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# Adherence to the Revised NICHD Protocol Recommendations for Conducting Repeated Supportive Interviews Is Associated With the Likelihood That Children Will Allege Abuse

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Because intensely reluctant children often fail to report being abused even when they are supportively interviewed, the Revised NICHD (National Institute of Child Health and Human Development) Protocol (RP) guides interviewers to delay discussion of sensitive topics and build rapport before scheduling a follow-up interview in which children might feel more comfortable. We sought to determine whether adherence to these recommendations was associated with the children's propensity to make allegations. Repeated forensic interviews were conducted with 202 Israeli children aged 3–14 who did not make allegations in the first interview, but of whom 104 made allegations during the second interview. The interviews were coded to identify interviewers' provision of support and types of substantive questions (invitations vs. closed-ended), as well as children's signs of reluctance, responsiveness, and informativeness. Interviewer behavior was represented with a latent variable reflecting the interviewers' expression of support, use of invitations, and the avoidance of closed-ended questions. Structural equation modeling (SEM) showed that adherence to the suggested interviewing model was positively associated with children being more likely to allege abuse (total effect:  $\beta = .29$ ). This association was mediated by children's enhanced cooperativeness in the second interview (indirect effect:  $\beta = .16$ ). These findings suggest that repeated interviews can be useful despite the additional financial costs.

Keywords: child investigative interviewing, reluctance, repeated interviews, revised NICHD protocol, support

Recent Israeli national statistics showed that 74.9% of suspected sexual abuse victims and 72.7% of suspected physical abuse victims made allegations when formally interviewed (Hershkowitz & Lamb, 2020). However, suspected victims of child maltreatment, especially by parent figures. are often reluctant to make allegations (Hershkowitz et al., 2007; Kogan, 2004; Smith et al., 2000). In one

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study of 3- to 14-year-old Israeli children, 53.8% did not make allegations when abuse by family members was suspected (Hershkowitz et al., 2005). Other studies have shown that reluctant children produce unconvincing statements (e.g., Blasbalg et al., 2018; Lewy et al., 2015). Recent studies assessing implementation of the Revised NICHD Protocol (RP; Hershkowitz et al., 2017) by the Israeli Youth Investigation Service show that supportive interviewing is associated with reluctant children's willingness to allege abuse when first interviewed (e.g., Hershkowitz et al., 2014; Hershkowitz & Lamb, 2020). However, some children refrain from making allegations even when suspicions appear credible (Hershkowitz & Lamb, 2020), suggesting the need for more rapport building and opportunities to overcome the reluctance to disclose. In such circumstances, the RP guides interviewers to limit or avoid discussion of the possible abuse, further invest in building rapport and overcoming children's inhibitions, and schedule a follow-up interview. In the current study we sought to test whether conducting two supportive interviews indeed fostered cooperation and facilitated credible disclosures.

#### **Interviewing Reluctant Children**

Children's motivation to make allegations of abuse is associated with socioemotional factors such as shame (Weille, 1997), fear of the implications of disclosure (e.g., Goodman-Brown et al., 2003), secrecy (McElvaney et al., 2012), stigma and powerlessness (Gibson & Leitenberg, 2001), and manipulation by the perpetrator or

significant others (Leahy et al., 2004). Relationship dynamics involving coercion and ongoing abuse can lead children to experience mixed emotions about transgressions that have violated the sense of trust (Goodman-Brown et al., 2003; Hanson et al., 1999; Smith et al., 2000) and confusing feelings of affection for the abuser (Cheung, 2012), making children less likely to allege abuse by family members than by nonfamily members (Hershkowitz et al., 2005).

A seminal study by Hershkowitz et al. (2006) examined children's reluctance by analyzing portions of 100 forensic interviews with children whose experiences of abuse had been independently verified; half of the children disclosed whereas the others did not. The study showed that specific expressions of reluctance, and particularly expressions of omission such as "I don't know" or "I don't remember," early in the interviews (before the topic of abuse was broached) predicted children's failures to disclose.

In addition to examining the behavior of uncooperative children, Hershkowitz and her associates (2006; see also Lewy, 2014; Teoh & Lamb, 2013) examined interviewers' demeanor when they encountered reluctance. They found that interviewers responded to reluctance by being less rather than more supportive: They asked more intrusive questions which included details about the suspected abuse (e.g., "Did someone bite you?"), offered less support, and tended to ask questions about the suspected abuse prematurely. The researchers concluded that the interviewers' counterproductive responses in the face of reluctance might have aggravated the children's reluctance and lack of cooperation. Both observations that children showed signs of reluctance early in the interview and that interviewers tended to act counterproductively when they encountered reluctance-led Hershkowitz et al. to suggest that interviewers should provide more rather than less support when they first noticed reluctance so as to prevent destructive dynamics from unfolding.

The Standard NICHD Protocol (SP; Orbach et al., 2000), like most evidence-based interview guidelines, emphasized the scaffolding of children's cognitive capacities while focusing less attention on emotional dynamics, so Hershkowitz et al. (2015; Hershkowitz et al., 2017; see Method section) revised the Protocol by placing more emphasis on supportive interviewing. Accordingly, the Revised NICHD Protocol (RP) included adjustments emphasizing rapport building (Hershkowitz, 2011), the identification of signs of reluctance, and a specific instruction to offer support when reluctance was displayed.

Use of various supportive techniques in the context of RP interviews was associated with children's greater cooperativeness as well as their willingness to make allegations than in comparable SP interviews that had been conducted previously. Noncontingent support (i.e., the provision of support regardless of signaled reluctance) during the presubstantive phase of the interview was correlated with enhanced cooperativeness during that phase (Hershkowitz et al., 2015), as well as with an increased tendency to make allegations of abuse (Hershkowitz et al., 2014; Hershkowitz & Lamb, 2020). During the presubstantive phase, contingent (reactive) interviewer support in immediate response to expressions of reluctance was positively correlated with subsequent nonreluctant responses (Ahern et al., 2014). Enhanced support prior to children's allegations was associated with more spontaneous allegations (Ahern et al., 2019). The amount of support during the substantive phase was positively associated with reduced reluctance and increased informativeness (Blasbalg et al., 2018). Taken together, the various components of the RP were associated with children providing richer (Blasbalg, Hershkowitz, Lamb, et al. 2019) as well as more coherent (Blasbalg, Hershkowitz, Karni-Visel, et al., 2019) statements and to expressing their emotions more freely (Karni-Visel et al., 2019) than when interviewed using the SP.

Cooperativeness has been operationalized differently in some of the studies just reviewed. In some earlier studies (Ahern et al., 2014; Hershkowitz et al., 2015), cooperativeness was indexed by responsiveness and informativeness in the presubstantive phase of the interview. In later studies, cooperativeness was apparent not only in the children's responses (Blasbalg et al., 2018, Blasbalg, Hershkowitz, Lamb, et al., 2019), but also in the interviewers' practices. Ahern and colleagues (2019), for example, measured the spontaneity of children's disclosures by the reduced use of closedended and intrusive questions by interviewers during the transitional phase, in which, following the introductory phase, interviewers explore the possibility that abuse might have occurred. Similarly, Blasbalg, Hershkowitz, Lamb, et al. (2019) noted an association between supportive interviewing and the enhanced use of open-ended questions and reduced use of closed-ended questions during the transitional and substantive phases.

## Persistent Reluctance: When One Interview Is Not Enough

When it comes to interviewees' emotional inhibitions, single supportive interviews are known to enhance reticent children's willingness to report abusive experiences, but when children's feelings about the abuse are too fraught and they are ambivalent about disclosure they may fail to cooperate in a single forensic interview (Faller et al., 2010). Disclosure of abuse is often identified as a process rather than a one-time event (e.g., Carnes et al., 2001; McElvaney et al., 2012; Olafson & Lederman, 2006; Sas & Cunningham, 1995).

Examining 217 substantiated sexual abuse cases from the Los Angeles Dependency Court (1999–2000), Malloy et al. (2007) found that, although 78% of the victims had reported the abuse to someone prior to their first interview by a professional, 9% initially denied and 73% expressed reluctance to talk about the abuse when interviewed. Over the course of multiple interviews, however, 98% disclosed. Such findings, illustrating the slow disclosure process, suggest that some children may require more than a single interview, provided steps are taken to minimize suggestive pressure on the children (Duron & Remko, 2020). However, Malloy et al.'s study considered both formal and informal interviews, so it is not directly comparable to the current study.

#### Socioemotional Benefits of Multiple Interviews

Repeated interviewing has well-established effects on children's cognitive performance (Cederborg et al., 2008; Fivush et al., 2004; Hershkowitz & Terner, 2007; Hubbard et al., 2016; Katz & Hershkowitz, 2013; La Rooy et al., 2010; Pipe et al., 2004), but their socioemotional benefits have not been as well studied despite the possibility that children's willingness to disclose may benefit from another opportunity to discuss their experiences (McElvaney, 2015).

Several potential benefits attributed to having the same interviewer interview children more than once have been recognized.

Skilled forensic interviewers may assess the readiness to confide by assessing the ease with which children answer questions on neutral topics (Hershkowitz et al., 2006). An interviewer who recognizes that a child is experiencing extreme difficulty disclosing could avoid substantive topics, spare the child stress, and protect the developing rapport (Ahern et al., 2019; Hershkowitz et al., 2006). Stopping the forensic interview may also acknowledge that the child needs time to prepare for possible disclosure, convey that the child's well-being is a priority, and provide an opportunity for the child to regain some control (Duron & Remko, 2020).

Extending the investigation to multiple interviews may allow interviewers additional opportunities to build rapport with children, offer support, and help them process conflicts and adverse feelings about disclosure (Faller et al., 2010; La Rooy et al., 2010). In follow-up meetings, interviewers are familiar, and this may facilitate disclosure when that is warranted (Ahern et al., 2017; La Rooy et al., 2010) even though interviewer familiarity did not affect children's informativeness in Brubacher et al.'s (2019) analogue study, perhaps because children's reluctance is milder in the lab than in the field. Furthermore, positive interview experiences for children who are reluctant and stressed conveys recognition of children's individual needs and availability when they are ready to disclose (Duron & Remko, 2020). Thus, Leander (2010) showed dramatic increases in informativeness regarding sexual contents across the course of three meetings with alleged victims of sexual abuse, along with decreases in denial and avoidance. Katz and Hershkowitz (2013) reported that significant amounts of new information were provided by alleged victims in a second interview; this was especially true for the less talkative and younger children, who tend to be less cooperative (e.g., Ahern et al., 2019).

Previous research on repeated interviewing has focused on the types of questions used and their effects on children's performance (reviewed above), but recent studies have also examined support and its consequences. In the laboratory, Brubacher and her associates (2019) examined 160 repeated interviews with 5- to 9-yearold children who participated in a staged scene involving six transgressions. Children who were interviewed in a supportive rather than a neutral style reported more transgressions in the second interview in response to both open-ended and closed-ended prompting. Hershkowitz et al. (in press) recently examined 104 two-session interviews conducted with children who were reluctant to make allegations of abuse. Their results revealed that interviewer support during the first session predicted children's cooperation during the rapport-building phase of the second session, which, in turn, predicted more spontaneous allegations, which were associated with the enhanced use of open-ended questions. Together, these factors mediated the effects of support on children's free recall of forensically important information.

Recognition of the potential benefits of repeated interviewing has challenged long-standing concerns about the risks of repeated forensic interviewing. Analogue (e.g., Hubbard et al., 2016; La Rooy et al., 2009; Odinot et al., 2013) and field (e.g., Hershkowitz & Terner, 2007; La Rooy et al., 2009) studies have shown that repeated interviews, like single interviews, which emphasize openended questioning, result in richer testimony without adverse effects on accuracy (see La Rooy et al., 2010 for a review). Further, some studies have shown that children become more resistant to suggestion (Brubacher et al., 2019) as well as more accurace (for

review, Goodman & Quas, 2008; but see also Peterson, 2011) in follow-up interviews.

#### The Current Study

In the current study, we explored the correlation between interviewer adherence to the RP's guidelines regarding repeated interviews and the likelihood that children would make allegations. To this end, we examined two groups of repeated RP interviews: one in which children did and the other in which they did not make allegations in the second interview. We hypothesized that, in "allegation" interviews, interviewers would be more supportive, use more invitations to build rapport (Sternberg et al., 1997), and use fewer closed-ended prompts during the transitional phase of the first interviews, because such prompts stress children (Ahern et al., 2019) and are associated with the reduced likelihood that children will make allegations (Hershkowitz et al., 2006). We postulated that the positive correlation between the interviewers' demeanor and the children's allegations would be mediated by children's cooperativeness (evident in their forthcoming behavior during the presubstantive phase as well as their responsiveness to more open-ended and the use of fewer closed-ended prompts during the transitional phase of the second interview).

#### Method

#### Sample

Between January 2014 and December 2016, 77 investigators from the Israeli Ministry of Welfare and Social Services conducted two-interview investigations of 202 children. The children were interviewed because suspicions of abuse were reported, typically by family members, educational stuff, or uninvolved witnesses. Trained interviews following the guidance explained below determined during the first interview that the children were too reluctant to disclose possible abuse and that a follow-up interview was warranted. All children thus made no allegations of abuse in the first interview, but 104 of them made allegations during a second interview conducted 1 to 110 days later (M delay = 11.03 days; Mdn = 5 days). This sample included all the available interview transcripts that met the inclusion criteria (aged under 14 years, two interviews with an allegation in the second but not in the first interview) from the data collection period.

Of the 104 children who made allegations, 51 were girls. Children who made allegations were aged between 3.50 and 13.63 years (M=8.87, SD=2.56). Children who did not make allegations (52 girls) were aged between 3.00 and 13.81 years (M=8.58, SD=2.63). In 128 cases (73%) children were interviewed following suspicion of physical abuse; 124 of these cases (97%) were intrafamilial. Of the 74 sexual abuse cases, a family member was the suspected perpetrator in 46 (62%). Additional sample characteristics—gender, type of abuse (physical vs. sexual), and relationship between the victim and the suspected perpetrator (family member vs. not)—by groups are detailed in Table 1. All interviews were conducted by interviewers who had been extensively trained to use the RP (Hershkowitz et al., 2017; Lamb et al., 2018) and to adhere to the Protocol's guidelines for conducting supportive multiinterview investigative interviews.

**Table 1**Characteristics of Cases in the Two Groups

	Alleg	gation	No-all	egation	Tot	tal
Characteristic	n	%	n	%	n	%
Gender (girls)	51	49	52	53	103	51
Type of abuse (physical)	68	69	60	58	128	63
Relation to the suspected perpetrator (family)	90	92	80	77	170	84

#### **Procedure**

The RP (Lamb et al., 2018) is fully structured, covering all phases of investigative interviews. Protocol interviews open with a presubstantive phase in which interviewers first try to establish rapport using ice-breaking invitations, then prepare child-witnesses for their role as informants by explaining the 'ground rules' for the interview, and finally, during the episodic memory retrieval training part, train narrative response styles by exploring positive experienced events. Thereafter, in the transitional phase, interviewers switch focus to substantive issues (the possibility that abuse occurred), using a structured series of increasingly focused, nonsuggestive prompts when "free-recall" prompts fail to elicit a disclosure. If the child makes an allegation, the interviewer seeks further information in the substantive phase, primarily by using open-ended invitations.

With especially reluctant children, the RP encourages interviewers to extend the building of rapport over multiple interviews. Interviewers are instructed to assess children's cooperativeness (or reluctance) during the presubstantive phase and, if they encounter intense reluctance, to reduce or completely avoid reference to substantive topics such as the suspected abuse. Instead, interviewers are guided to build rapport with the child and to supportively respond to verbal and nonverbal expressions of reluctance. If the child remains reticent, the interviewer is advised to end the interview and plan a follow-up meeting. During that interview, interviewers follow the same procedure as in the initial interview: build rapport, act supportively, assess reluctance, and move on to exploring the possibility that abuse might have occurred only if and when reluctance has declined and rapport has been built.

#### **Data Coding**

Professionals transcribed recordings of the interviews and checked their completeness and accuracy before they were coded using Atlas.ti software (Muhr, 1997). Coders determined whether the specific interviewer utterances and child responses described below were present or absent in each utterance. We accounted for the following categories of support: expressions (a) designed to initiate or promote rapport with the child ("Good to meet you," "I want to know you better," "Would you like a glass of water?"), (b) emphasizing the interviewer's trustworthiness ("I am here to listen to you," "My job is to speak with children"), (c) positively reinforcing the child's efforts (and not the content reported; "You are being very clear," "Thank you for sharing with me"), and (d) communicating emotional support (echoing/acknowledging/exploring children's feelings and anxieties: "You say you feel embarrassed to talk about that; please tell me what you mean") and encouragement ("It's important that you tell me everything you

remember as well as you can"). Additionally, coders identified and tabulated invitations and closed-ended questions (directives, option-posing, and suggestive prompts as defined by Lamb et al., 2018).

Coders also recorded the presence or absence of reluctance in each child utterance. Reluctance was coded whenever there were omissions (no answer, "nothing to say," "don't know," "don't remember," "not sure"), expressions of resistance ("I don't want to tell you," "I'll answer only this last question"), or denials ("It didn't happen," "I didn't say that"), regardless of whether the turn was responsive or informative (see below). We sought to minimize the misidentification of reluctance by not coding omissions as reluctance when the child was referring to others' thoughts or feelings ("why did he do it?" — "I don't know") or to temporal information ("when was it?" — "I don't remember").

We also coded each child utterance as either responsive (i.e., relevant to the question asked, whether the information provided was new or repeated) or not. When the children were responsive, we further noted whether the utterances were either informative (i.e., included new forensically relevant information [Lamb et al., 1996; Yuille & Cutshall, 1986]) or not.

#### **Interrater Reliability**

Four raters who first established interrater reliability (Krippendorff's  $\alpha$  coefficients >.80) on a separate set of transcripts coded the transcripts. To ensure the maintenance of high levels of reliability throughout coding, all coders coded 20% of the transcripts, with K  $\alpha$  interrater (Hayes & Krippendorff, 2007) coefficients for support, open-ended questions, closed-ended questions, responsiveness, reluctance, and informativeness were 0.76, 0.85, 0.75, 0.80, 0.79, and 0.77, respectively on these transcripts. From reading the statements, coders were informed whether interviews were characterized by allegations or not, but they were blind to the research hypotheses. The coders who were employed as research staff members had no personal or professional relationships with the interviewers.

#### **Ethics**

The study was approved by the Israeli Ministry of Welfare and Social Services as well as by the University of Haifa Ethics Committee.

#### Results

We sought to examine whether the socioemotional dynamics in the two interviews differed depending on whether the children made allegations of abuse in the second. To this end, only parts of the interview preceding the allegations (i.e., the presubstantive and transitional, but not the substantive part) were analyzed.

For purposes of analysis, scores were expressed as proportions of the total length—number of conversational turns including prompts and supportive comments—of each phase of the interview—the presubstantive phase (including rapport building and the episodic memory retrieval training) and the transitional phase—to account for variations in the length of the interviews. To make findings easier to interpret, indices representing undesirable interviewer practices (i.e., use of closed-ended questions) and noncooperative child responses (i.e., reluctance) were reversed by recoding proportions of zero as one and vice versa. Interviewer behavior was represented in our study by three measures: the proportion of utterances in which interviewers (a) offered children support, (b) prompted free-recall using invitations, and (c) asked closed-ended questions (reverse scored). We quantified the children's cooperativeness by computing the proportions of rapportbuilding prompts during the presubstantive phases to which (a) they replied responsively, (b) did not express reluctance, and (c) provided information.

Outlier detection analyses (using an IQR of 2.2; Hoaglin & Iglewicz, 1987) revealed 15 outlying values on the number of utterances in some of the interview segments: nine in the first interview's presubstantive phase, three in the second interview's presubstantive phase, and three in the second interview's transitional phase. Analyses were conducted both including and excluding these outliers; because the results were substantively the same, we report analyses that include them.

One hundred twenty-four interviews included both presubstantive and transitional phases in both interviews, although in some of the interviews, certain phases were skipped (see Table 2 for full details). To explore associations among the variables, missing values were imputed using the missMDA package (Josse & Husson, 2016) in R (R Core Team, 2018).

#### **Preliminary Analyses**

Preliminary analyses implemented using Multiple Linear Regression showed that, of the descriptive variables (child age, child gender, type of abuse suspected, relationship between child and suspect, and the duration of the delay between the two interviews),

only the child–suspect relationship significantly predicted whether children would make allegations ( $\beta = -0.24$ , t = -2.32, p = .03;  $R^2 = 0.03$ , F[4, 197] = 2.69, p = .03). Of the measures of the children's initial cooperativeness (responsiveness, nonreluctance, and informativeness during the first interview's presubstantive phase), only informativeness significantly predicted whether children would make allegations ( $\beta = 0.46$ , t = 3.16, p < .01;  $R^2 = 0.03$ , F[4, 177] = 2.54, p < .01). These two variables (relationship with the suspect and first interview presubstantive informativeness) were thus included in the mediation model described below.

#### **Descriptive Data and Group Differences**

Table 3 depicts the proportions of interviewers' behavior and children's responses; we report below significant differences between the allegation and no-allegation groups, as revealed using point-biserial correlations. As seen in Table 3, in the presubstantive phase of the first interview, children who eventually made allegations and those who did not showed similar levels of cooperativeness on all measures except informativeness (M=0.56, SD=0.29; M=0.45, SD=0.34, respectively; r=.19, p<.01; see Preliminary Analysis above).

During the transitional phase of the first interviews, investigators who interviewed children who later made allegations prompted children with an average of 2.26 invitations (SD = 2.28) and 5.32 (SD = 6.75) closed-ended questions. Investigators who interviewed children who did not make allegations used an average of 2.30 (SD = 2.15) invitations and 6.31 (SD = 6.87) closed questions during the transitional phase of the first interview. The allegation and nonallegation groups did not significantly differ with respect to the number of invitations or closed questions asked during the transitional phase of the first session, t(200) = .15, p =.88, d = 0.02; t(200) = 1.03, p = .30, d = 0.15, respectively. Considering the effect size of the group difference in the number of closed questions asked during the transitional phase of the first interview, this measure was controlled for in the mediation model testing below. Interviewers interviewing children who made allegations were also more supportive than were those who interviewed children who did not make allegations: they expressed more supportive utterances (M = 0.73, SD = 0.19; M = 0.68, 0.21, respectively; r = 0.19, p < .01) and avoided closed-ended

 Table 2

 Presence and Absence of Key Phases in the First and Second Interviews

					Second inter	view		
			Presubstantive	Ab	sent	Pre	sent	
Interview			Transitional	Absent	Present	Absent	Present	Total
First interview	Presubstantive	Transitional <sup>a</sup>						
	Absent	Absent		0	0	0	1	1
		Present		0	0	0	0	0
	Present	Absent		0	3	3	39	45
		Present		3	8	21	124	156
	Total			3	11	24	164	202

<sup>&</sup>lt;sup>a</sup> The absence of a transitional phase in the first interview is consistent with the Protocol's recommendations: In the face of reluctance interviewers are advised to refrain from asking substantive questions. The absence of a transitional phase in the second interview indicates such reduced reluctance on the child's part that the child made an allegation spontaneously.

 Table 3

 Descriptive Statistics: Absolute and Proportional Measures of Interviewers and Children by Groups

		First in	terview	Second i	nterview
Phase	Measure	No-allegation <i>M</i> ( <i>SD</i> )	Allegation <i>M</i> (SD)	No-allegation <i>M</i> ( <i>SD</i> )	Allegation <i>M</i> (SD)
Presubstantive phase	Length	22.9 (10.56)	24.05 (10.51)	14.01 (11.55)	14.11 (13.21)
•	Responsiveness	0.65 (0.23)	0.68 (0.24)	0.56 (0.33)	0.66 (0.27)
	Nonreluctance	0.67 (0.23)	0.69 (0.20)	0.67 (0.26)	0.70 (0.24)
	Informativeness	0.45 (0.34)	0.56 (0.29)	0.39 (0.35)	0.47 (0.32)
Transitional phase	Length	23.95 (13.83)	25.85 (13.83)	18.19 (14.12)	9.68 (8.49)
ľ	Support	0.68 (0.21)	0.73 (0.19)		
	Invitations	0.15 (0.11)	0.14 (0.11)	0.14 (0.22)	0.31 (0.29)
	Nonuse of closed-ended questions	0.66 (0.22)	0.74 (0.21)	0.54 (0.28)	0.69 (0.30)

questions more often (M = 0.74, SD = 0.21; M = 0.66, SD = 0.22, respectively; r = 0.20, p < .01).

In the second interview, during the presubstantive phase, children who made allegations appeared more forthcoming by virtue of their greater responsiveness (M=0.66, SD=0.27; M=0.56, SD=0.33, respectively; r=0.17, p=.02), and informativeness (M=0.47, SD=0.32; M=0.39, SD=0.35, respectively; r=0.22, p<.01) than those who did not. The children who made allegations in the second transitional phase were asked proportionally more invitations (M=0.31, SD=0.29; M=0.14, SD=0.22, respectively; r=0.33, p<.001) and fewer closed-ended questions (M=0.69, SD=0.30; M=0.54, SD=0.28, respectively; r=0.28, p<.001).

#### **Correlational Analyses**

Pearson correlations were computed to assess the direct relationships between the interviewer and child behavior indices included in the mediation model described below. As seen in the correlation matrix showed in Table 4, interviewers' acts of supportiveness during the first interviews' transitional phases were significantly and positively associated with one another, with the proportion of supportive expressions correlated with the proportional use of invitations as well the avoidance of closed-ended questions; the latter measures were also significantly intercorrelated. The proportion of interviewer utterances in the first transitional phase that were supportive was positively associated with indices of the children's cooperativeness in the second interview: namely, presubstantive informativeness and the reduced use of closed-ended prompts. The proportion of utterances in the first transitional phase that were invitations was also significantly and negatively correlated with the interviewers' avoidance of closedended questions during the second transitional phase. The proportional avoidance of closed-ended questions in the transitional phase during the first interview was also positively associated with indices of the children's cooperativeness in the second interview: that is, their presubstantive informativeness and the reduced use of closed-ended prompting in the transitional phase of the second interview.

Proportional measures of the children's cooperativeness during the second interview were positively intercorrelated, such that responsiveness was associated with nonreluctance, presubstantive informativeness, as well as the increased prominence of openended questions and relative avoidance of closed ended questions. By the same token, children's nonreluctance in the second interview was positively associated with presubstantive informativeness in the same part, as well as with the reduced use of closed-ended transitional prompts, which in turn was positively correlated with an enhanced tendency to make allegations in response to invitations.

#### Mediation Model: The Associations Between Interviewer Behavior in the First Interview and Child Cooperativeness and Allegation in the Second Interview

To test the hypothesized associations among interviewer behavior during the first interview and children's cooperativeness and tendency to make allegations in the second interview, structural equation modeling (SEM) was performed in R (R Core Team, 2018) using the *lavaan* package (Rosseel, 2012). Because the preliminary analyses revealed that tendencies to make allegations did not differ depending on children's age or gender, the type of abuse, and the number of days between the two interviews, these variables were not included in the primary analysis. In contrast, the alleged perpetrator's relationship with the child (family member or not) and the child's initial cooperativeness (informativeness during the first interview's presubstantive phase) were positively and significantly correlated with the children's tendencies to make allegations, and thus were included in the model.

First, we tested the initial theoretical model before examining modification indices to identify significant correlations absent from the model (Tabachnick & Fidell, 2013). Model fit was tested using multiple indicators, including the Tucker–Lewis index (TLI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) measure. For both the TLI and CFI, values  $\geq$  .95 indicates a good model fit and values  $\geq$  .90 indicate an acceptable fit (Hu & Bentler, 1999). For RMSEA, values  $\leq$  .06 indicate a good model fit, and values  $\leq$  .08 indicate an acceptable fit (McDonald & Ho, 2002).

SEM was performed with a latent variable reflecting the interviewers' behavior during the first interview's transitional phase (indexed by the provision of support, the use of invitations, and the avoidance of closed-ended questions) as the predictor (see Figure 1). As a mediator, we modeled a second latent variable reflecting children's cooperativeness during the second interview. This latent variable included children's responsiveness, nonreluctant responses, and informativeness in the second interview's presubstan-

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 Table 4

 Pearson Correlations Among Indices of Interviewer Behavior and Children's Responses

				First interview	iew		Se	Second interview		
				Transitional phase	phase	Ь	Presubstantive phase	õ	Transit	Transitional phase
Interview	Phase	Measure	Support	Use open questions	Use open Nonuse closed Support questions questions	Responsiveness	Responsiveness Nonreluctance Informativeness	Informativeness	Use open questions	Use open Nonuse closed questions
First interview	Transitional phase	Support Use open questions	1	0.17**	0.78 ************************************	0.05	-0.01 0.07	0.24**** 0.02	0.04	0.32**** -0.19**
Second interview	Second interview Presubstantive phase				_	0 1	-0.03 0.34****	0.23**** 0.47*****	0.09 0.14* -0.03	0.3 ***** 0.27***** 0.16*
	Transitional phase	Informativeness Use open questions Nonuse closed questions						-	0.23	0.37 0.48***
* p < .05. ** p <	p < .05. ** $p < .01$ . *** $p < .001$ .									

tive phase. Additionally, it included the proportional use of invitations and avoidance of closed-ended questions during the second interview's transitional phase to measure the degree to which children were willing to make an allegation when the possibility that abuse had occurred was explored (Ahern et al., 2019).

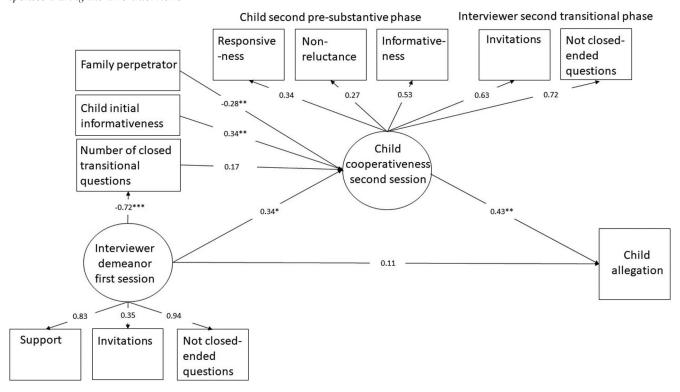
Because the nonallegation and allegation groups differed with respect to the relationship between the victims and suspected perpetrators (family members or not), initial informativeness, and the number of closed-ended questions asked during the first transitional phase (see above, descriptive data), these measures were controlled in the model tested. In compliance with the Protocol's rationale, the number of closed-ended questions during the transitional phase of the first interview were modeled to be predicted by the interviewers' behavior during this session, such that the more supportive (i.e., expressing proportionally more supportive utterances, asking more invitations, and avoiding closed questions) they were, the earlier they terminated the first session.

Modification indices suggested changes to the model that would reduce  $\chi^2$  and therefore improve model fit. Because modification indices are purely empirical and do not take theory into account, their theoretical plausibility must be carefully evaluated before they are used to inform model modifications. The most influential proposed modifications that were not theoretically implausible (Kaplan, 1991) were then incorporated into the model to improve model fit (Tabachnick & Fidell, 2013). This process resulted in the final factor structure that best captured the relations among dynamics indices represented in the data.

The model was modified by adding four parameters: the associations between (a) the children's second interview presubstantive responsiveness and informativeness, (b) the children's second interview presubstantive responsiveness and non-reluctance, (c) the interviewers' use of invitations during the first transitional phase and the avoidance of closed-ended questions during the second transitional phase, and (d) the children's nonreluctance in the second presubstantive phase and the interviewers' use of invitations in the second transitional phase. The revised model incorporating the modification indices fit the data well, TLI = 0.902, CFI = 0.932, RMSEA = 0.071, 95% CI [0.050, 0.092].

The indirect effect (i.e., the indirect pathway between the variable representing the interviewers' demeanor during the first transitional phase and whether the children made allegations) was the product of two coefficients reflective of the two pathways between the predictor (interviewer behavior during the first transitional phase) and the mediator (children's cooperativeness during the second interview) and between the mediator and the outcome (children's allegations). As shown in Figure 1, in which standardized parameter estimates for the structural model are presented, the SEM model revealed that children's cooperativeness during the presubstantive phase of the second interview mediated the positive association between the interviewer's behavior during the first transitional phase and whether the children made allegations. The results support the mediation hypothesis, showing significant indirect ( $\beta = .16$ , p < .01, 95% CI [0.12, 0.70]) and total ( $\beta = .29$ , p < .001, 95% CI [0.32, 1.14]) effects. Because the direct effect of the predictor on the outcome was not significant, these findings suggest full mediation of the relationship between the predictor and the outcome.

Figure 1
Graphical Representation of the Structural Equation Model of the Relationships Among Interviewer Behavior and Children's Responses During the Two Interviews



*Note.* Circles indicate latent variables, and rectangles indicate observed variables. Correlations between variables added as modification indices (as described in the text) were included in the model but omitted from the diagram for clarity of presentation.

\* p < .05. \*\* p < .01. \*\*\* p < .001.

#### Discussion

Child protection systems worldwide dedicate considerable resources to giving suspected victims of child maltreatment an opportunity to report their victimization (Cross & Hershkowitz, 2017; Paine & Hansen, 2002). However, many suspected victims do not make allegations (e.g., Hershkowitz & Lamb, 2020) even when there is evidence that they were in fact abused (e.g., Azzopardi et al., 2019; Hershkowitz et al., 2006; Rush et al., 2014). Because most instances of child abuse are known only to the victim and the perpetrator (London et al., 2008), children's failures to make allegations when forensically interviewed often bring investigations to an end, perhaps resulting in further offending (e.g., Cheung et al., 2020) while child protection services are unable to intervene (Cross & Hershkowitz, 2017).

As predicted, the present study showed that supportive nonsuggestive interviewing across the course of two interviews was associated with the enhanced willingness of suspected victims to make allegations. Previous field studies focused on the use of the RP have examined the impact of support within single forensic interviews on children's cooperativeness (Ahern et al., 2019; Hershkowitz et al., 2015), willingness to make allegations (Hershkowitz et al., 2014; Hershkowitz & Lamb, 2020), and the quality of their forensic statements (Blasbalg et al., 2018; Blasbalg, Hershkowitz, Karni-Visel, et al., 2019; Blasbalg, Hershkowitz, Lamb, et

al., 2019; Karni-Visel et al., 2019). The present results further underline the value of patiently and attentively dealing with children who are reluctant when interviewed, showing that, by providing reluctant children with support while delaying questions about the alleged abuse, interviewers may foster greater rapport and trust and increase children's willingness to describe abusive experiences (e.g., Morrison et al., 2018).

The mediation model elucidated several different aspects of desired practice when forensically interviewing suspected victims. First, adherence to the RP's guidelines during the first session predicted whether such children would make allegations even after controlling for the children's initial cooperativeness, a finding consistent with Hershkowitz et al.'s (2006) early hypotheses about the value of supportive interviewing. Similarly, previous studies have shown that supportive interviewing during a single (Blasbalg, Hershkowitz, Lamb, et al., 2019) interview is associated with children's cooperativeness. However, Blasbalg et al. did not account for the children's initial cooperativeness.

Second, unlike previous studies, the model presented here examined the combined impact of three distinct supportive techniques—supportive comments, prompting information using open-ended invitations, and avoiding the use of closed-ended questions about possible abuse. Roberts et al. (2004) previously showed that enhanced reliance on invitations when attempting to build rapport predicted later coop-

erativeness, whereas Hershkowitz et al. (2006) demonstrated that intrusive questioning reduced children's willingness to make allegations. Blasbalg et al. (2018) and Karni-Visel et al. (2019) confirmed that supportiveness enhances children's forensic informativeness. In the current study, supportiveness was assessed using a latent variable incorporating these three different techniques designed to reduce children's stress and foster the development of trust. The aggregation of the three was shown to be significant.

Previous studies have assessed children's cooperativeness using various indices: verbal (Ahern et al., 2014) and nonverbal (Katz et al., 2012) signs of reluctance, emotional expressiveness (Karni-Visel et al., 2019), the number of questions used in the transitional phase (Ahern et al., 2019), and the willingness to recall freely (Blasbalg, Hershkowitz, Lamb, et al., 2019). In the present study, five independent indices of children's cooperativeness were combined into a single latent variable that was positively associated with supportiveness regardless of the child's initial cooperativeness and in turn predicted whether the children made allegations of abuse. Thus, the study not only provided insights into multisession interviewing but also added to our understanding of the cognitive and socioemotional factors that shape the dynamics of forensic interviews.

The success of the mediation model underlined the advantages of the extended interview model articulated in the Revised NICHD Protocol. A combination of cognitive practices aimed at facilitating free recall together with the provision of support and the reduction of pressure to talk substantively in the first session seemed to foster the capacity to engage at the beginning of the second session, which in turn mediated a positive association between supportiveness in the first session and making an allegation in the second.

#### **Limitations and Suggestions for Future Research**

The correlational nature of the data limits our ability to infer causality and conclude that the interviewers' adherence to the recommendations accounted for the interview outcomes, although the temporal ordering of the variables argues against concluding that the more cooperative children who made allegations elicited more supportive behavior from the interviewers. The mediation analyses also suggest that the variables were causally related (VanderWeele, 2015). Furthermore, children were included in the current sample because, in the interviewers' judgment, they displayed intense reluctance when interviewed. Therefore, our data must be interpreted cautiously, particularly when generalizing the findings to different populations and different interview contexts, in which interviewees may be more forthcoming.

As in other field studies, the lack of corroborative evidence means that we do not know whether the children's allegations were in fact valid, raising the possibility that the interviewers may unwittingly have encouraged the children to make false allegations. This weakness is of unique significance in the current study given prior concerns regarding the suggestive effect of repeated interviewing. True, according to the RP's guidelines, children who deny having been abused are considered reluctant. However, these guidelines, contrary to interviewers' intuitive and typical practice (Hershkowitz et al., 2006; Lewy et al., 2015; Teoh & Lamb, 2013), encourage those interviewers to avoid placing pressure on the children and to postpone substantive questioning, while providing support and opportunities for rapport-building. In this way, as illustrated in our data, the RP strives to simultaneously help children who were truly maltreated to overcom-

ing the emotions that make them reluctant to disclose while interviewees who have not been abused are not pressured or interviewed suggestively and are similarly given emotional support.

Some additional elements of the current design may perhaps alleviate concerns about the validity of the allegations made by the children in our sample. First the sample included cases involving both physical and sexual abuse; false allegations of physical abuse appear to be so scarce that we know of no discussions in the literature. In this regard, it is noteworthy that the allegation and nonallegation groups did not differ significantly with respect to the type of abuse. Second, the possible suggestive effects of multiple interviews appear to be evident only when suggestive questioning is involved (La Rooy et al., 2010). All the interviews in this study were conducted by well-trained interviewers adhering to the NICHD Protocol, which emphasizes nonsuggestive practices and the use of invitations to prompt free recall. Moreover, Saywitz et al.'s (2019) meta-analysis concluded that supportive interviewing predicted decreased rather than increased suggestibility, suggesting that the children we studied may have provided more accurate information when interviewed supportively. Furthermore, the data clearly showed that children became more cooperative when interviewers asked fewer questions about the possibility of abuse. Still, the unknown validity of the allegations underlines the need for further research using corroborated cases.

During the transitional phase of the first interview, the children in this sample were asked varying numbers of closed-ended substantive questions. Previous research has shown that whether children make allegations is associated with the number of closed-ended prompts used by interviewers exploring the possibility that abuse has occurred (Ahern et al., 2019). This suggests a possible selection bias, such that children asked fewer transitional prompts during the first interview (during which they did not make an allegation) but might have been more likely to make allegations in the second interview. The current analysis addressed this concern by controlling for the number of closed-ended transitional questions asked during the first session, making this interpretation less plausible. However, it remains important to consider alternative interpretations of the trends presented and interpreted here.

One of the biggest concerns about multiple interviews is that multiple sessions and the delays between them allow time for caregivers to encourage false reports through continued dialog about unwarranted suspicions, stereotype induction, and so forth (e.g., Henkel, 2004). Indeed, the possibility that parents or other parties who are erroneously convinced that abuse has occurred might encourage children to make false reports is a troubling issue. Addressing this issue through research is indeed warranted. Nevertheless, we fear that troubled parents with unwarranted suspicions may pressure their children whether or not repeated interviews take place. To minimize the negative effects of such suggestion, it may be appropriate for agencies to embrace the evidence-based best-practices incorporated into the RP.

Although omission responses may signal either true ignorance or a reluctance to be informative, several studies have shown their frequency to be associated with other measures of uncooperativeness (Andrews et al., 2017; Blasbalg et al., 2018; Hershkowitz et al., 2006, 2015; Lewy et al., 2015) and that the tendency to respond in that way declines in response to support (Ahern et al., 2014; Blasbalg et al., 2018; Hershkowitz et al., 2015). Additionally, (Karni-Visel et al., 2019) showed that verbal omissions were associated with nonverbal signs of reluctance. All three findings suggest that omissions often

reflect reluctance, although there may be cases when this interpretation is incorrect. A more inclusive coding of reluctance would also include nonverbal signals.

Lastly, because we conducted the study in Israel, we cannot be sure that the results can be generalized to other cultures. The Israeli Youth Investigation Service mandated use of the Standard Protocol two decades ago so the Israeli interviewers, who were already skilled users of the Standard Protocol, may have been more receptive to training about the Revised Protocol than peers in other countries. Additionally, it may be that in different cultural contexts, children's behavior during forensic investigations, including their response to support, would differ.

#### **Implications for Practice and Policy**

Evidence-based forensic interviewing guidelines flourishing during the *memory wars* era (Otgaar et al., 2019), when researchers warned professionals about the risks of repeatedly asking children about their possible victimization (e.g., Henkel, 2004) or of asking leading questions (e.g., Melnyk & Bruck, 2004) and stressed the possibility of exposure to misinformation between sessions (e.g., Chan & LaPaglia, 2011). Today, with the dissemination of effective training programs implementing evidence-based training tools such as the NICHD Protocol, it may be time to reconsider the validity of older recommendations that repeated interviews be avoided. Because nonsuggestive multisession interviews are not riskier than any other nonsuggestive investigative practices (La Rooy et al., 2010), agencies should be encouraged to consider adopting such practices.

From the perspectives of both children's best interests and justice, repeated interviews are often necessary when children fail to disclose abuse even when there is considerable evidence that abuse occurred. The issue is not whether repeated interviews should take place but whether they can take place in ways that are evidence-based. To minimize the risks of eliciting false allegations, the RP emphasizes evaluating and responding to reluctance as early as possible, prior to exploring substantive topics. Further, some evidence (e.g., Quas et al., 2005) suggests that repeated interviews are stressful for children. Possibly, such pressure stems from repeatedly recounting abuse, which was not the case for children in this study. However, there may still be some anticipatory anxiety for children who know that they are scheduled to be interviewed. Deciding whether to reinterview a specific child requires weighing the possible benefits against the adverse consequences.

The current results suggest that two-session supportive interviews emphasizing rapport building, sometimes across multiple interviews, prior to engagement in substantive topics can be a valuable strategy. The benefits of extended forensic evaluation have been discussed before (Faller et al., 2010), and the present findings further document how repeated interviewing can occur safely (Faller et al., 2011).

Multisession interviews consume more financial and staff resources than single-session investigations, but they may be cost-effective if they facilitate the accurate identification of abuse (Block et al., 2013). Thus, we urge agencies worldwide to consider implementing the practices modeled in the current study when investigating suspicions that highly reluctant children have been maltreated.

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