Asian.

Regarding race/ethnicity, anatomical dolls were introduced to Caucasian children for the purposes of clarification (43%), consistency (50%), and distancing (45%). Dolls were often primarily introduced to African American children for communication (36%) and distancing (33%). Interviewers' introduced anatomical dolls to multiracial, Native American, Hispanic/Latino, and Asian children for communication purposes (30%). Clarification was the most frequently reported primary prompt by interviewers when compared across categories (66% for Caucasian; 64% for African American; and 65% for children of other racial/ethnic categories). Still, interviewers' reported introduction of dolls for communication purposes to African American children (22%) and multiracial, Native American, Hispanic/Latino, and Asian children (20%) more often than to Caucasian children (15%) (see Table 3).

Regarding age, interviewers were often prompted by preschool-age children to introduce anatomical dolls for purposes of communication (39%) and consistency (63%), while school-age children were introduced to dolls for distancing (67%) and communication (57%). The difference across categories is apparent, especially concerning consistency and communication (see Table 3). Preschool-age and school-age children were most often introduced to the dolls for clarification (60% and 67%, respectively) followed by consistency (20% for both age
Clarification was clearly interviewers' primary prompt in cases with adolescent children (83% clarification compared to 4% consistency, 4% distancing, and 9% communication).

A notable difference was evident regarding communication and perpetrator relationship. In cases of alleged extrafamilial cases of SA, interviewers often introduced dolls to help children communicate their experiences (33%) compared to 17% of cases involved alleged intrafamilial cases of SA. Descriptive statistics also suggest an association between type of abuse and interviewers' primary prompt. Regarding clarification, interviewers introduced dolls to children in cases involving reported penetration (59%) less than in cases of oral contact (76%), genital contact (69%), and exposure (67%). Interviewers often introduced children to dolls for the purposes of communication in cases involving penetration (23%, compared to 11% oral contact, 16% genital contact, and 13% exposure). Interviewers also overwhelmingly introduced children to dolls for distancing purposes when the case involved exposure (13%) compared to penetration (3%), oral contact (2%), and genital contact (4%).

The Value of Anatomical Dolls as Demonstration Aids in Forensic Interviews

In addition to investigating the function of anatomical dolls, the authors also explored how and under what conditions dolls were perceived to be valuable for children disclosing SA in forensic interviews. Interviewers reported that anatomical dolls were valuable for enhancing disclosures in 86% (210 of 244) of the interviews in which dolls were introduced. On the questionnaire, interviewers could indicate one or more reasons the dolls were valuable given the five categories provided. On average, interviewers indicated that dolls were valuable for two demonstration purposes per interview. Following clarification (86%; n = 181 cases), interviewers most frequently reported that dolls were valuable for purposes of consistency (65%; n = 136), communication (41%; n = 87), and distancing (22%; n = 47 cases). In 4% (n = 8 cases) of the cases, interviewers deemed dolls were valuable for "other" reasons.

Clarification

In cases where interviewers perceived dolls effective for clarification purposes (86%), children were able to clarify their verbal disclosures through a demonstration of their reported experiences. For example, interviewers described situations in which anatomical dolls were helpful for clarification:

- The child reported fondling and indicated additional contact that was unclear. Child said that his "butts were attached" and the butts did something. With the utilization of dolls, child was able to demonstrate and verbally clarify the touching with dolls and disclosed penile/anal contact and penile/anal penetration. (Caucasian male, age 6)

- Child talked about fingers and hands "going in" her "kuku." [Interviewer] brought one doll out for child to clarify hands/fingers and "in." With the utilization of one female doll, the child pulled down doll's pants and inserted a finger to demonstrate exactly what she meant. (African American female, age 7)

- Child reported a touch to her body. With the utilization of dolls, the child clarified that the touch was her underarm and not on her breasts. (Caucasian female, age 7)

Consistency

Interviewers also perceived children able to use anatomical dolls to demonstrate consistency with their verbal disclosures in 65% of cases. Following is an example from an interviewer's questionnaire on the use of anatomical dolls for purposes of consistency:

Child kept repeating that the alleged perpetrator "touched me" and point[ed] on her genital area. With the utilization of one doll, the child pulled down doll's underwear, and said, "right here," as she pointed directly on genitals. (African American female, age 3)
Distancing
Anatomical dolls were reported valuable for purposes of distancing in 22% of the interviews. Distancing is helpful for children who begin to use their own bodies to show SA. In questionnaires, interviewers noted how the anatomical dolls helped children by showing particular abuse details on something other than their own bodies. For example:

Child put hands in own pants to demonstrate how she was touched. With the utilization of one female doll, she was able to distance from her own body. (Caucasian female, age 5)

Teenager was gesturing toward her own genital area as to where [alleged perpetrator] touched her. With the utilization of dolls, teenager demonstrated an unusual position and indicated that [alleged perpetrator] did this to hold down her arm before he raped her. She then demonstrated [perpetrator] on top if her. (Caucasian female, age 16)

Communication
As noted, anatomical dolls can also provide an alternative mode of communication when children cannot or will not verbalize details of their abuse experiences. When anatomical dolls were perceived valuable for purposes of communication (41%), interviewers reported the dolls allowed children to show more than they were initially able to verbalize. The following are narrative examples that illustrate communication as a doll function:

Child disclosed that alleged perpetrator made her touch his private but was not able to indicate by pointing on body diagram what she meant by "private." [Child] demonstrated reluctance ... and showed how clothes were partially removed, genitals exposed, and was able to indicate by pointing to specific "private" parts that she had been made to touch. (Caucasian female, age 4)

Child reported she had been "molest" and was unable or unwilling to define "molest." With the utilization of dolls, child was able to show what happened and demonstrated lying on her stomach with the alleged perpetrator on top of her. (Multiracial female, age 6)

Other Reasons
Anatomical dolls were reported valuable for "other" reasons in 4% of the cases. These reasons included redirection, reengagement, further disclosure, and added details of their experiences. In one case, an interviewer noted that the child spoke softly and was hard to hear; when the child used the anatomical dolls, the interviewer was able to understand what the child was saying. A few children also provided added details about their reported abuse experiences. The following example illustrates how one child was able to give an identifying physical description of the alleged perpetrator after reengaging with the interview process:

Child disclosed having seen alleged perpetrator's penis but was not engaging further. With the utilization of two dolls, the child clarified where perpetrator has body hair and added detail. Not able to get more in terms of disclosure. Somewhat helpful for reengaging and able to get some more identifying physical description of alleged perpetrator including body hair, etc. (Caucasian female, age 4)

Concordance between Interviewer Primary Prompt and Perceived Value of Anatomical Dolls
There was high concordance between interviewers' prompting reasons to introduce the dolls and perceived value. When interviewers introduced anatomical dolls to children for specific purposes, they were frequently reported as valuable for these functions. In 82% (n = 130) of the cases where dolls were introduced for clarification purposes, interviewers also perceived them valuable for this purpose. Anatomical dolls were introduced and deemed valuable for consistency (77%; n = 23 cases), for distancing purposes (67%; n = 6 cases), for communication purposes (61%; n = 27 cases), and for "other" reasons (33%; n = 1 case). While these results...
appear intuitive, the findings are noteworthy for several reasons. The high concordance between interviewer primary prompt and perceived value of anatomical dolls demonstrates valid and reliable measurements. The results also suggest that children are willing and able to use dolls for purposes deemed important by forensic investigators, and in cases where dolls were introduced but not valuable for the primary prompting reason, they were frequently valuable for one or more of the other functions.

Characteristics Associated with Interviewers’ Perceived Value of Using Anatomical Dolls as De...

In Table 4, the associations between interviewers’ perceived value of anatomical dolls and children’s demographic and case characteristics are reported. Importantly, interviewers introduced anatomical dolls to 51% of all female children who made a verbal disclosure of abuse, whereas interviewers introduced the dolls to only 41% of all male children who also made similar disclosures. Still, interviewers perceived anatomical dolls as valuable for male children (85%) as they were for female children in the sample (86%). Interviewers similarly perceived the dolls valuable for Caucasian children, African American children, and children of other racial and ethnic categories (41%, 33%, and 26%, respectively). Furthermore, interviewers perceived anatomical dolls most valuable for African American children (92%). Type of abuse (penetration: 88%, oral contact: 84%, genital contact: 85%, and exposure: 79%) and the child’s relationship to the alleged perpetrator appear to have little influence on whether interviewers perceived dolls valuable for children during forensic interviews. The use of anatomical dolls was perceived valuable in cases of alleged intrafamilial abuse as often as they were in cases of alleged extrafamilial abuse (86% and 82%, respectively).

**TABLE 4** Demographic and Case Characteristics Associated with Interviewers’ Perceived Value of Anatomical Dolls

<table>
<thead>
<tr>
<th>Variable</th>
<th>Perceived not valuable (n = 34)</th>
<th>Perceived valuable (n = 210)</th>
<th>χ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (n = 244)</td>
<td></td>
<td></td>
<td>.07</td>
</tr>
<tr>
<td>Female</td>
<td>14% (26)</td>
<td>86% (165)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>15% (8)</td>
<td>85% (45)</td>
<td></td>
</tr>
<tr>
<td>Race/ethnicity (n = 242)</td>
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<td></td>
<td>3.81</td>
</tr>
<tr>
<td>Caucasian</td>
<td>15% (15)</td>
<td>85% (86)</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>8% (6)</td>
<td>92% (68)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>19% (13)</td>
<td>81% (54)</td>
<td></td>
</tr>
<tr>
<td>Age (n = 244)</td>
<td></td>
<td></td>
<td>14.15</td>
</tr>
<tr>
<td>Preschool (2–4)</td>
<td>24% (23)</td>
<td>76% (72)</td>
<td></td>
</tr>
<tr>
<td>School-age (5–12)</td>
<td>6% (8)</td>
<td>94% (116)</td>
<td></td>
</tr>
<tr>
<td>Adolescent (13–17)</td>
<td>12% (3)</td>
<td>88% (22)</td>
<td></td>
</tr>
<tr>
<td>Perpetrator Relationship (n = 234)</td>
<td></td>
<td></td>
<td>.37</td>
</tr>
<tr>
<td>Intrafamilial</td>
<td>14% (30)</td>
<td>86% (182)</td>
<td></td>
</tr>
<tr>
<td>Extrafamilial</td>
<td>18% (4)</td>
<td>82% (18)</td>
<td></td>
</tr>
<tr>
<td>Type of abuse (n = 243)</td>
<td></td>
<td></td>
<td>1.16</td>
</tr>
<tr>
<td>Penetration</td>
<td>12% (13)</td>
<td>88% (96)</td>
<td></td>
</tr>
<tr>
<td>Oral contact</td>
<td>16% (6)</td>
<td>84% (32)</td>
<td></td>
</tr>
<tr>
<td>Genital contact</td>
<td>15% (12)</td>
<td>85% (70)</td>
<td></td>
</tr>
<tr>
<td>Exposure</td>
<td>21% (3)</td>
<td>79% (11)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Sample sizes for anatomical doll effectiveness/ineffectiveness varies due to missing data.

*Other includes multiracial, Native American, Hispanic/Latino, and Asian.

***p <.001.
Age was associated with perceived value of doll use, $\chi^2 (2, \text{df} = 244) = 14.15$ $p < .001$. Interviewers perceived dolls as most valuable for school-aged children (94%), followed by adolescents (88%). Interviewers reported that preschoolers were able and willing to use the dolls in 76% of the cases. Of the 34 interviews in which dolls were reported not valuable, 68% were preschool-age children, 23% were school-age children, and 9% were adolescents.

Disability and the need for language interpreters during the interview session were not associated with differences in children’s use of anatomical dolls. Interviewers overwhelmingly perceived anatomical dolls as valuable for enhancing verbal disclosures in cases of children who have special needs (89%). In addition, 81% of the children who needed interpreting services during forensic interviews were perceived as able and willing to use the dolls. To illustrate the value of using anatomical dolls with especially vulnerable populations of children, interviewers provided detailed narrative accounts:

English was a second language for the child. She was using words to describe alleged contact that were unclear—"put it there," "in," etc. Dolls were brought out to clarify her use/meaning of such words. With the utilization of two dolls, child demonstrated body positioning and contact clearly. What she demonstrated was consistent but more specific than what she had said. [The anatomical dolls] allowed her to tell nonverbally, which seemed to make her more comfortable. (Bilingual Hispanic female, age 11)

Child stated that [alleged perpetrator] "touched me all over" and that he held her leg with his knees. Dolls were used to clarify where and how she was touched as well as how [alleged perpetrator] used his knees. With the utilization of dolls, child clearly demonstrated where she was fondled (breasts, vagina, and butt) and how he put his penis in her vagina with his knees holding down her legs and his hands holding her arms down. (African American female, age 13, developmental disability)

When anatomical dolls were used, interviewers routinely provided children with a full introduction to the dolls and gave children the opportunity to voice discomfort associated with the use of the dolls. The anatomical dolls were removed when children expressed an unwillingness to use them. In the present study, 6% ($n = 15$) of the children verbalized they did not want to use the anatomical dolls. Of these cases, three children were preschool age, nine were school age, and three were adolescents. The following narrative illustrates how one child did not feel comfortable using anatomical dolls during the forensic interview:

The child said his brother "tried to put his penis in my butt." The child kept stating, "I'm uncomfortable" telling that or talking about it so [the interviewer] got dolls out to see if he could demonstrate. He refused to touch [the dolls]. (Caucasian male, age 7)

Additionally, interviewers in this study deemed 20 children as unable to utilize anatomical dolls after the dolls were introduced. Of these, 11 were not able to make the representational shift necessary to use the dolls. One interviewer noted this difficulty:

Dolls were introduced after disclosure for clarification regarding use of term "in." When asked to "show" on the dolls, child pointed to her own body. Dolls were put away. [Native American female, age 5]

Interviewers removed the dolls in only three cases because the child either played with them or did not use them as demonstration aids. For example, an interviewer documented:

The child had reported that two alleged perpetrators "kissed and licked" her "bagina." [Interviewer] brought out one doll to clarify contact and allow child to report another way. With the utilization of dolls, interviewer found the dolls not helpful. Child wanted to play with dolls and picked one according to clothing: "one with a pretty dress." Interviewer put dolls away. [Multiracial female, age 4]
Based on cross-tabulations, demographic and case characteristics were not associated with children's refusal rates with using anatomical dolls.³

**DISCUSSION**

The purpose of this study was to address the limitations of previous research on anatomical dolls by exploring their function and value as a demonstration aid in real-world forensic interviews. The objective was to examine how and under what conditions anatomical dolls were perceived as valuable for CSA victims for purposes of clarification, consistency, distancing, and communication. Measures of anatomical dolls matched practice in the field and thus take seriously the actual use of the dolls in the field, expanding measures beyond that of added verbal details. Ultimately, the goal was to clarify practitioner use of anatomical dolls and provide empirical evidence to inform best practices. As such, relationships between child demographic and case characteristics and doll use in a real-world CAC setting were examined.

Preliminary evidence supports the use of anatomical dolls as a demonstration aid to enhance communication between forensic interviewers and CSA victims. Specifically, findings reveal that interviewers perceived anatomical dolls as valuable during forensic interviews to (a) clarify children's verbal statements, (b) provide internal consistency and corroboration between children's verbal statements and doll demonstrations, (c) help children distance from their own bodies, and (d) help children communicate with interviewers when they cannot or will not fully verbalize their SA experiences. Prior research has been generally limited by methodological inconsistencies and outcome measures based solely on new added verbal details provided by children following introduction of the dolls. Findings in this study, however, suggest that anatomical dolls function as valuable demonstration aids in forensic interviews for reasons beyond added verbal details. Interviewers perceived them as valuable for the purposes of clarification (82%), consistency (77%), distancing (67%), communication (61%), and for "other" reasons (33%). In addition, interviewers reported that anatomical dolls were valuable for more than one demonstration aid function within a single interview. The implications of these findings are noteworthy: interviewers believed that anatomical dolls enhanced children's verbal disclosures through demonstration in order to elicit clarifying and internal corroborating information. Of significance, interviewers reported that many children (22%) were able to shift from their own bodies to the anatomical dolls. Offering children an additional mode of communication is also an important function of dolls for many children who are embarrassed, anxious, and want to disclose sexual abuse but lack verbal or cognitive skills.

Some prior research has suggested that certain subpopulations of children cannot or will not use anatomical dolls (e.g., [19]; [54]; [66]). Descriptive and bivariate analyses showed that interviewers perceived children able and willing to use anatomical dolls at similar rates regardless of race/ethnicity, type of abuse, and the child's relationships to the alleged perpetrator. Interviewers also perceived the dolls valuable for children who presented with special needs (including children needing interpreting services). Results further indicated that interviewers perceived anatomical dolls valuable during interviews with male children as frequently as with female children (85% and 86%, respectively). This finding is significant given the popular belief that males might be unwilling to use anatomical dolls. In fact, there is evidence in this study to suggest that interviewers were less likely to introduce dolls to boys than to girls (41% compared to 51%) under similar case circumstances. Future research examining gender differences in the introduction and use of anatomical dolls is required. The present findings do not support the claim that young male victims cannot or will not use the dolls in forensic interviews.

Results show a preliminary relationship between age and both interviewers' primary prompt for introduction of anatomical dolls and perceived value of the dolls. With adolescents, interviewers were overwhelmingly prompted to introduce anatomical dolls for clarification of verbal statements (83%). Rarely did interviewers introduce dolls to adolescents for other demonstration aid functions, perhaps signaling increased verbal abilities of children ages 13–17 and their general willingness to verbally report SA. Comparatively, interviewers were
often prompted to introduce dolls to preschoolers for consistency (20%) and to school-age children for communication (20%). In general, preschoolers appear able to verbally disclose SA, perhaps due in part to a decreased awareness of sexual social taboos. Yet, because young children use a variety of words for body parts and sexual activity and have varying cognitive and verbal abilities, interviewers introduced dolls to preschoolers to provide internal consistency and corroboration between verbal statements and doll demonstrations. Interviewers’ introduction of dolls to school-age children was variable, possibly because of the range of developmental differences and changing sociosexual awareness. Children between 5 and 12 years of age may have additional interview blocks such as increased feelings of shame and societal stigmatization ([28]; [56]; [57]). Wide-ranging and adaptable use of anatomical dolls may be especially pertinent for school-age children; interviewers clearly perceived dolls as valuable demonstration aids for this age group (94%).

Age was also associated with the perceived value of anatomical dolls. Interviewers reported the dolls valuable in a significant number of interviews with preschoolers (76%). However, interviewers perceived the dolls as less valuable for preschoolers when compared to school-age children and adolescents. This is not surprising given the representational shift ability needed to use anatomical dolls as well as young children's short attention spans and distractibility. Still, results suggest that when provided with proper introduction, instruction, and representational shift testing, anatomical dolls are perceived as a valuable demonstration aid for approximately three out of four preschoolers. Findings do not support the critique that dolls suggest "play" or "pretend" to young children (e.g., [43]). When introduced, only 3 of 244 children played with the anatomical dolls at which point the dolls were removed.

In sum, young children have developing cognitive skills and limited life experiences. School-age children and male children may experience increased barriers to disclosure such as feelings of embarrassment and stigmatization, and children who have special needs may have added barriers to disclosure ([37]; [52]; [64]). These children may struggle to find the words to describe SA, including body positioning, clothing details, or the type of sexual touch. Thus, it may be especially important for preschoolers and school-age children, male children, and children who have special needs to have the opportunity to use anatomical dolls after a verbal disclosure of SA.

This study advances the field and informs best practices in several significant areas. The results expand on previous research performed in a forensic setting ([48]; [61]; [66]). Furthermore, a number of researchers have called for an increase in studies on best practices in CAC settings (e.g., [20]; [40]), including research on practitioner use of dolls in forensic interviews ([27]; [31]). Work in this area is essential, as the child abuse field has matured beyond past research on anatomical dolls and limited empirical research exists to either support or contest currently accepted doll practices. Results suggest that when interviewed using a standardized protocol that attends to a child’s developmental abilities, comfort level, and well-being, children are able and willing to use anatomical dolls as a demonstration aid in a forensic setting. The stakes are high; given that most cases of CSA lack external corroborating evidence (e.g., medical, eyewitnesses), anatomical dolls may be an important demonstration aid in providing clarification of abuse and internal corroboration of information useful for investigative, civil, and criminal court purposes.

While new procedures in CSA investigations must be carefully evaluated, professionals should be encouraged to use these preliminary findings as a guide. To bridge the gap between research and practice, professionals need objective evaluations of investigative outcomes. Academics and practitioners enter the practice arena with different knowledge, motives, and methods ([44]). [20] stated, "CACs should serve as models for systematically incorporating ongoing research into child abuse investigation practices. CACs should aim to use research findings more extensively to inform their membership standards and establish benchmarks or measurable goals for their work" (p. 8). CACs play a significant role in the response to child victimization, and future research should build on these results through applied research concentrating on the four demonstration aid functions investigated.
Assuring appropriate use of anatomical dolls in forensic interviews is dependent on guidelines for their use ([31]; e.g., [3]) and investigators can bring objective information to justify practice. Training on anatomical dolls as a demonstration aid is widely employed across the United States and practiced by forensic interviewers; expansion of this study to other CAC settings is both imperative and feasible.

While the strengths of the study are numerous, a few caveats should be mentioned. First, these findings represent CSA cases that have come to the attention of one CAC and may not be generalizable to all CACs. The sample comes from an urban Midwest area with a relatively homogenous population and children seen at the CAC represent those who have come to the attention of the state due to verbal disclosures, offender confessions, or abuse events that were witnessed or discovered. Children who have not disclosed or children who may have told someone (e.g., a friend or family member) who failed to report the event to authorities are not represented in the sample. Second, the sample of forensic interviewers did not significantly vary by gender or race. Interviewer demographics could impact children's comfort with using anatomical dolls; matching interviewer and child characteristics is a valuable avenue for future research. Similarly, the standardized interviewing protocol across cases is a major strength of the study, yet protocols are not similarly practiced at all CACs.

Next, interviewers in our study reported on their perceived value of using anatomical dolls as a demonstration aid in forensic interviews, and there is some risk of interviewer bias. Epistemologically, however, subjectivity in practice is as unacceptable as it is in research ([44]). The present study aims to address the common goal of establishing valid and reliable knowledge with reference to the practice world via interviewers' perception of the function and value of anatomical dolls from their perspective. Methodologically, several factors offset potential bias. The interviews in this study were completed during the normal course of business. Also, the interrater reliability between interviewers and a nonemployee were high for both function and value measures.

Last, an overall perceived value measure indicating one or more possible functions for each case was dichotomized. Ideally, the measure would include an indicator of primary perceived value similar to the primary prompt measure. In future studies, researchers should take this issue under consideration. Finally, while the present study sample was diverse, especially in comparison to prior work on the use of anatomical dolls in a forensic interview setting (e.g., [48]; [61]; [66]), future studies should make a commitment to include preschoolers, male children, and children who have special needs in their samples. These subpopulations of children are rarely included in empirical research, and special efforts must be made to examine their use of anatomical dolls in forensic interviews. This study was exploratory in nature, and subsequent research should examine the use of anatomical dolls as a demonstration aid in replication studies at other CACs and in order to delineate the specific populations for which dolls may be most valuable.

In spite of these limitations, results are promising. The real-world setting of this study is a significant strength. Given that one of the goals of this study was to close the gap between research and practice, measuring interviewer ratings provides a window into frontline applications. Unlike previous research, clinically trained and experienced forensic interviewers followed a standardized and professionally accepted interview protocol ([17]). Interviewers also had similar work and educational experience and were comparably trained on interviewing protocol that strictly adhered to the following process: dolls were introduced only following a verbal disclosure of SA, representational shift testing was completed with children as necessary, and doll introduction and instructions were provided to children. Following training protocol, the study findings were not contaminated by the use of other props in conjunction with anatomical doll use. Certainly, requiring a verbal disclosure of SA prior to the introduction of anatomical dolls limits the present findings as well; children who are fearful or reluctant to disclose may not benefit from dolls under this protocol ([3]). Notwithstanding this limitation, many clinical researchers are concerned with investigating the use of dolls as a memory stimulus (e.g., see [58]).
The findings presented provide researchers and practitioners with a more complete picture of how and under what conditions anatomical dolls function as a demonstration aid in forensic interviews with children from different backgrounds and with different capabilities. Although preliminary, this study begins to clarify best practices for employing anatomical dolls as demonstration aids in forensic interviews and points to the need for additional research. To advance this initial study, data continue to be collected from this CAC, and future research efforts will concentrate on analyzing the function and value of anatomical dolls using videotaped forensic interviews. Future research plans include moving toward a more systematic examination of the value of dolls as a demonstration aid in order to improve CAC practice and to better help children and their families receive the support they need to disclose SA.

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APPENDIX

Anatomical Dolls: Interviewer Summary

Purpose of Study: This internal study seeks to explore the use of dolls within the CornerHouse Forensic Interview Process.

Applicable/Inapplicable Cases: The study will examine only cases in which sexual abuse was the sole purpose for the child's referral to [the CAC]. This study is not meant to examine cases in which the [CAC] interview is requested to determine if physical abuse has occurred or in cases in which the child may have been a witness to violent crime. Additionally, a case is inapplicable to this study when the referent informs the intake worker that the child may have experienced, or been exposed to, multiple forms of abuse. This form is concerned with the first introduction of the dolls. This is the case even if the dolls were introduced multiple times throughout the interview (multiple perps, multiple incidents, etc.).

- The intake worker will _B_attach a copy of the Anatomical Dolls Interviewer Summary form to the file.
- After the forensic interview, the interviewer will _B_complete the Anatomical Dolls Interviewer Summary form.

Section 1
(Do not fill in the gray section, "ID number"); rather, staple the client number to the form on a separate piece of paper)

ID number: ______________ Date of interview: ______________
Interviewer Number: ___________ Number of Dolls used: ___________
Was an interpreter present in the interview room? □ Yes □ No

Section 2
Child's gender:
□ Male □ Female  Child’s DOB: ______

*Check all that apply*
Child’s ethnicity:
□ Caucasian □ African American □ Native American
□ Asian □ African □ Hispanic/Latino
□ Unknown □ Other (Specify): _______________
*Check all that apply*
Child disability:
- □ None □ Blind/Visually impaired □ Deaf/hard of hearing
- □ Mental illness □ Developmental disability
- □ Unknown □ Other (Specify): ________________

Section 3
(Prior to the interview—check all that apply)
(The section deals with the information you had going into the interview.)
Alleged perpetrator relationship:
- □ Parent/step/foster □ Acquaintance □ Parent's boy/girlfriend
- □ Stranger □ Other relative □ Unknown

Type of sexual abuse:
- □ Penetration □ Fondling □ Exposure □ Oral Contact
- □ Other (Specify): ________________
  - Sections 4 through 6 are filled out only in the event that dolls were attempted or used.
  - If dolls were not even attempted, go directly to Section 7.
  - Note: There is a back to this form. At least part of the back needs to be filled out for every interview.

Section 4
  - In this interview, were there elements of a verbal disclosure of sexual abuse prior to introducing the dolls?
    □ Yes □ No
  - Did you instruct the child that the dolls were not used for purposes of play?
    □ Yes □ No

Section 5: Prompts
Write a narrative about what was going on within the interview when you were prompted to use dolls. Be as specific as possible; for example, "the child said the word sex, and when asked what she meant, it was left unclear."

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

1. Please check all reasons that prompted you to use anatomical doll(s) during this interview.
2. Please star (*) the one prompt you would classify as your primary prompt or reason.

For clarification purposes
(This can include an attempt to understand information that the child provided in all or part of the verbal disclosure; for example, a child may have stated, "He pinched my pee pee," and you chose to use the dolls to clarify what "pinched" means.)

To allow the child to demonstrate consistency
(This can include consistency with the original report and/or consistency with things the child verbally communicated to the interviewer; for example, a child pointed to the buttocks on the diagram as a place she was touched. You offer the dolls as another way to show what allegedly happened.)

To allow the child to gain distance from his or her own body
(This can include a child who begins to demonstrate actions with his or her own body; for example, you ask the child where he was touched and the child says, "I'll show you," at which point he pulls open the snap on his jeans. You may choose to introduce the dolls so that the child can show on something other than his own body.)
To allow the child to communicate what cannot or will not be said
(An inability to provide detail may be due to verbal and/or cognitive abilities, a fear of telling, embarrassment etc.; for example, the child says, "It's too hard to talk about it.")

Other
(This includes any other reason that could not be adequately categorized by the four options listed above.) SPECIFY in this space.

Section 6: Helpfulness
Write a narrative about what was going on within the interview that let you know whether the dolls ended up being helpful. Be as specific as possible, such as, "The child showed with the dolls while describing that the penis went inside her vagina."

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________

Please check all reasons the doll(s) ended up being helpful in this interview.

For clarification purposes
(This can include an attempt to understand information that the child provided in all or part of the verbal disclosure; for example, a child may have stated, "He pinched my pee pee," and you chose to use the dolls to clarify what "pinched" means.)

To allow the child to demonstrate consistency
(This can include consistency with the original report and/or consistency with things the child verbally communicated to the interviewer; for example, a child pointed to the buttocks on the diagram as a place she was touched. You offer the dolls as another way to show what allegedly happened.)

To allow the child to gain distance from his or her own body
(This can include a child who begins to demonstrate actions with his or her own body; for example, you ask the child where he was touched and the child says, "I'll show you," at which point he pulls open the snap on his jeans. You may choose to introduce the dolls so that the child can show on something other than his own body.)

To allow the child to communicate what cannot or will not be said
(An inability to provide detail may be due to verbal and/or cognitive abilities, a fear of telling, embarrassment etc.; for example, the child says, "It's too hard to talk about it.")

Other
(This includes any other reason that could not be adequately categorized by the four options listed above.) SPECIFY in this space.

Section 7
If anatomical dolls were not used during the interview, fill out this section. Check only one of the three boxes. Write a narrative about what was going on within the interview that caused you to check the line you have.

Note: If you check the items indicating that the child refused to use the dolls or that the child was not able to use the dolls, you will still fill out the rest of the form.

☐ Dolls were not attempted during this interview.
☐ Dolls were attempted, but child refused to use.
☐ Dolls were attempted, but child was not able to use.

_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
_________________________________________________________________
Section 8
(After the interview—Check all that apply)
(The section deals with the information you had after the interview)

Alleged perpetrator relationship:
□ Parent/step/foster □ Acquaintance □ Parent's boy/girlfriend
□ Stranger □ Other relative □ Unknown

Type of sexual abuse:
□ Penetration □ Fondling □ Exposure □ Oral Contact
□ Other (Specify): _________________________

Finding regarding sexual abuse:
□ Occurred □ Did Not Occur □ Inconclusive

Footnotes
1. RATAC is an acronym for the five possible interview stages of this protocol: Rapport, Anatomy Identification, Touch Inquiry, Abuse Scenario, and Closure. According to this protocol, any of these five stages can be modified or eliminated given the spontaneity and developmental needs of the child.
2. Teach-a-Bodies dolls meet the doll specifications indicated by the APSAC guidelines, including doll anatomy, clothing, size, and other physical features (see [3]). The anatomical dolls consisted of both female and male dolls of various skin tones and of various ages, ranging from preschool age to elderly.
3. Results available from the authors on request.

REFERENCES


