2011

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Recommended Citation

Price, H. L. & Roberts, K. P. (2011). The effects of an intensive training and feedback program on police and social workers' investigative interviews of children. Canadian Journal of Behavioural Science, 43, 235-244.

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Acknowledgements

The authors would like to sincerely thank the interviewers who took part in the training and the parents and children who permitted their interviews to be used in the study. The authors also thank Brian Mainland, Leanne Best, Nicole Phythian, Nicole Davis, Val Vorstenbosch, Lisa Gravel, Nicole Keir, Taryn Moss, Adrian Pasquarella, Alexis Rischke, Ashley McNight, Ashley Graham, Allison Cox, Erica Campbell, and Danielle Peters for their assistance with transcription and coding.

Abstract

In the present study, we assessed the effectiveness of an extensive training and feedback program with investigative interviewers of child victims of alleged abuse and neglect in a large Canadian city. Twelve investigative interviewers participated in a joint training initiative that lasted eight months and involved classroom components and extensive weekly verbal and written feedback. Interviewers were significantly more likely to use open-ended prompts and elicited more information from children with open-ended prompts following training. These differences were especially prominent following a subsequent 'refresher' training session. No negative effects of training were observed. Clear evidence was found of the benefits of an intensive training and feedback program across a wide variety of investigative interviews with children. Although previous research has found benefits of training with interviewers of child sexual assault victims, the current study extends these findings to a wide range of allegations and maltreatment contexts.

The effects of an intensive training and feedback program on police and social workers' investigative interviews of children

In investigations involving child witnesses, the child's statement against the accused is often critical. Preserving this key evidence poses challenges not typically encountered with adult witnesses; there are special developmental, linguistic, and interpersonal considerations that are unique to children. An accurate and detailed statement from a child victim can lead to swift and strong action taken on the child's behalf; whereas an inconsistent or weak statement can lead to delays in prosecution and may place the child at further risk. The growing recognition of the need for special treatment of children in the criminal justice system has led to the development of broad, empirically-based recommendations on how to proceed with such victims/witnesses. Such recommendations are in large part made in academic circles, and are disseminated to law enforcement through the efforts of particularly motivated scholars. Some jurisdictions have developed a national strategy to deal with interviewing children and youth such as the Home Office in the UK (see *Achieving best evidence in criminal proceedings: Guidance for vulnerable or intimidated witnesses, including children*, 2000). Most other countries, including Canada, have more informal strategies and training schedules.

Of the recommendations made to investigative interviewers, a reliance on open-ended rather than focused questions, is perhaps the most prolific (e.g., Dent & Stephenson, 1979; Lamb, Sternberg, & Esplin, 2000; Orbach & Lamb, 2000; Sternberg et al., 2001). Unfortunately, despite substantial evidence of the benefits of focusing on open-ended questions in investigative interviews, this seemingly simple recommendation is not often followed by forensic interviewers in the field (e.g., Davies, Westcott, & Horan, 2000). This discrepancy between the clear benefit of particular questioning techniques and their use in practice has raised the critical issue of how to convert this empirically-based knowledge (e.g., Leichtman & Ceci, 1995) into practice by investigative interviewers. In response, scholars have developed interviewing protocols and training programs that strive to make implementation of such evidence-based recommendations more effective. The logical basis for conducting training sessions with investigative interviewers

is that providing knowledge to interviewers about recommended interviewing practices will result in interviewers who are able to conduct higher quality interviews. However, there is relatively little research investigating the merit of this assumption and, that which exists, is mixed. Further, there has been no thorough evaluation of an investigative interviewer training program on *practice* in English-speaking Canada.

Warren and colleagues (1999) assessed the outcome of a 10-day training session in the US that involved measuring both knowledge gain and interviewer behaviour change. Although interviewer knowledge about the content of the training was significantly increased following training, this newly acquired knowledge did not translate into a change in interviewer practices (see also Freeman & Morris, 1999; Aldridge & Cameron, 1999). The finding of increased knowledge, but a lack of behaviour change is concerning and indicates that a simple knowledge assessment test following training is insufficient for determining training effectiveness.

The most recent and promising research on the effectiveness of interviewer training has been conducted on the National Institute of Child Health and Human Development (NICHD) protocol. In brief, the NICHD protocol is a structured interview protocol that provides guidance for all aspects of an investigative interview. The recommendations center on transferring control to the child, focusing on open-ended questions, and providing a supportive interview environment (see Lamb, Hershkowitz, Orbach, & Esplin, 2008; Lamb, Orbach, Hershkowitz, Esplin, & Horowitz, 2007 for additional detail). In a review of the research on the NICHD protocol, Lamb and colleagues (2007) concluded that across a number of field studies, interviewers using the protocol used at least three times as many open-ended questions, and half as many suggestive and option-posing questions as interviewers not using the protocol. The researchers suggested that one of the reasons for this high level of success is that the NICHD training procedure involves feedback on post-training interviews (Lamb et al., 2007).

One example of the work conducted on the effectiveness of the NICHD training is described by Orbach et al. (2000) who found significant behaviour change in a number of domains. The training in the Orbach et al. (2000) study was particularly extensive, involving a 3-

day seminar, monthly group sessions, transcript analyses, and role-play. In a comparison of interviews that implemented the NICHD protocol and those that did not, there were strong indications of improved quality of interviews in those who used the protocol. The authors attributed the success to the extensive training and feedback program. Similar prior research on the effectiveness of the post-training feedback has indicated that only under conditions of continued practice in the form of workshops that evaluated interviews (either their own or others) did interviewers perform better post- than pre-training (Lamb, Sternberg, Orbach, Hershkowitz, Horowitz, & Esplin, 2002). In a complementary study, Lamb, Sternberg, Orbach, Esplin, and Mitchell (2002) found that discontinuing supervision and feedback after training also decreased the quality of interviews, relative to interviewers who received continual supervision and feedback. Thus, it appears as though it is not just high-quality training sessions that are required to alter interviewer habits, but that regular monitoring is also required for maintaining improvements in interviewing skill. The nature and extent of this required monitoring is yet to be determined. Indeed, it is of obvious interest for resource-allocation to explore just how much training and feedback may be required in order to observe continued improvement in the quality of investigative interviews. In the present study, we examine the progress of investigative interview quality through an extensive training and feedback program, including a monitoring intervention part-way through the program to examine accumulated gains throughout training.

Despite the strong indications of the success of the NICHD protocol, there is still plenty of work to be done to expand the understanding of the utility of interviewer training in a wider array of settings. For example, much of the current literature on training investigative interviews has been in contexts in which allegations of sexual assault were being investigated (e.g., Cyr & Lamb, 2009; Lamb et al., 2002; Lamb et al., 2009; Lamb, Sternberg, Orbach, Hershkowitz et al., 2002; Orbach et al., 2000; Stevenson, Leung, & Cheung, 1992). Lyon and Saywitz (2006) have argued that there is a need for research on child victims/witnesses to branch out into a number of areas that have thus far received relatively little attention. Among the areas into which these authors saw a need to expand was beyond cases of sexual abuse to cases involving other types of

child maltreatment. As the authors point out, most child witnesses are victims of child maltreatment such as physical abuse and neglect or witnessing parental conflict, types of allegations that have been, to date, understudied. Such allegations may be less likely to have criminal implications, but rather may involve decisions that include disciplining or educating adults who act inappropriately or the removal of vulnerable children from potentially dangerous homes. Such allegations may also involve interview elements that are not as likely to be present in a case of alleged sexual abuse. For example, in cases of alleged neglect, interviewers may be more likely to need to ask questions about all aspects of a child's life (e.g., health care, daily routines) and may have more difficulty targeting specific incidences of neglect for recall than in cases of alleged sexual abuse. Extending our understanding of interviewer training programs to a wider range of allegations, with varying interviewer mandates, involving child abuse beyond sexual abuse was a central aim of the present study. Specifically, we were interested in whether interview quality could be improved by using an investigative protocol similar to the NICHD protocol.

The Present Study

In the present study, an extensive training program based on the principles of the NICHD protocol was employed with child protection workers and police officers in English interviews of children in a large Canadian city. All investigations conducted by participating child protection workers and police officers were included in the analyses, of which only 15% of cases involved allegations of a sexual nature. This sample is thus likely to be representative of the range of cases investigated by interviewers questioning children who may have been, or are currently being, harmed.

We predicted that both following training (when compared with pre-training) and later in training (when compared with early in training): (i) interviewers would pose a greater number and proportion of more desirable prompts; (ii) children would provide more details overall and in response to more desirable prompts, and ;(iii) interviewers would more successfully transfer control to the interviewees (i.e., pose fewer questions to gain information).

Method

Twelve investigative interviewers (males n = 3; police officers n = 2; child protection workers n = 10) participated. The manager of four teams in the child protective agency and police unit in a large Canadian city gave open invitations to staff to participate in a joint training initiative. The relative representation of police and child protection workers was based on the overall pool from which interviewers were drawn. The agency with whom the project was conducted involved approximately 250 child protection workers and 10 police officers involved with interviewing children. At the beginning of training, the child protection workers' experience in the participating agency ranged from 0.25 to 5 years (M = 1.92, SD = 1.86), while overall experience interviewing children ranged from 0.50 to 17 years (M = 4.33, SD = 4.99). The participating police had been officers for 11 and 18 years and one had interviewed children for one year, while the other had spent three years interviewing children. All participants gave informed consent and the project was approved by the appropriate institutional review boards. The project was conducted in three phases:

Phase 1: Pre-Training

Interviewers selected for participation recorded interviews in the month prior to commencement of formal training. All pre-training interviews received were submitted for transcription and coding, with no exclusions.

Coding

The substantive phase of all interviews was coded for (a) interviewer utterances and (b) child details. Given that a mandate of many investigations involved not only a specific allegation, but also investigation of the child's home life more generally, all prompts and responses (i.e., reports of general knowledge and home life and reported memory of episodic details) related to areas of investigation were considered substantive, whether an allegation was made or not. Interviewer utterances were coded into several categories (coding was based on Yuille & Cutshall, 1986; Lamb et al., 1996 and modified for use with the present sample). Descriptions and examples for each category can be found in Table 1. Intercoder agreement for interviewer utterances was 90%

(interim agreement checks throughout the study ranged from 85-94%). Trained coders then coded the respective details reported by children for each interviewer utterance. Details referred to a word or words that were a complete subject ("I", "you", "she"), object ("ball", "shirt"), verb ("run", "talk"), preposition ("put on" is one detail), adjective ("white", "hard"), other grammatical structure that provided information (e.g., "my"), or any other information-containing words. Words used only as a speech style (e.g., "like", "umm") were excluded from word counts. Intercoder agreement for the child details was 90% (interim agreement checks throughout training ranged from 89-96%).

Phase 2: Introductory Training

Training content. The training program began with two days of introduction to child development principles and practice with the structural components of the well-established NICHD protocol as outlined in Orbach et al. (2000). Considerable practice was given in developing and using open-ended questioning techniques and pausing (e.g., *Tell me more, What happened next?*), while restricting closed questions (e.g., *What was his name?*). Practice involved role-playing interview scenarios with fellow trainees, while trainers observed and provided feedback. Instructional modules included Family Ecology, Cognitive Development, Conceptual Development, and Social Development. Modules were presented with the goal of explaining the underlying motivation for the phases of an introduced protocol. Specifically, interviewers were encouraged to include, in each interview; (i) Formal introduction of the interviewer and his or her role; (ii) Ground rules including; promise to tell the truth, it's okay to say "I don't know", and correct the interviewer if he or she is wrong; (iii) Practice interview involving a structured discussion of a non-allegation-related target event; (iv) Clear transition to the substantive phase; (v) Clear closure.

Feedback. Following training, interviewers submitted interviews weekly for transcription and coding. Interviewers submitted all interviews for which they were able to obtain consent for inclusion in the study. For each submitted interview, detailed written feedback was provided. Feedback was presented in written and graphical form. Interviewers received written comments

regarding each phase of the interview and specific strategies/techniques used in the interview, and were provided with suggestions for future interviews. Pie charts were also provided which depicted the overall usage of each prompt type as well as information about the success of specific prompts in eliciting information. Interviewers also received written transcripts of their interviews. Each week interviewers then engaged in a 20-30 minute telephone feedback session with one (or both) of the two primary investigators. Feedback focused on interview structure and strategies for improving prompts and interactions for each submitted interview.

Phase 3: Training Refresher

Two months following the first training session, interviewers received an additional two days of training that was comprised of review of the initial training session and in-class practice with interview scenarios (i.e., role-playing). Following the second training session, interviewers again submitted weekly interviews and received both written and verbal feedback on a weekly to bi-weekly basis for an additional six months.

Sample of Interviews. Pre- (n = 28) and post- (n = 89) training interviews were compared (using analyses of variance) to confirm that there were no differences in the child's age, gender, frequency of contact with investigative agency, the nature of the allegation, and the relationship between the child and the alleged perpetrator. No significant differences were found. Please refer to Table 2 for descriptive information on these comparisons. Note that the number of interviews included in particular analyses may differ due to missing or incomplete data. Alpha was set to .05 for all analyses.

Results

Interview structure

Chi-square analyses comparing pre- and post-training interviews indicated that following training, interviewers were significantly more likely to include a practice interview, $\chi^2(116) = 20.08$, discuss the difference between the truth and lies, $\chi^2(116) = 8.14$, instruct the child that it is appropriate to say "I don't know", $\chi^2(116) = 60.84$, and to instruct the child to correct him/her

if he/she was wrong, $\chi^2(116) = 30.66$. Refer to Table 3 for the proportion of use of each interview component in pre- and post-training interviews.

Despite the addition of these recommended components, interviews were not longer post-training (M = 22.92 minutes, SD = 12.12) than pre-training (M = 26.75 minutes, SD = 12.26), $F(1, 94) = 1.55$, $p = .22$, $\eta_p^2 = .02$.[1] Finally, although the mean number of prompts used by interviewers was lower in post- than pre-training interviews, this difference was not significant, $F(1, 116) = 2.14$, $p = .15$, $\eta_p^2 = .02$.

Prompts used by interviewers

Mean frequency of prompt use. To compare the mean number of each prompt type used in pre- and post-training interviews, one-way analyses of variance were performed. Refer to Table 4 for descriptive information. As expected, interviewer use of some desirable prompts increased from pre- to post-training interviews: invitations, $F(1, 116) = 8.90$, $p = .003$, $\eta_p^2 = .07$, and cued invitations, $F(1, 116) = 12.97$, $p < .001$, $\eta_p^2 = .10$, were both used more frequently in post-training interviews. Further, use of less desirable prompts decreased from pre- to post-training interviews: suggestive questions, $F(1, 116) = 17.94$, $p < .001$, $\eta_p^2 = .14$, and option-posing questions, $F(1, 116) = 7.94$, $p = .01$, $\eta_p^2 = .07$, were both less common following training.

Mean proportions of prompt use. In addition to the mean numbers of each type of prompt used, it is also instructive to examine the proportional composition of prompts throughout the interview. As anticipated, the proportion of open-ended prompts asked by interviewers was significantly higher in interviews conducted post-training than those conducted pre-training (see Table 4). Specifically, increases from pre- to post-training interviews were observed in the proportion of interviewer prompts that were invitations, $F(1, 115) = 5.84$, $p = .02$, $\eta_p^2 = .05$, and cued invitations, $F(1, 115) = 15.65$, $p < .001$, $\eta_p^2 = .12$. Directed narratives also increased significantly from pre- to post-training interviews, $F(1, 115) = 10.29$, $p = .002$, $\eta_p^2 = .08$. Further, the proportion of less desirable prompts was reduced in post-training, relative to pre-training

[1] Precise duration information was not available for all interviews due to technical difficulties.

interviews. The proportion of option-posing, $F(1, 115) = 7.45$, $p = .007$, $\eta_p^2 = .06$, suggestive, $F(1, 115) = 8.81$, $p = .004$, $\eta_p^2 = .07$, and yes/no questions, $F(1, 115) = 8.05$, $p = .005$, $\eta_p^2 = .07$, all decreased from pre- to post-training interviews.

To compare the proportion of prompts that were of an open-ended nature versus closed-ended, summary categories were calculated. Open-ended prompts consisted of a combination of invitations, cued invitations, paraphrases, and invitation-occurrences. Closed-ended questions were a combination of yes/no, option-posing, suggestive, and directed specific questions. Directed narrative prompts, though included in all of the above analyses, were excluded from this calculation due to their unique purpose in the present types of interviews (as described above). The proportion of interviewer prompts that were open-ended was greater in post-training ($M = .19$), than pre-training ($M = .10$) interviews, $F(1,116) = 11.16$, $p < .01$, $\eta_p^2 = .09$. Finally, the proportion of interviews that contained at least one invitation, the most open-ended prompt possible, increased significantly from pre- (.75) to post- (.90) training interviews, $F(1, 116) = 4.07$, $\eta_p^2 = .03$. Conversely, the proportion of interviews that contained at least one suggestive question decreased significantly from pre- (.75) to post- (.52) training interviews, $F(1, 116) = 4.85$, $\eta_p^2 = .04$.

Summary. For both mean frequency and proportional analyses, interviewers' use of desirable prompts increased and use of less desirable prompts decreased from pre- to post-training interviews.

Number of details elicited from children

When examining the mean number of details elicited from children, analyses of covariance were performed to control for the number of questions posed by interviewers.

Mean frequency of details elicited. Refer to Table 5 for descriptive information. The total number of details elicited from children in post-training interviews was significantly higher than the total number of details elicited in pre-training interviews, $F(1, 116) = 7.54$, $p = .01$ $\eta_p^2 = .06$. Further, the overall number of details that were elicited using open-ended prompts (invitations, cued invitations, invitation-occurrences, and paraphrases) significantly increased from pre- to

post-training interviews $F(1, 115) = 11.38$, $p = .001$, $\eta_p^2 = .09$, while the overall number of details that were elicited using closed-ended prompts decreased, but did not significantly differ from pre- to post-training interviews, $F(1, 115) = 0.17$, $p = .68$, $\eta_p^2 = .002$.

Many of the interviewers' prompts were also used more effectively following training. Compared to pre-training interviews, invitations used in post-training interviews elicited a marginally larger number of details from children, $F(1, 115) = 3.31$, $p = .07$, $\eta_p^2 = .03$, as did cued invitations, $F(1, 115) = 11.71$, $p = .001$, $\eta_p^2 = .09$, and directed narrative questions, $F(1, 115) = 6.95$, $p = .01$, $\eta_p^2 = .06$. Refer to Table 5 for complete descriptive information.

Mean proportion of details elicited. While 12% of pre-training interview details were elicited with open-ended questions, over a quarter (26%) of the reported details were elicited with such questions following training. An ANOVA revealed that the proportion of the details elicited by open-ended prompts in post-training interviews was significantly higher than the proportion elicited in pre-training interviews, $F(1, 116) = 14.96$, $p < .01$, $\eta_p^2 = .17$. That is,

Most open-ended prompts were also significantly more likely to elicit higher proportions of detail in post- than pre-training interviews. Compared to pre-training interviews, a higher proportion of details reported by the children were elicited in post-training interviews using invitations, $F(1, 115) = 5.11$, $p = .03$, $\eta_p^2 = .04$, and cued invitations, $F(1, 115) = 16.42$, $p < .001$, $\eta_p^2 = .13$. The proportion of details elicited with directed narrative questions also increased from pre- to post-training interviews, $F(1, 115) = 6.51$, $p = .01$, $\eta_p^2 = .05$. Comparatively, the proportion of details elicited using less desirable prompts was reduced in post- relative to pre-training interviews. Proportionally fewer of the overall details reported by children were elicited post-training by directed specifics, $F(1, 115) = 5.87$, $p = .02$, $\eta_p^2 = .05$, option-posing, $F(1, 115) = 7.34$, $p = .02$, $\eta_p^2 = .06$, suggestive, $F(1, 115) = 4.33$, $p = .04$, $\eta_p^2 = .04$, and yes/no questions, $F(1, 115) = 12.55$, $p = .001$, $\eta_p^2 = .10$.

Summary. For both mean frequency and proportional analyses, the volume of information (i.e., details) reported by children was greater in response to the more desirable open-ended prompts following training than prior to training. Further, more of the total information reported

by children came in response to such open-ended prompts following training, indicating that more reliable information was likely obtained.

Post-training trends

To examine the progress of interviewers throughout the training, we compared post-training interviews conducted prior to the second training session (n = 36) with those conducted after the second training session (n = 52). Importantly, the second training session served as a reminder of the initial training and should have reinforced concepts learned and practiced in, and following, the first training session. Although we did not observe a significant decrease in the mean number of prompts used in post-training relative to pre-training interviews, we suspected that interviewers may have improved in this regard throughout their post-training interviews. As expected, a comparison of the mean number of prompts used by interviewers in late post-training interviews to the mean number used in early post-training interviews indicated that, indeed, the mean number of prompts was lower in late post-training interviews than in early post-training interviews, $F(1, 88) = 6.65$, $p = .01$, $\eta_p^2 = .07$. Refer to Table 6 for complete descriptive data for early versus late post-training analyses.

Prompt use. Next, we compared the mean number of prompts per interview in early versus late post-training interviews. There were significant increases in the use of cued invitations, $F(1, 88) = 18.52$, $p < .001$, $\eta_p^2 = .18$, and invitation-occurrences, $F(1, 88) = 6.56$, $p = .01$, $\eta_p^2 = .07$. There were also significant decreases in the use of directed specific questions, $F(1, 88) = 19.54$, $p < .001$, $\eta_p^2 = .18$, suggestive questions, $F(1, 88) = 5.40$, $p = .02$, $\eta_p^2 = .06$, option-posing questions, $F(1, 88) = 6.27$, $p = .01$, $\eta_p^2 = .07$, and yes/no questions, $F(1, 88) = 8.90$, $p = .004$, $\eta_p^2 = .09$.

Finally, we compared the average proportion of prompt use in early versus late post-training interviews. There were significant increases in the use of cued invitations, $F(1, 93) = 29.02$, $p < .001$, $\eta_p^2 = .24$, and directed narratives, $F(1, 93) = 14.13$, $p < .001$, $\eta_p^2 = .13$, and a small but significant increase in invitation-occurrences, $F(1, 93) = 4.48$, $p = .04$, $\eta_p^2 = .05$ in later, relative to earlier, post-training interviews. There were also significant reductions in the use

of directed specific prompts, $F(1, 93) = 15.01$, $p < .001$, $\eta_p^2 = .14$, yes/no prompts, $F(1, 93) = 6.55$, $p = .01$, $\eta_p^2 = .07$, and option-posing prompts, $F(1, 93) = 5.27$, $p = .02$, $\eta_p^2 = .05$, as post-training interviews progressed.

Details elicited. The total number of details elicited from children in late post-training interviews was significantly higher than the total number of details elicited in early post-training interviews, $F(1, 88) = 4.59$, $p = .04$, $\eta_p^2 = .05$. Further, the overall number of details that were elicited using open-ended prompts significantly increased from early to late post-training interviews $F(1, 87) = 8.89$, $p = .004$, $\eta_p^2 = .10$, while the overall number of details that were elicited using closed-ended prompts decreased, but did not significantly differ from early to late post-training interviews, $F(1, 87) = 0.18$, $p = .67$, $\eta_p^2 = .002$.

Next, we compared the average number of details elicited per prompt type in early versus late post-training interviews. There were significant increases in the number of details elicited by cued invitations [$M = 81.22$ early, 217.71 late, $F(1, 87) = 11.63$, $p = .001$, $\eta_p^2 = .12$] and directed narratives [$M = 233.03$ early, 424.10 late, $F(1, 87) = 4.80$, $p = .03$, $\eta_p^2 = .05$] in later, compared to earlier interviews. No other comparisons were significant.

We then compared the proportional volume of details elicited per prompt in early versus later post-training interviews. There were significant increases in the proportion of child details elicited in later, compared to earlier, post-training interviews for cued invitations [.08 to .16; $F(1, 87) = 14.41$, $p < .001$, $\eta_p^2 = .14$], invitation-occurrences [.00 to .02; $F(1, 87) = 3.95$, $p = .05$, $\eta_p^2 = .04$], and directed narratives [.23 to .33; $F(1, 87) = 9.66$, $p = .003$, $\eta_p^2 = .10$]. There were also significant decreases in the proportion of child details elicited in later post-training interviews for directed specific [.16 to .09; $F(1, 87) = 12.46$, $p = .001$, $\eta_p^2 = .13$] and yes/no [.38 to .26; $F(1, 87) = 10.06$, $p = .002$, $\eta_p^2 = .11$] prompts.

Summary. Similar to the analyses of the pre- and post-training interviews, comparisons between interviews conducted in the early stages following training and those conducted in the later stages following training evinced continual improvements in interview quality as training

and feedback progressed. Both interviewer prompts and the details elicited from the children with such prompts showed promising gains as training progressed.

Discussion

The present study found clear evidence of the benefits of an intensive training, feedback, and monitoring program across a wide variety of allegations and maltreatment discussions (i.e., not just sexual abuse) with children. Compared with pre-training interviews, post-training interviews contained more desirable prompts, fewer less desirable prompts and the overall amount of information elicited from children following training was larger. Further, more post-training details were elicited from children with questions that are likely to produce information that is more accurate and complete (i.e., open-ended questions). Importantly, although not all comparisons were significant, no negative effects of training were observed and there was no significant time cost of conducting these higher quality interviews. Although previous research has found benefits of training with interviewers of child sexual assault victims (e.g., Lamb et al., 2002; Orbach et al., 2000), the current study extends these findings to a range of allegations and provides further evidence for extended training and monitoring.

Among the most promising findings in the present study was the increase in the use of prompts that were encouraged during training and feedback sessions. Specifically, prior to training, interviewers relatively rarely used invitations and cued invitations, whereas following training, their use more than doubled. When consideration of different coding protocols is taken into account, this rate of invitation usage is remarkably comparable to that observed in prior work using the NICHD protocol (e.g., Cyr & Lamb, 2009). Similarly, use of prompts that were identified during training as less desirable, such as option-posing and suggestive questions, were reduced by more than half. Further, the volume of information elicited from children using more reliable prompts (i.e., open-ended prompts) following training close to tripled (from a mean of 106 to 311). These findings clearly indicate that interviewers were able to effectively implement the recommendations made in training, which resulted in higher quality interviews. This increase in use of desirable prompts and decrease in the use of less-desirable prompts, with the

accompanying implications for the quality of children's responses, reflects a pattern of improvement that is consistent with prior research with the NICHD protocol in sexual abuse cases (e.g., Lamb et al., 2009; Orbach et al., 2000).

In addition to the overall comparison of pre- versus post-training interviews, we were also able to make comparisons between interviews conducted following each of the two training sessions. This second set of analyses allowed for an examination of the progression of interviewers through the training program and for exploration of the need for more than one block of review of relevant material in a group setting. Again, where significant differences existed, all were in the direction of an improvement in the quality of interviews conducted later versus earlier in training. We attribute this continual increase in quality to both ongoing feedback and the second two-day training session (conducted 2 months after the first) which served as a "refresher" session for the interviewers. Anecdotally, many of the interviewers indicated that this additional group review of material and discussion that followed field trial and interview-specific feedback made the material "click" for them. The observed benefits of conducting this second training session were marked enough that future implementation and monitoring of such an intervention is recommended. Perhaps in future training programs, a follow-up session which provides a forum for group discussion of individual challenges and review of material with added experiential context through which to interpret it may be a critical component.

The present data allow us to concur with previous researchers (see Lamb et al., 2007) on the value of continued supervision and feedback following a return to the field. This component appeared to be particularly valued by interviewers and served the purpose of providing a way to address independent concerns and struggles in a private forum. This benefit of feedback and continued supervision is supported in work on skill acquisition by Ericsson and Charness (1994) who have previously argued that a requirement of such acquisition is the opportunity to encounter and work through problems in specific situations. Clearly, then, it is easy to see why previous research may have found that base knowledge increases while practical application and behaviour change may not (e.g., Aldridge & Cameron, 1999; Warren et al., 1999). Deliberate

practice, it is argued, is necessary for skill acquisition because training is then focused on individual challenges rather than well-practiced skills. Certainly, our own observations in the present study of individual interviewer growth support this argument.

An additional component in the present training that we saw as contributing to the improvements in quality of interview was the provision of transcripts of each interviewer's own interviews. It was clear for many that the first viewing of such transcripts was a "wake-up call" and many were surprised at what actually took place during the interviews. Fisher and Geiselman (1992) have also noted that the ability for an interviewer to "see" their own interview operates as a reality check of the difference between understanding the description of theory and attempting to apply it (see also Orbach et al., 2000). As Poole and Lamb (1998) discuss, it is also valuable in demonstrating the difference between interviewers' subjective evaluation of their ability as an interviewer and the reality of their skills. Interestingly, however, Lamb et al. (Lamb, Sternberg, Orbach, Hershkowitz et al., 2002) found that an in-depth discussion of another interviewer's interviews led to equivalent gains in quality as did an examination of one's own interviews. Lamb et al. cautioned against generalization because of their limited sample size in one condition, but given the promising possibility that this labour-intensive form of individualized feedback may not be a requisite for improvements, it is clear that additional research is required.

Interestingly, in prior work on interviews conducted with the NICHD protocol, researchers have observed considerable improvement in the types of prompts used by interviewers and the volume of details reported by children to more reliable prompts, but no overall increase in the number of details provided by children (e.g., Lamb et al., 2008; Lamb et al., 2009; Lamb, Sternberg, Orbach, Esplin et al., 2002; Orbach et al., 2000). In contrast, in the present study (see also Cyr & Lamb, 2009), we observed an increase in the overall number of details reported by children in both the pre- and post-training comparisons as well as the comparisons between early and late post-training interviews. Although previous researchers have not speculated on why differences in the mean number of details reported by children have been lacking, while concurrently noting that those details that *are* reported are more likely to be

reliable (i.e., provided in response to open-ended prompts) the finding that more details were reported after training, and later in training with the present data provide further evidence for the effectiveness of the current training and monitoring program.

We anticipated that we would observe a decrease in the overall number of prompts used by interviewers throughout the course of the substantive phase of the interviews when comparing both pre- and post-training interviews as well as early and late post-training interviews. This prediction was based both on prior studies that have observed this pattern following interviewing training (e.g., Cyr & Lamb, 2009; Lamb et al., 2009) and on the assumption that as the interviewer passed control of the interview to the child, the interview was likely to be more guided by the child and thus, interviewers would be required to pose fewer questions. Although there was a significant decrease in the overall number of prompts used in post-training, compared with pre-training interviews, the decrease did not occur until late in the post-training phase – following the refresher training session. Given that there were other clear benefits seen early in the post-training phase (e.g., increase in open-ended prompts and children's informativeness), the decrease in prompts may underscore the need for extended and continued training. This finding adds credence to the notion that the additional group review session may have been a critical component in the success of the present intervention.

In addition to the uniqueness of including a sample of child interviewees who were interviewed about abuse other than sexual, there are other inclusion criteria in the present sample that differ from many of the extant studies on interviewer training (e.g., Cyr & Lamb, 2009; Lamb et al., 2009; Lamb, Sternberg, Orbach, Esplin et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002). Perhaps most notably, in much of the previous literature, samples selected for inclusion in the NICHD studies have been interviews that complied with the protocol. In the present study, we simply included all interviews that took place after training, as we were interested in all post-training changes rather than specifically testing an interviewing protocol. Further, in the present sample, not all children made an allegation of abuse, as is typically the case in much of the extant literature. Thus, the present data extend the observed

benefits of extensive training programs beyond the types of cases and ideal circumstances that have previously been examined. This is the first demonstration we know of that supports the use of an investigative interview-style protocol when conducting all welfare interviews with children.

There are some interesting nuances in the present data that warrant discussion. First, it is encouraging to note that even in pre-training interviews, few suggestive questions were asked by interviewers (pre-training $M = 3.46$; post-training $M = 1.16$ per interview). In the present coding protocol, suggestive questions were coded strictly such that if a question implied that something occurred which had not been previously introduced by the child, the question was coded as suggestive. For instance, if an interviewer asked "What did he say?" this was coded as suggestive if the child had not previously reported that 'he' had said something. Despite this rather conservative coding scheme, we found little evidence that suggestive questions were of great concern with these interviewers. Given how alluring suggestive questions are when an interviewer is provided with hypothesis-generating information prior to an investigation (which interviewers typically are), it appears as though at least this clear message about suggestive interviewing had reached our field interviewers.

Second, in the present sample, there was a large proportion of yes/no questions (pre-training $M = .51$; post-training $M = .42$) relative to that observed in the NICHD research. There are several potential explanations for this difference. First, in the papers we reviewed on the effectiveness of the NICHD protocol (e.g., Lamb et al., 2002; Orbach et al., 2000) post-training interviews were included in the analyses only if interviewers adhered to the protocol. In contrast, in the present analyses we were interested in comparing all interviews conducted post-training. With the selective inclusion in the NICHD protocol studies, it is very likely that those post-training interviews would include only the most desirable interviewer behaviour whereas the present study inevitably contained interviews that only partially adhered to our recommendations. A second possible explanation for the differences observed is the level of experience of the interviewers in each study. The interviewers in the many of the NICHD studies

were very experienced (but see Lamb et al., 2009), whereas most of the interviewers in the current study were relatively new to interviewing and, may have differed in their likelihood of using undesirable practices. Finally, our particular coding scheme may have been a factor in that interviewer prompts were coded as yes/no even if the question would be received by many interviewees as open-ended. One example of this was a question style commonly used by our interviewers, "Can you tell me more…?" Although this question was responded to most often as though it was an invitation, we emphasized to trainers that children may very well interpret this question literally and respond by indicating that no, they could not provide more information. Although a relatively rare response, some children did, in fact, place the interviewers in an awkward position by responding in such a manner. A brief re-coding of yes/no questions indicated that such "can you" questions comprised just over 5% of all yes/no questions and ranged from 0-86% of yes/no questions within any given interview.

Regardless of the reason for their prevalence, yes/no questions are of special concern in investigative interviews with children. Indeed researchers often label such questions as "leading" (e.g., Lamb et al., 1996). Yes/no questions are not recommended and are considered a risky method of obtaining information. The concern with such questions is based on prior work indicating that it is not uncommon for a child to answer these questions, even if unanswerable given their lack of knowledge (Waterman, Blades, & Spencer, 2001). Further, children are prone to changing answers across repeated yes/no questions and are unlikely to say "I don't know" when provided with such simple response options (see Brady, Poole, Warren, & Jones, 1999). Given these, and other, concerns about accuracy of the responses to yes/no questions, researchers are understandably concerned with reliance on such questions in investigative interviews. As many of the interviews in the current study, however, were not directed at uncovering a specific alleged event, we coded a new style of questions – the directed narrative – that allowed the interviewer to raise the topics on their provincially-mandated list (e.g., general quality of home life) but in a way that still communicated to the child that a narrative was required. This type of

question is not part of the NICHD protocol, but reflects a need for flexibility while still practicing the principles of good interviewing.

Limitations

There are, of course, limitations to the present study. Most notably, in field studies of investigative interviews, and the present study is no exception, it is usually impossible to determine the accuracy of the information reported by the children. Prior research has clearly indicated that responses to open-ended questions are more likely to contain accurate information than responses to closed-ended questions (e.g., Ornstein et al., 1992). Thus, the shifts observed in the present study towards increases in the proportion of open-ended questions and corresponding details elicited likely reflects a significant improvement in the quality, as well as the length, of children's disclosures.

Second, though we consider the diversity of the allegations in the present study to be a strength of this work, this diversity also introduces some potential motivational differences across victims of different types of abuse. Such differences may influence and/or limit comparisons between this work and prior work focusing on sexual abuse allegations alone.

An additional limitation is that because all interviewers in the present study received the training program there was no comparison group that did not receive training and feedback. Thus, is it not possible to conclude that observed changes were a direct result of the training and feedback. However, we also note that an advantage of within-subjects comparisons is the lack of concern about individual differences across samples. Also, although we certainly sought to capture the same information in relation to interviewer prompts as previous literature, the coding system we used had to be modified to better evaluate the interviews in this novel setting.

Finally, despite our fortune to be able to include both police officers and child protection workers in the present sample, due to a need for representativeness of the overall number of interviewers within each population, we were unable to include a large enough number of police officers to allow for comparisons between samples. The primary mandate of a social worker (i.e., child protection) can differ substantially from that of a police investigator (i.e., crime

investigation). Perhaps these different roles lead to a different standard of investigation – a suggestion that clearly requires additional exploration. Due to the low number of police in the present sample, a comparison with these data would not be responsible. Additionally, it is likely that those interviewers who volunteered and were selected to participate were particularly likely to commit to the training given the small number of training spots available relative to the size of the organization. Thus, a more random selection of interviewers may be less committed and the training less effective.

Conclusion

The present study provides evidence of the value of continued feedback and training on interviewer behaviour change in a broader sample of child abuse contexts than currently published. The results of the present study are very promising for the successful training of both police and social worker samples in investigative contexts that are not solely directed at legal prosecution. Yet we remain a long way from articulating the basic conditions required for long-term behaviour change. At present, we do not know how much training is required and how long the maintenance program must be. It is also crucial to know how long, even after official maintenance programs have been discontinued, that interviewer behaviour remains at the achieved standard and the nature of supervision is required to maintain skills. Perhaps monthly meetings discussing interviews with colleagues would be sufficient. Perhaps a critical in-depth line-by-line examination of a particular interview is required. There is also little direction in the empirical literature that would provide guidance about individual differences in interviewers (e.g., gender, years of experience) and how this may impact the maintenance of training. These questions, and many others, are critical pieces to the investigative interviewing puzzle that require further examination.

References

Aldridge, J., & Cameron, S. (1999). Interviewing child witnesses: Questioning techniques and the role of training. *Applied Developmental Science, 3,* 136-147.

Brady, M. S., Poole, D., A., Warren, A. R., & Jones, H. R. (1999). Young children's responses to yes-no questions: Patterns and problems. *Applied Developmental Science, 3,* 47-57.

Cyr, M., & Lamb, M. E. (2009). Assessing the effectiveness of the NICHD investigative interview Protocol when interviewing French-speaking alleged victims of child sexual abuse in Quebec. *Child Abuse & Neglect, 33,* 257-268.

Davies, G. M., Westcott, H. L., Horan, N. (2000). The impact of questioning style on the content of investigative interviews with suspected child sexual abuse victims. *Psychology, Crime and Law, 6,* 81-07.

Dent, H.R., & Stephenson, G.M. (1979). An experimental study on the effectiveness of different techniques of questioning child witnesses. *British Journal of Social & Clinical Psychology, 18,* 41-51.

Ericsson, K. A., & Charness, N. (1994). Expert performance: Its structure and acquisition. *American Psychologist, 49,* 725-747.

Fisher, R.P., & Geiselman, R.E. (1992). *Memory-enhancing techniques for investigative interviewing: The Cognitive Interview.* Springfield, IL: Thomas.

Freeman, K. A., & Morris, T. L. (1999). Investigative interviewing with children: Evaluation of the effectiveness of a training program for child protective service workers. *Child Abuse & Neglect, 23,* 701-713.

Home Office (2000). *Achieving best evidence in criminal proceedings: Guidance for vulnerable or intimidated witnesses, including children*. Her Majesty's Stationery Office, United Kingdom.

Lamb, M. E., Hershkowitz, I., Orbah, Y., & Esplin, P. W. (2008). *Tell me what happened: Structured investigative interviews of child victims and witnesses*. Chichester, UK and Hoboken, NJ: Wiley & Sons.

Lamb, M. E., Hershkowitz, I., Sternberg, K., J., Esplin, P. W., Hovav, M., Manor, T., & Yudilevitch, L. (1996). Effects of investigative utterance types on Israeli children's responses. *International Journal of Behavioral Development, 19,* 627-637.

Lamb, M. E., Orbach, Y., Hershkowitz, I., Esplin, P. W., & Horowitz, D. (2007). A structured forensic interview protocol improves the quality and informativeness of investigative interviews with children: A review of research using the NICHD Investigative Interview Protocol. *Child Abuse & Neglect, 31*, 1201-1231.

Lamb, M. E., Orbach, Y., Sternberg, K. J., Aldridge, J., Pearson, S., Stewart, H. L., Esplin, P. W., & Bowler, L. (2009). Use of a structured investigative protocol enhances the quality of investigative interviews with alleged victims of child sexual abuse in Britain. *Applied Cognitive Psychology, 23*, 2009.

Lamb, M. E., Sternberg, K. J., & Esplin, P. W. (2000). Effects of age and delay on the amount of information provided by alleged sexual abuse victims in investigative interviews. *Child Development, 71,* 1586-1596.

Lamb, M. E., Sternberg, K. J., Orbach, Y., Esplin, P. W., & Mitchell, S. (2002). Is ongoing feedback necessary to maintain the quality of investigative interviews with allegedly abused children? *Applied Developmental Science, 6*, 35-41.

Lamb, M. E., Sternberg, K. J., Orbach, Y., Hershkowitz, I., Horowitz, D., & Esplin, P. W. (2002). The effects of intensive training and ongoing supervision on the quality of investigative interviews with alleged sex abuse victims. *Applied Developmental Science, 6*, 114-125.

Leichtman, M. D., & Ceci, S. J. (1995). The effects of stereotypes and suggestions on preschoolers' reports. *Developmental Psychology, 31*, 568 - 578.

Lyon, T. D., & Saywitz, K. J. (2006). From post-mortem to preventative medicine: Next steps for research on child witnesses. *Journal of Social Issues,62,* 833-861.

Orbach, Y., Hershkowitz, I., Lamb, M. E., Sternberg, K. J., Esplin, P. W., & Horowitz, D. (2000). Assessing the value of structured protocols for forensic interviews of alleged child abuse victims. *Child Abuse & Neglect, 24*, 733-752.

Orbach, Y., & Lamb, M. E. (2000). Enhancing children's narratives in investigative interviews. *Child Abuse & Neglect, 24*, 1631-1648.

Ornstein, P. A., Gordon, B. N., & Laurus, D. M. (1992). Children's memory for a personally experienced event: Implications for testimony. *Applied Cognitive Psychology, 6*, 49-60.

Poole, D. A., & Lamb, M. E. (1998). *Investigative interviews of children: A guide for helping professionals.* Washington, DC: American Psychological Association.

Sternberg, K. J., Lamb, M. E., Orbach, Y., Esplin, P. W., & Mitchell, S. (2001). Use of a structured investigative protocol enhances young children's responses to free-recall prompts in the course of forensic interviews. *Journal of Applied Psychology, 86*, 997-1005.

Stevenson, K. M., Leung, P., & Cheung, K. M. (1992). Competency-based evaluation of interviewing skills in child sexual abuse cases. *Social Work Research and Abstracts, 28*, 11-16.

Warren, A. R., Woodall, C. E., Thomas, M., Nunno, M., Keeney, J. M., Larson, S. M., & Stadfeld, J. A. (1999). Assessing the effectiveness of a training program for interviewing children. *Applied Developmental Science, 3*, 128-135.

Waterman, A. H., Blades, M., & Spencer, C. (2001). Interviewing children and adults: The effect of question format on the tendency to speculate. *Applied Cognitive Psychology, 15*, 521-531.

Yuille, J. C., & Cutshall, J. L. (1986). A case study of eyewitness memory of a crime. *Journal of Applied Psychology, 71*, 291-301.

Table 1.

Interviewer utterance coding

Category	Definition	Example
Invitation	Invites child to talk about an event with no cues from the interviewer	Tell me more. What else?
Cued invitation	Invites child to talk about something that s/he has already mentioned	You said you play together. Tell me about playing together.
Invitation-occurrence	Invitation-style question that focuses on one particular instance	Why don't we talk about the last time this happened?
Directed narrative	Directs the child towards a general topic but invites a narrative response[2]	Tell me how things are at home.
Directed specific	Directs the child towards a particular topic and invites a brief response	What was he wearing?
Option-posing	Provides child with two or more options	Were your pants on or off? Was this before or after school?
Yes/No	Requires a "yes" or "no" response[3]	Was he wearing his shirt? Did he say anything?
Suggestive	Utterance contains information not mentioned by the child; or when interviewer leads child into a particular response	You walked away immediately, didn't you?

[2] Such prompts were encouraged in the present training due to interviewers' need for exploring several very general topics in children's lives (e.g., "school", "mealtime"). [*Note*: Although some researchers consider this prompt suggestive, we argue that in the present interviews it was a more desirable prompt than other options (e.g., Does your mom use alcohol?). When an interviewer's mandate is to explore all aspects of a child's life, s/he must ask a very general question about "home" or "school" to direct the child's attention. In such cases, a directed narrative is a preferred method. Such questions are similar to the recommended questions in the NICHD protocol's rapport-building section (Roberts, Lamb, & Sternberg, 2004)].

[3] These questions were strictly coded such that if the appropriate grammatical response to a question was "yes" or "no", the question was considered a yes/no question (e.g., "Can you tell me more about that?").

Paraphrase	Explicit reflection back to the child of something that s/he has mentioned, without an explicit request for information	You said that he touched you.
Facilitator	Responsive device[4]	Okay, uh huh

[4] Although initially coded as an interviewer prompt, child responses to facilitators were subsequently incorporated into the prompt asked immediately prior to the facilitator as in previous research (e.g., Lamb, Sternberg, Orbach, Esplin, & Mitchell, 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002). As a result, facilitators are not discussed further.

Table 2.

Descriptive information for pre- and post-training interviews

	Pre-training	Post-training
Child age (in years)	10.30 (3.61) Range: 4-15	9.83 (3.25) Range: 4-16
Child gender = male	52%	51%
New (vs. ongoing) case	91%	81%
Single (vs. repeated) instance	41%	38%
Allegation present	61%	64%
Perpetrator		
Father	35%	27%
Mother and Father	18%	25%
Mother	0%	18%
Sibling	12%	2%
Allegation		
Hitting	53%	39%
Sex assault/ touch	12%	16%
Fighting observed	12%	18%
Interview duration (mins)	22:55	26:45

Table 3.

Proportion of pre- and post-training interviews containing protocol components

	Practice Interview	Truth/Lies	Okay to say "I don't know"	Correct if wrong
Pre-training	.04	.54	.39	.04
Post-training	.51	.81	.67	.64

Table 4.

Means and proportions (standard deviations) of prompts per interview used in pre- and post-training interviews

	Pre-training		Post-training	
	Means	Proportions	Means	Proportions
Invitation	1.57 (1.81)	.02 (.04)	3.22 (2.75)	.05 (.09)
Invitation-Occurrence	0.04 (0.19)	.00 (.00)	0.24 (0.57)	.01 (.01)
Cued invitation	1.82 (1.85)	.03 (.04)	5.30 (5.00)	.08 (.13)
Paraphrase	6.46 (10.01)	.05 (.04)	3.99 (6.12)	.05 (.03)
Total open	*9.89 (9.77)*	*.10 (.12)*	*12.75 (9.36)*	*.19 (.26)*
Directed narrative	*12.04 (10.66)*	*.13 (.21)*	*13.46 (7.94)*	*.19 (.29)*
Directed specific	15.86 (12.40)	.17 (.17)	12.16 (9.64)	.15 (.12)
Option-posing	2.46 (2.56)	.03 (.02)	1.15 (2.02)	.01 (.01)
Yes/No	47.07 (34.99)	.51 (.44)	35.37 (30.35)	.42 (.31)
Suggestive	3.46 (4.47)	.03 (.03)	1.16 (1.46)	.02 (.01)
Total closed	*68.86 (49.15)*	*.74 (.66)*	*49.83 (39.21)*	*.60 (.45)*
Overall total	*93.89 (63.40)*		*77.40 (47.99)*	

Note. Proportions may not add to 1.00 due to rounding.

Table 5.

Means (standard deviations) of details elicited per prompt

	Pre-training	Post-training
Invitation	34.04 (68.87)	96.84 (157.82)
Invitation-occurrence	0.07 (0.38)	11.09 (46.67)
Cued invitation	28.54 (36.45)	161.88 (203.41)
Paraphrase	42.96 (76.07)	40.80 (70.07)
Total open	*105.61 (109.48)*	*310.60 (311.08)*
Directed narrative	*157.54 (152.39)*	*345.93 (344.78)*
Directed specific	108.89 (95.67)	123.44 (133.45)
Option-posing	15.43 (22.62)	9.50 (26.11)
Yes/No	374.68 (421.16)	328.73 (320.64)
Suggestive	22.75 (32.20)	12.05 (25.65)
Total closed	*521.75 (520.88)*	*473.72 (403.92)*
Overall total	*765.04 (722.75)*	*1160.51 (829.13)*

Table 6.

Means and proportions (standard deviations) of prompts per interview used in early versus late post-training interviews

	Early post-training		Late post-training	
	Means	Proportions	Means	Proportions
Invitation	3.19 (3.06)	.04 (.04)	3.25 (2.54)	.06 (.07)
Invitation-Occurrence	0.06 (0.23)	.001 (.01)	0.36 (0.68)	.01 (.02)
Cued invitation	2.78 (2.31)	.04 (.03)	7.02 (5.59)	.11 (.08)
Paraphrase	5.33 (7.84)	.05 (.05)	3.08 (4.43)	.05 (.08)
Total open	*11.36 (9.83)*	*.15 (.10)*	*13.70 (9.00)*	*.31 (.21)*
Directed narrative	*12.75 (8.43)*	*.15 (.08)*	*13.94 (7.64)*	*.22 (.09)*
Directed specific	17.14 (10.21)	.19 (.08)	8.77 (7.64)	.12 (.07)
Option-posing	1.78 (2.47)	.02 (.02)	0.72 (1.52)	.01 (.02)
Yes/No	46.53 (37.78)	.47 (.14)	27.79 (21.30)	.39 (.15)
Suggestive	1.58 (1.76)	.02 (.04)	0.87 (1.14)	.01 (.07)
Total closed	*67.03 (46.77)*	*.85 (.10)*	*38.15 (28.02)*	*.69 (.21)*
Overall total	*92.83 (56.68)*		*66.92 (38.19)*	