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Examining reluctance and emotional support in forensic interviews with child victims of substantiated physical abuse

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ABSTRACT

Socio-emotional dynamics were examined in 230 forensic interviews of 3- to -13-year-old Israeli children who disclosed chronic physical abuse that could be substantiated. Half of the children were interviewed using the Standard (SP) National Institute of Child Health and Human Development Protocol and the others using the Revised Protocol (RP) that emphasized emotional support from interviewers. When children disclosed physical abuse in the RP interviews, they did so in response to fewer prompts than children in the SP interviews. The number of turns in the transitional phase (during which the interviewer transitioned from rapport-building to exploring the possibility of abuse) was associated with increased directness and more specific utterance types. The younger children displayed reluctance more than older children. The RP interviews were characterized by more emotionally supportive statements throughout. These findings highlight various aspects of child forensic interviews that should be considered when seeking to understand children's willingness to engage with interviewers.

Many suspected victims of child maltreatment are reluctant to allege abuse when forensically interviewed, even when there is clear evidence of maltreatment (Hershkowitz, Lamb, & Katz, 2014), which indicates that children's unwillingness to describe their experiences must often be addressed by interviewers. Within the past decade, research has illuminated the dynamics of interviews with children who are reluctant to make such reports, noting, for example, that reluctant children disclose in response to more focused (rather than open-ended) prompts (Orbach, Shiloach, & Lamb, 2007) and that interviewers struggle to respond to reluctance supportively (Hershkowitz, Orbach, Lamb, Sternberg, & Horowitz, 2006). Research has also demonstrated many benefits associated with the provision of nonsuggestive support (e.g., resistance to suggestion; Davis & Bottoms, 2002; Greenstock & Pipe, 1997; Quas, Wallin, Papini, Lench, & Scullin, 2005; Saywitz, Wells, Larson, & Hobbs, 2016). These findings prompted a revision, called the Revised NICHD Protocol (RP), of the National Institute of Child Health and Human Development (NICHD) Protocol (termed SP for Standard Protocol) to better address children's emotional needs (Hershkowitz, Lamb, Katz, & Malloy, 2013). Research using the RP (Ahern, Hershkowitz, Lamb, Blasbalg, & Winstanley, 2014; Hershkowitz et al., 2014; Hershkowitz et al., 2013) prompted further revision, resulting in the version of the RP employed in

the present study (see also Hershkowitz et al., 2017). In this study, we compared levels of children's reluctance (e.g., unwillingness to participate in the interview) and interviewers' emotionally supportive statements in SP and RP interviews in order to determine whether the RP helped to increase children's level of comfort during the interviews.

The SP and RP protocols

The SP is based on decades of child development research and focuses primarily on cognitive factors that increase children's testimonial competencies (Lamb, Hershkowitz, Orbach, & Esplin, 2008). For example, the SP has been associated with the use of more openended prompts (invitations), which tap recall memory processes and thus promote narrative reporting, and fewer option-posing or suggestive questions, which tap recognition memory processes (Lamb et al., 2009). The SP outlines interview phases: ground rules (e.g., it is ok to say "I don't know"), rapport building (e.g., asking about children's likes), episodic memory training (e.g., asking children in detail about past events unrelated to abuse), transition to substantive content (e.g., asking children why they are being interviewed), and exhaustive description of any allegations reported (e.g., "Tell me everything that happened"). During

the transitional phase, when the focus shifts from nonsubstantive content to the possible occurrence of abuse, the SP recommends use of a series of information-seeking prompts in a graduated sequence moving from general to more focused inquiries. Interviewers are counselled to avoid focused prompts altogether if possible, employing them only as a last resort to avoid contaminating children's reports (Ahern & Lamb, 2013).

However, with respect to managing children's reluctance, the SP is limited. Although the SP includes a rapport-building phase, this only begins after the ground rules have been explained, which may appear less hospitable than if children were initially asked about their personal interests. Moreover, children's discomfort increases when attention shifts from neutral to potentially intrusive topics (Hershkowitz et al., 2013), but the SP provides virtually no guidance on how to provide support during the transitional phase when reluctant children may need it most (Lamb, Orbach, Hershkowitz, Esplin, & Horowitz, 2007; Lewy, Cyr, & Dion, 2015).

The RP was thus developed to increase the amount of support (defined by the number and nature of interventions designed to enhance children's comfort and willingness to report any experiences accurately) given to children in forensic interviews (Hershkowitz et al., 2013). In order to increase the amount of emotional support children receive, the RP included a changed interview structure in which children were first asked about their hobbies before having procedural ground rules explained (i.e., beginning with rapport-building rather than ground rules) and examples of supportive statements appropriate for every interview phase, including detailed guidance regarding the transitional phase (see Method Section), were provided. Because children are often reluctant to disclose abuse for emotional reasons (e.g., fear, shame), interviewers were advised to ask children about their feelings at the time of the interview as a way of communicating support, so that any of the children's concerns could be voiced and addressed by the interviewers.

Prior research on the RP

In the first empirical test of the RP, supportive and reluctant utterances were identified in 199 transcripts of 4- to 13-year-olds alleging abuse by family members (Hershkowitz et al., 2013). Although users of the RP provided increased support during the transitional phase and children showed less reluctance during the substantive phase than in SP interviews, it was only during the rapport-building phase that improvements in levels of both support and reluctance were found. In another study involving 426 children whose status as abuse victims had been independently confirmed, more children disclosed they had been abused when the RP (59.8%) rather than the SP (50.3%) was used (Hershkowitz et al., 2014).

Transitional prompts

Only a few studies have examined which specific prompts elicited children's allegations. Children who make allegations in response to earlier (less intrusive) prompts are not only more willing to disclose but also do so after fewer opportunities for contamination by interviewers using more intrusive prompts. In Hershkowitz et al.'s (2013) comparative study, proportionally more appropriate (e.g., free recall) prompts were used in the transitional phase in the RP interviews whereas proportionally more risky (e.g., recognition) prompts were used in the SP interviews. In an earlier study, 75% to 89% of children who made allegations did so in response to the first substantive prompt in SP interviews (e.g., "Tell me why you came here today?") (Sternberg, Lamb, Orbach, Esplin, & Mitchell, 2001). However, the sample comprised children who had previously reported abuse and many of the children reported single incidents of sexual abuse (50%) perpetrated by nonfamily members (40%). Thus, the children sampled may have been more forthcoming than children who had not previously made allegations (Hershkowitz et al., 2014; Rush, Lyon, Ahern, & Quas, 2014) or were possible victims of chronic abuse by family members (London, Bruck, Ceci, & Shuman, 2005). In another study, half of the children disclosed following an initial open-ended substantive prompt (Orbach et al., 2007). Interestingly, those who disclosed in response to later more specific substantive prompts also provided less detailed accounts. Taken together, these findings suggest that the need to use increasingly focused substantive prompts can serve as a rough measure of reluctance.

Following encouraging findings regarding the use of the RP (Hershkowitz et al., 2013, 2014), the Israeli Service for Child Investigation (SCI) in the Ministry of Social Affairs and Social Services mandated that the RP be used in all investigative interviews of alleged child abuse victims in Israel. Since that initial implementation (see Hershkowitz et al., 2014), training was revised and expanded to include more structured guidance about how to identify reluctance and provide support to interviewees effectively (see Hershkowitz et al., 2017). Following this training, interviewers indeed provided

more supportive statements and were more sensitive to children's manifestations of reluctance (Hershkowitz et al., 2017), but no analyses focused on the children's behavior and the interviewers' responses. Thus, the present study focused on children's responses to supportive interviewing, examining an independent sample of pre- and post implementation cases matched this time by child and abuse characteristics.

Present study

The present study compared the numbers of supportive statements and various measures of reluctance in each phase of RP and SP interviews with children who alleged that they had been physically abused. There is often better corroboration of physical abuse than of sexual abuse (Rush et al., 2014) and there was independent evidence that all the children interviewed had been abused by specific family members. Because physical abuse is, by legal definition, perpetrated by parents or guardians, it typically involves considerable reluctance to disclose (Ghetti, Goodman, Eisen, Qin, & Davis, 2002; Hershkowitz & Elul, 1999; Hershkowitz et al., 2013; but see Rush et al., 2014). For all of these reasons, the children in our sample were expected to be somewhat uncooperative.

We predicted that (1) children's reluctance would peak during the transitional phase and that (2) within the transitional phase, reluctance would be reflected in the number of substantive turns required to elicit allegations of abuse (more turns indicating more reluctance), utterance type (more closed-ended prompts indicating more reluctance), and transitional prompt content (more specific prompt content indicating more reluctance) (Hershkowitz et al., 2006, 2013; Orbach et al., 2007). We expected these measures (number of transitional prompts, utterance type, transitional content) to be associated with one another because (a) they were all associated with levels of reluctance and because (b) the transitional prompts were designed to gradually become more specific. We also predicted that (3) more supportive statements and fewer signs of reluctance would be evident in RP than in SP interviews, as was true in previous research (Hershkowitz et al., 2013), and (4) younger children would express more reluctance than older children as shown in other studies (Hershkowitz, Horowitz, & Lamb, 2005; Pipe, Lamb, Orbach, & Cederborg, 2007).

Method

Sample

The study involved 230 transcribed interviews from across Israel (Central: n = 79, Jerusalem: n = 18, North: n = 102, South: n = 31) in which children disclosed physical abuse. The 134 boys and 96 girls interviewed averaged 8.94 (SD = 2.64) years of age (Range = 3.52-13.98 years). The allegations made in each interview were corroborated either by witness (parent, sibling, another victim or independent witnesses) reports (77%) or other sources (23%; medical or material evidence, suspect admissions). About half (116) of the interviews were conducted by youth investigators using the SP and 114 were conducted following the implementation of the RP. Unlike an earlier sample used to study changes over time in the implementation of the RP (Hershkowitz et al., 2017), the current sample included cases in each group matched as closely as possible with respect to age, the severity of abuse, and the relationship between the alleged victims and perpetrators (Table 1). All but one interview contained allegations of multiple episodes of physical abuse.

RP procedure

The SP has been extensively described in previous publications, several of which also explained the recommended structure and strategies (e.g., Lamb et al., 2007, 2008) so it is not described here. As described more fully by Hershkowitz et al. (2017), the RP was a modification of the SP that focused the interviewers' attention on rapport building and support while maintaining the emphasis on the use, wherever possible, of open-ended recall-based questions. Specifically, ice-breaker prompts were first used ("Tell me about things you like to do") before ground rules were explained. After the presentation of ground rules, children participated in episodic memory training to help them feel more relaxed and at ease.

Unlike the SP, interviewers using the RP were advised to use specific supportive statements throughout the interview. These supportive statements included those that focused on children's well-being

Table 1. Characteristics of children and circumstances in the two protocol conditions.

	Standard protocol		Revised	protocol
	n	%	n	%
A	ge Group			
3.50 to 7.50 year olds	36	31	42	37
7.51 to 10.50 year olds	46	37	36	32
10.51 to 13.99 year olds	37	32	36	32
Abu	use Severity	/		
Injury	23	20	21	19
Hitting with an object	38	33	41	36
Hitting	55	47	52	45
Suspect Relationship to Child				
More than one familial suspect	7	6	5	4
Parent suspect	109	94	109	96

and emotions (e.g., "I can see you are trying hard," "You told me you felt sad. Tell me more about feeling sad"), used children's names, and were nonsuggestive encouragements to disclose (e.g., "Here you can talk about everything"). The RP also included instructions on the use of support both when children were actively displaying reluctance ("I can see you are crying, tell me what is on your mind") and when they were not ("Thanks for letting me listen to you"). The RP also encouraged interviewers to use nonverbal support throughout the interview (e.g., eye contact, nodding, smiling, leaning towards the child). Finally, the RP also gave examples of supportive statements suitable for each phase of the interview.

Support during presubstantive phase

Interviewers welcomed children by asking about their general welfare ("How are you?") and offering gestures of good will ("Would you like a drink?"). Interviewers were asked to proceed from the rapport-building to the transitional phase only when they judged that the child was sufficiently comfortable to discuss the possibility that abuse might have occurred.

Support during transitional phase

During the transitional phase, the interview transitioned from discussing nonsubstantive topics to the possibility that abuse might have occurred. As in the SP, a series of allegation-seeking prompts were used in a graduated

sequence, beginning with the most open-ended, as shown in Table 2.

For the RP, interviewers were taught supportive statements to manage reluctance (i.e., children not responding informatively to transitional prompts) during the transitional phase. A guiding principle in the transitional phase was that the supportive statements were never more intrusive than the associated information-seeking prompts. If children did not make allegations when offered general transitional prompts ("Tell me why you came here today"), interviewers were taught to use generalized support (which did not refer directly to the interviewee or possible abuse), such as "It's really important for me to know when things happen to children. That's what I am here for" or "Here, children can talk about good and bad things" before offering the next transitional prompt. When it appeared children genuinely did not know why they were being interviewed, interviewers were advised to move on to more specific transitional prompts. However, if it appeared children were being uncooperative or reluctant, interviewers were advised to avoid moving on to more specific transitional prompts and instead provide support to manage reluctance.

Children who continued to be reluctant in response to more specific transitional questions ("Did something happen to you at [place or time]?") were given support that referred directly to them but still did not make explicit reference to the suspected abuse ("Thank you for sharing so much about yourself. Today you can go

Table 2. Rates of disclosure in response to individual transition prompts by protocol.

	Standard protocol					Revised protocol						
Prompt	n not disclosed ^a	n asked ^b	n disclosed ^c	% incremental disclosure ^d	% prompt disclosure ^e	% subsample disclosure f	a	b	С	d	e	f
0) I want to talk about why you came today.	109	102	3	0.03	0.03	0.03	106	102	3	0.03	0.03	0.03
1) I understand that something may have happened to you.	106*	97	9	0.08	0.09	0.08	103	94	6	0.06	0.06	0.06
2) Why do you think [person] brought you here?	97	91	6	0.06	0.07	0.06	97	89	11	0.11	0.12	0.10
3) I heard you talked to [person].	91	11	6	0.07	0.55	0.06	86	11	3	0.03	0.27	0.03
4) I heard you had [bruises].	85	4	1	0.01	0.25	0.01	83	4	4	0.05	1.00	0.04
5) Did anything happen at [time/ location]?	84	70	2	0.02	0.03	0.02	79	78	4	0.05	0.05	0.04
6) Has anyone bothered you?	82	78	17	0.21	0.22	0.16	75	54	20	0.27	0.37	0.19
7) Has someone done something not right?	65	62	13	0.20	0.21	0.12	55	52	14	0.25	0.27	0.13
8) Did someone [briefly mention allegation without naming alleged suspect or specifics]?	52	52	38	0.73	0.73	0.35	41	40	33	0.80	0.83	0.31
 I understand you told/ someone told/ someone saw [detail of the allegation], and I want to sort it out. 	14	14	14	1.00	1.00	0.13	8	8	8	1.00	1.00	0.08

Note. ^aRepresents the number of children who have not yet disclosed. For example, for transitional prompt # 1 for SP because 3 children disclosed to transitional prompt 0, there were 109 - 3 = 106 children who had not disclosed yet (thus, 106 is listed for transitional prompt 1); ^bThe number of children asked the prompt; 'The number of children who disclosed to the prompt; 'The denominator is the number of children who have yet to disclose; The denominator is the number of children who were asked the prompt; The denominator is the total number of children in the condition.

on and tell me about other things that have happened to you").

Children who continued to display reluctance despite independent evidence that they had been abused were offered support that referred to generalized concerns ("People are worried about you, and I want to know if something may have happened," "If something has happened to you and you want it to stop, you can tell me").

By the end of the transitional phase, the interviewer was asked to evaluate whether children were uncooperative or might not have experienced abuse. If interviewers concluded that children may have been abused but were unwilling to disclose, subsequent interviews were recommended in order to allow further rapport-building to promote children's cooperation.

In the present study, disclosure was deemed to have occurred when the child reported physical abuse and identified a perpetrator.

Support during the allegation phase

Interviewers were advised to maintain rapport by continuing to use supportive statements (as described above) throughout the interview. Interviewers were aware that adequate rapport was achieved by monitoring how engaged and cooperative the child was during the course of the interview. Because it is important to recognize disruptions in rapport and repairs (Saywitz, Larson, Hobbs, & Wells, 2015), when children became uncomfortable (e.g., pausing, gaze aversion, omitting responses, or expressing reluctance), the interviewers were trained to respond immediately in situationally appropriate ways (e.g., "How are you feeling right now?," "You have been really helpful, thanks for letting me listen"). If children appeared uncomfortable or reluctant to discuss the allegations in detail (e.g., lengthy pauses, digressions from question content, tearfulness or verbal reluctance, such as "I don't want to be here"), interviewers were advised to avoid further questioning and plan a follow-up meeting.

Transcript coding

Interview videos were transcribed and checked to ensure completeness and accuracy.

Measures

Transitional phase reluctance. In order to index reluctance, the length of the transitional phase (i.e., more turns indicated greater reluctance to disclose), transitional prompt content (i.e., more focused transitional prompts indicated greater reluctance to disclose), and transitional utterance types

(i.e., more focused utterance types represented greater willingness) were also examined.

The length of the transitional phase was quantified by counting (a) the total number of interviewer-child conversational turns (i.e., question-answer pairs, both substantive and nonsubstantive, including digressions and procedural prompts ("Can you please speak up?") and (b) the number of substantive turns (how many attempts were made to elicit an allegation), which may or may not have included statements of support.

The contents of transitional prompts were categorized as Tell Me Why (prompts 0-2 on Table 2), Context Referenced (prompts 3-5 on Table 2), Generic Inquiries (prompts 6-7 on Table 2), and Specific Inquiries (prompts 8-9 on Table 2).

Although a sequence of transitional prompts was specified in the Protocol guidance (Table 2), interviewers in the field may have varied their uses of TR prompts with respect to question format, order, and content. Thus, we used multiple analytical approaches to assess interactional dynamics during the TR phase (e.g., question format, content, and the number of TR prompts asked).

Utterance type. All interviewer utterances were also categorized, on the basis of the type of information request, as invitations, directives, option-posing, or suggestive prompts (e.g., Lamb et al., 2008). Definitions and examples of the utterance types are provided in other reports (e.g., Sternberg et al., 2001).

Supportive statements. Each interviewer utterance was coded for the number of supportive expressions, including nonsuggestive encouragements to disclose (e.g., "Here you can talk about everything"), statements primarily focused on the child's well-being and emotions (e.g., "How are you doing?," "Would you like some water?"), and uses of the child's name (e.g., Ahern et al., 2014; Hershkowitz, 2009; Hershkowitz et al., 2013, 2017).

Reluctance. Each child utterance was coded for the number of several types of reluctance, including explicit statements of reluctance (e.g., resistance such as "I want to go," "I don't want to answer" or denials such as "nothing happened"), omissions (e.g., "I don't know," silence), and digressions (e.g., "Want to see my shoes?") (e.g., Ahern et al., 2014; Hershkowitz et al., 2006, 2013).

Inter-rater reliability

Coding was performed by two of the researchers, who established inter-rater reliability on a separate set of transcripts prior to coding transcripts for the study. Coding

was performed regularly and reliability checked throughout the period during which interviewers were being trained to implement the Protocol (Hershkowitz et al., 2017). To ensure that adequate inter-rater reliability was maintained throughout the coding process, 20% of the transcripts were independently coded by both coders. Inter-rater reliability was calculated at the interview level (i.e., frequency of agreements regarding instances of support and reluctance in all turns in each interview), with Kappas = .92 and .93, respectively. For the categorization of utterance type, Kappa = .88.

Results

For the following analyses, age group effects were followed up by categorizing the continuous age variable into three groups (3.50 to 7.50 years, n = 78; 7.51 to 10.50 years, n = 79; 10.51 to 13.99 years, n = 73). Alpha levels for multiple comparisons among age groups were adjusted for the number of comparison tests (e.g., .05 alpha/3 comparisons = .02 adjusted alpha value).

Reluctance during the transitional phase

We expected children's reluctance to peak during the transitional phase. Nonparametric Friedman tests revealed that explicitly reluctant statements occurred more often during the transitional phase (Mean Rank = 2.43) than in the presubstantive (Mean Rank = 1.39)

Table 3. Transitional phase: Utterance type, content-eliciting allegations, and number of turns in both protocols: Means (SD).

		# Substantive turns	# Substantive and nonsubstantive turns
Utterance type that elicited allegation	n	Mean (SD)	Mean (SD)
Invitations ^a	57	2.98 (2.75)	10.30 (16.13)
Option posing	139	6.90 (3.18)	17.47 (16.15)
Suggestive	19	13.11 (6.30)	37.37 (27.00)
Content			
Tell Me Why	38	1.92 (1.22)	9.71 (17.64)
Context Referenced	20	4.15 (1.27)	9.95 (7.57)
Generic Inquiry	64	4.77 (1.78)	13.70 (14.31)
Specific Inquiry	93	9.86 (4.24)	24.53 (20.75)

Note. ^aOne directive prompt elicited an allegation, which was categorized as an "invitation" because directives, like invitations, rely on free recall memory.

and allegation (Mean Rank = 2.18) phases, X^2 (2, N =(215) = 157.29, p < .001. Similarly, digressions occurred more often during the transitional phase (Mean Rank = 2.31) than in the presubstantive (Mean Rank = 1.89) and allegation (Mean Rank = 1.80) phases, X^2 (2, N =(215) = 33.75, p < .001. Omissions, however, were more common during the allegation (Mean Rank = 2.52) than the transitional (Mean Rank = 1.64) or presubstantive (Mean Rank = 1.84) phases, X^2 (2, N = 215) = 110.18, p < .001.

Examining the transitional phase in-depth

We also expected that indices of reluctance might be communicated other than by way of the number of signs of reluctance (omissions, distractions, and explicitly reluctant statements). Specifically, because reluctance may increase when transitioning into the substantive phase of the interview, we then examined the number of turns, utterance types, and prompt content (expecting that both a greater number of turns and the use of more focused prompts would index greater reluctance) during the transitional phase (See Table 3 for descriptive statistics). As expected, these scores were highly correlated with one another (Table 4), indicating that, as the number of transitional prompts increased, so did the directness of both the utterance types and the specificity of the prompt content.

Number of transitional turns

An average of 6.41 (SD = 4.37) substantive turns (Min = 0, Max = 32; Median = 6) occurred during the transitional phase.

A Hierarchical Linear Model (HLM), with child interviews nested within interviewers, was conducted to examine the total number of substantive turns in the transitional phase. Main effects for Protocol, F $(1, 205) = 4.16, p = .04, \Omega^2 = .06, \text{ and Age, } F(1, 211) =$ 8.59, p = .004, $\Omega^2 = .02$, emerged. Children made allegations in response to fewer transitional prompts in the RP (M = 5.84, SD = 4.27) than in the SP (M = 6.96,SD = 4.41) condition. The effect due to age was followed up by categorizing age into three groups and the alpha levels for multiple comparisons among age

Table 4. Spearman correlations among transition prompt content, utterance type that elicited disclosure, and number of transitional prompts in both protocols.

Spearman's rho	Utterance type	Transitional prompt content	# Substantive transitional turns	# Substantive and nonsubstantive transitional turns
Utterance Type	1.000	0.787**	0.662**	0.534**
Transitional Prompt Content	_	1.000	0.865**	0.631**
# Substantive Transitional Turns	_	_	1.000	0.696**
# Substantive and Nonsubstantive	_	_	_	1.000
Transitional turns				

Note. **p < .01.

groups were adjusted for the number of comparison tests. The oldest children (M = 5.30, SD = 3.87) required fewer transitional prompts than the youngest children (M = 7.33, SD = 3.87), t(137) = 3.08, p < .001.

Transitional utterance types

Substantive utterance types (i.e., invitations, directives, option-posing, suggestive prompts) in the transitional phase were examined in two ways: (1) the proportional use of each in the transitional phase (to document how direct the transitional phase prompts were, because this may index children's level of comfort) and (2) to identify which utterance type elicited an allegation (because this may both index children's comfort and be forensically significant, especially when it might be alleged that the interviewer "led" the child). Neither analysis yielded significant effects for Protocol.

Proportion of each utterance type used. Separate HLMs were conducted to analyze the proportion of invitations, option-posing, and suggestive prompts used during the transitional phase. Directive and suggestive prompts were excluded because too few children received these types of prompts (n = 10, n = 37, respectively), often only once (n = 7, n = 12, respectively). Main effects of Protocol (categorical: SP, RP) and Age (continuous: in years) were computed, with child interviews nested within interviewers.

For the proportion of invitations, there was a main effect for Age, F(1, 210) = 10.41, p = .001, $\Omega^2 = .02$. Follow-up comparisons with adjusted alpha levels, revealed that the youngest children (M = .44, SD =.28) received proportionally fewer invitations than the oldest children (M = .60, SD = .33), t(137) = 3.06, p < .002.

For the proportion of transitional option-posing prompts, there was again a main effect for Age, $F(1, 209) = 12.26, p = .001, \Omega^2 = .02.$ Follow-up comparisons with adjusted alpha levels revealed that the youngest children received proportionally more option-posing prompts (M = .54, SD = .27) than the middle-aged (M = .44, SD = .28), t(146) = 2.25,p = .01, and oldest (M = .38, SD = .32) children, t(137) = 3.29, p < .001.

Utterance type that elicited the allegation. Optionposing prompts were more often used to elicit allegations from the younger children and invitations were more often used to elicit allegations from the older children (Table 5). Although suggestive prompts were used least often, they were used most frequently with the 7.51- to 10.50-year-olds. The chi square test was significant, X^2 (N = 215) = 13.88, p = .008, showing

Table 5. Transitional prompts that elicited the allegation frequencies in both protocols: Utterance type by age group.

Age group	${\sf Invitations}^a$	Option-posing	Suggestive	Total
3.50 to 7.50 years	11	19	27	57
Within Age Group	19%	33%	47%	100%
Within Utterance Type	15%	25%	40%	27%
7.51 to 10.50 years	57	48	34	139
Within Age Group	41%	35%	24%	100%
Within Utterance Type	78%	63%	52%	65%
10.51 to 12.99 years	5	9	5	19
Within Age Group	26%	47%	26%	100%
Within Utterance Type	7%	12%	8%	9%
Total	73	76	66	215
Within Age Group	34%	35%	31%	100%
Within Utterance Type	100%	100%	100%	100%

Note. ^aOne directive prompt elicited an allegation, which was categorized as an "invitation" because directives, like invitations, rely on recall memory.

that 10.51- to 13.99-year-olds disclosed more often in response to invitations (27 out of the 66 oldest children) and that 3.50- to 7.50-year-olds disclosed more often in response to option-posing prompts (57 out of the 73 younger children).

Transitional prompt content

In order to examine the use of transitional prompts and children's responses to them, Table 2 displays prompt frequencies and how many children (did/ did not) disclose in response to them in each protocol condition.

We were also interested in the extent to which each type of transitional prompt (Tell Me Why, Context-Referenced, Generic Inquiry, Specific Inquiry) relied on various utterance types to elicit allegations (frequency tabulations are shown in Table 6). Almost every Tell Me Why prompt elicited allegations using invitations (probably because "tell me why" is phrased as an invitation). Context-Referenced prompts relied on invitations two thirds of the time with option-posing

Table 6. Transition prompt content that elicited the allegation by utterance type using both protocols.

	-	Utterance type	!	
	Invitations	Option-posing	Suggestive	Total
Tell Me Why	37	1	0	38
Within Content Type	97%	3%	0%	100%
Within Utterance Type	65%	1%	0%	18%
Context Referenced	13	7	0	20
Within Content Type	65%	35%	0%	100%
Within Utterance Type	23%	5%	0%	9%
Generic Inquiry	5	58	1	64
Within Content Type	8%	91%	2%	100%
Within Utterance Type	9%	42%	5%	30%
Specific Inquiry	2	73	18	93
Within Content Type	2%	79%	19%	100%
Within Utterance Type	4%	53%	95%	43%
Total	57	139	19	215
Within Content Type	27%	65%	9%	100%
Within Utterance Type	100%	100%	100%	100%

prompts used in the remaining third. In contrast, the more focused transitional content prompts (i.e., Generic and Specific Inquiries) involved option-posing utterance types most of the time. Almost every suggestive prompt that elicited an allegation referred to Specific Inquiries.

We thought that, when responding to the most reluctant children (i.e., those requiring Specific Inquiries), the RP Protocol interviewers might have relied on less suggestive prompts than the SP Protocol interviewers. In fact, the SP interviewers relied on suggestive utterances (27%) nonsignificantly more than the RP interviewers (10%) did, $X^2 = (N = 91, 1) = 4.30$, Fisher's Exact test = .06.

Examining support and reluctance for each conversational turn

Preliminary analyses revealed no effects due to gender or abuse severity on support and reluctance and these factors were thus excluded from the analyses. The presubstantive phase included the initial phases in which children responded to questions from the interviewer (rapport-building, episodic memory training) but not those that involved general statements about the interview process (introduction, ground-rules). Table 7 displays the number of supportive statements and indices of reluctance per turn for each interview phase.

Supportive statements per turn

To examine our hypotheses regarding the interviewers' use of supportive statements, a series of Hierarchical Linear Models (HLMs) was performed on the average number of supportive statements per turn (number of supportive statements divided by the number of turns) for the presubstantive, transitional, and allegation (encouragements, Subtypes of support well-being, name use) were collapsed to streamline the number of analyses. Main effects of Protocol (categorical: SP, RP) and Age (continuous: in years) were assessed, with child interviews nested within interviewers for each HLM. Proportions of explained variance are reported as Ω^2 (e.g., $\Omega^2 = .03$ indicates 3% explained variance) (Xu, 2003). Ω^2 was calculated for each effect as one minus the variance of the residuals in the full model divided by the variance of the residuals without the effect.

For each phase (presubstantive, interview transitional, allegation), the RP interviews contained more supportive statements per turn than the SP interviews, Fs (1, 219, 209, 220) = 67.65, 20.91, 21.09, ps < .001, $\Omega^2 = .23$, .10, .06, respectively (see Table 7 for Means and Standard Deviations).

For the presubstantive phase, Age only emerged as a main effect, F(1, 216) = 9.02, p = .003, $\Omega^2 = .26$, for the average number of supportive statements per turn. Children in the middle age group (M = 1.59, SD =.32) received slightly more supportive statements per turn than those in the youngest age group (M = 1.49, SD = .30).

For the allegation phase, Age interacted with Protocol, F(1, 211) = 7.50, p = .007, $\Omega^2 = .03$. The RP was associated with more supportive statements per turn than the SP for children in the youngest (RP: M = .60, SD = .27; SP: M = .40, SD = .22) and middle age groups (RP: M = .58, SD = .25; SP: M = .42, SD = .42.17), t(76, 77) = 3.62, 3.31, p = .001, but not for the oldest children (RP: M = .46, SD = .23; SP: .39, SD = .21), t(71) = 1.23, p = .22.

Signs of reluctance per turn

To examine our hypotheses regarding the number of signs of reluctance, similar HLMs as described above were performed on the number of signs (omissions, distractions, explicit reluctance) per turn (number of reluctances divided by number of turns). For the

Table 7. Number of supportive statements and signs of reluctance per turn by protocol and phase.

	Presubstantive		Trans	itional	Allegation		
	SP	SP RP SP		RP	SP	RP	
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	
			Support				
Encourager	0.11 (0.05)	0.10 (0.07)	0.27 (0.27)	0.35 (0.30)	0.01 (0.02)	0.04 (0.06)	
Well-being	0.95 (0.11)	1.03 (0.16)	0.35 (0.25)	0.40 (0.26)	0.23 (0.16)	0.23 (0.15)	
Name Use	0.17 (0.13)	0.34 (0.19)	0.39 (0.29)	0.49 (0.24)	0.08 (0.10)	0.18 (0.16)	
Total	1.24 (0.18)	1.46 (0.31)	1.00 (0.40)	1.23 (0.44)	0.33 (0.18)	0.45 (0.24)	
			Reluctance				
Explicit	0.01 (0.03)	0.01 (0.03)	0.17 (0.19)	0.14 (0.15)	0.06 (0.07)	0.05 (0.07)	
Digression	0.10 (0.09)	0.08 (0.08)	0.19 (0.22)	0.18 (0.18)	0.09 (0.09)	0.09 (0.10)	
Omission	0.07 (0.08)	0.07 (0.08)	0.07 (0.13)	0.07 (0.11)	0.13 (0.10)	0.14 (0.11)	
Total	0.18 (0.13)	0.16 (0.12)	0.43 (0.27)	0.39 (0.26)	0.28 (0.18)	0.29 (0.20)	

Note. Values were calculated as the total number of each type of statement divided by the total number of turns.

presubstantive phase, Age emerged as a main effect, $F(1, 227) = 6.30, p = .013, \Omega^2 = .13$. The oldest children (M = .06, SD = .07) gave fewer signs of reluctance per turn than the middle-aged (M = .09, SD = .01) and youngest children (M = .10, SD = .10), t(150, 149)= 2.48, 2.46, $ps \le$ = .01. For the transitional phase, no significant effects emerged. For the allegation phase, Age emerged as a main effect, F(1, 227) = 9.46, p = .002, $\Omega^2 = .09$. The oldest children (M = .16, SD = .13) gave fewer signs of reluctance per turn than the middle-aged (M = .21, SD = .14) and youngest children (M = .24,SD = .18), t(150, 149) = 2.48, 2.46, $ps \le 0.1$. There were no effects due to Protocol.

Because omissions may represent lack of knowledge rather than reluctance, the same HLMs were performed with omissions excluded, which resulted in a very similar pattern of findings (i.e., effects due to Age and none due to Protocol).

Discussion

In the present study, levels of child reluctance and interviewer supportive statements were examined in interviews conducted using the SP and RP versions of the NICHD Protocol. As predicted, children's levels of discomfort increased during the transitional phase, as reflected in increased numbers of digressions and expressions of reluctance. As further predicted, children were more forthcoming in RP interviews (i.e., they disclosed in response to fewer transitional prompts) and the younger children expressed more reluctance per turn than the older children, and required more frequent and more direct prompts in the transitional phase. We found evidence that the number of prompts used in the transitional phase before the children made allegations, the nature of those prompts, and their content were all associated (i.e., as the number of turns increased so, too, did the directness of the utterance types and the specificity of their content).

Although children did not show fewer overt signs of reluctance in the RP than in SP interviews (as defined by the number of signs of reluctance that appeared in the average turn), there was also evidence that the RP interviews contained more supportive statements than the SP interviews. Taken together, these findings shed light on the socio-emotional dynamics that characterize forensic interviews with children who are reluctant to disclose that they have been abused. The transitional phase was associated with greater rates of explicit reluctance and digression. These findings add to the mounting evidence that children's reluctance may peak when the focus begins to shift from neutral and positive conversation to substantive topics

(Hershkowitz et al., 2006, 2013), so the fact that interviewers trained to use the RP were more supportive at this time (compared to when trained in the SP) is important. The allegation phase was also characterized by more omissions per turn than other phases, perhaps because the children were then responding to many more questions, some of which may have probed hard-to-remember details, such as peripheral content.

In-depth examination of the transitional phase revealed several effects due to Protocol that highlight differences in the children's level of comfort. Children in the RP were more forthcoming with their allegations, alleging abuse in response to fewer and more open prompts than children in the SP condition. Their allegations were thus open to less criticism that the accounts might have been contaminated. This finding may also reflect that, when using the SP, interviewers may have moved prematurely to more specific prompts, perhaps revealing less skill at providing children time to process and subsequently respond to individual TR prompts.

For the most reluctant children (i.e., those requiring Specific Inquiries), we expected that the RP interviews would contain fewer suggestive prompts than the SP interviews because the RP interviewers had developed superior interviewing skills, but the predicted difference was not significant. In both conditions, interviewers were able to refrain from negative and potentially antagonistic responses to reluctance (Hershkowitz et al., 2006). Indeed, although all children in the sample were likely to be uncooperative (all had been maltreated by family members) suggestive utterances were rare, perhaps as a result of intensive training (Ahern et al., 2014; Hershkowitz et al., 2017) and the children's increased levels of comfort.

Our hypothesis that younger children would express more reluctance than older children, as shown in other studies (Hershkowitz et al., 2005; Pipe et al., 2007), was generally supported. The older children disclosed abuse in response to earlier, fewer, and more open-ended transitional prompts than the youngest children. These findings highlight the particular challenge interviewers often encounter when striving to avoid using option-posing prompts when speaking to the youngest children and is especially important because their responses to more focused prompts are more likely to be unreliable (e.g., Shrimpton, Oates, & Hayes, 1998).

The fact that the younger children received both proportionally more closed-ended prompts and were more likely to make allegations in response to closedended prompts highlights the need to re-visit ways of questioning younger children, perhaps by using directives rather than option-posing prompts (Hershkowitz, Lamb, Orbach, Katz, & Horowitz, 2012; Lamb et al., 2003).

Finally, during the allegation phase, the RP interviews contained more supportive statements than the SP interviews only for the youngest and middle-aged children. This increased use of emotionally supportive statements indicates that the RP may be especially useful when interviewing younger children (who may be challenging to interview, as demonstrated by the aforementioned findings). However, the fact that the older children were treated comparably in the two conditions with respect to the numbers of supportive statements may signal an aspect of the RP in need of further improvement, with additional supportive prompts needed when interviewing older children in particular.

As predicted, increases in the number of prompts used in the transitional phase were associated with increases in the directness of the utterances and the specificity of their content. Almost every allegation elicited using *Tell Me Why* prompts and the majority of those elicited using *Context Referenced* prompts came in response to invitations. In contrast, more focused transitional prompts (i.e., *Generic* and *Specific Inquiries*) were primarily option-posing questions and nearly every suggestive prompt that elicited an allegation involved *Specific Inquiries*. These findings suggest that the earlier children made allegations during the transitional phase, the more likely it was that their allegations were elicited in a minimally contaminating manner.

It is also important to note that not all invitations, directives, and option-posing prompts are the same as others in the same category. For example, utterances can focus on different issues, with some being more contaminating (e.g., references to previous disclosures) than others (e.g., references to the location where the abuse might have occurred). During training, it may be important to recommend the use of *fewer* transitional prompts and more supportive strategies when possible, in order to minimize reliance on more focused and specific utterances.

In the presubstantive phase, the RP interviewers provided proportionally more support than the SP interviewers, as they did in previous research comparing the two protocols (Ahern et al., 2014; Hershkowitz et al., 2013). The RP interviewers also provided proportionally more support during the transitional and allegation phases, probably because they had been provided with examples of the types of statements that would be appropriate during every interview phase. Because it seems to be especially difficult for interviewers to employ nonsuggestive supportive techniques with younger children (Hershkowitz et al., 2017), it is important to highlight that there were no effects due

to age for the transitional and allegation phases. However, for the presubstantive phase, a main effect due to age did emerge, showing that children in the middle age group received slightly more supportive statements than the youngest children. This finding is especially notable because the youngest children often require the most support (Ahern et al., 2014; Hershkowitz et al., 2005; Pipe et al., 2007) and may display reluctance more passively (e.g., digressions) or behaviorally (e.g., gesturing to leave the interview room) (VanMeter, Ahern, & Lamb, 2016).

As expected, older children gave fewer signs of reluctance per turn than those in the younger age groups, but only for the presubstantive and allegation phases. It is possible that a similar pattern would have emerged for the transitional phase but large variances prevented significant effects for that phase.

Finally, although the RP was associated with improvements in the interviewers' use of supportive statements, the numbers of explicitly reluctant statements, omissions, and digressions were unaffected. In addition, effects due to Protocol were small in absolute terms (e.g., one less transitional prompt, slightly higher uses of supportive statements per turn) but may be practically very meaningful because the use of vastly more supportive statements might not appear genuine whereas minor increases may convey authentic supportive responses. Moreover, even "small" improvements in speaking to reluctant children may be meaningful (in Hershkowitz et al.'s (2014) study, for example, the RP was only associated with an 18% increase in disclosure rates). Thus, there is still much to learn about how children's reluctance should be addressed.

Many researchers have examined reluctance at the utterance level, identifying reluctant utterances by omissions, denials, active statements of resistance (e.g., Ahern et al., 2014; Hershkowitz et al., 2013) or the number of forensically relevant details provided (Hershkowitz et al., 2006; Hershkowitz, 2009). In the present study, although we found few Protocol differences when examining explicitly reluctant utterances, differences emerged when other possible manifestations reluctance were examined (e.g., the number of substantive prompts required during the transitional phase). This may reflect the fact that only a minority of 'reluctant' children's responses are reluctant (Hershkowitz, 2009), which decreases the amount of variability that can be explored statistically. In addition, children's reluctant utterances included omissions, which can sometimes communicate an actual lack of knowledge rather than reluctance (Ahern et al., 2014). Thus, there is a need to consider diverse indices of reluctance in future research.

Limitations and suggestions for future research

The present study involved investigative interview transcripts, and this limited our examination of supportive and reluctant behaviors to those that were audible. Future studies might examine video recordings that capture nonverbal behaviors and variations in speech patterns (tone and pauses) on the part of both the children and the interviewers. Certainly, it is also possible that indicators of reluctance (e.g., increased number of TR prompts, pausing, omissions) only provide a crude index, but could also reflect other aspects of the children's experience (e.g., unawareness of why they are being interviewed, needing time to remember events).

The present sample was limited to children who reported that they had been abused when interviewed and it is possible that nondisclosing children respond differently to various types of support. When children do not disclose despite strong evidence that they have been abused, additional interview sessions may be needed to develop rapport (Faller, Cordisco-Steele, & Nelson-Gardell, 2010; Faller & Nelson-Gardell, 2010).

The study only included children who reported physical abuse. Differences in levels of reluctance might have been shown if other forms of maltreatment were examined (Hershkowitz et al., 2005; Rush et al., 2014). It was also unknown whether the children had previously disclosed their abuse, which affects the likelihood that children will disclose (Hershkowitz et al., 2014) and this may also have affected the children's behavior.

In addition, although many child interviewing that guidelines recommend rapport is very important when interviewing children, some argue that much more experimental research needs to be conducted to fully inform best-practices in the field (Saywitz et al., 2015).

Finally, cultural factors that may have affected the findings were not addressed in this study and the composition of the sample, which included only Israeli children, may limit the generalizability of the findings.

Conclusion

The present study compared interviews conducted using the RP, focused on supporting children emotionally and cognitively, with those conducted using the standard NICHD Protocol. As predicted, we found that, as the number of turns during the transitional phase increased, so did the directness and specificity of the prompts used, signaling the children's increased reluctance. The RP interviews contained nonsignificantly fewer suggestive prompts eliciting allegations from the most reluctant children than did the SP interviews. In accordance with previous research, the RP interviews contained more instances of verbal support and fewer signs of reluctance than the SP interviews; the younger children expressed reluctance more than older children; and proportionally more signs of reluctance occurred during the transitional phase. Taken together, the findings highlight the superiority of the RP relative to the SP but also demonstrate various aspects of child forensic interviews that should be considered when seeking to understand children's willingness to engage.

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