

Is Ongoing Feedback Necessary to Maintain The Quality of Investigative Interviews With Allegedly Abused Children?

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Thirty-seven 4- to 12-year-old alleged victims of sexual abuse were interviewed using the National Institute of Child Health and Human Development investigative interview guide by 8 experienced forensic investigators who received regular supervision, including timely feedback on their ongoing interviews. These interviews were matched and compared with 37 interviews conducted by the same investigators immediately following termination of the supervision and feedback phase. After the supervision ended, interviewers used fewer open-ended prompts and thus elicited less information from recall, instead relying more heavily on option-posing and suggestive prompts, which are less likely to elicit accurate information. These results suggest that ongoing supervision and feedback may be necessary to maintain desirable interview practices.

Because alleged victims are often the only available sources of information about their abusive experiences, considerable efforts have been made to understand how children's testimony can be made as useful and reliable as possible. The research has been fruitful and has resulted in surprisingly broad international consensus regarding optimal interview practices. Unfortunately, agreement regarding the ways in which interviews should be conducted has not been paralleled by changes in the way interviews are actually conducted in the field, and researchers have shown that it is difficult to effect lasting changes through training. Building on recent demonstrations that intensive training and continuing supervision can change interview practices, this study was designed to examine the effects of terminating the supervision that appeared to bring about meaningful change.

Expert professionals (e.g., American Professional Society on the Abuse of Children, 1990; Bull, 1992;

Jones, 1992; Lamb, Sternberg, Orbach, Hershkowitz, & Esplin, 1999; Memorandum of Good Practice, 1992; Poole & Lamb, 1998; Raskin & Esplin, 1991; Warren & McGough, 1996) agree that children should be interviewed as soon as possible after the alleged offenses by interviewers who intrude as little as possible and encourage children to provide as much information as possible in the form of narratives elicited using open-ended prompts. Before substantive issues are discussed, interviewers typically are urged to explain their roles, the purpose of the interview, and the "ground rules" (e.g., to limit themselves to descriptions of events "that really happened" and to correct the interviewer, request explanations or clarifications, and acknowledge ignorance, as necessary). When focused prompts are needed to elicit forensically relevant information, investigators are urged to use these prompts as sparingly as possible and as late in the interview as possible, striving to return the child to narrative responding if relevant information is disclosed.

The universal emphasis on the value of narrative responses elicited using open-ended prompts is rooted in the oft-replicated results of laboratory analog studies (e.g., Dale, Loftus, & Rathbun, 1978; Dent, 1986; Dent & Stephenson, 1979; Goodman & Aman, 1990; Goodman, Bottoms, Schwartz-Kenney, & Rudy, 1991; Hutcheson, Baxter, Telfer, & Warden, 1995; Oates & Shrimpton, 1991; Ornstein, Gordon, & Larus, 1992) demonstrating that information elicited using such prompts is much more likely to be accurate than infor-

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mation elicited using more focused prompts. The enhanced accuracy of responses to open-ended questions is probably attributable to the fact that they force the respondent to recall information from memory, whereas more focused prompts often require the respondent to recognize one or more options suggested by the interviewer. Accuracy is much more difficult to establish in the field than in laboratory analog contexts, of course, because forensic interviewers seldom know what really happened, but the results of field studies in which accuracy was assessed confirm that, as in the laboratory, responses to open-ended questions posed by forensic investigators are more likely to be accurate than responses to more focused prompts (Lamb & Fauchier, 2001; Orbach & Lamb, 2001).

Unfortunately, the research-based recommendations summarized earlier are widely endorsed, but seldom followed. Studies of forensic interviews in the United States, United Kingdom, Sweden, and Israel (e.g., Cederborg, Orbach, Sternberg, & Lamb, 2000; Craig, Scheibe, Raskin, Kircher, & Dodd, 1999; Davies, Westcott, & Horan, 2000; Lamb, Hershkowitz, Sternberg, Esplin, et al., 1996; Sternberg, Lamb, Davies, & Westcott, 2001; Sternberg et al., 1996; Walker & Hunt, 1998) consistently show that forensic interviewers use open-ended prompts quite rarely, even though these prompts consistently elicit more information than more focused prompts do.

Such findings are not surprising in light of accumulating evidence (Aldridge & Cameron, 1999; Stevenson, Leung, & Cheung, 1992; Warren et al., 1999) that even the most intensive training programs impart knowledge about desirable practices, but have little, if any, effect on the actual behavior of forensic investigators. However, the quality of forensic interviewing does improve when interviewers follow a very detailed and specific interview protocol developed by researchers at the National Institute of Child Health and Human Development (NICHD; Orbach et al., 2000; Sternberg, Lamb, Orbach, Esplin, & Mitchell, 2001). Because the success of their efforts contrasted with the failures of program evaluators who provided intensive, but time-limited training seminars, Orbach et al. and Sternberg, Lamb, Orbach, et al. (2001) suggested that both the detailed protocol and the ongoing supervision and feedback were absolutely crucial. In this study, we thus examined the forensic interviews conducted by a group of trained investigative interviewers in the months immediately following completion of regular group meetings and intensive individual feedback. For purposes of comparison, interviews conducted during the period when interviewers were receiving close and continuing supervision were matched with interviews conducted by the same interviewers following termination of the supervision-and-training regimen. We expected that the quality of the later interviews would be inferior to that of the earlier interviews, as indexed by (a) declines in the

use of open-ended prompts, (b) corresponding increases in reliance on more focused prompts, and (c) the earlier introduction of focused prompts. The expected changes in the interviewers' questioning style were in turn expected to produce decreases in the amount of information elicited using free-recall prompts.

Method

In this study, we examined 74 forensic interviews of alleged sexual abuse victims by eight experienced police officers (four women and four men) in a mid-sized city in the western United States. Four of the interviewers contributed an equal number of interviews (i.e., 1, 6, 9, and 10, respectively) to each of the groups defined in the following paragraph. The other four interviewers contributed 3, 5, 2, and 1 interviews to the supervision group and 1, 4, 4, and 2 interviews, respectively, to the post-supervision group. All were the first interviews of these children, conducted by police officers immediately following a formal report of the abuse. The boys and girls interviewed averaged 7.83 years of age ($SD = 2.23$, range = 4–12 years).

Of the 74 interviews, 37 were conducted using the investigative protocol developed by Orbach et al. (2000) and Sternberg, Lamb, Orbach, et al. (2001), while the interviewers received detailed individual feedback on each of their interviews and attended group training sessions every 4 to 8 weeks for approximately 1 year. The matched sample of 37 interviews was conducted by the same interviewers in the 6 months immediately following this intensive supervisory phase. Interviews in the post-supervision group were matched with those in the supervision group with respect to the severity or type of abuse, the relationship between victim and perpetrator, the victim's age (within 12 months), and whether the abuse had occurred one or multiple times (see Table 1).

The 37 supervision interviews were drawn from a pool of 200 investigative interviews comprising all investigative interviews of 4- to 12-year-old alleged victims conducted by the participating investigators during the study period. Interviews were excluded from consideration when the children disclosed abuse spontaneously (i.e., not in response to the interviewers' prompts) before the interviewers had "trained" the children to provide accounts of neutral events in response to open-ended prompts ($n = 20$), when the child did not report abuse ($n = 44$), or when no match was found in the post-supervision interviews ($n = 99$). The post-supervision interviews were drawn from a pool of 43 interviews of 4- to 12-year-old alleged victims of abuse by the same interviewers and were selected solely because they involved alleged offenses comparable to those reported by children in the supervised protocol group. Interviewers were excluded from consideration when the child did not report abuse ($n = 4$) or when the case was not suitable

Table 1. *Characteristics of Supervision and Post-Supervision Interviews*

Matching Variable	Supervision	Post-Supervision
Victim's Age (Within 12 Months)		
<i>M</i>	7.84	7.83
<i>SD</i>	2.08	2.39
Abuse Type		
Sexual Abuse		
Fondling Over Clothes	5	8
Fondling Under Clothes	23	17
Penetration	9	9
Physical Abuse	—	1
Unclear	—	2
Relationship to Perpetrator		
Nonfamilial	19	20
Familial	18	17
Number of incidents		
Single	13	19
Multiple	24	14
Unclear	—	3

as a match according to the matching criteria ($n = 2$). All the interviews were transcribed, checked for accuracy against the video recordings, and checked to ensure that all personal identifiers were deleted before transcripts were sent to the researchers.

The Training Program

Prior to implementation of the NICHD protocol, all interviewers participated in an intensive 5-day training program during which the conceptual and empirical support for all phases of the interview were explained by a team of forensic and developmental psychologists. Videotapes illustrating both appropriate and inappropriate interview techniques were shown. After familiarizing themselves with the structured protocol, interviewers interrogated role-playing confederates and reviewed their own and their colleagues' performance. After demonstrating their ability to use the protocol, interviewers were observed conducting actual forensic interviews using the protocol and were given feedback on their techniques. Thereafter, detailed written feedback was provided on transcripts of all interviews conducted by these eight interviewers until the study ended. In addition, individual and group training sessions focused on adherence to the protocol, and its adaptation to individual circumstances were conducted every 4 to 8 weeks by the psychologists involved in the initial training. Problematic cases were reviewed with the group, and techniques for addressing difficult issues were discussed.

The NICHD Structured Interview Protocol

The goal of the NICHD protocol was to operationalize the recommendations of professional advisory groups re-

garding optimal interviewing techniques and to maximize the interviewers' adherence to these procedures. The investigative strategies reflected in the structured protocol thus gave priority to open-ended probes and retrieval cues. Eyewitnesses were encouraged to provide as much information as possible from free recall and to report event-specific rather than generic information.

The protocol began with an introduction that was followed by an exercise designed to clarify the children's obligation to tell the truth before the ground rules were explained and rehearsed. The child was encouraged to correct the interviewer and to request clarification when necessary to minimize responses to questions he or she did not understand. In addition, the child was trained in the presubstantive phase to report episodic memories using such prompts as "Tell me everything about (a recent holiday) from the beginning to the end." In the presubstantive phase and throughout the substantive phase of the interview, investigators were instructed to probe further, using open-ended follow-up utterances such as "Tell me about (a person, object, or action, mentioned by the child)," "Tell me more about . . .," or "Then what happened?," when appropriate.

Following the presubstantive section, the interviewer shifted focus to substantive issues using nonsuggestive prompts ("Now that I know you a little better, I would like to discuss the reason you came here today") designed to avoid providing any input about a possible incident, while allowing the child to introduce the topic. Other nonsuggestive prompts followed if the child did not make an allegation. If an allegation was made, children were given an open "invitation" ("Tell me everything that happened to you from the beginning to the end, as best you can remember"), which was followed by open-ended probes ("Tell me more about that" or "And then what happened?") and cues ("Tell me more about (something the child had mentioned)") as appropriate. Focused, nonsuggestive questions (directive questions like "What color was his shirt?" or option-posing questions like "Was it red?," which introduced an issue not mentioned by the child, but did not imply the expected response) were asked only after exhaustive open-ended questioning to avoid possibly contaminating the children's accounts. If the child mentioned multiple incidents, the interviewer asked the child to describe each incident separately. Before ending the substantive phase, investigators asked the children if there was anything else they wanted to say, anything they thought the interviewers should know, or anything they wanted to ask. Finally, the interviewers thanked the children for their cooperation and shifted focus to a neutral topic.

Procedure

One of four trained raters (psychology graduates) independently reviewed each of the transcripts, cate-

gorizing each utterance made by the interviewer during the substantive portion of the interview, operationally defined as the portion of the interview during which the incidents under investigation were discussed. Five categories introduced by Lamb and his colleagues (Lamb, Hershkowitz, Sternberg, Boat & Everson, 1996; Lamb, Hershkowitz, Sternberg, Esplin, et al., 1996) were used to characterize all substantive interviewer utterances: facilitators, invitations, directive, option posing, and suggestive.

1. **Facilitators.** Nonsuggestive encouragements to continue with a response. These include utterances like "O.K.," restatements of the child's previous utterance, and nonsuggestive words of encouragement designed to prompt continuation of the child's narrative. Because Hershkowitz (2000) recently showed that facilitators merely amplify the preceding interviewer prompt, they are not analyzed as independent utterances. Details provided following facilitators were attributed to the preceding prompt.
2. **Invitations.** Utterances, including questions, statements, or imperatives prompting free-recall responses from the child. Such utterances do not delimit the child's focus except in a general way (e.g., "Tell me everything that happened"), or may use details disclosed by the child as cues (e.g., "You mentioned that he touched you. Tell me everything about the touching").
3. **Directive utterances.** These refocus the child's attention on details or aspects of the alleged incident that the child has already mentioned, providing a category for requesting additional information using "Wh-" questions.
4. **Option-posing utterances.** These focus the child's attention on details or aspects of the alleged incident that the child has not previously mentioned, asking the child to affirm, negate, or select an investigator-given option using recognition memory processes, but do not imply that a particular response is expected (e.g., "Was it inside or outside the house?").
5. **Suggestive utterances.** These are stated in such a way that the interviewer strongly communicates what response is expected (e.g., "He forced you to do that, didn't he?"), or they assume details that have not been revealed by the child (e.g., Child: "We laid on the sofa."; Interviewer: "He laid on you or you laid on him?").

When a single turn in the dialogue included two or more statements or questions that could be coded differently, the highest category defined by the numerical label in the aforementioned list was applied. Coders then employed a technique developed by Yuille and Cutshall (1986) and elaborated by Lamb, Hershkowitz,

Sternberg, Esplin, et al. (1996) to tabulate the number of new details conveyed by the child. By definition, details involved the identification of individuals, objects, events, and descriptions of their features (e.g., appearance, actions, locations). Details were counted only when they added to understanding of the target incidents, so restatements of facts were not counted. Details provided following facilitators were attributed to the preceding substantive utterance (invitation, directive, option posing, or suggestive), and facilitators were not tabulated.

Interrater reliability. All ratings of the utterance types were conducted by one of four coders who trained on an independent set of transcripts until they agreed with one another concerning the classification of at least 85% of the utterance types and details. During the course of rating, 23% of the transcripts were independently coded by two or more of the raters to ensure that they remained equivalently reliable. In these assessments, raters agreed regarding the classification of 87% of the interviewer utterances and 88% of the details reported by the children.

Results

Although the interviews in the supervision and post-supervision groups were carefully matched with respect to the victim's ages, abuse type, and familiarity of the perpetrators, there were substantial differences in both the structure of the interviews and the amount of information provided in the interviews conducted during and after the periods during which the interviewers were given individual and group supervision.

As shown in Table 2, the interviewers' behavior changed dramatically when the supervision ended. Most important, one-way (supervision vs. after supervision) multivariate analyses of variance (MANOVAs) with the numbers and proportion of invitations, directives, option-posing, and suggestive utterances as dependent variables yielded significant effects, $F(4, 69) = 6.23, p < .0001$, for number; $F(3, 70) = 10.40, p < .0001$, for proportions. Subsequent univariate analyses (see Table 2) showed that the number and proportion of invitations declined significantly after supervision ended, whereas the proportion of option-posing and suggestive prompts increased. In addition, after supervision ended, option-posing and suggestive prompts were introduced considerably earlier than they had been during the supervision phase. During the supervision phase, there were an average of 8.24 ($SD = 8.43$) interviewer utterances before the first option-posing or suggestive utterance, compared to 4.30 ($SD = 4.43$) in the post-supervision phase, $F(1, 72) = 6.36, p < .014$. The same effect was evident when proportions rather

Table 2. Prompts Used by Interviewers to Elicit Information About the Alleged Abuse

Utterance Type	Under Supervision				After Supervision				Difference (<i>F</i>)	
	Number		Percentage		Number		Percentage		Number	Percentage
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Invitations	19.41	8.56	34.22	14.17	10.05	7.28	19.72	8.74	11.82**	28.08***
Directives	19.38	15.84	34.55	10.98	21.00	14.33	36.89	14.14	<i>ns</i>	<i>ns</i>
Option Posing	13.27	9.26	24.46	7.97	17.22	8.02	32.61	12.44	<i>ns</i>	11.27**
Suggestive	3.49	3.65	6.77	7.14	4.86	3.91	10.78	9.62	<i>ns</i>	4.15*

p* < .05. *p* < .001. ****p* < .0001.

than absolute numbers were analyzed, $F(1, 72) = 6.35, p < .014$.

These changes in interview strategies were matched by changes in the amounts of information provided by children in the supervision and post-supervision conditions. MANOVAs revealed effects for supervision on the number and the proportion of the total number of details elicited from children using different investigative prompts, $F(4, 69) = 4.63, p < .002$, but not on the absolute number of details elicited. As shown in Table 3, subsequent univariate analyses of variance showed significant declines in both the amount and proportion of information elicited using open-ended prompts and a significant increase in the proportion of information elicited using option-posing prompts. In addition, absolutely and proportionally fewer details were elicited before the first option-posing prompts in the post supervision group than in the supervision group: $M_{sup} = 55.81, SD = 76.91; \% = 27.33, SD = 28.05; M_{post} = 27.68, SD = 48.96; \% = 14.26, SD = 20.73; F(1, 72) = 3.52, p < .065$, for numbers; $F(1, 72) = 5.19, p < .026$, for proportions. These changes in investigative strategy resulted in the elicitation of somewhat fewer forensically relevant details in the post-supervision phase ($M = 137.35, SD = 86.33$) than in the supervision phase: $M = 211.24, SD = 203.97; F(1, 72) = 4.12, p < .046$.

Supplementary analyses

To assess the robustness of the effects reported earlier and to ensure that the effects were not explained by the performance of a few overrepresented interviewers, we compared mean scores for each of the five inter-

viewers who contributed more than one interview to each condition. In their average interview, all five interviewers posed proportionally more invitations, elicited proportionally more details using invitations and proportionally fewer using directive and option-posing utterances, and elicited absolutely and proportionally more details before the first option-posing or suggestive prompt in the supervised than in the post-supervision interviews ($ps = .031$, for one-tailed binomial tests; Walker & Lev, 1953).

Discussion

Orbach et al. (2000) and Sternberg, Lamb, Orbach, et al. (2001) both showed that investigators trained to use the NICHD investigative interview protocol conducted forensic interviews that hewed closer to professionally endorsed best practice guidelines than those interviews conducted before the introduction of the protocol. In both studies, adherence to the protocol was ensured by regular supervision and by providing interviewers with prompt and specific feedback on transcripts of each of their interviews. The results of this study suggest that this intensive supervision and feedback played a crucial role in effecting and maintaining improvements in the interviewers' performance, because interviewers adhered to best practice guidelines less after the supervision and feedback were terminated. Specifically, analyses of matched interviews conducted by the same interviewers while they were receiving regular feedback and after this had ended showed declines in their use of open-ended prompts

Table 3. Amount of Forensically Relevant Information (Details) Elicited Using Different Investigative Prompts

Prompts	Under Supervision Details				After Supervision Details				Difference (<i>F</i>)	
	Number		Percentage		Number		Percentage		Number	Percentage
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Invitation	107.65	127.44	49.53	22.61	47.00	48.30	28.25	19.86	7.33*	18.51***
Directives	52.08	62.09	26.52	15.00	49.11	43.71	33.38	17.20	<i>ns</i>	<i>ns</i>
Option Posing	36.43	69.00	15.88	11.64	28.78	19.38	26.52	18.15	<i>ns</i>	9.01**
Suggestive	9.89	14.90	6.96	10.15	13.14	17.23	9.76	13.47	<i>ns</i>	<i>ns</i>

p* < .01. *p* < .001. ****p* < .0001.

and increases in their reliance on riskier option-posing and suggestive prompts. There were no group differences in the average number of details elicited per utterance of each type; and as a result, the amount and proportion of information elicited using open-ended prompts declined after the end of supervision, whereas the amount and proportion of information elicited using more focused prompts increased. Information in the form of free-recall narratives elicited using open-ended prompts is preferable because it is more likely to be accurate (Dale et al., 1978; Dent, 1986; Dent & Stephenson, 1979; Goodman & Aman, 1990; Goodman et al., 1991; Hutcherson et al., 1995; Lamb & Fauchier, 2001; Oates & Shrimpton, 1991; Orbach & Lamb, 2001; Ornstein et al., 1992). Therefore, the withdrawal of supervision was associated with a decline in the quality of information obtained from alleged victims, as well as a decline in the total amount of information elicited.

Young victim witnesses are typically the most important, if not the sole available, sources of information about alleged incidents of child abuse, yet the poor quality of most investigative interviews around the world (e.g. Bruck, 1999; Cederborg et al., 2000; Craig et al., 1999; Davies et al., 2000; Lamb, Hershkowitz, Sternberg, Esplin, et al., 1996; Sternberg, Lamb, Davies, & Westcott, 2001; Walker & Hunt, 1998) has contributed to a situation in which appropriate legal intervention is precluded by questionable and inadequate information about the alleged events. As a result, many workshops and training programs have been designed to improve adherence to professionally endorsed practices. Unfortunately, training programs of this sort typically have little impact on the investigative techniques employed by forensic investigators. For example, Aldridge and Cameron (1999) and Warren et al. (1999) provided 1 and 2 week-long seminars, respectively, in which the developmental research and its implications for interviewing were thoroughly explained, and trainees were given opportunities to practice interviewing skills with role-playing colleagues and confederate children. In both studies, researchers were able to demonstrate that the trainees learned what and why they should and should not do when interviewing children, but when interviews of confederate children were examined systematically, the interviewers behaved exactly as they had before the training. Similar results were obtained by Stevenson et al. (1992) following a less intensive training program. British police officers trained to follow the Memorandum of Good Practice (Sternberg, Lamb, Davies, & Westcott, 2001), as well as Israeli youth investigators (Lamb, Hershkowitz, Sternberg, Esplin, et al., 1996) and U.S. police officers (Sternberg et al., 1996) who had participated in intensive training programs likewise failed to implement many of the techniques they had been taught while adopting practices they had been taught to avoid.

By contrast, Orbach et al. (2000) and Sternberg, Lamb, Orbach, et al. (2001) reported dramatic improvements in the quality of interviewing and in the quality of information elicited from alleged victims in Israel and the United States, respectively. In both studies, however, the intensive training in use of the NICHD investigative protocol was supplemented by continuing close feedback and guidance: The interviewers received individual feedback on their investigative interviews and attended regular group sessions in which their own interviews were discussed to illustrate desirable practices and to highlight alternatives to undesirable practices. The results reported here suggest that, in the absence of the ongoing supervision and opportunities to reexamine their interviews closely, investigators tended to fall back on older, less desirable and less effective techniques. Conceivably, many of the benefits might have been retained if the interviewers had reviewed at least some of their interviews with peers and agency supervisors following the end of the supervision by the researchers, as this would have ensured some critical feedback. Similarly, continued discussion and problem solving within groups of investigators might have helped interviewers maintain superior interview practices, providing a less costly but effective means of maintaining the quality of investigative interviews. Both of these possibilities remain to be addressed in future research, ideally in studies that include a larger sample of interviewers than could be studied here.

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