UNDERSTANDING AND ADDRESSING CHALLENGES FACED BY FORENSIC INTERVIEWERS IN THEIR WORK WITH CHILDREN

BY

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Abstract

Questioning techniques in forensic interviews make a critical contribution to the amount and quality of children's testimony (Lamb, La Rooy, Malloy, & Katz, 2011). Best practice recommendations advise that interviewers ask predominantly broad open-ended prompts (invitations and cued-invitations), minimise focused (direct) and closed-ended (option-posing) prompts, and avoid suggestive questions (Orbach & Pipe, 2011). Deviation from these recommendations is common, and deterioration in interviewing practice over time is typical unless interviewers received regular practice focused supervision and feedback (Lamb, Sternberg, Orbach, Esplin, & Mitchell, 2002). However, interviewers' access to supervision is often limited (La Rooy, Lamb, & Memon, 2011). Guided self-review may be an effective method to complement traditional face-to-face supervision. This thesis examined: 1) forensic interviewing practice with children in New Zealand, 2) factors that influenced practice, 3) forensic interviewers' perceptions of supervision, and 4) the effectiveness of a self-review tool designed to increase the use of invitations and cued-invitations.

The first study was divided into two parts (Study 1a and Study 1b). In Study 1a, we evaluated the extent to which forensic interviewers in New Zealand adhered to best-practice recommendations, and examined factors (child, interviewer, allegation characteristics) that influenced practice. We examined 93 interviews with children (6-16 years old) about sexual abuse allegations that were conducted by 27 interviewers. Interviewers utilised more direct (57%), and option-posing prompts (20%), and fewer invitations and cued-invitations (22% combined) than stipulated by best practice recommendations, although very few suggestive questions were posed. A number of child, interviewer and allegation characteristics influenced questioning techniques. In Study 1b, we examined whether limited use of invitations and cued-invitations (in a larger sample of 103 interviews) was associated with decreased responsiveness from children, and failure to follow recommended practice of using such questions following any direct or option-posing questions (termed pairing). Although invitations were more likely to elicit responses (83%) than non-responses (17%) from children, non-responding was more highly associated with this type of prompt than expected by chance. Furthermore, interviewers did not adhere to the pairing principle, even though this practice was positively associated with higher proportion of invitations and cued-invitations.

In the second study, we surveyed 39 forensic interviewers about their engagement in, and beliefs about supervision. Two-thirds of the interviewers indicated that they engage in

practice-focused supervision. Out of these interviewers, over half (57.7%) received supervision regularly and were satisfied with the content of their supervision, and approximately half (53.9%) were satisfied with their supervision opportunities. Nonetheless, interviewers varied in terms of how satisfying they found their access to, and the content of supervision. Finally, a number of individual and organisational barriers (e.g., financial, time constraint and limited availability of supervisors) to accessing face-to-face supervision were identified.

In the final study, we explored the impact of a self-review tool specifically designed to increase invitations and cued-invitations and adherence to the pairing principle. This pilot study used an AB design (baseline vs. intervention) with six interviewers (n=54 interviews with 4-16 year old children for alleged physical or sexual abuse). Interviews conducted during the self-review phase had a significantly higher proportion of invitations, and a lower proportion of direct prompts, and higher adherence to the pairing principle than interviews at baseline.

Overall, our evaluation of forensic interviewing practice with children in New Zealand has highlighted areas of strengths as well as areas for improvement. In particular, consistent with international evaluations, an increase in the use of invitations and cued-invitations is recommended, and our results suggest that one way this may be achieved is by a greater focus in training and practice on the use of the pairing principle. Undoubtedly, forensic interviewing is a challenging task that requires highly specialised skills. Without regular supervision and feedback, it is difficult to maintain consistent and high standards of interviewing. Given the challenges that may limit forensic interviewers' access to regular feedback and supervision, guided self-review may offer an accessible and low-cost complementary method to improve the conduct of forensic interviews with children. Better quality interviews increase the chance of investigations progressing when maltreatment has occurred, thereby protecting vulnerable children from further abuse, and innocent adults from the consequences of false allegations.

Finally, I would like to dedicate this thesis to my parents and siblings (Linda, Eddy and Lanny) who are my role models and have taught me the importance of hard work and perseverance.

"Terima kasih"

Table of Contents

List of Tables

List of Figures

Format of This Thesis

This thesis is composed of general introductory chapters (Chapters 1-4), published and accepted articles (Chapters 5-7), and a general discussion chapter (Chapter 9). Repetition may occur between the general introductory chapters (Chapter 1-4) and the introduction of the empirical studies. Abstracts for these articles have been removed for ease of reading, and have been replaced by transition pages discussing how these articles fit into the thesis as a whole.

Incorporated in Chapter 5

Wolfman, M., Brown, D., & Jose, P. (2016). Taking stock: Evaluating the conduct of forensic interviews with children in New Zealand. *Psychology, Crime and Law*. Published online 29 March. DOI: 10.1080/1068316X.2016.1168426

Incorporated in Chapter 6

Wolfman, M., Brown, D., & Jose, P. (2016). Talking past each other: Interviewer and child verbal exchanges in forensic interviews. *Law and Human Behaviour, 40,* 107 - 117. DOI: 10.1037/lhb0000171

Incorporated in Chapter 7

Wolfman, M., Brown, D., & Jose, P. (accepted). Examining forensic interviewers' perceptions of practice-focused supervision. *Australian and New Zealand Journal of Criminology.*

Other relevant work not included in the thesis

Wolfman, M., Brown, D., & Jose, P. (in preparation). The use of visual aids in forensic interviews with children.

Wolfman, M., Brown, D., & Jose, P. (in preparation). The effect of the preparation phase in forensic interviews with children.

Wolfman, M., Brown, D., Hill, A., & Jose, P. (in preparation). Evaluation of the New Zealand Specialist Child Witness Interviewing training curriculum.

Chapter 1: Child Maltreatment: Definitions, Prevalence, and Outcomes

This thesis reports work that examined 1) forensic interviewing practice with children in New Zealand 2) factors that influence forensic interviewing practice with children, 3) forensic interviewers' perception of practice-focused supervision and, 4) the effectiveness of an intervention designed to facilitate adherence to best-practice recommendations. The first three aims were investigated in three sets of analyses (Chapters 5-7) that examined 1) a recent sample of forensic interviews with children about alleged sexual abuse for adherence to the national Specialist Child Witness Interviewing model (Chapter 5), 2) the association between interviewer question types and child responses in interviewing practice (Chapter 6), and 3) interviewers' perceptions of supervision (Chapter 7). The fourth aim was addressed in a pilot study that explored the impact of a self-review tool designed to increase invitations and cued-invitations throughout an interview (Chapter 8). This first chapter provides the context for the thesis by discussing the definition of child abuse, prevalence estimates and outcomes of child abuse.

Definitions of Child Abuse

Under *the New Zealand Children, Young Persons and Their Families Act 1989,* a child is defined as any child or young person under the age of 17 years old. Child abuse is defined under this legislation as, "the harming (whether physically, emotionally, or sexually), ill-treatment, abuse, neglect or deprivation of any child or young person" (New Zealand Children, Young Persons and Their Families Act 1989, Section 2[1]). Under the Child (New Zealand Police and Child Youth and Family, 2010, p. 6) serious physical abuse is defined as, "any actions of a perpetrator that result in or could potentially result in physical harm or injury being inflicted on a child. The test for seriousness is determined by considering the action, the injury and the circumstances." Serious wilful neglect is defined as, "when a person wilfully ill-treats or neglects a child or wilfully causes or permits a child to be ill-treated in a manner likely to cause the child actual bodily harm, injury to health or any mental disorders or disability. This includes failure to provide the necessities of life" (New Zealand Police and Child Youth and Family, 2010, p. 6). Lastly, child sexual abuse is defined as, "an act involving circumstances of indecency with, or sexual violation of, a child or using a child in the making of sexual imaging" (New Zealand Police and Child Youth and Family, 2010, p. 6). This thesis focuses on the conduct of forensic interviews of child sexual and physical abuse only.

Prevalence Estimates of Child Abuse in New Zealand

Child abuse is a significant problem in New Zealand. Between the 1st of July 2014 and 31st of March 2015, Child, Youth and Family received 115,547 care and protection complaints for 47,858 children and young people (Child, Youth and Family, 2015). Out of these reports, 12,436 cases of emotional, physical, sexual abuse, or neglect were substantiated. Of these, 5,929 cases of emotional abuse, 2,364 of physical abuse, 948 of sexual abuse and 2,570 cases of neglect were substantiated. These statistics, however, may not indicate the actual scale of the issue given estimated rates of non-disclosure.

A number of cohort or community-based studies have been conducted to provide population estimates of the prevalence of child sexual and physical abuse, which are summarised below. However, a central problem in these studies is the various definitions of what constitutes child physical and sexual abuse. Some studies, for example, classify 'regular physical punishment' as child physical abuse (e.g. Fergusson et al., 2000) which may not be considered abusive in other studies (e.g. Millichamp, Martin, & Langley 2006). It is also worth noting that research and field definitions may vary which further serves as a barrier in advancing the knowledge base of the field (Runyan et al., 2005).

Prevalence estimates of child sexual abuse in New Zealand

Remarkably similar rates of people having unwanted sexual experiences before the age of 18 were reported across a number of studies, with estimates ranging from 20 to 33% for females, and 5-6% for males (Anderson, Martin, Mullen, Romans, & Herbison, 1993; Fergusson, Horwood, & Woodward, 2000). However, these studies relied on retrospective self-report, however, which has a number of problems. This method may result in *over-estimation* of the prevalence of child sexual abuse due to participants' false recall or suspicion/substantiation bias (Lyon, 2007). Retrospective self-reporting may also *underestimate* the prevalence of child sexual abuse because of non-disclosure and recall failures (London, Bruck, Ceci, & Shuman, 2007). For example, in the Christchurch Health and Development study, Fergusson et al. (2000) examined the stability of self-report by interviewing participants at the ages of 18 and again at 21 about sexual abuse that occurred before the age of 16. They found that half of the participants who reported experiencing sexual abuse when interviewed at the age of 18 failed to report the same event again at the age of 21. Those individuals who stated that they had not been abused when interviewed at the age of 18 maintained this position when they were re-interviewed at the age of 21. In other words, Fergusson et al. (2000) found a high rate of false-negatives (i.e., not reporting abuse when it did happen), but few false-positives (i.e., claiming abuse when it did not

happen). This pattern of results suggests that prevalence estimates based on self-report may not accurately measure the incidence of child sexual abuse. Fergusson and colleagues concluded that their high false-negative rates might be explained either by normal memory processes such as forgetting or motivational issues such as participants' reluctance to talk about their abuse history.

Prevalence estimates of child physical abuse in New Zealand

The Christchurch Health and Development Study (a birth-cohort study of 1265 children) reported that approximately one in five females and one in four males have experienced regular physical punishment from either their parents/caregivers before the age of 16 years (Fergusson et al., 2000). Approximately four percent of all the respondents reported having experienced frequent, harsh or severe physical punishments from their parents/caregivers. Similarly, in the Dunedin Multidisciplinary Health and Development Study (a birth-cohort study of 962 children), 45% of study members reported that they had been hit with an object and 6% reported extreme physical punishment by their parent/caregiver at some point in their childhood (Millichamp, Martin, & Langley 2006).

More recently, the Youth Health Survey (Adolescent Health Research Group, 2008) found that 47.9% of male respondents and 33.2% of female respondents reported having been deliberately hit or physically harmed in the previous 12 months. Youth respondents most commonly reported being physically harmed by their peers, however a quarter reported being hit or physically harmed by their parent(s) (Clark et al., 2009). Additionally, approximately 17% of youth respondents reported having witnessed another child at home being hit or physically harmed by a parent in the previous year. Taken together, there is a large range in the prevalence estimates of child physical abuse in New Zealand (from 4% to 45%) that may reflect variations in definitions of what constitutes physical abuse, under-reporting due to non-disclosure and lack of reliability of participants' memory (Fergusson et al., 2000).

Outcomes of Maltreatment

Children who have been maltreated are at a greater risk of negative developmental outcomes and psychopathology both in the psychological and physical domains (Cicchetti & Toth, 2005). Variability in the presence of risk and protective factors mean that not all children who have been maltreated are similarly affected, and in fact, some children do not experience negative developmental outcomes at all (Cicchetti & Toth, 2005). Nonetheless, a robust body of research has demonstrated that children who have experienced maltreatment are at greater risk of medical/health, intellectual and cognitive processing, academic,

emotional processing, self-esteem, social, behavioural and mental health problems (for a review see Cicchetti & Toth, 2005; Gilbert et al., 2009; Maniglio, 2009). Childhood maltreatment is also significantly associated with psychopathology in adulthood (Cutajar et al., 2010; Fergusson, Boden, & Horwood, 2008). In a longitudinal study, Cutajar et al. (2010) found that adults who had experienced childhood sexual abuse were 3.65 times more likely to access public mental health services for a range of mental health issues such as psychosis, mood disorders, substance abuse and personality disorders. Similarly, adults between the ages of 16-25 years old who had experienced sexual or physical abuse as children were more likely to be at increased risk of mental illness such as depression, anxiety, conduct/antisocial personality disorders, substance use disorders, suicide attempts and ideations (Fergusson et al., 2008). Importantly, the effects of maltreatment are far-reaching, affecting not just the individual but the community and society at large. In New Zealand, it is estimated that child maltreatment costs the economy around $2 billion or over 1% of New Zealand's Gross Domestic Product each year (Every Child Counts, 2010). This estimate includes both the direct and indirect costs of child maltreatment such as health care, welfare and criminal justice services, long-term costs related to health issues, as well as the cost of lost productivity to the economy. Given the significant financial and psychological costs of child maltreatment, both at the individual and societal level, it is imperative that investigations of child maltreatment are conducted effectively. The next chapter will briefly summarise research on the influence of child and event factors on children's eyewitness testimony. Research on forensic interviewing practice will be reviewed in Chapters 3 and 4.

Chapter 2: Children as Eyewitnesses

Under the Child Protection Protocol (New Zealand Police and Child Youth and Family, 2010), allegations of child abuse are typically evaluated in a forensic interview conducted by specially trained interviewers who are either police officers or social workers from Child, Youth and Family. Police officers or social workers who are interested in becoming forensic interviewers are selected based on regional needs to attend the New Zealand Specialist Child Witness Interviewer training course (Westera, Zajac, & Brown, in press). The current training model (implemented in 2013) consists of two components: online and residential training. The online training contains five modules about interviewing children, sexual and violent offending, child development and memory, and forensic interviewing techniques. The fifth module involves two days at an interviewing unit and completing two assignments. Once participants have successfully completed the online training and its associated practical tasks, they attend a four and a half day residential training programme focused on practising interviewing techniques, and submit a mock forensic interview for evaluation. In 2013, the New Zealand Police and Child, Youth and Family implemented an accreditation programme where interviewers are required to submit at least two forensic interviews annually for competency evaluation (Westera et al., in press).

In New Zealand, forensic interviews with children for abuse allegations are regulated by the *New Zealand Evidence Act 2006* and the *New Zealand Evidence Regulations 2007*. These legislations specify a set number of requirements that need to be fulfilled during the interview in order for children's testimony to be admissible in the court of law. Children are customarily interviewed about maltreatment because there are typically limited sources of additional or corroborating investigative materials such as physical evidence or other witnesses (Adams, Harper, Knudson, & Revilla, 1994; Christian et al., 2000; Herman, 2009; Walsh, Jones, Cross, & Lippert, 2008). Even in cases of alleged child physical abuse, injuries may not be detected by medical professionals (Kellogg, 2007). A number of international studies have found that medical evidence was neither predictive nor essential for prosecution or conviction (DeJong & Rose, 1991; Lewis, Klettke, & Day, 2014; Saint-Martin, Bouyssy, & O'Byrne, 2007). Instead, the quality of child witness testimony plays a significant role in the prosecution and conviction of the suspect (DeJong & Rose, 1991; Lewis et al., 2014; Saint-Martin et al., 2007). Therefore, children's testimony is a crucial source of evidence (Brown & Lamb, 2009; London, Bruck, Ceci, & Shuman, 2005).

Given the importance of children's eyewitness testimony, it is important that forensic interviews are conducted with an evidence-based method. There are several potential

consequences of poor interviewing. Firstly, poor interviewing may lead to sparse reports from children. Poor interviewing techniques such as predominantly asking closed-ended questions (e.g., "Did he touch you under or over your clothes?") is associated with minimal and inadequate reporting of facts from children (Korkman, Santtila, & Sandnabba, 2006). Furthermore, closed-ended questions are more likely to elicit self-contradictions and inconsistent statements (Lamb & Fauchier, 2001; Orbach & Lamb, 2001), which in turn increases the likelihood that the case will not proceed to court (Walsh et al., 2008). If the abuse did happen, failing to prosecute a particular case increases the child's vulnerability for further abuse.

Secondly, poor interviewing may elicit false allegations from children, leading to convictions in the absence of wrongdoing (Wood & Garven, 2000). Experimental studies have demonstrated that when children are asked to repeatedly imagine or think about an event that did not happen, false or distorted memories may be created (Ceci, Huffman, Smith, & Loftus, 1994; Hyman & Pentland, 1996). Suggestive questioning techniques (questions that assume information or imply a particular response, e.g., "He touched you, didn't he?") may also increase errors in children's reports.

Finally, poor interviewing may also lower children's credibility as competent eyewitnesses. For example, mock jurors presented with a child's testimony that was elicited by suggestive interview techniques were less likely to evaluate the child witness as credible, honest, competent and intelligent, and were less likely to convict the alleged perpetrator (Tubb, Wood, & Hosch, 1999). Similarly, Johnson and Shelley (2014) and Castelli, Goodman, and Ghetti (2005) found that better forensic interviews were positively associated with higher ratings of child credibility than interviews of poorer quality by prospective or mock jurors. In turn, this was positively associated with higher confidence in the guilt decision (Johnson & Shelley, 2014).

Given the importance of child's testimony, much attention has been paid to factors that influence children's capabilities as eyewitnesses. Research has demonstrated that children's eyewitness testimony is influenced by three main groups of factors: child characteristics (e.g., age, cognitive and socio-emotional factors), event characteristics (e.g., frequency and severity of the alleged incident), and the interview process (e.g., types of questions asked) (Lamb et al., 2011). These factors likely interact in a complex way that makes predicting the amount and accuracy of any one child's evidence difficult. The following section will briefly summarise research on children's memory development, and child and event characteristics that influence children's eyewitness memory.

Children's Memory Development

Tulving (1972) proposed that the memory system can be categorised into two parts – semantic and episodic memory. Semantic memory is described as memory for general knowledge, concepts, words and their meanings. On the other hand, episodic memory consists of memory for personal and specific events, which includes spatial and temporal information. In cases of child abuse allegations, tapping into episodic memory is the main focus for interviewers. The three main stages of the episodic memory system: encoding, storage and retrieval (Melton, 1963). Different factors influence how well information is encoded, stored and ultimately retrieved for recall, however these are not reviewed here. A comprehensive review of memory development is beyond the scope of this thesis (for a review see Bauer & Fivush, 2013), but to provide a basic framework for understanding the influence of interviewing techniques on children's eyewitness testimony, a very broad overview is presented below.

Encoding is the first stage of memory and refers to how the perceived experience enters the memory system (Klemfuss & Ceci, 2009). Encoding is determined, largely, by the allocation of attention. How much information we encode depends on what is attended to (Craik, Govoni, Naveh-Benjamin, & Anderson, 1996). Irrespective of age, our attentional capacity is limited as often there are overwhelming amounts of information to be processed. As such, we often selectively attend only to a few aspects of the event. How much information we pay attention to is influenced by a number of factors such as cognitive processing and attentional ability which increases over time (Klemfuss & Ceci, 2009). Younger children have less attentional ability (that is they attend to fewer aspects of an event) which means they encode less information compared to older children and adults (Klemfuss & Ceci, 2009). However, there are many other factors that influence encoding of information such as knowledge and comprehension of the experienced event and socio-emotional factors (motivation, mood or arousal state which may influence attention) (Gordon, Baker-Ward, & Ornstein, 2001).

After information is encoded, it enters into the short-term memory storage. Information in the short-term memory storage may be either forgotten (i.e., not encoded further) or continue to be laid down in long-term memory storage. Memories that are in long-term storage can be forgotten over time or strengthened with repeated activation (Klemfuss & Ceci, 2009). An event that was experienced recently and recalled frequently is more likely to be remembered than an event that was distant in the past and not recalled since. Similar to encoding, there is a developmental trend in the ability to store memories. This may reflect

storage capacity and efficiency, as well as increases in knowledge which assist organization of the memory (Gordon et al., 2001).

The final stage of the memory process is retrieval or the act of 'remembering'. Developmental factors also influence the retrieval process. Younger children tend to have slower cognitive processing speed, which affects retrieval of information (Kail & Ferrer, 2007). Even when children have the information encoded and stored in long-term memory children's immature use of retrieval cues and strategies may also impede the retrieval of information (Klemfuss & Ceci, 2009).

In summary, there is a general developmental progression of improvements in the memory system. Increases in age are usually associated with greater attentional capacity which increases the amount of information encoded (Chi, 1976). Developments in storage capacity and efficiency increases the amount of information retained. Meanwhile, development in cognitive processing speed as well as effective use of retrieval strategies increases the amount of information recalled (Gordon et al., 2001; Kail & Ferrer, 2007). Age also influences other features that aid in development of memory such as semantic knowledge growth, knowledge of how memory works and subsequently, utilisation of cognitive strategies (Klemfuss & Ceci, 2009). That being said, the developmental age of the child alone does not determine how well a child reports his or her experience. There is great variation among children of the same age and a range of characteristics influence how well a child may report his or her experience (Quas, Goodman, Ghetti, & Redlich, 2000), as outlined in the next section.

Child Characteristics That Influence Children's Capabilities as Eyewitnesses

Individual differences influencing children's capabilities as eyewitnesses can be broadly categorised as either cognitive or socio-emotional factors (Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003). Cognitive factors relate to children's abilities to recall and report their experience (e.g., communication skills). Socio-emotional factors relate to the dynamic of the social interactions between the child and the interviewer, as well as children's willingness and motivation to recall and report their experience. These two factors can be independent of each other. For example, a child may be able to recall and report their experience, but may be unwilling to do so because of fears about the impact on their relationship with a caregiver (Malloy, Lyon, & Quas, 2007), or she may feel ashamed about their experience (Feiring, Taska, & Lewis, 2002). Conversely, a child may be willing to

disclose the allegation but may be unable to recall and report the experience effectively to the interviewer.

Cognitive factors

Cognitive factors affecting children's capabilities as witnesses include source-monitoring abilities, communication skills and knowledge (for a review see Lamb et al., 2011). Of particular interest are children's communication skills, and how these influence interviewers' questioning strategies. Firstly, children may have difficulties understanding interviewers' questions. Important words that may be used in child sexual abuse investigations such as "touch", "yesterday" and "before" are often poorly understood by children between the ages of 2 to 10 years (Bruck, 2009; Harner, 1975; Orbach & Lamb, 2007). For example, Bruck (2009) found that 3- to 7- year-old children who participated in a staged event had poor recall of touching that occurred between them and the confederate, even if it had occurred just before their interview. She proposed that this may reflect, in part, children's limited understanding of the word "touch". Thus they may not recognise actions such as rubbing or scratching as "touch".

Secondly, specific details such as the time, place, and frequency of the abuse incidents need to be obtained for successful investigation and prosecution of child maltreatment cases (Guadagno, Powell, & Wright, 2006), yet children may not have the requisite language to articulate these important details. For example, Roberts et al. (2015) found that the majority of 4- and 5-year-old and 6- to 8-year-old children who experienced a staged event more than one time inaccurately reported the frequency of the event. Older children (6 to 8 year olds) were more accurate at estimating the frequencies of repeated events and when responding to questions about chronology (e.g., first, second, last etc.) than younger children. However, developmental differences in describing the chronology of events have only been studied with 4-8 year olds.

In summary, we know little about the most effective ways for interviewers to support children in recounting this type of information, and whether such strategies vary with the developmental level of the child. Poor communication skills may result in vague, incoherent, unintelligible or minimal responses from children, which in turn, increase miscommunication and misunderstanding. Compounding the problem, adults often overestimate children's ability to understand and use words, sentences and concepts (Perry & Wrightsman, 1991). Thus, interviewers may use language that is beyond the child's developmental ability to comprehend. For example, Korkman, Santtila, Drzewiecki, and Sandnabba (2008) found that forensic interviewers used long and complex sentences ("And then X told that you, the first

time, when your mother was here, when I wasn't here, you talked about these visits, that these visits are arranged because adults are worried about, what you have told about, what you told has happened between you and your dad?" p. 51) or asked multiple questions in one utterance when interviewing 3-8 year olds children about sexual abuse (e.g., "Do you remember playing some kind of games that adults were wondering why you were playing, or that they were wondered, why you wanted to play them?", p. 48). These questioning techniques are problematic given that they result in children providing fewer details in their report or provided no response at all (Korkman et al., 2008). However, what has yet to be examined is how interviewers behave after children respond to complex or multiple questions. That is, when children provide fewer details or are non-responsive to complex or multiple questions, do interviewers change their subsequent questioning to be more developmentally appropriate? Only a few studies have analysed the verbal exchanges between an interviewer and a child at the turn-by-turn level (reviewed in Chapter 6), and one aim of this thesis is to offer further insight into the interactions between interviewers' questions, children's responses and subsequent questioning in forensic interviews assessing sexual abuse allegations (Chapter 6).

Beyond early and middle childhood we know little about the communication skills of adolescents interviewed about abuse allegations. Most studies examining this issue have focused on communication skills of children between the ages of 3- and 10-years. The interactions between interviewers' questioning, adolescents' responses and subsequent questioning have also not been investigated. Subsequently in Chapter 6, we examine verbal exchanges in forensic interviews with both children and adolescents (6-16 year olds), and investigate whether age influenced the interactions between interviewers' questions, children/adolescents' responses, and subsequent questioning and responding.

Socio-emotional factors

Social factors that may affect children's capabilities as witnesses include the social dynamics of the interviews (e.g., children's typical interactions with adults versus children's interactions with forensic interviewer), and emotional factors including the nature of the event that may influence children's motivation and willingness to discuss them (for a review see Lamb & Brown, 2006).

The formal and informal rules and guidelines for forensic interviews conflict with many of the features that characterise typical interactions between adults and children (Mulder & Vrij, 1996). The socio-cultural theory of autobiographical memory development suggests that children learn how and what to remember and report when talking about past

experiences from interactions with supportive adult conversational partners (Nelson, 2013; Nelson & Fivush, 2004). In non-forensic settings, such as at school or home, adults frequently ask children questions that they already know the answer to, and are testing them for their knowledge (Lamb & Brown, 2006). Non- responding, or "I don't know" responses tend to be discouraged in such settings. Children, thus, may attempt to answer a question, even though they have not understood it or, in fact, the questions may be unanswerable (Waterman, Blades, & Spencer, 2000, 2001, 2004). Children are typically not encouraged to challenge adults, meaning that they may not correct an adult's response or assumptions implicit in questions, and, consequently, they may end up agreeing with misleading information proposed by the adults (Jaswal & Neely, 2006; Principe & Schindewolf, 2012). Adults also typically structure and guide the conversation and expect brief rather than elaborate responses of past experiences from children (Lamb & Brown, 2006). Finally, children are typically accompanied by adults in most settings and are accustomed to adults answering questions for them (e.g., parents answering questions for them during a doctor's visit). Hence, there may be a number of assumptions that children hold about communication with adults that might influence their behaviour during a forensic interview (Lamb & Brown, 2006).

In a forensic interview, children are expected to provide elaborate details about their personal experience rather than a brief summary of key events. The forensic interviewer is naïve (to a certain extent) about the abuse allegation and children are placed in the role of the expert within the interaction. Children's reports need to be detailed enough about specific aspects of the abuse allegation (e.g., location, time, identity of suspect, and other witnesses) for a successful investigation or prosecution of the case (Guadagno et al., 2006). Additionally, forensic interviews can be a daunting and intimidating experience for children. Children are interviewed by an unfamiliar adult in an unfamiliar place and are asked to describe personal experiences that may be very intimate, embarrassing or shameful (Feiring et al., 2002). As such, children may be unwilling or unmotivated to disclose their abuse experience to interviewers. Children's reluctance to disclose abuse may also reflect their desire to protect their parent(s), fear of negative consequences or sense of responsibility for the integrity of their family (Hershkowitz, Horowitz, & Lamb, 2007). In a study of 218 child sexual abuse victims, Quas, Goodman, and Jones (2003) found that 4-to 17-year-olds children who were sexually abused by family members and experienced long periods of abuse that involved penetration were more likely to blame themselves for what had happened than those who were sexually abused by acquaintances or strangers and over short periods of

abuse. Furthermore, studies comparing disclosures between alleged victims of maltreatment from family versus non-family members show higher levels of non-disclosure (Hershkowitz et al., 2007), longer delays in disclosure (Ussher & Dewberry, 1995) and higher recantation rates (Malloy et al., 2007). For example, Hershkowitz et al. (2007) examined a sample of 26,325 children (3-14 year olds) in Israel who were alleged victims of sexual or physical abuse. Children were significantly less likely to disclose either sexual or physical abuse when the suspect was a parent or parent figure. Children who were allegedly abused by one of the biological parents but who were living with both of their biological parents were less likely to disclose abuse than children who were living in other settings.

Consequently, interviewers need to consider the socio-emotional factors that may contribute both to children's expectations of their role in the forensic interviews as well as their willingness to disclose and talk about an abuse allegation. Interview techniques that prepare children to talk about the abuse allegation(s) will be considered further in the next chapter.

Event Characteristics That Influence Children's Capabilities as Eyewitnesses

The nature of the experience children are being interviewed about may also play a role in how well children can describe it. For example, allegations may range from single to multiple episodes of maltreatment, children may be interviewed as a witness to, or a victim of maltreatment, allegations may range in severity, and the time between the experience, disclosure and an interview may range from days to years (Greenhoot & Bunnell, 2009). The next section will discuss the role of the frequency and severity of the event on children's capabilities as eyewitnesses in more detail.

Frequency of event

Often children experience physical or sexual abuse more than one time (Connolly & Read, 2006) and therefore, it is important to explore how frequency of abuse may impact on children's eyewitness testimony. According to script theory, there are two types of representations for event memory – episodic and script/generic representation (for a review see Hudson & Mayhew, 2009). An episodic representation is a detailed memory for an experienced event that contains specific spatial and temporal information (e.g., "On my last birthday I had a princess theme party with a pink cake"). In contrast, script/generic representations of an event describe general and skeletal accounts of a repeated event (e.g., "I had a birthday cake") (Hudson & Mayhew, 2009).

When children experience an event more than once, they may start to develop organised and temporal event structures, called a script, of "what usually happens". For example, a child may start to develop a script for "going to school". This "going to school" script might contain event details which occur in a sequential manner such as, "walking to the bus stop" and then "waiting at the bus stop" and then "getting on the school bus" and then, "riding the school bus" and finally, "getting off the school bus and arriving at school." Scripts may also contain information about objects, people or activities that are associated with the event. For example, the "going to school" script for a particular child may include the school bus, the bus driver, other children and the mother or father walking the child to the bus stop. Scripts are useful as they allow children to predict what would happen next and therefore guide their expectations and behaviours (Hudson, Fivush, & Kuebli, 1992).

Children can have both episodic and script representations for a particular event. That is, even after a child experiences an event one time, they can remember specific details of that particular event (episodic representation) and develop a general and skeletal account based on that one event (script representation) (Hudson & Nelson, 1986). However, experiencing an event multiple times strengthens children's script representation for that particular event. Over time, what children encode, store and retrieve will be influenced by the content of the script for that particular event (Alba & Hasher, 1983).

Whilst script representations may facilitate recall of common elements of a repeated experience, they may impede accurate attribution of variable components to particular episodes (Powell & Thomson, 1996). A number of studies have demonstrated the difficulty children have in discussing a specific occurrence of a repeated event accurately (Brubacher, Glisic, Roberts, & Powell, 2011; Pearse, Powell, & Thomson, 2003). Younger children are more likely to confuse what usually happens with what happened at one particular time as they are still developing the two different types of memory representations (Hudson et al., 1992; Powell & Thomson, 1996).

Consequently, one of the challenges for interviewers is to recognise linguistic or content cues that may signal a script-like account of repeated abuse and to formulate questions that support episodic recall (for a review see Brubacher, Powell, & Roberts, 2014). For example, Schneider, Price, Roberts, and Hedrick (2011) found that when forensic interviewers asked 4-16 year olds children a generic question about an allegation (e.g., "Where does this usually happen?"), children were more likely to provide a generic response. In contrast, when interviewers asked children an episodic question (e.g., "Where did this happen on that last time?"), children were more likely to provide an episodic response.

Given that the study examined forensic interviews, the accuracy of children's reports could not be assessed. However, the results of a laboratory analogue study by Powell and Roberts (2002) suggested that the accuracy of children's reports for repeated events may reflect the types of questions asked, just as with single episodes. In their study, 5-6 year olds children who were asked option-posing questions (e.g., "Was the Koala named Pop that day?") were more likely to acquiesce about inaccurate details of repeated events compared to children who were asked direct questions (e.g., "What was the Koala's name that day?", p 375). Thus, interviewers' questioning strategies play a very important role in children's eyewitness testimony and this issue will be discussed in more detail in Chapter 3.

Severity of the abusive incident

Some researchers suggest that there is a separate memory process for stressful or traumatic events whereby traumatic memories may be repressed and can only be retrieved under specific contexts (Terr, 1994). Research evidence supports the position that general memory processes also apply to traumatic memories (Greenhoot & Bunnell, 2009). For example, children who have experienced a single traumatic event such as a disaster (Fivush, McDermott Sales, Goldberg, Bahrick, & Parker, 2004) or an invasive medical procedure (Quas et al., 1999) can remember the central features of the event even after a delay of a few years, as with other distinctive events. Prospective and retrospective studies of both children's and adults' memory for maltreatment also suggest that children and adults can remember the event(s) even after a delay of several years (for a review see Goodman, Quas, & Ogle, 2010; Greenhoot & Bunnell, 2009). Although a significant portion of children and adults fail to remember their abuse history, ranging from 16% (Goodman et al., 2003) to 38% (Williams, 1994), this rate can be explained by a number of predictors that affect general memory processes such as frequency of the event(s), delay between the event(s) and the interview, and age of the child at the time of the event (Greenhoot & Bunnell, 2009).

There is limited existing research that has examined whether severity of the abuse children experience influences their recall of the event(s) (e.g., Greenhoot, McCloskey, & Glisky, 2005). Children may be interviewed as witnesses to abuse (e.g., of a sibling, or domestic violence against a caregiver) or as victims. The severity of the sexual abuse children may experience ranges from non-contact (e.g., child pornography), contact but non-penetration sexual abuse (e.g. fondling) to penetration type sexual abuse. Similarly, the severity of physical abuse children may experience ranges from physical discipline (e.g., smacking) to severe physical violence (e.g., being hit, burnt or kicked).

Greenhoot et al. (2005) interviewed 153 adolescents between the ages of 12 and 18 years old who had either witnessed six years earlier physical abuse directed at their mothers or experienced physical abuse themselves. Thirty-four percent of the adolescents who witnessed physical abuse directed to their mothers failed to report this, compared to 20% of the adolescents who had experienced physical abuse themselves. Furthermore, those who experienced the most severe form of physical abuse (e.g., being kicked, hit or being burnt) were least likely to forget that they had been physically abused in the past. Although these teenagers recalled that they had experienced physical abuse, most of them (82%) failed to recall that they had experienced *severe* acts of violence. Children more frequently recalled that they were exposed to lower levels of physical violence, such as smacking, and some were unable to recall the most severe form of physical violence they had experienced such as being hit with a fist. Greenhoot et al. (2005) suggested that this discrepancy could be explained by the fact that children who were exposed to severe acts of violence were also exposed to lower level violence more frequently. As such, these children developed a script or generic representation that they were physically abused in the past, but were unable to recall less frequent but severe acts of violence.

In summary, there is a complex interaction between child characteristics (e.g., age, cognitive and socio-emotional factors), event characteristics (e.g., frequency and severity of the alleged incident), and the interview process (e.g., types of questions asked) (Lamb et al., 2011). The next chapter will briefly summarise research on the influence of forensic interviewing techniques on children's eyewitness testimony.

Chapter 3: Forensic Interviewing Practice

Much research has been focused on ways in which the interview process can be optimised to support children's recall and reporting of what they know. Indeed, while child and event characteristics may influence how well the child remembers and reports an experience, a large body of evidence shows that specific interviewing techniques often play a greater role in the amount and quality of information elicited (Lamb et al., 2011). Yet, forensic interviewing techniques may also be influenced by child and event characteristics (Lamb, Hershkowitz, Orbach, & Esplin, 2008).

Typically, forensic interviews can be divided into two phases: 1) preparing the child to talk about the abuse allegation(s) and 2) eliciting an account about the abuse allegation(s). Each phase will be discussed in turn.

Preparing Children to Talk About the Abuse Allegation

As discussed in the previous chapter, several cognitive and socio-emotional factors may influence children's capabilities as eyewitnesses. The preparation phase provides an opportunity for forensic interviewers to gauge children's capacity to recall a recent event, and describe it in detail, in the presumed absence of any motivational or emotional barriers that may be associated with the allegation (Hershkowitz, 2011; Roberts, Brubacher, Powell, & Price, 2011). A number of ways exist that interviewers can use to prepare children for their talk as a witness, such as establishing the ground rules of the interaction, engaging in rapport building and practicing talking about a neutral event. The existing research suggests that the preparation phase plays an important role in the amount and quality of information children report about the abuse allegation (Price, Roberts, & Collins, 2013; Teoh & Lamb, 2010).

Establishing the ground rules

Ground rules consist of many instructions including explaining to the child the acceptability of responding "I don't know", "I don't remember" and "I don't understand", giving the child permission to correct the interviewer if they make an error, and telling everything (even the little things) they remember (Brubacher, Poole, & Dickinson, 2015; Walker & Nguyen, 1995).These ground rules should signal to children that a forensic interview is not a "typical" adult-child conversation (Walker & Nguyen, 1995; Warren & McGough, 1996).

Although consistently included in many international interviewing protocols and guideline statements, the evidence base for the effectiveness of these rules and developmental changes in their efficacy is surprisingly incomplete. Brubacher et al. (2015) reviewed research relating to five common rules: 1) interviewers stating that they do not know what

had happened, 2) giving the child permission to correct the interviewer, 3) letting the child know that some questions may be repeated, and 4) the acceptability of saying "I don't understand", and 5) "I don't know". They concluded that, with the exception of the "I don't know" ground rule, insufficient research has examined the effectiveness of these ground rules. The research so far suggests that the effectiveness of these ground rules may vary according to children's age, the cognitive tasks each rule taps into, as well as the types of questions asked of children about the target event (Brubacher et al., 2015). Furthermore, there are many questions still unanswered such as when ground rules should be introduced (e.g. at the outset or interspersed throughout the interview) and how they should be implemented (e.g. whether children should practice the ground rules).

Another common ground rule, and a legislative requirement in many countries, including New Zealand (New Zealand Evidence Act, 2006 and Evidence Regulations, 2007) is asking the child to promise to tell the truth and not to tell lies. A growing body of literature has shown that asking children to make such a promise does promote truthfulness (Evans & Lee, 2010; London & Nunez, 2002; Lyon & Dorado, 2008; Lyon, Malloy, Quas, & Talwar, 2008; Talwar, Lee, Bala, & Lindsay, 2004). Evans and Lee (2010) found that the majority of children and adolescents (8-16 years old) who cheated on a test lied about it when specifically questioned. After they were asked to promise to tell the truth, however, children were significantly more likely to tell the truth. Eliciting a promise to tell the truth may therefore be an effective technique in increasing children's accuracy.

Rapport building

Rapport building is seen as an essential ingredient in forensic interviewing with children but much remains unknown about how to establish it effectively (Saywitz, Larson, Hobbs, & Wells, 2015). Nonetheless, rapport building is recommended in forensic interviews for a number of reasons.

First, good rapport building may help reserved and quiet children to talk about their experiences by decreasing anxiety and discomfort (Hershkowitz, Lamb, Katz, & Malloy, 2013). It also communicates to the child that the interviewer is interested in them and what they have to say, thus, facilitating communication and self-disclosure (Rotenberg et al., 2003).

Second, a number of studies have demonstrated the importance of rapport for the amount and quality of information elicited during the questioning phase about the target event (Goodman, Bottoms , Schwartz-Kenney, & Rudy 1991; Hershkowitz et al., 2013; Hershkowitz, Orbach, Lamb, Sternberg, & Horowitz, 2006; Ruddock, 2006). Goodman et al.

(1991) found that when interviewers were warm, friendly, smiled and provided praise such as "You're doing a great job", children's reports were more accurate and they were less suggestible in response to leading questions about a staged event. Ruddock (2006) found that greater rapport was associated with a greater number of details disclosed by children when interviewed by social workers about sexual abuse allegations. Hershkowitz, Lamb, and Malloy (2015) found that children who were interviewed with a protocol that emphasized rapport building were less reluctant when questioned about intra-familial abuse compared to those interviewed with the standard protocol. In turn, children's lower level of reluctance was associated with more details about the abuse allegations (Hershkowitz et al., 2015). Another important finding from this study was that there were no significant differences in the types of questions interviewers asked between the two protocols. That is, interviewers who adhered to the revised protocol provided more supportive comments to children without increasing suggestive or leading questioning. Finally, 4 to 13- year olds children who were interviewed with the protocol that emphasized rapport building were more likely to make allegations that were corroborated by independent evidence (Hershkowitz, Lamb, & Katz, 2014).

Lastly, the rapport-building phase prior to discussing the target event allows interviewers to assess children's verbal and cognitive skills as well as their emotional state prior to investigating the abuse allegation (Roberts , Lamb, & Sternberg, 2004).

The effectiveness of rapport building, however, depends on the style and duration of this phase (Brown et al., 2013; Roberts et al., 2004; Sternberg et al., 1997; Teoh & Lamb, 2010). An extended rapport building phase (e.g., asking the children about their hobbies etc.) prior to recalling the target event may exhaust children's attentional and cognitive resources (Roberts et al., 2004; Teoh & Lamb, 2010). Teoh and Lamb (2010), for example, found that when interviewers asked more questions and spoke more in the rapport-building phase, younger (5-7 year olds) children were less likely to provide forensically relevant details when discussing the sexual abuse allegation(s) compared to older children (8-12, and 13-15 year olds). Optimal rapport building also utilises a broad open-ended questioning style; this approach has been found to increase the amount of information children report about the alleged abuse (Sternberg et al., 1997). Children who were asked broad open-ended questions during rapport building were more likely to be accurate as well as more informative when recalling a staged event (Brown et al., 2013; Roberts et al., 2004).

Free-narrative practice

The free-narrative or episodic recall practice is an opportunity for child interviewees to recall and describe a personal experience that is unrelated to the abuse allegation (e.g., a

recent birthday). The goal of a practice narrative is to introduce the questioning style that will be used in the interview and encourage elaborate responses from the child, with the assumption that this style will translate into better reports during the substantive phase (Roberts, Brubacher, Powell, & Price, 2011). There are several ways this outcome might occur. First, practice narratives allow children to adopt the role of an expert with an adult who is naïve about their experiences (for a review see Roberts et al., 2011). Second, it communicates to the child the level of detail that is required when recalling the event in question. Third, it helps to establish rapport between child and interviewer by signalling to the child that the interviewer is interested in them (Goodman et al., 1991; Hershkowitz et al., 2006; Ruddock, 2006). Fourth, it allows interviewers to assess children's cognitive and verbal ability (Roberts et al., 2004). Lastly, it provides both interviewers and children the opportunity to ask and answer (respectively) broad open-ended questions (Roberts et al., 2011).

Free-narrative practices have been found to be useful in increasing children's (4-13 year olds) responsiveness and interviewers' adherence to recommended questioning when discussing the target event in both field (Price , Collins , & Roberts 2009; Sternberg et al., 1997) and analogue studies (Brown et al., 2013). For example, Price et al. (2013) found that interviewers who engaged in free-narrative practice were more likely to ask open-ended prompts when eliciting an account about the abuse allegation(s) compared to when free-narrative practice was not conducted. Children in these interviews were more responsive to open-ended prompts compared to those who did not engage in free-narrative practice. Although children may be more responsive to interviewers' questioning, this may not translate to higher rates of disclosure about alleged events. For example, 4-9 year old children who had free-narrative practice were no more likely to disclose to an interviewer about a stranger who broke a toy and asked them to keep it as a secret (Lyon, Lindsay, Ahern, Licht, Sim, & Quas, 2014). Given that the target event in this analogue study was relatively innocuous compared to abuse allegations, it remains unclear whether practice narratives facilitate initial disclosures. The utility of narrative-practice has also not been investigated with older children (13 years and older).

However, as with rapport building the way the practice narrative is conducted plays an important role in its effectiveness. Price et al. (2013) found that interviewers who asked more open-ended prompts in the free-narrative practice also asked more open-ended prompts when investigating the abuse allegation(s). In turn, children who had been asked more open-ended prompts in the free-narrative practice were more responsive to these prompts when

discussing the abuse allegation(s) compared to those who have been asked more focused questions in the free-narrative practice. Similarly, in an experimental study Brown et al. (2013) found that children who were asked more broad open-ended prompts during free-narrative practice were more likely to be responsive to these prompts when questioned about the target event (compared to children who did not receive free-narrative practice or who were not asked broad open-ended prompts in the free-narrative practice). The way children are asked about repeated events during the free-narrative practice also affects the way they report information about repeated target events (Brubacher, Roberts, & Powell, 2011). Children who had been asked to practice recalling a specific episode of a repeated event in this phase (e.g., the last time they had soccer practice) were more likely to report more information, and use more episodic language when recalling repeated target events (Brubacher, Roberts, et al., 2011) than children prepared in other ways (e.g., to recall a one-off past event or to recall the generic details of repeated past event). These results suggest that the way children are questioned during this phase has a significant influence on their reporting of the target event.

Eliciting an Account from Children About the Abuse Allegation(s)

Extensive research has demonstrated that the types of questions utilised to elicit information significantly affect the amount and accuracy of children's testimony (Orbach & Pipe, 2011). Question types fall into a continuum across several domains such as question structure, interviewer's input, memory process and the amount and accuracy of information elicited. Although there are many ways to categorize question types, most commonly in the literature questions are categorized as open-ended or closed-ended questions.

Broad open-ended prompts such as, "Tell me everything you can remember" (also referred to as invitations), and "You told me he touched you (after the child disclosed this), tell me more about that" (also referred to as cued-invitations) require minimal interviewer input and tap into the child's recall memory process. Compared to other types of prompts they elicit better performance from children across a number of measures: 1) amount (Korkman et al., 2006; Korkman, Santtila, Westeråker, & Sandnabba, 2008), 2) accuracy (Brown et al., 2013), and 3) types of information reported (Phillips, Oxburgh, Gavin, & Myklebust, 2012). Invitations elicit more details about person, action, location and temporal aspects of the event (Phillips et al., 2012), and are less likely to elicit inconsistent statements such as self-contradictions (Lamb & Fauchier, 2001) compared to closed-ended prompts. Invitations also enhance the coherence of children's responses, and promote narrative-based

responding, which, in turn, may enhance a listener's ability to understand what the child is describing (Feltis, Powell, Snow, & Hughes-Scholes, 2010).

"Wh" questions such as, "Where did this happen?" (also referred to as direct prompts) are also open-ended but they contain more interviewer input compared to invitations because they focus on specific aspects of the allegation. They elicit comparatively fewer details, more errors (Brown et al., 2013) and inconsistent statements (Lamb & Fauchier, 2001) than invitations.

Closed-ended prompts such as " Did this happen one time or more than one time?" or " Did it hurt?" (also referred to as option-posing prompts) require more interviewer' input and tap into the child's recognition rather than recall memory process. They elicit fewer details (Cederborg, Orbach, Sternberg, & Lamb, 2000; Korkman et al., 2006; Sternberg et al., 1996), and more errors and inconsistent statements (Lamb & Fauchier, 2001; Orbach & Lamb, 2001; Waterman et al., 2000, 2001, 2004) than any of the aforementioned prompts. Children are also more likely to try to answer unanswerable questions (e.g., "Which one is louder: a box or a knee?") if they are framed in an option-posing way (Waterman et al., 2000, 2001, 2004).

Finally, suggestive questioning techniques may be either open-ended or, closed-ended questions or they may simply be statements, but they imply or assume a particular response from the child (e.g., "He touched you, didn't he?" or "Mama talked about that somebody did some bad touching" [when the child has not disclosed this], Ceci, Kulkofsky, Klemfuss, Sweenedy, & Bruck, 2007, p. 313). A robust body of evidence has established that suggestive questioning techniques significantly reduce the accuracy of children's responses (for a review see Bruck & Ceci, 1999).

Reflecting the different efficacy of question types for eliciting detailed and reliable information, best-practice recommendations promote the use of invitations throughout the duration of the interview, with minimal or delayed use of direct and option-posing prompts (Orbach & Pipe, 2011). Suggestive questioning techniques are not supported in any fashion in international interviewing protocols (Orbach & Pipe, 2011). However, a challenge for interviewers is that invitations and cued-invitations may not elicit *all* forensically important information required for the investigation, and interviewers may therefore supplement these prompts with direct or option-posing prompts to clarify ambiguous statements or elicit important details. When such questions are used, some researchers recommend interviewers subsequently return to invitations or cued-invitations to elicit further details (Orbach & Pipe, 2011). For example, an interviewer might ask, "Did he touch you under or over your clothes

[after the child disclosed that the suspect touched her]" and the child might respond, "Under my clothes". Optimal interviewing practice would follow up such an option-posing (or direct prompt) with either an invitation or cued-invitation such as, "Tell me everything you can remember about that". In some protocols this strategy is described as pairing (Orbach & Pipe, 2011) and is referred to as "spiral questioning" in the New Zealand Specialist Child Witness Interviewing model (See Appendix 1). The presumption is that in doing so interviewers will maintain an open style of questioning throughout the entirety of the interview and increase their overall use of invitations and cued-invitations, but the impact of pairing on interviewing practice has not yet been evaluated. This assumption is tested in Chapter 6.

Despite an impressive body of empirical research demonstrating the advantages and disadvantages of various question types on children's responding, the development of interviewing protocols (e.g., *the National Institute of Child Health and Human Development Investigative Interview Protocol;* Lamb et al., 2010; La Rooy et al., 2015), evaluations of interviewing practice show that practice typically deviates from evidence-based recommendations. This research will be reviewed in Chapter 4.

Chapter 4: Best Practice Guidelines and Evaluation of Interviewing Practice

A number of interview guidelines and protocols have been developed to operationalise research into recommendations on how to interview children. These guidelines include (but are not limited to): *Achieving Best Evidence in Criminal Proceedings* (England and Wales; Ministry of Justice, 2011), The *Guidance on Joint Investigative Interviewing of Child Witnesses in Scotland* (Scotland; The The Scottish Executive, 2001), *The American Professional Society on the Abuse of Children (APSAC),Practice Guidelines on Forensic Interviewing in Cases of Suspected Child Abuse* (USA; American Professional Society on the Abuse of Children, 2012), *the National Institute of Child Health and Human Development (NICHD) Investigative Interview Protocol* (various countries and jurisdictions such as Israel, USA, UK and Canada; Lamb et al., 2010; Orbach & Pipe, 2011). There is a strong consensus across these guidelines and protocols about the types of questions interviewers should ask children, but variations in the inclusion of other forensic interviewing techniques (e.g. ground rules and eliciting a promise to tell the truth). Furthermore, even though these guidelines and protocols have been promoted as 'best-practice', some recommendations have limited or no evidence to support them. Further complicating the matter is that some recommendations have been touted for all children, even though they may have only been derived from research with a particular age group. This will be discussed in more detail below.

A typical forensic interview can be divided into three main phases: 1) preparing children to talk about the abuse allegation(s), 2) eliciting an account from children about the abuse allegation(s), and 3) closing the interview. Each phase will be described briefly with a summary of the consensus, as well as, variations across interviewing guidelines and protocols mentioned above.

Preparing Children to Talk About The Abuse Allegation Phase

In this phase, interviewers are advised to prepare children to talk about the abuse allegation by establishing the ground rules, conducting a truth-lie discussion, building rapport, and engaging in a practice narrative.

Interview guidelines and protocols recommend the use of these ground rules: the acceptability of saying "I don't know", "I don't remember" and "I don't understand" where appropriate, correcting the interviewer if the interviewer had incorrectly summarised what the child had said, emphasizing to the child that they should not guess the answer if they do not know, and a warning that some questions may be repeated irrespective of the accuracy of children's original response (APSAC, 2012; Lamb et al., 2010; Ministry of Justice, 2011; Orbach & Pipe, 2011;The Scottish Executive, 2011). These interviewing guidelines and

protocols, however, vary in their advice about when ground rules should be introduced. Contrary to Achieving Best Evidence in Criminal Proceedings (Ministry of Justice, 2011) and APSAC Practice Guidelines (APSAC, 2012), The Scottish Executive (2011, pg. 27) recommend that ground rules should be interspersed throughout the interview rather than "listed as a 'litany' at the outset". Interestingly, the research question of when ground rules should be introduced during the forensic interview has not been examined.

Besides the "I don't know" ground rule, other ground rules have received little attention in research, and yet they have been included in interview guidelines and protocols. Furthermore, there is limited research examining which ground rules are most appropriate for children in various age groups, and how best to deliver them. For example, the ground rule of saying "I don't understand" has been promoted consistently for children of all ages, yet it has not been studied with children over 9 years old. More importantly, no studies have examined the impact of *any* ground rules with children over 13 years old (Brubacher et al., 2015). As it stands, there is currently no evidence-base for the use of ground rules with adolescents. Therefore, there is a strong call for future research to examine the individual impact of these ground rules for children and adolescents and to determine at which age they may benefit in receiving them,

There is a consensus regarding the importance of telling the truth to be communicated to children. However, the recommendations about whether to elicit a promise from children to tell the truth vary across guidelines. APSAC (2012) recommended that interviewers elicit a promise to tell the truth. This is consistent with a relatively large number of studies that show asking children from 3 to 16 years old to promise to tell the truth does promote truthfulness (Evans & Lee, 2010; London & Nunez, 2002; Lyon & Dorado, 2008; Lyon et al, 2008; Talwar et al., 2004). In contrast, the Ministry of Justice (2011), the Scottish Executive (2011) and Lamb et al. (2010) recommend interviewers merely advise children to give a truthful account of their experience.

Interviewers then are advised to conduct sufficient rapport building to create a supportive environment for the child by discussing neutral topics (e.g., the child's hobbies) and/or neutral or positive events the child had experienced (e.g., the child's last birthday). Whilst conducting a practice interview (rapport building and/or practice narrative), interviewers are encouraged to utilise a variety of open-ended questions (invitations, cued-invitations and direct prompts) to reinforce elaborate and narrative responding from the child throughout the interview (APSAC, 2012; Lamb et al, 2010; Ministry of Justice, 2011; The Scottish Executive, 2011). Although there is a consensus that interviewers should conduct a

practice interview with all children, there has been no research examining the role of a practice narrative in promoting the accuracy and amount of information reported by children older than 13 years.

In summary, there is a general agreement across the interviewing guidelines and protocols that children should be prepared sufficiently for the next phase of the interview by establishing ground rules, emphasizing the importance of telling the truth, and conducting a practice interview. However, the evidence base for specific techniques recommended (e.g. "I don't understand" ground rule) may be limited or non-existent for older children/adolescents. This reflects a general trend in the child forensic literature whereby few studies have been conducted with older children/adolescents (13 year olds and older). This is despite older children constituting a significant proportion of child protection cases. For example, in New Zealand in 2014, there were more sexual assaults to children between the ages of 12 to 16 years compared to children under 12 years (New Zealand Family Violence Clearinghouse, 2015). Thus, greater research attention on forensic interviewing techniques with older children is needed.

Investigating the Abuse Allegation Phase

There is a strong consensus across interviewing guidelines and protocols that interviewers should foster a child-centred interviewing approach by asking invitations and cued-invitations throughout the interview. Prompts such as, "Tell me everything that happened", "Tell me everything that you remember" or "Tell me more about [details that the child had previously disclosed]" allow children to talk about their experiences in their own words, and as such, should be used widely by interviewers. Subsequently, all interview guidelines and protocols recommend interviewers start this phase by posing an invitation such as, "Tell me why you're here today" (APSAC, 2012; The Scottish Executive, 2011). There is a strong recommendation that interviewers allow children to freely talk about the event(s) in question without interruption until they can no longer report any more details. This part of the interview is often referred to as the 'free-narrative phase'. After eliciting a free-narrative account of the target event from the child, interviewers are advised to ask invitations (e.g., "Tell me more about that") and cued-invitations that utilise details already disclosed by the child (e.g., "You told me about him touching you. Tell me more about that"). Direct questions (e.g., "Where did this happen") that ask for more specific details should only be asked after the child cannot report anything further in response to invitations and cued-invitations (APSAC, 2012; Lamb et al., 2010; Ministry of Justice, 2011; Orbach & Pipe,

2011). Option-posing prompts that tap into recognition memory (e.g. "Did anyone see this happen?") should generally be avoided unless forensically crucial information is still not obtained after the interviewer has exhausted all invitations, cued-invitations and direct prompts (APSAC, 2012; Lamb et al., 2010; Orbach & Pipe, 2011). The potential detrimental effect of option-posing questions might be minimised if the interviewer follows up such questions with invitations or cued-invitations. This principle is referred to as pairing in the APSAC (2012) guideline and the NICHD protocol (Lamb et al., 2010; Orbach & Pipe, 2011). Lastly, suggestive or leading questions (e.g., "He touched you, didn't he?" when the child has not disclosed this) should be avoided (APSAC, 2012; Lamb et al, 2010; Ministry of Justice, 2011; The Scottish Executive, 2003). There is a strong evidence base for all of the above recommendations except for the pairing principle, which has not been examined previously. One of the aims of this thesis, therefore, is to examine whether interviewers do adhere to the pairing principle, and whether adherence to the pairing principle results in interviewers asking more recommended questions of invitations and cued-invitations (Chapter 6).

Additionally, the use of summary statements throughout an interview is discouraged in the *Achieving Best Evidence In Criminal Proceedings* (Ministry of Justice, 2011) and is only recommended to be used at the end of each topic or during the closure phase. Only one published study has examined the use of summaries in field forensic interviews. Evans, Roberts, Price and Stefek (2010) examined forensic interviewers' use of paraphrasing when interviewing 4 to 16 year olds about sexual or physical abuse. Paraphrase was defined as repeating the information a child has reported, and was divided into four codes: yes/no, expansion, simple and summary paraphrase. Yes/no paraphrasing required the child to answer in yes/no fashion (e.g. Child – "He yelled at me and slammed the door", Interviewer – "He yelled at you?"). Expansion paraphrasing included a restatement of the child's utterance and an open-ended prompt for the child to elaborate further (e.g. Child – "He yelled and slammed the door". Interviewers – "He yelled at you, tell me more about that"). Simple paraphrasing involved repeating what the child reported without asking for confirmation or elaboration. Summary paraphrasing involved summarizing the child' several statements into one. Evans et al. (2010) found that interviewers rarely paraphrased in general, and never used summary paraphrasing. They also found that expansion paraphrasing elicited twice as many details from children compared to yes/no and simple paraphrasing. Given that this was a field study, the accuracy of children's report could not be evaluated. However, in a laboratory analogue study, Evans and Roberts (2009) found that expansion paraphrasing also elicited six times more accurate details compared to yes/no paraphrasing. They concluded that expansion

paraphrasing should be used in forensic interviews to elicit more and accurate details from children. However, one of the major limitations of this study, and other studies examining forensic interviewers' utterances, is the variation in coding utterance types. For example, expansion paraphrasing in Evans et al. and Evans and Roberts is coded as a form of cued-invitation, or open questioning in other studies (e.g. Brown et al., 2013) instead of a type of paraphrasing. Therefore, Evans et al.'s recommendation for interviewers to use expansion paraphrasing should be viewed as further recommendation for interviewers to ask cued-invitations. To summarise, very limited research has examined the use of summary statements in forensic interviews and the results from the extant research is in line with other research when variation in coding type is taken into account. The use of summary statements (defined as repeating accurately what the child has said without asking for confirmation or elaboration), and whether it facilitates children's responding in forensic interviews will be examined in chapter 6. This will assist in improving our understanding of this often neglected type of utterance.

The Closure Phase

Across interviewing guidelines and protocols, interviewers are advised to end the interview by summarising the important details in the child's report about the alleged abuse, allowing the child to correct the interviewer, to provide any further information they recall, and ask any questions to the interviewers (APSAC, 2012; Ministry of Justice, 2011; The Scottish Executive, 2011). Interviewers are also advised to discuss a neutral topic so children have time to compose themselves before leaving the interview (The Scottish Executive, 2011). The purpose of this discussion is to "ensure that the witness is not distressed but is in a positive frame of mind" (Ministry of Justice, 2011, pg. 85). Surprisingly, no studies have examined the closure phase, nor the effectiveness of discussing a neutral topic to reduce children's distress. Given that some children may have to return to be interviewed about the same allegation or other allegations, it is important to investigate whether this recommendation is indeed effective.

Evaluation of Interviewing Practice

Despite the availability of research, guidelines and protocols, evaluation studies of forensic interviewing practice have found that interviewers do not consistently adhere to interviewing guidelines and protocols. For example, field studies in Australia (Powell & Hughes-Scholes, 2009), Canada (Cyr & Lamb, 2009; Luther, Snook, Barron, & Lamb, 2014), Finland (Korkman et al., 2006; Santtila, Korkman, & Sandnabba, 2004), Israel (Lamb,

Hershkowitz, Sternberg, Esplin, et al., 1996), Norway (Thoresen, Lonnum, Melinder, Stridbeck, & Magnussen, 2006), Sweden (Cederborg et al., 2000), United Kingdom (Davies, Westcott, & Horan, 2000; La Rooy et al., 2011; Sternberg , Lamb, Davies, & Westcott, 2001) and the United States (Lamb, Hershkowitz, Sternberg, Boat, & Everson, 1996; Sternberg et al., 1996; Warren, Woodall, Hunt, & Perry, 1996) have all shown that invitations and cued-invitations are not as widely asked as other types of prompts such as direct and option-posing prompts.

Studies have demonstrated that even when interviewers have been specifically trained to follow interviewing guidelines such as the *Scottish Executive Guideline* (La Rooy et al., 2011), or *the Memorandum of Good Practice* (an earlier version of the *Achieving Best Evidence in Criminal Proceedings*; Sternberg et al, 2001), interviewers do not adhere to the specific interviewing components nor the recommended questioning approach. For example, La Rooy et al. (2011) surveyed 91 police interviewers who had recently received national training in the *Scottish Executive Guideline* (2003). Although most respondents reported that they always or almost always established rapport, explained ground rules and engaged in discussion about the importance of telling the truth, the majority of interviewers reported never or rarely conducting a practice narrative. Additionally, a fifth of interviewers reported that they never or rarely used open-ended prompts to obtain information about the allegation.

In an objective evaluation of 119 interviews in England and Wales, Sternberg et al. (2001) found low adherence to some components of the *Memorandum of Good Practice* (MOGP; Home Office and Department of Health, 1992). Only half of the interviews contained a discussion that encouraged children to say "I don't know" when appropriate, and in only 8% of the interviews, interviewers said that they were naive about the allegations, contrary to the recommendations in the *MOGP*. Moreover, a significant portion (40%) of the information reported by children was elicited using option-posing and suggestive prompts.

In sum, even when interviewers are trained in evidence-based protocols, research shows that interviewers frequently have difficulty adhering to them. This result may stem, at least in part, from interviewers' difficulties in accurately monitoring their practice (Agnew, Powell, & Snow, 2006; Wright & Powell, 2006). It is therefore important that interviewing practice is frequently and independently evaluated, to provide both individualised feedback to interviewers on their practice, and to highlight common challenges for interviewers that can be addressed in training and professional development activities.

Only two published studies have examined forensic interviewing practice with children in New Zealand (i.e., Davies & Seymour, 1998; Hanna, Davies, Crothers, &

Henderson, 2012). Both of these studies compared forensic interviewers' questioning practice with those of defence and prosecution lawyers. These studies found that forensic interviewers predominantly used open-ended questions (defined as those that allowed children to respond freely and did not indicate the desirable response). The conclusions are problematic, however, given that the definition of open-ended questions included direct questions (e.g., "Where did you go?"), invitations (e.g., "Tell me everything you remember about it") and also option-posing questions ("Was the car red, blue or some other colour?" : Hanna et al., 2012, p. 533). A number of studies have demonstrated differences in the impact of different question types on the nature of children's responding. Of particular relevance to the New Zealand studies, option-posing questions are typically shown to increase errors and inconsistency (Lamb & Fauchier, 2001; Orbach & Lamb, 2001; Waterman et al., 2000, 2001, 2004), and elicit fewer details than invitations, cued-Invitations and direct prompts (Brown et al., 2013; Korkman et al., 2006). It is thus problematic to include option-posing questions under the 'open' category. Doing so, suggests that forensic interviewers should emphasise asking option-posing questions as much as direct prompts and invitations, which is contrary to accepted evidence-base practice guildelines.

The available New Zealand studies are also limited in their scope, given the small sample sizes examined (Davies & Seymour examined 12 interviews and Hanna et al. examined 18 interviews), and the focus on forensic interviews which are used in cases referred to court. Arguably, these interviews might differ from interviews for cases that did not progress to trial. A large body of literature has found significant differences in case and child characteristics between cases that are referred to court versus those that are not (for a review see Pipe, Orbach, Lamb, Abbott, & Stewart, 2013). It is therefore important to benchmark interviewing practice with a broader sample that is not constrained by investigation/court status, geographic locations (both Davies & Seymour and Hanna et al. examined cases from just two provinces in New Zealand), type of case, and child characteristics. Moreover, identifying systematic factors that influence forensic interviewing practice may inform training needs of forensic interviewers. For example, if forensic interviewers consistently ask more suggestive questions when interviewing children about allegations of penetrative sexual abuse versus non-penetrative, it is clear that this problem needs to be addressed to ensure that they do not compromise judicial outcomes when these cases progress to court.

Finally, Davies et al's (1998) study is unlikely to be consistent with current practice given the significant changes that have occurred in the research evidence base over the last 15

years that informs the development of the protocol for interviewing child witnesses in New Zealand, and the training delivered to interviewers. Indeed, interviewing practice may very well have changed in response to the findings of the Davies et al. study. A number of studies have demonstrated that adherence to evidence based recommendations, and to specific protocols, deteriorates over time (Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002), so regular and frequent assessment of practice is important for identifying particular challenges for interviewers and designing interventions to overcome them. Consequently, the overall aim of the first study of this thesis is to collect a recent and large sample of interviewing practice across New Zealand with children for sexual abuse allegations, and examine the conduct of interviews with a more fine-grained approach to categorising question types. From this sample there were two research aims. The first was to examine the extent to which forensic interviewers adhered to best-practice recommendations stipulated in the New Zealand Specialist Child Witness Interviewing model, and identify factors (child, interviewer, allegation characteristics) that influenced interviewing practice (Chapter 5). The second aim was to test theories as to why interviewers predominantly rely on asking direct and option-posing questions (Chapter 6).

The Role of Supervision and Feedback on Interviewing Quality

Given the consistent evidence of interviewers' poor adherence to best practice recommendations, significant attention has been paid to factors that may facilitate best-practice interviewing. Regular supervision and feedback has been identified as a key factor in interviewers' adherence to best-practice recommendations. A number of studies have demonstrated that when interviewers receive individualised and regular supervision targeted specifically on their questioning strategies, interviewers are more likely to increase their use of invitations and cued-invitations (Cyr, Dion, McDuff, & Trotier-Sylvain, 2012; Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002; Powell, Fisher, & Hughes-Scholes, 2008).

For example, in a recent study, Cyr et al. (2012) trained two groups of forensic interviewers in the NICHD protocol. One group received written feedback on interviews they conducted with child sexual abuse complainants while another group received no feedback in the year and a half following training. They found that both groups conducted better interviews after they had been trained, compared to those they conducted before the training. However, the group that received written feedback about their interviews were more likely to adhere to the NICHD protocol compared to the group that did not receive any feedback.

Specifically, interviewers who received feedback were more likely to ask invitations and cued-invitations than those who did not receive feedback (37% vs. 24% of the questions were invitations and cued-invitations). This study shows that whilst training interviewers in the NICHD protocol does improve interview quality, the gains are only maintained when regular supervision and feedback is provided. In summary, there is converging evidence that best-practice child witness interviewing requires two essential components: (1) training in a well-validated interview protocol such as the NICHD protocol and (2) ongoing supervision and feedback that focuses on specific aspects of practice such as adherence to open-ended questioning.

What remains unclear from these studies, however, are interviewers' perceptions of practice-focused supervision. That is, do interviewers know the importance of supervision for their interviewing practice? And do they engage in regular supervision and receive feedback? If interviewers do not receive regular supervision, what are the barriers and challenges that prevent them from receiving sufficient feedback to improve their questioning practice? These questions have not been answered in previous studies. Answering these research questions will be an important step in improving interviewers' access to supervision and, in turn, their interviewing practice. As a result, the aim of the second study (Chapter 7) was to explore forensic interviewers' perceptions of their access and barriers to supervision.

Lamb et al. (2002) argued that given the pressure placed on resources in policing and social welfare departments in various jurisdictions, there is still a need to investigate other cost-effective and practical methods that will improve and maintain interview techniques over time. In the counselling field where supervision is crucial but there is a limited availability of experienced supervisors, some authors have proposed that self-supervision or self-review may maintain counselling skills (Dennin & Ellis, 2003). Self-supervision can be defined as a systematic process in which a person independently reviews their own professional work and directs his or her own professional development (Meyer, 1978). A few studies have described self-supervisory programs where trainee counsellors conducted a systematic content analysis of their counselling sessions and have reported positive findings whereby counsellors who self-reviewed themselves were more likely to use desirable counselling techniques (Altekruse & Brown, 1969; Hackney, 1975). Dennin and Ellis (2003) proposed that principles of *self-regulation* and *goal theories* can offer an explanation of why self-review can result in behavioural change. Self-regulation theory states that self-review provides information about progress toward a certain goal. When there is a discrepancy between actual performance and the goal, dissatisfaction may occur which serves as

31

motivation for behavioural change, resulting in improved performance (Dennin & Ellis, 2003).

Stolzenberg and Lyon (in press) investigated the effect of weekly self-review and peer- evaluation on law students' interviewing techniques. Nineteen law students in a forensic interviewing course interviewed one child weekly (5-10 years old) about a variety of topics, such as their last family holiday. Students were then asked to transcribe their interviews verbatim and comment on their performance. These transcripts were then submitted to peer reviewers who examined the question types and provided comments on how to improve their practice.

Stolzenberg and Lyon found that over ten weeks, interviewers decreased the proportion of option-posing questions asked by 31% whilst increasing the proportion of invitations and cued-invitations by 47%. Although this study provides some preliminary evidence for the positive effect of self-review on forensic interviewing practice, further research is required. First, interviewers simply transcribed their interviews and provided comment, without any coding or data-driven analysis of the quality of their interviews. This method may limit opportunities for the interviewers to self-identify areas of improvement given that interviewers' global judgements about their interview quality (e.g., "good" interviews) do not correspond with objective evaluations (Agnew et al., 2006). The feedback interviewers received came from peer-reviewers who examined the types of questions they asked. As such, this approach suggests that improvement in questioning practice may have been derived predominantly from the feedback they received from peer-reviewers rather than through their self-review. This result would be consistent with studies that have demonstrated the importance of regular feedback on improving interviewing practice (Cyr et al., 2012; Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002; Powell et al., 2008). Secondly, Stolzenberg and Lyon examined law students' interviewing practice with children about non-sensitive topics in an interview of short duration (interviews lasted between 8 to 10 minutes). Presumably the interactions between an interviewer and a child would be markedly different in the forensic interviewing context (see Chapter 2 and Chapter 3). Further research on the effectiveness of self-review in particular is required, and this is the aim of Chapter 8.

Using guided self-review to provide direct feedback on interviewing practice has the potential to highlight specific areas of interviewing that require improvement. For example, if an interviewer transcribed and coded their questions, calculated the frequencies of each question type and found that 65% of their questions were direct and option-posing questions,

this exercise may underscore the need for them to change their questioning strategy. Some evidence suggests that interviewers may have a distorted perception of their use of different question types, overestimating their use of invitations and cued-invitations, and underestimating their use of direct and option-posing prompts (Agnew et al., 2006; Wright & Powell, 2006). The distorted perceptions may reflect a lack of self-monitoring but also a lack of skill in correctly identifying types of questions. This argument is supported by a study conducted by Yii, Powell, and Guadagno (2014), who trained interviewers to identify different types of questions. Interviewers' ability to identify different types of questions accurately was associated with increased use of open-ended questions in mock interviews. Thus, developing skill and expertise in accurately identifying different types of questions may influence the use of such questions in interviews. Given the potential for such a process to directly improve interview practice and to provide information that can be used as the focus of face-to-face supervision when available, it is important that it is evaluated in a controlled study. Evaluating the impact of a self-review technique on interviewing practice is the main goal of the third study of this thesis (Chapter 8).

Chapter 5: Taking Stock: The Conduct of Forensic Interviews with Children in New Zealand [1]

Interviewing techniques play a crucial role in the amount and quality of children's reporting when investigating child maltreatment cases (Saywitz , Lyon, & Goodman, 2011). Despite a considerable body of research and a clear set of evidence-based guidelines on conducting forensic interviews, research shows interviewers struggle to adhere to these principles across a variety of countries and interviewing protocols (Korkman et al., 2006; Powell & Hughes-Scholes, 2009). Thus, there is a need to regularly evaluate the conduct of forensic interviews to inform training and supervision needs. Given that no published research has examined a large scale evaluation of child sexual abuse interviews conducted in New Zealand, this was the aim of the first study. The study was divided into two parts. In Study 1A (Chapter 5), we evaluated the extent to which forensic interviewers in New Zealand adhered to best-practice recommendations, and examined factors (child, interviewer, and allegation characteristics) that influenced practice. In Study 1B (Chapter 6), we examined whether the limited use of Invitations and Cued-Invitations was a function of decreased responsiveness from children to these types of prompts, and/or interviewers' failure to following the pairing principle. Below is the outline of the methodology for the first study.

We obtained research approval from the School of Psychology Human Ethics Committee at Victoria University of Wellington, New Zealand Police and Ministry of Social Development. Research approval for the study was granted with the following conditions: (1) Consent was to be obtained from both the forensic interviewers and the parents/guardians of the children being interviewed, (2) Due to the need to maintain anonymity of the cases, children's responses could not be transcribed.

We next recruited all forensic interviewers in New Zealand by presenting the proposed study at the annual forensic child witness interviewer peer review meeting (Thursday 5th of July 2012) and emailing all forensic interviewers with the information sheet and a link to the consent form. After a long recruitment process, 52 out of 81 forensic interviewers consented to participate in the study.

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[1] This chapter is composed of a manuscript with the following bibliographic detail: Wolfman, M., Brown, D & Jose, P. (2016). Taking stock: Evaluating the conduct of forensic interviews with children in New Zealand. *Psychology, Crime and Law*. Published online 29 March. DOI: 10.1080/1068316X.2016.1168426

Interviewers who consented to participate in the study were asked to identify interviews that met the study criteria (children between the ages of 6 to 16 years old and, interviewed about sexual abuse allegation) and obtain consent from parents/guardians for their children's DVDs to be included in the study. Parental consent was mostly obtained either immediately prior to, or after the interview. However, in some cases interviewers obtained consent a few days or a few weeks after the interview if parents/guardians were too distressed on the day of the interview. Interviewers sent copy of their forensic interview DVD to New Zealand Police National Headquarters to be viewed, transcribed and coded.

In total we collected 103 forensic interviews with 98 children, conducted by 27 forensic interviewers. Five of the 98 children were interviewed twice. These non-independent interviews were excluded from analyses in Study 1A (Chapter 5) because results were affected when examining factors that influenced interviewing practice. As such in Study 1A, the sample comprised 93 forensic interviews with 93 children. However, in Study 1B, these non-independent interviews were included because results were not affected when they were excluded from the sample. As such in Study 1B, the sample comprised 103 forensic interviews with 98 children.

A convergence of field and experimental studies has led to a consensus about best-practice interviewing techniques for investigating child abuse allegations. Specifically, before questioning children about the abuse allegation, forensic interviewers are advised to establish the ground rules of the interviews (see Brubacher et al., 2015 for a review), build rapport (see Hershkowitz, 2011; Saywitz et al., 2015 for a review), and provide an opportunity for children to practice recalling a recent neutral past event (see Roberts et al., 2011 for a review).

When investigating the alleged abuse, interviewers are advised to ask broad open-ended questions (e.g., "Tell me everything about that") throughout an interview to elicit reliable information from child witnesses (American Professional Society on the Abuse of Children, 2012; Ministry of Justice, 2011; Orbach & Pipe, 2011).Numerous studies have demonstrated that open-ended prompts such as invitations (e.g., "Tell me everything you can remember about that") and comprised invitations (e.g., "You told me that he took you to that special place. Tell me more about that special place") elicit more accurate and more detailed information (Brown et al., 2013), more details about person, action, location and temporal aspects of the event (Phillips et al., 2012),and are less likely to elicit inconsistent statement such as self-contradictions (Lamb & Fauchier, 2001) compared to closed-ended prompts. Open-ended prompting also enhances the coherence of children's responses, and promotes narrative-based responding, which, in turn, may enhance a listener's ability to understand what the child is describing (Feltis et al., 2010).

Direct questions that ask for specific details of the allegation ("Wh-" questions, e.g., "When did this happen?") tend to elicit comparatively fewer details, and more errors (Brown et al., 2013) and inconsistent statements (Lamb & Fauchier, 2001) than invitations and cued-invitations, and should therefore only be asked when more general prompts have not elicited required details. Option-posing prompts (e.g., "Did this happen one time or more than one time?") elicit fewer details (Cederborg et al., 2000; Korkman et al., 2006; Sternberg et al., 1996) and more errors and inconsistent statements (Lamb & Fauchier, 2001; Orbach & Lamb, 2001; Waterman et al., 2000) than any of the aforementioned prompts. Their use should be minimised or delayed as long as possible. Suggestive questioning techniques (e.g., "He touched you, didn't he?") should be eliminated as a robust body of evidence has established that such practices contaminate children's responses (Bruck & Ceci, 1999).

Adherence to Evidence-Based Guidelines

Studies evaluating the quality of forensic interviews in a range of countries have been remarkably consistent in demonstrating how difficult it is for interviewers to adhere to

evidence-based recommendations. For example, interviewers may omit important preparatory components in the early stages of setting up the interview such as ground rules (Luther et al., 2014; Roberts et al., 2015; Sternberg et al., 2001) and episodic recall practice (La Rooy et al., 2011; Luther et al., 2014). Deviations from recommended questioning approaches are also common, with direct and option-posing prompts predominating in interviews in a range of countries such as Australia (Powell & Hughes-Scholes, 2009), Canada (Luther et al., 2014), Finland (Korkman et al., 2006),Norway (Thoresen et al., 2006), Sweden (Cederborg et al., 2000),United Kingdom (Sternberg et al., 2001) and the United States (Warren et al., 1996).

Interviewers' poor adherence to recommended guidelines has spurred the development of interviewing frameworks and protocols (American Professional Society on the Abuse of Children, 2012; Ministry of Justice, 2011; Orbach & Pipe, 2011). Such protocols assist interviewers in optimizing their use of desired interviewing strategies and minimizing risky question types. In New Zealand, the Specialist Child Witness Interviewing model follows the PEACE framework, which was developed in the UK to guide police in interviewing practice (Clarke & Milne, 2001). PEACE is a mnemonic which stands for the five recommended stages of an interview: Planning and Preparation (P), Engage and Explain (E), Account (A), Closure (C) and Evaluation of the interview (E) (Clarke & Milne, 2001). In the Specialist Child Witness Interviewing model, children's reports of their experiences (the *Account* phase) are elicited using a questioning approach closely modelled on the National Institute of Child Health and Human Development (NICHD) Investigative Interview protocol. The NICHD interview protocol is a well-validated interviewing protocol and is internationally recognised as the gold standard approach for interviewing children (Bull, 2010; Saywitz et al., 2011). Several studies have demonstrated improved interviewing practice when interviewers have been trained to follow the NICHD interviewing protocol (see La Rooy et al., 2015, for a review).

Even when interviewers are trained in evidence-based protocols, research shows that interviewers frequently have difficulty in adhering to them (Cyr et al., 2012; Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002). This lack of adherence may stem, at least in part, from interviewers' difficulties in accurately monitoring their practice (Agnew et al., 2006; Wright & Powell, 2006). Thus it is important that interviewing practice is frequently and independently evaluated to provide both individualized feedback to interviewers on their practice, and to highlight common challenges for interviewers that can be addressed in training and professional development activities.

Factors Associated With Interviewing Practice

A number of studies have investigated the role of child, allegation and interviewer characteristics in forensic interviewing practice. For example, younger children tend to be asked fewer questions (Sternberg et al., 2001) and more specific or suggestive prompts than older children (Kask, 2012; Lamb, Sternberg, & Esplin, 2000; Sternberg et al., 2001; Thoresen et al., 2006; Warren et al., 1996).

Often children experience physical or sexual abuse more than one time (Connolly & Read, 2006); these children tend to recall more of what typically happens (script-based memories) than what happened during a particular instance (i.e., an episodic memory; Schneider et al., 2011). Despite children's tendency to provide summarised accounts of multiple episodes of abuse, interviewers' questioning strategies do not appear to vary as a function of abuse frequency (Sternberg et al., 1996).

Children's relationship to the suspect may also influence interviewing practice. Lamb, Hershkowitz, Orbach , and Esplin (2008) found that interviewers asked fewer invitations when the alleged perpetrator was a family member compared to non-family members. To our knowledge no studies have examined whether interviewing practice varies by the type of sexual abuse (e.g., penetration vs. non-penetration). Goodman, Bottoms, Rudy, Davis, and Schwartz-Kenney (2001) propose that maltreated children who experience more severe types of abuse may be more reticent, anxious or intimidated, and therefore they may perform more poorly in some aspects of the interview. To date researchers have approached this issue from an adult perspective which may over or underestimate the severity of the abuse as it was perceived or experienced by the child. Nonetheless, interviewers who vary their interviewing practice across different types of abuse allegations may be more successful in eliciting cooperation.

The training background of interviewers does not appear to influence interviewing practice; Powell, Hughes-Scholes, Smith, and Sharman (2012) did not find significant differences between Australian police officers or social workers in their adherence to open-ended questioning in simulated interviews. The influence of experience on interviewing practice has not been consistently demonstrated. In field studies no association has been found between experience and practice (La Rooy et al., 2011; Powell & Hughes-Scholes, 2009), whereas laboratory analogue studies have shown that interviewers with more experience in interviewing children are less likely to ask open-ended prompts in simulated interviews (Powell et al., 2012; Smith, Powell, & Lum, 2009).

In sum, interviewing practice does not consistently vary as a function of the child, interviewer or allegation characteristics, and one of the aims of the present study is to examine whether the same dynamics are seen in a New Zealand sample.

The Current Study

Benchmarking interviewing practice is important for informing training needs of interviewers and identifying problematic practices that may compromise judicial outcomes when cases of maltreatment progress to court. The main aim of the present study was to examine forensic interviewing practice with child complainants of sexual abuse in New Zealand and factors (child, allegation and interviewer characteristics) that may influence interviewing practice.

Specifically, our research examined: 1) the extent to which interviewers adhered to scripted components of the Specialist Child Witness Interviewing model; and 2) the types and frequency of prompts used by interviewers when investigating the alleged abuse. In line with the research cited previously, we expected that interviewers would not consistently adhere to the scripted components of the Specialist Child Witness Interviewing model, and that closed-ended (i.e., option-posing prompts) and focused questions (i.e., direct prompts) would be more frequently asked than broad open-ended prompts (i.e., invitations and cued-Invitations) when investigating the alleged abuse.

The second goal of the study was to examine whether child, allegation and interviewer characteristics would be associated with interviewing practice. We expected that interviewers would pose fewer questions and use more specific prompts (e.g., direct and option-posing prompts) with younger compared to older children (Lamb et al., 2000; Sternberg et al., 2001; Thoresen et al., 2006; Warren et al., 1996).

We explored whether interviewing practice varied by children's relationship to the suspect (relative, known person and stranger), severity (penetration vs. non-penetration) and frequency of abuse (one vs. multiple episodes). We expected that interviews would be similarly constructed in investigations of single and multiple allegations (Sternberg et al., 1996). We predicted that interviewers would ask fewer invitations when the alleged suspect was a family member compared to a non-family member (Lamb, Hershkowitz, Orbach, et al., 2008). No studies have examined the role of type of abuse (penetration vs. non-penetration) on interviewing practice and so no specific prediction was made.

Based on field studies (La Rooy et al., 2011; Powell & Hughes-Scholes, 2009), we expected that there would be no relationship between interviewing experience and the proportion of broad open-ended questions interviewers asked. In New Zealand, the

investigation of child maltreatment is the joint responsibility of the police force and social service/child protection service (Westera et al., in press). We were interested in whether professional affiliation was associated with types of interviewing practice. Although police and social worker interviewers have had different professional training prior to becoming forensic interviewers (i.e., a focus on criminal investigation (police) vs. care and protection (social workers)), they all complete the same interviewing training. Therefore, in line with previous research (Powell et al., 2012), we expected that there would be no significant differences between the two professional groups in terms of proportions of different types of prompts posed to children. We also examined whether interviewing work-load (full time vs. part time; number of interviews conducted per week), and location (metropolitan vs. rural centre) influenced interviewing practice. None of these interviewer characteristics have been examined in previous research and therefore no specific predictions were made.

Methods

Participants

Twenty-seven specialist child witness interviewers across NZ (33% of total population) consented to participate. The interviewer sample was fairly evenly distributed across professional discipline (44% social workers, 56% police officers), and geographical location (55.6% metropolitan centres, 44.4% rural centres). Just under half (44%) worked full time as specialist child interviewers. Interviewers averaged 5.2 years of experience interviewing children ($Min = 0.5$, $Max = 22$, $SD = 6.3$ years) and reported conducting an average of 3.6 interviews per week ($Min = 1$, $Max = 7$, $SD = 1.5$ interviews) (See Table 5.1 for interviewer characteristics broken down by professional affiliations).

Table 5.1

Interviewer characteristics by professional affiliations

	Full time	Average year of experience (*SD*)	Average number of interviews conducted per week *(SD)*
Police	26.67%	3.96 (3.92)	3.20 (1.30)
Social worker	66.67%	6.79 (8.34)	4.08 (1.56)

The interviewers gained parental permission for 93 recorded interviews with child witnesses to be included in the study. Children in the interviews were between 6 and 16 years old (*M* = 12.19 years old, *SD* = 3.16 years old) and were interviewed between February 2012 and May 2013. The majority of the children interviewed were females (90.3%). Most of the children reported experiencing non-penetration sexual abuse (63%). More than half of the allegations pertained to one episode of abuse (53.3% vs. 46.7% multiple episodes) and most of the suspects were known but not related to the children (65.6% not related vs. 19.4% relatives vs. 15.1% strangers). Most of the suspects were males (97.8%).

Procedure

Coding of adherence to the scripted components of the Specialist Child Witness Interviewing Model. The key elements of the Specialist Child Witness Interviewing Model were coded separately for the three phases of: 1) *Engage and Explain, 2) Account and 3) Closure* (See Appendix 2 for the coding scheme).

Coding of interviewers' questions. Interviewers' questions throughout the entire *Account* phase were transcribed and coded. Interviewers' questions were coded using a modified version of the NICHD Investigative Interview Protocol coding scheme (Orbach et al., 2000). This coding scheme was adopted to ensure data were comparable to published international studies of similar interviewing protocols (e.g., Cyr & Lamb, 2009) and utilised validated definitions of question types. Questions were coded as either: invitation, cued-

invitation, direct, option-posing or suggestive questions (see Table 5.2 for definitions and examples of interviewers' utterances).

Reliability coding. All of the interviews were coded. Twenty-four (25.9%) interviews were also independently coded by two trained reliability coders who were specialist child interviewers (one each from CYF and the NZ Police). Coders were trained on separate transcripts as well as interview DVDs until a minimum of 80% agreement was reached. Inter-rater reliability was calculated on coding of interviewers' utterances using Cohen's Kappa (Viera & Garrett, 2005). Good agreement was achieved, $\kappa = 0.73$, $p < 0.001$.

Table 5.2

Definitions and examples of interviewer utterances

Interviewer utterances	Definitions	Examples
Invitations	Questions or statements that prompted free-recall responses	"Tell me everything you can remember"
Cued-invitations	Questions or statements that utilised details disclosed by the child as cues to prompt free-recall responses	"You told me that he took you to that special place. Tell me about that special place"
Direct	Open-ended prompts that refocus the child's attention on details about the allegation, and asked for specific information or details using "Wh-" questions	"What were you wearing?" "When did this happen?"
Option-posing	Focus the child's attention more narrowly on aspects of the account that the child did not previously mention but do not imply that a particular response is expected. This might be formatted as a	"Did anyone see what happened?" "Did he touch you under or over your clothes?"

	yes/no response, or option-posing question.	
Suggestive	Statements or questions that communicated to the child what answer they should give or the interviewers assumed certain information that were not disclosed by the child themselves.	"He touched you, didn't he?"
Summaries	Statements that repeated back exactly what the child had said	"You said he touched you" [After the child said " He touched me"]

Results

This section is divided into 2 parts, examining: 1) the adherence to the scripted components of the Specialist Child Witness Interviewing model, and 2) the question style used in the *Account* phase.

In each part, we examine whether child, allegation and interviewer characteristics influenced the specific interviewing practice. Given that interviewers conducted multiple interviews, resulting in nested data, Generalized Estimating Equation (GEE) analysis was used to examine whether child, interviewer and allegation characteristics influenced 1) the adherence to the scripted components of the Specialist Child Witness Interviewing model, 2) the total number of questions, and 3) the proportion of question types interviewers posed during the *Account* phase. Generalized Estimating Equations provide a framework for analysing grouped or nested data and can be applied to continuous, dichotomous (yes/no response) and nominal dependent variables (Zorn, 2001).

We conducted binary logistic models when examining the adherence to the scripted components of the model, and the proportion of questions interviewers posed during the *Account* phase. When examining the total number of questions interviewers posed, we conducted GEE analyses with linear models. For all models, we entered the following predictor variables as factors: 1) relationship of the child to the suspect (relatives, known person, stranger), 2) type of sexual abuse (penetration vs. non-penetration), 3) episodes of abuse (one episode vs. multiple episodes), 4) interviewing location (metropolitan vs. rural), 5)

professional affiliations (police vs. CYF social workers) and 6) interviewing load (full time vs. part time). The following predictor variables were entered as co-variates: 7) age of interviewee, 8) average number of interviews conducted per week, and 9) interviewing experience.

Adherence to the Scripted Components of the Specialist Child Witness Interviewing Model

Interviewers adhered to the scripted components in the *Engage and Explain* phase almost without exception (See Table 5.3). In the *Account* phase, in 84.1% of the interviews interviewers transferred control to the child by stating they did not know what happened, reinstated the ground rules with the child (78.3%) and asked the child to report everything in as much detail as possible (80.5%). In the *Closure* phase, most interviews contained a discussion of a neutral topic with children (93.4%) and stated the end time of the interview (98.9%). Just over three quarters of the interviews included an opportunity for the child to add any information or to ask questions (79.1%). In fewer than half (43.5%) of the interviews, the interviewers thanked the child for coming and talking to them.

Table 5.3

Adherence to specific components of the Specialist Child Witness Interviewing model

	Percentage
Engage and Explain phase	
Introduction	
(1) Stated place, time and date of interview	100
(2) Stated that the interview is being monitored	78.4
(3) Introduced the monitor's name and role	100
(4) Asked the child to tell their name and age	100
(5) Interviewer introduced themselves by name	98.9
(6) Interviewer introduced their role	96.7
Discussed ground rules	100
Discussed and asked for a promise to tell the truth	100
Conducted rapport and free-narrative practice	98.9
Account phase	
Asked the child what they have come to talk about with an open-ended question	100

Transferred control to the child by explaining that s/he does not know what had happened	84.1
Reinstated ground rules	78.3
Asked the child to report everything they remember	80.5
Closure phase	
Offered the child opportunity to add any further information or to ask any questions	79.1
Introduced and discussed a neutral topic	93.4
Thanked the child for coming and talking to the interviewer	43.5
Stated the end time at the end of the interview	98.9

Next, we examined whether child, allegation and interviewer characteristics influenced adherence to scripted components of the Specialist Child Witness Interviewing model. We will ignore the *Engage and Explain* phase and stating the end time of the interviews in the *Closure* phase given uniform high adherence to these components. We conducted six analyses, and as a consequence we applied a Bonferroni adjustment and adopted a significance value of $p < 0.01$. We found that the number of interviews conducted per week was a statistically significant predictor of whether interviewers transferred control to the children (Wald χ^2 (1) = 9.74, $p = 0.002$). For each unit increase in the number of interviews conducted per week, the odds ratio of interviewers stating that they did not know what had happened to the child decreased by 0.34 CI 95% [0.17,0.67]. Interviewers who conducted more interviewers per week were less likely to state that they did not know what had happened to the child (i.e., transferred control to the child). None of the other child, allegation and interviewer characteristics significantly predicted whether interviewers adhered to the other scripted components of the *Account* or the *Closure* phase.

Total and Proportion of Prompts in the *Account* phase

Considerable variability in the total number of questions interviewers posed to children and the duration of *Account* phase were noted (see Table 5.4). In terms of types of questions, direct questions were most frequently asked (57.1%), followed by option-posing prompts (20.5%), cued-invitations (12.6%), invitations (9.4%) and suggestive prompts (0.5%). As such, after suggestive prompts, the most efficacious and evidence-based prompts (invitations and cued-invitations) were least likely to be used.

Table 5.4

Descriptive statistics for the number and proportion of interviewers' questions in the Account phase

	Number			Proportion		
	M (SD)	*Min*	*Max*	*M(SD)*	*Min*	*Max*
Duration (minutes)						
	50.93 (23.12)	13.32	119.52			
Interviewers' questions						
Total	140.35 (70.31)	37	384			
Invitation	11.62 (6.06)	3	33	0.09 (0.05)	0.02	0.30
Cued-invitation	17.41 (11.63)	0	55	0.13 (0.07)	0.00	0.34
Direct	81.04 (44.87)	12	248	0.57 (0.09)	0.32	0.80
Option-posing	28.95 (16.07)	5	88	0.20 (0.05)	0.06	0.34
Suggestive	0.68 (0.14)	0	5	0.01 (0.01)	0.00	0.06

Did child, interviewer and allegation characteristics influence the total number of questions interviewers posed? We found that children's age (Wald χ^2 (1) = 6.73, p = 0.009) and the type of abuse (Wald χ^2 (1) = 10.16, p = 0.001) were statistically significant predictors of the total number of questions posed to children during the *Account* phase. For each unit increase in the age of the child being interviewed, the odds ratio of interviewers asking more questions during the *Account* phase increased by 1.48 95% CI [1.10, 1.98]. Interviewers were significantly more likely to pose more questions to older children than younger children in the *Account* phase. Consistent with this result, correlation analyses

46

indicated that age was positively associated with the length of the interview, $r(93)=.24$, $p=.023$. Interviewers also asked significantly more questions when investigating penetration type abuse ($M = 167.3$, $SD = 77.2$) compared to non-penetration type abuse ($M = 124.6$, $SD = 62$). None of the other child, allegation and interviewer characteristics significantly predicted the total number of questions posed during this phase.

Did child, interviewer and allegation characteristics influence the proportion of questions interviewers posed? Given their low frequencies, suggestive questions were excluded from GEE analyses. We conducted four analyses, subsequently applied a Bonferroni adjustment and adopted a significance value of $p < 0.0125$. We found that interviewing location (Wald χ^2 (1) =7. 30, $p = 0.007$) and children's relationship to suspect (Wald χ^2 (2) = 28.71, $p < 0.001$) were statistically significant predictors of the proportion of cued-invitation questions posed to children during the *Account* phase. Interviewers in metropolitan interviewing sites ($M = 0.34$, $SD = 0.15$) were more likely to ask cued-invitation questions than interviewers in rural interviewing sites ($M = 0.19$, $SD = 0.15$). Furthermore, interviewers were more likely to ask cued-invitation questions to children when the alleged suspect was a relative ($M = 0.33$, $SD = 0.21$) compared to a stranger ($M = 0.25$, $SD = 0.12$), and when the alleged suspect was a known person ($M = 0.29$, $SD = 0.16$) compared to a stranger ($M = 0.25$, $SD = 0.12$). No significant difference in the proportion of cued-invitation questions when the alleged suspect was a relative ($M = 0.33$, $SD = 0.21$) compared to a known person ($M = 0.29$, $SD = 0.16$). None of the other interviewer, child and allegation characteristics significantly predicted the proportion of questions posed to children (see Table 5.5).

Table 5.5

Generalized Estimating Equation (GEE) analyses with binary logistic models to predict the proportion of questions interviewers posed during the Account phase

Outcome variable	Predictor variable	Wald Chi Square	Exp (B)	95% Confidence Interval for Exp (B)	Std Error	Sig.
Invitation	Age of interviewee	2.79	1.00	0.99,1.00	0.001	0.09
	Relationship of the child to the suspect					
	Relatives vs. Stranger (Reference)	0.65	0.89	0.66,1.19	0.15	0.42
	Known-Person vs. Stranger (Reference)	0.15	0.95	0.71,1.25	0.14	0.70
	Type of sexual abuse Penetration vs. Non-penetration (Reference)	1.95	0.88	0.73,1.06	0.09	0.16
	Episode 1 episode vs. multiple episodes (Reference)	0.13	1.03	0.86,1.24	0.09	0.72
	Professional affiliation CYF vs. Police (Reference)	0.23	1.11	0.73,1.69	0.21	0.63
	Load Full time vs. Part-Time (Reference)	1.08	0.81	0.54,1.20	0.20	0.30
	Interviewing location Metropolitan vs. Rural (Reference)	0.15	0.95	0.73,1.24	0.14	0.70

	Average number of interviews per week	0.75	1.07	0.91,1.26	0.08	0.39
	Interviewing experience	1.32	1.00	0.99,1.00	0.001	0.25
Cued-invitation	Age of interviewee	0.83	1.00	0.99,1.00	0.002	0.36
	Relationship of the child to the suspect					
	Relatives vs. Stranger (Reference)	7.63	0.70	0.55,0.90	0.13	0.01
	Known-Person vs. Stranger (Reference)	27.46	0.72	0.64,0.82	0.06	<0.001
	Type of sexual abuse Penetration vs. Non-penetration (Reference)	0.93	0.89	0.72,1.12	0.11	0.33
	Episode 1 episode vs. multiple episodes (Reference)	0.24	1.06	0.85,1.31	0.11	0.62
	Professional affiliation CYF vs. Police (Reference)	0.06	1.04	0.76,1.43	0.16	0.80
	Load Full time vs. Part-Time (Reference)	0.69	0.89	0.68,0.17	0.14	0.41
	Interviewing location Metropolitan vs. Rural (Reference)	7.29	1.64	1.14,2.34	0.18	0.01
	Average number of interviews per week	0.92	0.92	0.77,1.09	0.09	0.34
	Interviewing experience	2.96	1.00	1.00,1.004	0.001	0.08
Direct	Age of interviewee	0.28	1.00	0.99,1.00	0.001	0.60
	Relationship of the child to the suspect					
	Relatives vs. Stranger (Reference)	3.51	1.15	0.99,1.33	0.07	0.06

	Known-Person vs. Stranger (Reference)	4.57	1.14	1.01,1.28	0.06	0.03
	Type of sexual abuse	5.62	1.15	1.02,1.29	0.06	0.02
	Penetration vs. Non-penetration (Reference)					
	Episode	0.58	1.06	0.91,1.24	0.08	0.45
	1 episode vs. multiple episodes (Reference)					
	Professional affiliation	0.62	0.92	0.75,1.13	0.10	0.43
	CYF vs. Police (Reference)					
	Load	0.12	0.96	0.79,1.18	0.10	0.73
	Full time vs. Part-Time (Reference)					
	Interviewing location	0.15	0.96	0.81-,.15	0.09	0.70
	Metropolitan vs. Rural (Reference)					
	Average number of interviews per week	1.17	1.06	0.95,1.19	0.06	0.28
	Interviewing experience	2.12	0.99	0.99,1.00	0.001	0.14
Option-posing	Age of interviewee	0.09	1.00	0.99,1.00	0.001	0.77
	Relationship of the child to the suspect					
	Relatives vs. Stranger (Reference)	1.80	1.18	0.93,1.50	0.12	0.18
	Known-Person vs. Stranger (Reference)	0.95	1.08	0.92,1.27	0.08	0.33
	Type of sexual abuse	0.31	0.96	0.84,1.09	0.07	0.57
	Penetration vs. Non-penetration (Reference)					
	Episode	1.18	0.91	0.78,1.07	0.08	0.28
	1 episode vs. multiple episodes (Reference)					

Professional affiliation	0.53	1.07	0.90,1.26	0.09	0.47
CYF vs. Police (Reference)					
Load	0.34	1.08	0.83,1.14	0.14	0.56
Full time vs. Part-Time (Reference)					
Interviewing location	0.76	0.92	0.76,1.11	0.095	0.38
Metropolitan vs. Rural (Reference)					
Average number of interviews per week	1.98	0.93	0.85,1.03	0.05	0.16
Interviewing experience	3.85	0.99	0.99,1.00	0.001	0.05

Distribution of Prompts in the *Account* phase

Given that we found direct questions predominated and a higher than ideal proportion of option-posing questions occurred, we were interested in whether these occurred predominantly in the latter stages of the interview (as supported by many interviewing protocols, e.g., Orbach & Pipe, 2011). For example, interviewers may have predominantly used invitations and cued-invitations in the initial stages of eliciting an account from children, and then turned to direct and option-Posing questions in the latter stages of the interview to elicit important, previously unreported details of the allegation or to clarify ambiguous statements. To do so we examined: 1) how early interviewers asked the first direct and option-posing questions in the interview, and 2) the distribution of questions throughout the *Account* phase.

First, we examined the number of questions interviewers asked before asking the first direct and option-posing questions. On average, interviewers asked 3.9 questions (*Min* = 1, *Max* = 13, *SD* = 2.2 questions) before the first direct question, or only 3% (*Min* = 0%, *Max* = 15%, *SD* = 3%) of the total number of questions in the *Account* phase. The mean number of questions before the interviewer posed the first option-posing question was 11.1 (*Min* = 1, *Max* = 47, *SD* = 9.51 questions), or 9% (*Min* = 1%, *Max* = 43%, *SD* = 9.9%) of the total number of questions in the *Account* phase. Some of these questions may be range and frequency questions required by the Specialist Child Witness Interviewing model assessing whether anything else like that (the allegation) has occurred with the suspect (s), and if so the frequency of the incidents. In contrast to best practice recommendations,interviewers were not relying on very open ended prompts during the *Account* phase. That is, they were quick to employ both narrowly focused direct questions, and even more focused option posing prompts.

Second, we divided each interview into two equal halves and conducted paired sample t-tests on the proportion of each type of prompt in the first half compared to the second half of each interview. Interviewers asked proportionally more invitations in the first-half of their interviews (*M* = 0.10, *SD* = 0.06) compared to the second-half (*M* = 0.06, *SD* = 0.05, *t*(92) = 7.02, *p* < 0.001). Similarly, interviewers asked more cued-invitations during the first-half (*M* = 0.16, *SD* = 0.10) compared to the second-half of their interviews (*M* = 0.09, *SD* = 0.06, *t*(92) = 10.28, *p* < 0.001). Conversely, we found a significant increase in the use of option-posing questions from the first half (*M* = 0.16, *SD* = 0.06) to the second-half of interviews (*M* = 0.26, *SD* = 0.09, *t*(92) = -9.67, *p* < 0.001). No significant difference in the proportion of direct prompts posed between the first (*M* = 0.57, *SD* = 0.11) and the second halves of the

interviews was found ($M = 0.59$, $SD = 0.10$, $t(92) = -1.83$, $p = 0.071$). Thus invitations and cued-invitations were utilised more often during early stages of Account phase, and less so during latter phase. Direct prompts were used consistently throughout the interview, as reflected in the overall high proportion of these prompts. Although option-posing prompts were used more frequently in latter stages, they were also introduced very early in the *Account* phase. Thus, interviewers deviated from best-practice recommendations not only in terms of the proportion of questions asked but also in terms of when they were introduced and used during the interview.

Discussion

The current study evaluated how interviews were conducted by interviewers when investigating alleged sexual abuse with children between the ages of 6 and 16 years old in New Zealand, and factors that influenced interviewing practice. We examined two aspects of the interviews: adherence to the scripted components of the model, and, total and proportion of question types used in the *Account* phase. These will be discussed, in turn, in the following section.

Adherence to the Scripted Components of the Specialist Child Witness Interviewing Model

During the *Engage and Explain* phase of the interview we observed high levels of adherence to the scripted components of the Specialist Child Witness Interviewing model. Interviewers also consistently discussed a neutral topic with children prior to ending the interview and stated the end time of the interview during the *Closure* phase. However, approximately one quarter of the interviews had at least one key feature from the *Account* phase omitted, despite these components being scripted and not reliant on the responsiveness of the child, or the nature of the allegation under investigation. Transferring control to the child (Mulder & Vrij, 1996) and reinstating the ground rules (Gee, Gregory, & Pipe, 1999; Saywitz & Moan-Hardie, 1994; Warren , Hulse-Trotter, & Tubbs, 1991) are evidence-based instructions that emphasise the key contribution the child can make to the interview and are designed to increase the amount and accuracy of the information they will report about the allegation. Finally, although the majority of interviews included an opportunity for the child to add anything else they remembered or to ask any questions during the *Closure phase*, a quarter of the interviews did not provide this opportunity irrespective of the child's age. Interviewers may bring the interview to a close without including all of the elements of this

phase because they are responding to verbal or behavioural cues from the child that they wish to leave.

We found that interviewers who conducted more interviews per week were less likely to state that they did not know what had happened to the child (i.e., transferred control to the child). Interviewers may forget to tell the child that they are naïve to the situation as typically adult-child conversations revolves around testing of children's knowledge (for a review see Lamb & Brown, 2006). Interviewers who are managing high interview workload may have less time to review their interviews and as such this may lead to habitual omission of this practice (Tobias, 2009) particularly in the absence of regular feedback (Kluger & DeNisi, 1996).

Total and Proportion of Prompts in the *Account* phase

During the *Account* phase interviewers work to elicit potentially critical evidence needed for the investigation and prosecution of the case. Thus, this phase needs to be conducted appropriately to ensure that the reliability and credibility of the testimony elicited is maximized. Our assessment of this phase generally revealed departures from recommended practice, with the exception that suggestive questions were appropriately rare. The scarcity of suggestive questioning was encouraging given the large body of literature that demonstrates the detrimental effects of suggestive questioning on children's reliability and accuracy (for a review see Bruck & Ceci, 1999).

Consistent with evaluations of forensic interviews in other countries (e.g., Kask, 2012; La Rooy et al., 2011; Luther et al., 2014; Powell & Hughes-Scholes, 2009) and supporting our hypothesis, we observed an over-reliance on direct questions (e.g., "When did this happen?"). Although traditionally defined as open-ended, this type of prompt restricts the line of enquiry to a particular category of information determined by the interviewer. When children answer these questions their responses tend to be brief (Lamb, Hershkowitz, Sternberg, Esplin, et al., 1996) and not as accurate as answers elicited from broader open-ended prompts (e.g., "Tell me everything you remember about that", Brown et al., 2013; Lamb & Fauchier, 2001). Since children provide less information to explore in the interview, the interviewer is put in the situation where he or she has to ask more questions. Direct questions do not, therefore, represent optimal child-directed interviewing practice.
We observed a relatively low proportion of invitations and cued-invitations (whether considered separately or combined) relative to other types of prompts in the *Account* phase.

A significant amount of research has demonstrated the superiority of these prompts across a range of variables, including amount (e.g., Korkman et al., 2006), nature of

information elicited (e.g., Phillips et al., 2012) and the narrative quality of children's account (e.g., Feltis et al., 2010). The analysis also indicated a higher-than-ideal proportion of option-posing prompts. Whilst some of these prompts are prescribed by the Specialist Child Witness Interviewing model to establish important information required by New Zealand Courts (e.g., "Has anything else like this happened?" to establish range and frequency), scripted questions did not solely account for the number of prompts utilised. Numerous studies have demonstrated that option-posing prompts tend to increase the probability of error and inconsistency in children's testimony (Lamb & Fauchier, 2001; Orbach & Lamb, 2001; Waterman et al., 2000) and thus should be used minimally in forensic interviews with children (Orbach & Pipe, 2011).

Direct and option-posing questions were not only asked frequently, but they were also introduced very early in the *Account* phase of the interview. This practice is a departure from the Specialist Child Witness Interviewing model and other best-practice recommendations which state that these questions should be asked after responses to broader open-ended prompts are exhausted (Orbach & Pipe, 2011). Furthermore, the use of direct questions was the predominant questioning strategy used by interviewers irrespective of whether it was the early or latter stages of the interview. As the interview progressed, open-ended prompts (which were already the least likely to be employed) became even less frequent. In contrast, the use of option-posing questions became more prevalent as the interview progressed. Our results indicate that interviewers were making limited use of broad open-ended prompting in general, a deviation from the Specialist Child Witness Interviewing model.

We found a number of child, allegation and interviewer characteristics that were associated with variations in interviewing practice. Consistent with previous research, older children were asked more questions in total than younger children about the abuse allegation (Sternberg et al., 2001), but, contrary to previous research, we did not find a significant difference in the proportion of each question type asked to children of different ages (Lamb et al., 2000; Sternberg et al., 2001; Thoresen et al., 2006; Warren et al., 1996). Older children can typically sustain their attention for longer periods than younger children (Klemfuss & Ceci, 2009) and as such, this may have contributed to interviewers' tendency to ask more questions and conduct longer interviews with them. The inconsistency between our findings and previous research may be due, in part, to variations in samples; the youngest children in our sample were 6 years old, which is older than the youngest age in previous studies (Lamb et al., 2000; Sternberg et al., 2001). Age differences in the proportion of prompts posed to children may only apply to pre-schoolers in comparison to much older children. Pre-

schoolers often provide brief answers in response to open-ended questions (Lamb et al., 2000; Lamb et al., 2003; Sternberg et al., 1996), which may contribute to the higher proportion of specific prompts posed to them compared to older children.

Interviewers asked significantly more questions for penetration compared to non-penetration abuse. This finding is unsurprising, given that allegation of penetrative sexual abuse is more serious and likely requires more information to be obtained for evidential purposes. We also found that when the alleged suspect was a relative or a known person, interviewers asked significantly more cued-invitations than if the alleged suspect was a stranger. Children may provide better initial descriptions of the suspect if the suspect is a known person, which then may provide greater scope for the use of cued-invitations to prompt further recall.

Similar to previous literature (La Rooy et al., 2011; Powell & Hughes-Scholes, 2009), we found that interviewing experience did not predict the questioning approach utilised. We also found no significant difference between professional affiliations in terms of proportion of different types of prompts asked to children (Powell et al., 2012). The current study also evaluated other interviewing characteristics that have not been explored in previous studies, such as interviewing load (e.g., full time vs. part time and number of interviews conducted per week) and location. We found that interviewers in metropolitan interviewing sites were more likely to ask cued-invitations than those in rural interviewing sites. Geographical isolation has been identified as a key barrier to accessing supervision for forensic interviewers in New Zealand (Wolfman, Brown, & Jose, in preparation). Regular supervision focused on interviewing practice has been shown to significantly contribute to adherence to best-practice interviewing (Cyr et al., 2012; Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002). Thus, difficulty in accessing regular supervision for interviewers in rural sites (Wolfman et al., in preparation) may contribute to poorer adherence to the Specialist Child Witness Interviewing model compared to those in metropolitan interviewing sites where access to other interviewers or supervisors may be more readily available. This difference highlights the need to ensure consistency in supervision access across the country. This will require commitment from both an organisational and individual level. Whilst organizations play a key role in the provision of supervision opportunities, forensic interviewers also need to be proactive in accessing them.

In contrast to other domains where more time in a role leads to better performance, in forensic interviewing, neither more experience nor did frequency of interviewing improve interviewing practice. The uniformity of interviewing practice across professional affiliation,

interviewing frequency, and experience highlights the importance of frequent supervision and feedback on interviewing practice for all interviewers (Cyr et al., 2012; Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002). New Zealand Police and the Child, Youth and Family have recently implemented a number of methods to increase supervision for forensic interviewers such as an accreditation system to monitor interviewing standards, e-learning professional development opportunities, and emphasizing practice-focused feedback in peer reviews. The changes were implemented to identify interviewers in need of support for improving practice, and improve consistency in interviewing throughout the country. It will be important that the impact of these developments on future practice is evaluated.

Conclusion

Our findings provide important insights into current interviewing practice with children in New Zealand and some factors that influence interviewing practice. Although some areas of strengths were identified, we have also noted many opportunities for improvement, especially in interviewers' questioning strategies when investigating the abuse allegation. Initial and additional training, supervision and feedback should focus on increasing the use of broad open-ended prompts (invitations and cued-invitations) to promote best-practice standards throughout the entire interview, and minimizing premature use of direct and option-posing questions. Improving the conduct of forensic interviews will improve the quality of evidence elicited from vulnerable witnesses.

Chapter 6: Talking Past Each Other: Interviewer and Child Verbal Exchanges in Forensic Interviews[2]

The previous chapter examined adherence to the New Zealand Specialist Child Witness Interviewing model (see Appendix 1) in 93 interviews with children about sexual abuse allegations. In contrast to recommended practice, direct and option-posing prompts were not only asked frequently, but were introduced very early in the investigative phase of the interview. Although child, allegation and event characteristics did influence specific interviewing practice, no systematic factor was identified that may explain why interviewers were asking more direct and option-posing questions than is recommended. Subsequently, in Chapter 6 we tested the predictions in a larger sample from Chapter 5 (n=103 interviews) that this may reflect: 1) variation in children's responsiveness to different questions, and 2) interviewers' failure to adhere to the principle of following a focused prompt with an open one (pairing principle). Sequential analysis was used to determine the associations between: 1) interviewer prompt types and child responsiveness, 2) child responsiveness and subsequent interviewer prompts, 3) interviewer prompt types and their subsequent questioning, and 4) child responsiveness and their subsequent responses. This chapter also examined how child, allegation and event characteristics influenced the dyadic interactions in the interviews.

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Wolfman, M., Brown, D. & Jose, P. (2016). Talking past each other:
Interviewer and child verbal exchanges in forensic interviews. *Law and Human Behaviour, 40,* 107 - 117.

Best-practice recommendations strongly emphasize the use of broad open-ended prompts (e.g., invitations such as "Tell me everything you can remember about that") throughout an interview to elicit reliable information from child witnesses (Lamb et al., 2011; Saywitz et al., 2011). Evaluation studies of forensic interviews with children have consistently shown that interviewers deviate from this recommendation and instead rely more on narrowly focused open-ended (e.g., direct or "Wh" type questions such as "Who was in the room?") and closed questions (e.g., yes/no or option-posing questions such as "Did he talk to you?") (Korkman et al., 2006; Powell & Hughes-Scholes, 2009). In this study we examined the contingencies between interviewer utterances, child responsiveness, and subsequent interviewer prompting in order to test predictions that frequent non-responding from children and interviewers' failure to return to an open-ended style of questioning after posing a direct or option-posing question (pairing,Orbach & Pipe, 2011) may under-pin interviewers' over-reliance on narrowly focused prompts.

Why Do Interviewers Ask More Focused than Open-ended Questions?

Although broad open-ended prompts are more likely to elicit accurate (Brown et al., 2013) and detailed information (Korkman et al., 2006), and fewer errors (Bruck & Ceci, 1999), they also tend to elicit more non-responses from children compared to other prompts (Korkman et al., 2006; Korkman, Santtila, Westeråker, et al., 2008; Melinder & Gilstrap, 2009). This outcome may, in part, explain why interviewers make limited use of broad open-ended prompts. In two studies of forensic interviews, Korkman et al. (2006); Korkman, Santtila, Westeråker, et al. (2008) found that although invitations elicited more comprehensive responses from children compared to other prompts, they were also positively associated with more "I don't remember/don't know" responses and restatements of previous answers from children. In contrast, direct and option-posing questions elicited shorter answers and fewer details compared to invitations, but were associated with fewer "don't remember"/ "don't know", repetition, off-topic, unclear, meaningless responses, and non-responding from children.

Similarly, in a laboratory study, Melinder and Gilstrap (2009) showed that broad open-ended prompts were more likely to be followed by "I don't know" responses from children than expected by chance. Direct questions were more likely to be followed by children assenting and then providing details than expected by chance. Relatedly, Waterman and colleagues demonstrated that children respond to non-sensical and unanswerable questions more often when they are framed as option-posing questions (e.g., "Which one is louder, a box or a knee?", Waterman et al., 2000, 2001). Interestingly, Klemfuss , Quas , and

59

Lyon (2014) found that attorneys' Wh-questions were more likely to elicit detailed responses than expected by chance from children in the courtroom setting. In contrast, option-posing and suggestive questions were less likely to elicit detailed responses than expected by chance. Klemfuss et al. (2014), however, noted the lack of invitations in this corpus, and the lack of opportunity for children to provide detailed response in court compared to forensic and analogue interviews. Furthermore, lawyers have a very different motive when questioning children and therefore may have different questioning strategies compared to forensic interviewers. Thus in forensic interviews, children may be more responsive to closed prompts, albeit in a less detailed way, than to prompts that are very open-ended. Some researchers have argued that open-ended prompts are too broad and do not provide the necessary structure for young children to understand and answer the questions (Korkman et al., 2006; Melinder & Gilstrap, 2009). In contrast, Direct and option-posing questions provide helpful scaffolding (e.g., by indicating which information category the child should focus on, and restricting the possible range of response options) and as such, children are less likely to provide non-responses.

Interviewers may therefore ask more focused questions as a result of children's non-responding (Gilstrap & Ceci, 2005; Korkman et al., 2006). In support of this hypothesis, Gilstrap and Ceci (2005) found that child denial (by expressing disagreement, saying "I don't know", giving no response, or producing an off-topic response) was more likely than expected to be followed by a leading question (i.e., Denial → Leading question). Gilstrap and Papierno (2004) also found that interviewers were especially likely to use leading questions with shy and withdrawn children. However, in field studies examining a broader range of interviewer questions (i.e., not just 'leading' questions) in forensic interviews, Korkman et al. (2006); Korkman, Santtila, Westeråker, et al. (2008) found that even when children provided details about the allegation(s), interviewers were more likely to ask direct or option-posing questions than invitations. Similarly, Klemfuss et al. (2014) found that children's responses did not predict the types of attorneys' questions in the court-room setting. Thus, Korkman et al. (2006) argued that, "the tendency to rely on leading and suggestive question types cannot solely be explained by the non-responsiveness of the child, but also seems to be a bad habit on the part of the interviewers" (p. 125).

In the present study, we evaluated whether interviewers' over-reliance on focused questions may develop, at least in part, from a failure to adhere to a best-practice principle called pairing. The pairing principle recommends following the use of a focused or closed-ended question with a return to a broad open prompt to elicit further details (Orbach et al.,

2000). For example, an interviewer might ask, "Did he touch you under or over your clothes" [after the child disclosed that the suspect touched her] and the child might respond, "Under my clothes". Ideally an interviewer would follow this child response with an open-ended prompt such as, "Tell me everything you can remember about that". This principle may improve interviewing practice by helping interviewers to avoid continued use of very focused prompts and employing an increasingly narrow questioning style as an interview progresses. Returning to an open-ended questioning style after asking a focused or closed-ended question is likely to elicit further detail with minimal interviewer input, and may help interviewers to maintain an open-ended approach to questioning (see Figure 1). When adhering to the pairing principle, interviewers would typically utilise invitations throughout the entirety of the interview (see Figure 2), rather than predominantly in the early stages of the interview. Therefore, the pairing principle has been proposed to assist interviewers to conform to the best-practice recommendation of asking more broad open-ended questions (Orbach et al., 2000).

Figure 1

Hypothetical progression of an interview without pairing
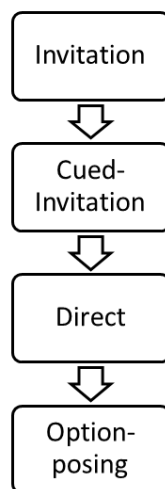
Figure 2

Hypothetical progression of an interview with pairing
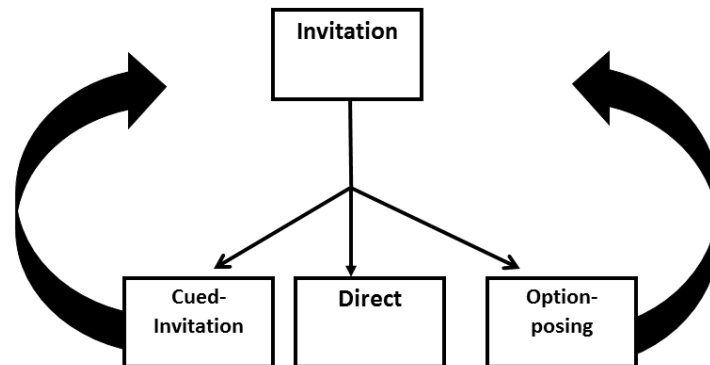
Although the pairing principle is promoted as part of best practice (Orbach & Pipe, 2011) and is a key component of a well-respected interviewing protocol (National Institute of Child Health and Human Development Investigative (NICHD) Interview Protocol; Orbach et al., 2000), it has not been systematically examined in an empirical fashion. Interviewers may have difficulty in identifying what open-ended questions are (e.g.,Powell, Benson, Sharman, Guadagno, & Steinberg, 2013; Yii et al., 2014), and therefore may over-estimate their use of them. This confusion may in turn lead to non-adherence to the recommended principle of pairing, and result in high numbers of focused and closed-ended questions.

In the present study we examined whether forensic interviewers adhere to the pairing principle, and whether those who do therefore ask more open-ended prompts. We used sequential analysis to assess whether interviewers adhered to pairing by examining the contingencies between interviewer prompt types and their subsequent questioning. Sequential analysis is an apt method for examining such a process in conversational discourse (Jose, 1988). This approach provides an index of how likely a particular type of behaviour is to follow or precede another type of behaviour in a chain of interactions, while taking into account the base rates of the specific behaviours (Bakeman & Quera, 2011).

Gilstrap and Ceci (2005) and Melinder and Gilstrap (2009) used sequential analysis to examine interviewer-child interactions in interviews about a staged event and a medical examination respectively. Both studies showed that interviewers did not remain consistent in their questioning style. That is, leading questions were not more likely to be followed by another leading question than would be expected by chance. However, both studies found

that a child's responding behaviour was predictive of their subsequent responding behaviour. That is, a child was more likely to produce a denial if he or she had denied the previous question, irrespective of the type of question they received (i.e., **Denial** → Question → **Denial).** On the other hand, a child who assented and then provided details in response to the question was more likely to do so again to the next question posed to them. Children's previous responding behaviour was more predictive of subsequent responding than the type of question posed to them.

Previous field studies that have used sequential analysis have either examined the interactions between attorneys' questions and children's responses in court (Klemfuss et al., 2014) or examined interviewers' supportive statements and children's reluctance in the non-substantive phase of the forensic interviews (Ahern, Hershkowitz, Lamb, Blasbalg, & Winstanley, 2014). Klemfuss et al. found that children's responding behaviour was influenced by the types of questions attorneys posed to them (Adult→ Child), but children's responding behaviour has no effect on subsequent attorneys' questions . Ahern et al. also found that children's behaviour (reluctance vs. non-reluctance) was influenced by interviewers' supportive statements, rather than the reverse. Taken together, these studies suggest that children's responding behaviour is substantially driven by adult's behaviour. It is worth noting, however, that these studies did not examine adult-to-adult (i.e., **Adult**→ Child → **Adult)** or child-to-child contingencies (i.e., **Child** → Adult → **Child**) while skipping either the child or adult behaviour in between.

The previous studies highlight the utility of sequential analyses in examining speech acts, however the extent to which they can inform our understanding of the dynamics at play during forensic interviewers is limited, given the restricted range of questioning strategies examined (Gilstrap & Ceci, 2005; Melinder & Gilstrap, 2009), an exclusive focus on preparatory practices (Ahern et al., 2014), and a focus on courtroom exchanges (Klemfuss et al., 2014). Furthermore, previous research examining interviewer-child interactions in field interviews and in the substantive phase have not applied the sequential analytic method nor examined interviewer-to-interviewer (i.e., **Interviewer** → Child → **Interviewer)** or child-to-child contingencies (i.e., **Child** → Interviewer → **Child**) in the substantive phase (Korkman et al., 2006; Korkman, Santtila, Westeråker, et al., 2008). The present study addresses these gaps by examining the association between a broad range of interviewer prompt types and children's responding using sequential analysis in the context of 103 field interviews investigating allegations of sexual abuse against children (6 – 16 years).

Research Questions and Hypotheses

Our first goal was to examine whether children's responding behaviour could be reliably predicted from interviewers' questioning behaviour. We focused on whether or not children gave a response to the question, rather than considering the level of detail and accuracy contained within their response for two reasons. Interviewers may have difficulty in judging the effectiveness of their questions based on the level of detail children provide. Rather, they may perceive the relative effectiveness of different prompt types based simply on whether children made a response or not. For example, even when children provided the shortest responses to option-posing questions and the longest responses to invitations, interviewers were still more likely to follow up children's responses with an option-posing question rather than an invitation (Korkman, Santtila, Westeråker, et al., 2008). Thus, this approach allows us to test the prediction that frequent non-responding from children to open-ended prompts may contribute to an over-reliance on focused and closed questions.

In our study we examined a broad range of interviews, not simply those that progressed to a court hearing (cf.,Hanna et al., 2012). As such, full transcripts were not available, and given legal and ethical restraints on our access to DVD recordings, we were unable to fully transcribe children's responses. Because of our focus on simple responsiveness, rather than the level of detail children report (cf.,Orbach et al., 2000; Peterson, Warren, & Hayes, 2013), and consistent with previous research (Gilstrap & Ceci, 2005; Korkman et al., 2006; Korkman, Santtila, Westeråker, et al., 2008; Melinder & Gilstrap, 2009), we expected that children would be more likely to provide a response to direct and/or option-posing questions than to other types of prompts. We also expected that children would be more likely to provide a non-response to invitations and cued-invitations than other types of prompts given Melinder and Gilstrap (2009)'s findings that free-recall questions were followed by "I don't know" more than expected. We also examined responses to interviewer summary statements. As summaries are seldom investigated in studies of interviewing, and were not part of previous research that used sequential analysis (Gilstrap & Ceci, 2005; Klemfuss et al., 2014; Melinder & Gilstrap, 2009), we made no specific predictions about them.

Our second goal was to assess whether interviewers' subsequent questioning behaviour could be predicted from children's responding behaviour. We expected that, consistent with Gilstrap and Ceci (2005) and Melinder and Gilstrap (2009) findings, interviewers would be more likely to ask direct and option-posing prompts when children did not respond to the previous question.

64

Third, we examined whether interviewers' questioning behaviour could be predicted from their previous questioning behaviour. Although many interview protocols (e.g., the NICHD protocol, Orbach et al., 2000) recommend the pairing principle, we predicted that this practice would not be evident, given the disproportionate numbers of direct and option-posing questions detected in studies of interviewer questioning (e.g., Korkman et al., 2006). We therefore expected that interviewers would remain consistent in their use of prompt types from one question to another irrespective of the type of question initially posed. We also predicted that interviewers' adherence to the pairing principle would be positively associated with higher proportion of invitations and cued-invitations in the interviews.

Fourth, we examined whether children's responding behaviour could be predicted from their previous responding behaviour. We expected that children would remain relatively consistent in their responding style such that a response would be more likely to be followed by another response, and likewise, a non-response would be more likely to be followed by another non-response (Gilstrap & Ceci, 2005; Melinder & Gilstrap, 2009).

Finally, to understand how best to support interviewers in maintaining evidence-based practice beyond initial training, we also considered how interviewer characteristics may influence the dyadic interactions in an interview. Although not extensive, some research indicates that experience and professional training are not predictive of superior interviewing practice (Powell & Hughes-Scholes, 2009; Powell, Wright, & Clark, 2010). Whether or not other factors such as frequency of interviewing and job descriptions are associated with interviewing practice is unknown; we therefore considered a range of interviewer and job factors as potential moderators in this study.

The extent to which characteristics of the child and the allegation being investigated moderate contingent behaviours during a forensic interview may also inform the training needs of forensic interviewers. For example, younger children often report less information, less on-topic information, and less new information particularly to open-ended prompts (Hershkowitz, Lamb, Orbach, Katz, & Horowitz, 2012), and are also more likely to be asked specific prompts than older children (Warren et al., 1996). These findings raise the question of whether younger children are more likely to be unresponsive to open-ended questions, which then in turn increase the likelihood of an interviewer abandoning this type of questioning in favour of asking more specific prompts. We considered whether the child's age and allegation characteristics such as the frequency, and type of abuse, and type of perpetrator were statistically associated with interviewing practice. These moderation analyses were exploratory and, as such, no specific predictions were made.

65

<center>**Methods**</center>

Participants

Participants were 98 children between 6 and 16 years old ($M = 12.11$ years, $SD = 3.16$ years) who were interviewed about sexual abuse allegations in New Zealand between June 2012 and May 2013, and 27 specialist child interviewers who were all females. The majority of the children interviewed were females (91%). Parents/guardians of children who were interviewed were asked for their consent for a copy of the DVD interview recording to be viewed and analysed by the research team. Parental consents were obtained either prior to, or during, the week following the forensic interviews. All specialist child interviewers in New Zealand were invited to participate in the research project ($N = 81$), and 27 consented. Twelve of the interviewers were social workers (44%), and the remainder was police officers (see Table 5.1 for interviewer characteristics broken down by professional affiliation).

Allegation Characteristics

In total we examined 103 interviews. Five children were interviewed twice; four different children were interviewed about the same allegation with the same suspect, and one child was interviewed about different allegations and different suspects. These non-independent interviews were included because results were not affected when they were excluded from the sample. All of the children in the sample made a sexual abuse disclosure during the interview.

The majority of the allegations related to non-penetration sexual abuse (62%). Children interviewed about non-penetration sexual abuse were younger ($M = 11.39$ years, $SD = 3.01$ years) than those interviewed for penetration sexual abuse ($M = 13.21$ years, $SD = 3.03$ years; $t(100) = 2.97$, $p = .004$). Half of the allegations pertained to multiple episodes of abuse. Most of the suspects were known but not related to the children (66%), 20% were relatives, and 14% were strangers. Chi-square tests of independence found no significant differences between type of abuse and relationship of the child to the suspect ($\chi^2(2) = .06$, $p = .968$), episode of abuse and type of sexual abuse ($\chi^2(1) = .37$, $p = .541$). Most of the suspects were male (97%). The duration of the interviews ranged from 10 to 130 minutes ($M = 51$ minutes, $SD = 23$ minutes).

Procedure

Transcription. Police transcripts of the forensic interviews in this sample were not available. Interviewers' utterances were transcribed from interview DVD recordings. In accordance with the legal and ethical permissions governing our access to the DVD

<center>66</center>

recordings, children's response behaviour (i.e., response vs. non-response) was coded directly from the DVD recordings but the content of their responses was not examined directly.

Coding. The data for this study were drawn from the substantive phase of the interview. This phase of the interview began when the interviewer asked the child to talk about the allegation or suspected incident(s), and proceeded until the interviewer began discussing a neutral topic in preparation for ending the interview. The codes for interviewers' and for children's utterances were mutually exclusive (i.e., only 1 code could be given for a particular speech act) and exhaustive (i.e., there was always a code for every given behaviour) (Bakeman & Quera, 2011). This type of coding provided the stream of behavioural codes necessary for sequential analysis (i.e., Interviewer→Child→Interviewer →Child).

Interviewers' utterances. Interviewers' utterances were coded using the National Institute of Child Health and Human Development (NICHD) Investigative Interview coding scheme (Orbach et al., 2000). Interviewer utterances were coded as either: invitations, cued-invitations, direct, option-posing, suggestive questions, or summary statements (see Table 5.2 for definitions and examples). Detection of subtle suggestive utterances (e.g., those that introduced details not previously reported by the children) was difficult given the lack of transcripts to work from, however, given the strong reliability established across all categories for coding both interviewer utterances and child response type, we are confident that the coding of the data were highly accurate.

Children's responses. Children's responses were coded as response (provided information about the allegation) or non-response (did not provide further information about the allegation). Non-responses included "I don't know", "I don't remember", "I don't understand", off-topic responses, restatements of previous utterances, and silence.

Reliability coding. All of the interviews were coded. Twenty-six interviews (25% of the total) were independently coded by one of two trained reliability coders. Coders were first trained on transcripts as well as interview DVDs until a minimum of 80% agreement was reached. Inter-rater reliability was calculated on interviewers' and children's utterances. Substantial inter-rater reliability was achieved for interviewers' utterances (Cohen's $K = 0.74$, $p < 0.001$) and children's utterances (Cohen's $K = 0.74$, $p < 0.001$; Viera & Garrett, 2005). Twenty-one interviews (20% of the total) were also coded a second time to establish intra-rater reliability. Very substantial intra-rater reliability was achieved for interviewers' utterances (Cohen's $K = .91$, $p < .001$) and children utterances (Cohen's $K = .87$, $p < .001$; Viera & Garrett, 2005).

Results

Sequential Analysis

The GSEQ program (Bakeman & Quera, 2011), designed to conduct sequential analysis, was used to calculate lagged transitional probabilities between speech behaviours. In addition to lagged probabilities, we also used Yule's Q as a measure of effect size, which can be interpreted similarly to correlations, ranging from -1.0 to 1.0 (Bakeman & Quera, 2011). Yule's Q is an algebraic transformation of the Log Odds Ratio. A positive Yule's Q value indicates that a particular type of speech act is more likely to be followed by another type of speech act, whereas a negative Yule's Q value indicates that a particular type of speech act is less likely to be followed by another type of speech act.

Total Base Rates

In total we coded 15,236 interviewers' utterances (6.7% were invitations, 11.6% were cued-invitations, 55.2% were direct questions, 19.8% were option-posing, 0.5% were suggestive questions, and 6.1% were summaries). Following Bakeman and Quera's (2011) recommendation, codes with low frequencies (i.e., suggestive questions) were excluded from further analyses. In total, we coded 15,236 children's utterances (92.3% responses, 3.95% restatements of previous utterances, 1.96% don't know utterances, 1.21% don't remember utterances, 0.38% don't understand utterances, 0.20% off-topic utterances). Given the low frequencies of the different sub-types of non-responses these were combined as Non-Responses for analysis (7.71%; Table 6.1).

Table 6.1

The frequency of different interviewer question and child response types

Interviewer question types	*N*	*%*
Invitations	1024	6.7
Cued-invitations	1775	11.6
Direct	8415	55.2
Option-posing	3015	19.8
Suggestive	77	0.5
Summary	930	6.1
Total	15236	100

Child response types		
Response	14067	92.3
Non-response	1169	7.7
Total	15236	100

How Did Children Respond to Interviewers' Prompts? (Interviewer→ Child; lag 1)

      First, we hypothesized that children would be more likely than expected by chance to provide a response to direct and/or option-posing questions. When we examined the observed frequencies, children were generally very responsive to interviewers' questions (92% of the time), but there was variability in children's response rates to different types of prompts (response rates ranged from 83.3% to 98.6% across different types). In particular, children's lowest response rate was to invitations (83.3%), followed by cued invitations (87.4%), direct (92.5%), option-posing questions (95.9%), and the highest response rate was to summary statements (98.6%; See Table 6.2 for observed and expected frequencies).

Table 6.2

Observed and expected frequencies between interviewers' question types and child response types (Interviewer →Child)

Interviewer	Child	
	Response	Non-response
Invitation	83.3%	16.7 %
(Expected)	(92.3%)	(7.7%)
Cued-invitation	87.4%	12.6%
(Expected)	(92.3%)	(7.7%)
Direct	92.5%	7.5%
(Expected)	(92.3%)	(7.7%)
Option-posing	95.9%	4.1%
(Expected)	(92.3%)	(7.7%)
Summary	98.6%	1.4%
(Expected)	(92.3%)	(7.7%)

      Next, we examined a simple two-code chain with sequential analysis to predict child behaviour from interviewer behaviour (interviewer → child). Interviews in which either the

given (interviewer question) or target (child response) base rate was less than 5 instances were excluded from analyses by GSEQ. Yule's Q was computed for each interview and then averaged across the sample. Non-parametric sign tests were conducted to determine whether the majority of the Yule's Q values for the entire sample of interviews fell in the same direction as the mean (Bakeman, McArthur, & Quera, 1996). Children made responses to the majority (83.3%) of invitation prompts, however, consistent with our prediction, the average Yule's Q for invitation → Response was -.16, which indicates that responses were *less* likely to follow invitations than expected by chance. Fifty out of the 68 interviews (74%) yielded a negative Yule's Q value, which indicates that this pattern applied to the majority of the interviews. No significant relationship was found between cued-invitations or direct questions and subsequent child responses, indicating that responses and non-responses occurred at consistent levels with expected frequencies (see Table 6.3 for sequential analysis results). Option-posing questions (mean $Q = .46$) and summaries (mean $Q = .84$) were *more* likely to be followed by responses than expected by chance. Therefore, consistent with our first hypothesis, we found that invitations were more likely to lead to non-responses than expected by chance, whereas the reverse was true for option-posing questions.

Table 6.3

Significant transitional lags

	Lag	*Mean transitional probability (SD)*	*Mean Q (SD)*	*N of interviews in the same direction as the Mean Q*	*Sign test p-value*	*Effect size and 95% Confidence Interval for Cohen's d*
Invitation (I)→ Non-Response(C)	1	.81(.15)	.16 (.64)	50/68 interviews	<.001	*d* =1.09, 95% CI [0.43,1.77]
Option-posing(I)→ Response(C)	1	.94(.07)	.94 (.07)	63/ 77 interviews	< .001	*d* =1.59, 95% CI [0.78, 2.41]
Summary(I) → Response(C)	1	.98(.04)	.84 (.37)	45/ 58 interviews	< .001	*d* =1.33, 95% CI [0.82, 1.84]
Response(C) → Summary(I)	1	.08(.06)	.45 (.59)	32/ 47 interviews	0.019	*d* = 0.83, 95% CI [0.10, 1.56]
Invitation(I) → Invitation(I)	2	.20(.13)	.36 (.55)	68/ 81 interviews	< .001	*d* =1.83,

					95% CI [0.94, 2.72]
Invitation(I) → Cued-invitation(I)	2	.21(.17)	.15 (.53)	60/ 82 interviews	< .001	d =1.09, 95% CI [0.49, 1.70]
Invitation(I) - → Direct(I)	2	-.40(.16)	-.25 (.34)	66/ 88 interviews	< .001	d =1.21, 95% CI [0.59,1.82]
Invitation(I) - → Option-posing(I)	2	-.13(.11)	-.31 (.47)	64/88 interviews	< .001	d =1.04, 95% CI [0.47,1.62]
Invitation(I) - → Summary(I)	2	-.08(.09)	-.29 (.63)	39/60 interviews	0.027	d = 0.68, 95% CI [0.07, 1.29]
Cued-Invitation(I) → Cued-invitation(I)	2	.20(.12)	.19 (.48)	70/93 interviews	< .001	d =1.21, 95% CI [0.61,1.81]
Cued-Invitation(I) - → Option-posing(I)	2	-.22(.41)	-.22 (.41)	65/ 93 interviews	< .001	d =0.88, 95% CI [0.35,1.41]
Cued-Invitation(I) - → Summary(I)	2	-.26(.49)	-.26 (.49)	45/64 interviews	0.002	d =0.93, 95% CI [0.29,1.58]
Direct(I) → Direct(I)	2	.26(.22)	.26 (.22)	92/103 interviews	< .001	d =2.30,

						95% CI [1.20,3.41]
Direct(I) - →Invitation(I)	2	-.31(.33)	-.31 (.33)	66/81 interviews	< .001	d =1.59, 95% CI [.81, 2.39]
Direct(I) - →Cued-invitation(I)	2	-.22(.33)	-.22 (.33)	72/93 interviews	< .001	d =1.33, 95% CI [0.69,1.97]
Direct(I) - →Option-posing(I)	2	-.08(.26)	-.08 (.26)	67/102 interviews	0.002	d =0.73, 95% CI [0.26,1.21]
Option-posing(I) → Option-posing(I)	2	.24(.36)	.24 (.36)	84 /102 interviews	< .001	d =1.67, 95% CI [0.94, 2.40]
Option-posing(I)- →Direct(I)	2	-.14(.29)	-.14 (.29)	75/102 interviews	< .001	d =1.15, 95% CI [0.94,2.40]
Summary(I) - → Invitation(I)	2	-.42(.62)	-.42 (.62)	43/58 interviews	< .001	d = 1.15 , 95% CI [0.41,1.89]
Response(C) → Response (C)	2	.91(.06)	.16 (.60)	55/76 interviews	< .001	d =1.04, 95% CI [0.42,1.66]

Non-response(C) → Non-response(C)	2	.18(.13)	.16 (.60)	55/76 interviews	< .001	d =1.04, 95% CI [0.42,1.66]

(I) denotes interviewer utterance and (C) denotes child utterance

→ Indicates a significant positive relationship, i.e., "Invitation → Non-Response" means that invitations were significantly *more* likely to be followed by a non-response than expected by chance.

- -► Indicates a significant negative relationship, i.e., "Invitation - -► Direct" means that invitations were significantly *less* likely to be followed by a direct question than expected by chance.

How Did Interviewers Respond to Children's Responses? (Child → Interviewer; lag 1)

Second, we hypothesized that interviewers would be more likely to ask direct and option-posing questions when children did not respond to the previous question. When we examined the observed frequencies, non-responses were most frequently followed by direct questions (55.1%), then option-posing (20.3%), cued-invitations, (13.9%), summary (4.6%), and invitations (3.4%; see Table 6.4). However, contrary to expectations, direct and option-posing questions were not more likely to follow a non-response than expected by chance (Observed direct 55.2% vs. Expected direct 55.9%; Observed option-posing 20.3% vs. Expected option-posing 20%).

Table 6.4

Observed and expected frequencies between child response types and interviewers' question types (Child →Interviewer)

Child	Interviewer				
	Invitation	Cued-invitation	Direct	Option-posing	Summary
Response	6.1%	11.6%	55.9%	20.0 %	6.3 %
(Expected)	(6.1%)	(11.8%)	(55.9%)	(20.0%)	(0.7%)
Non-response (Expected)	3.4%	14%	55.2%	20.3%	4.6 %
	(6.1%)	(11.8%)	(55.9%)	(20.0%)	(0.7%)

Next, we conducted a simple two-code chain sequential analysis to predict interviewer behaviour from child behaviour (child → interviewer). In contrast to our expectations, no significant relationships were evident between children's responses and interviewers' subsequent use of invitations, cued-invitations, direct, and option-posing questions. However, responses by a child were more likely to be followed by summaries by the interviewer (mean $Q = .45$; Table 6.3).

Did Interviewers Remain Consistent in Their Questioning Style? (Interviewer→ Child→ Interviewer; lag 2)

Third, we expected that interviewers would show consistency in their use of prompt types. When we examined the observed frequencies, direct questions were the most frequent type of interviewer utterance to follow all prompt types (Table 6.5). However, when we

compared observed vs. expected frequencies, we found consistency in interviewers' questioning behaviours such that invitations were more likely to be followed by another invitation than expected by chance (Observed Invitation-Invitation 20.7% vs. Expected Invitation-Invitation 6.1%). Sequential analysis results showed that this pattern also held true for all other question types (see Table 6.3 and Table 6.5). Sequential analysis captures the contingency of interviewer behaviour predicting subsequent interviewer behaviour while skipping child behaviour in between (i.e., **Interviewer**→Child→**Interviewer**). As such, we also examined how often interviewers did **not** ask an invitation or a cued-invitation after a direct or option-posing question that was followed by a response (i.e., **Direct→Response→ Direct**, or **OP→Response→OP).** When a direct question was followed by a response, another direct or option-posing question was asked 81.3% of the time (in contrast to an invitation or a cued-invitation if interviewers were pairing). Similarly, when an option-posing question was followed by a response, 80.3% of the time another direct or option-posing question was asked. Thus, consistent with our hypothesis, our results found strong consistency in interviewers' questioning behaviour. The consistency of question use with direct and option-posing questions demonstrated that interviewers were not adhering to the pairing principle.

To examine whether following the pairing principle was associated with increased usage of more desirable prompts, we conducted bivariate correlations between interviewers' adherence to the pairing principle and the overall proportions of invitations and cued-invitations they asked in interviews. We excluded any direct or option-posing questions that: 1) did not elicit a response; 2) were followed directly by a monitor's break; or 3) were the last question of the interview. We also excluded any invitations and cued-invitations that were involved in the pairing contingencies to determine whether adherence to the pairing principle was associated with higher proportions of invitations and cued-invitations that did not occur within the pairing interactions. As predicted, higher adherence to the pairing principle was positively associated with higher proportion of invitations ($r(101) = .33$, $p = .001$), and cued-invitations ($r(101) = .59$, $p < .001$). Conversely, higher adherence to the pairing principle was associated with lower proportions of direct ($r = -.43$, $p < 0.001$) and option-posing questions ($r = -.31$, $p = 0.002$). These results suggest that adherence to pairing was associated with conformity to recommended interviewing practice.

76

Table 6.5

*Observed and expected frequencies between interviewers' question types and subsequent interviewers' question types (**Interviewer** →Child →**Interviewer**)*

Interviewer	Interviewer				
	Invitation	Cued-invitation	Direct	Option-posing	Summary
Invitation	20.7%	19.4%	40.3%	12.6%	6.9%
(Expected)	(6.1%)	(11.8%)	(55.9%)	(20%)	(6.2%)
Cued-invitation (Expected)	7%	22.5%	50.4%	14.9%	5.1%
	(6.1%)	(11.8%)	(55.9%)	(20%)	(6.2%)
Direct	4.2%	9%	62.7%	18.2%	5.9%
(Expected)	(6.1%)	(11.8%)	(55.9%)	(20%)	(6.2%)
Option-posing (Expected)	6.3%	10.4%	46.8%	30.9%	5.5%
	(6.1%)	(11.8%)	(55.9%)	(20%)	(6.2%)
Summary	2.0%	12.6%	50.8%	19.2%	12.2%
(Expected)	(6.1%)	(11.8%)	(55.9%)	(20%)	(6.2%)

Did Children Remain Consistent in their Responding Style? (Child → Interviewer→ Child; lag 2)

Fourth, we hypothesized that a child response would be more likely to be followed by another response, and similarly, a child non-response would be more likely to be followed by another non-response. When we examined the observed frequencies, we found that a response was more often followed by another response (93.3%) than a non-response (6.7%; Table 6.6). A non-response was also more often followed by a response (79.6%) than a non-response (20.4%). However, taking base rates into account, a non-response was more likely to be followed by another non-response than expected by chance (Observed non-response was 20.4% compared to expected non-response of 7.7%). In support of this finding, the average Yule's Q for Response → Response was .16, indicating that responses were more likely to be followed by further responses. Conversely, non-responses were more likely to be followed by further non-responses (mean Q = .16). These patterns (Response → Response and Non-Response → Non-Response) applied to 72% of the sample. Thus, consistent with

our prediction, children demonstrated consistency in their responding more than expected by chance, irrespective of whether they made a response or a non-response (see Table 6.3). These results suggest that children were fairly consistent in either relating the information they knew or in being unresponsive.

Table 6.6

*Observed and expected frequencies between child response types and subsequent child response types (**Child** →Interviewer →**Child**)*

Child	Child	
	Response	Non-response
Response	93.3%	6.7%
(Expected)	(92.3%)	(7.7%)
Non-response	79.59%	20.4%
(Expected)	(92.3%)	(7.7%)

Moderation Analyses for Interviewer, Child, Allegation Characteristics, and Interview Length

We conducted moderation analyses to explore whether interviewer characteristics (professional affiliation; interviewing experience; and, interview load) influenced the strength of sequential associations. Given that interviewers conducted multiple interviews, resulting in nested data, hierarchical linear modelling (HLM) was used to examine the relationship between Yule's Qs of sequential associations (Level 1) and interviewer characteristics (Level 2). We found that none of the interviewer characteristics significantly moderated any speech act associations. We were also interested in whether the child's age, allegation characteristics (type of abuse; number of episodes; and relationships to perpetrators), and interview length moderated the strength of significant sequential associations. Multiple regression analyses were conducted. None of the child, allegation characteristics, nor interview length significantly influenced these associations.

Exploratory Analyses: Did Early or Late in the Interview Matter?

Given that we found invitations were significantly more likely to be followed by non-responses, and this association was not moderated by interviewer, allegation characteristics, children's age nor interview duration, we were interested in whether this association was more likely to happen in the early or latter stages of the interviews. For example, it is possible that children were more likely to provide a non-response to an invitation in the first half of

the interview if they were reticent, had difficulty with retrieving the event under investigation, or did not understand their task (Lamb & Brown, 2006). As the interview progressed, with increased rapport and the target event identified, it is possible that children might be more likely to provide responses. Alternatively, children may be more likely to be non-responsive to invitations in the second half compared to the first half of the interview if their recall is exhausted.

To explore these possibilities, we divided each interview into two equal halves regardless of length and conducted paired sample t-tests to compare the Yule's Q of specific sequential associations in the first half vs. second half of interviews. We found no significant difference in the Yule's Q for the Invitation →Response association in the first vs. second half of interviews, suggesting that children were as likely to provide non-responses to invitations early or late in the interviews. However, a significant difference in the Yule's Q for Option-posing →Response for the first half ($M =.64$, $SD = .41$) vs. the second half of the interviews ($M = .38$, $SD =.57$; $t(29) = 2.19$, $p = .037$, $d = -0.52$, 95% CI [1.04, -0.009]) was found. Children were less likely to provide responses to Option-posing questions in the second half of an interview compared to the first half, perhaps due to having exhausted their recall.

We also examined whether use and consistency of invitations and cued-invitations was more evident in the first half compared to the second half of the interviews, and whether pairing was more likely to happen in the early or latter stages of interviews. We found no significant differences in the Yule's Q between the first half vs. second half of the interviews for the following associations: **Invitation** → Child→ **Invitation**, **Cued-Invitation** → Child → **Cued- Invitation**, **Option-posing** → Child → **Invitation**, **Option-posing** → Child → **Cued-Invitation**, **Direct** → Child → **Invitation**, and **Direct** → Child → **Cued- Invitation**. Thus, interviewers' consistency in their use of invitations and cued-invitations, and adherence to pairing did not differ at the beginning or at the latter stages of interviews. However, we found a significant difference in Yule's Q for **Option-posing** → Child → **Option-posing** between the first half ($M = .11$, $SD = .49$) and second half of the interviews ($M = .24$, $SD =.36$; $t(81) = -2.06$, $p = .043$, $d = 0.30$, 95% CI [-0.005, 0.61]). This result indicated that the consistent use of option-posing questions (i.e., **Option-posing** → Child → **Option-posing)** was more frequent in the second than the first half of the interviews, perhaps due to increasing pressure for interviewers to gather undisclosed details.

Finally, we were interested whether children's consistency in responding style was more likely to occur in the early or latter stages of the interviews. It is possible that children's

persistence in non-responding (i.e., **Non-response** → Interviewer →**Non-response)** may occur in the latter rather than early stages of the interviews as their recall is exhausted or cognitive capacity is reduced through the course of the interview. However, refuting this hypothesis, no significant differences in the Yule's Q association for **Response →** interviewer question→ **Response** or **Non-response** → interviewer question→ **Non-response** was obtained between the first half vs. second half of the interviews, suggesting that other factors besides ease of recall may influence children's consistency in responding style throughout the whole of the interviews.

Discussion

The current study explored possible reasons for why forensic interviewers typically use more narrowly focused questioning than is recommended (e.g., direct and option-posing questions). We examined the utterance contingencies between forensic interviewers and children (6-16 years old) interviewed about sexual abuse allegations and factors that might be associated with these interactions. This method allowed us to examine factors associated with both the child (i.e., responsiveness) and the interviewer (i.e., lack of pairing) that may underlie the overuse of focused questioning in forensic interviews. Understanding the interactions between interviewer and child will assist in better targeting of training and supervision to support interviewers in maintaining high standards of practice. We explored four hypotheses and a set of related research questions, all of which will be discussed in the following section.

Hypothesis One: How Did Children Respond to Interviewers' Prompts?

One of the key goals of this study was to test the prediction that interviewers' reliance on focused questioning may reflect the variation in children's responsiveness to different question types. We hypothesized that children would be more likely than expected by chance to provide a response to direct and/or option-posing questions, and less likely than expected by chance to respond to invitations and cued-invitations. We found partial support for these hypotheses: children were generally very responsive to interviewers' questions, but their responding varied according to the type of the question posed (Korkman et al., 2006; Korkman, Santtila, Westeråker, et al., 2008). Invitations (e.g., "Tell me everything you can remember") were more likely to elicit responses (83%) compared to non-responses (17%), but, consistent with our hypothesis, heightened non-responding (by children being silent, saying "I don't know", " I don't remember", " I don't understand", or not reporting additional details) was more strongly associated with invitations than expected by chance. Consistent

with our predictions, option-posing questions (e.g., "Did he touch you under or over your clothes") and summaries were more likely to be followed by responses than expected. In contrast to previous studies (Korkman et al., 2006; Korkman, Santtila, Westeråker, et al., 2008; Melinder & Gilstrap, 2009) and our predictions, we did not detect any significant variations from base rate probabilities in children's response type when asked direct questions (e.g., "What were you wearing?").

We propose that the variation in children's responsiveness to different questions reflects the level of scaffolding contained within them. Our results and other studies suggest that invitations may be more challenging for children to respond to compared to other prompts (Korkman et al., 2006; Melinder & Gilstrap, 2009). This difficulty may occur because invitations do not provide sufficient scaffolding from the interviewer to signal what kind of information the child should include in their response. The socio-cultural theory of autobiographical memory development suggests that children learn how and what to remember and report when talking about past experiences from interactions with supportive adult conversational partners (Nelson, 2013; Nelson & Fivush, 2004). The very openness of invitations, deemed a positive attribute because they do not contaminate or bias responses, may contribute to the difficulty children had in responding to them. This interpretation is supported by the fact that the association between invitations and non-responses persisted throughout the entirety of the interview (i.e., it did not appear to reflect motivational or recall-related processes).

How do we account for the differences between our findings and other studies that have demonstrated the superiority of invitations compared to other prompts? In the present research we simply noted whether children made a response or not, and we did not examine the amount of information that children reported. Explicating the nature of the responses would have allowed a consideration of the richness of their narratives, but that source of data was not available to us in the present study due to ethical constraints. Based on previous field and laboratory analogue research (Brown et al., 2013; Korkman et al., 2006), it is likely that when children did respond to invitations, they provided more details compared to more focused prompts.

Option-posing questions typically contain an anticipated answer, or provide a constrained set of response options, meaning they are less ambiguous and more concrete than open prompts, and thus perhaps easier for children to respond to because of this scaffolding. Although option-posing questions are more likely to elicit a response, the response typically contains fewer words/utterances (Korkman et al., 2006), fewer important details (Korkman et

al., 2006; Korkman, Santtila, Westeråker, et al., 2008), and more errors (Waterman et al., 2000, 2001), and therefore these prompts should be used prudently in forensic interviews.

Our results suggest that summaries may be a part of a particularly effective interviewing strategy. Summaries are one of the recommended techniques in building rapport with children in forensic interviews (Hershkowitz, 2011), although their effectiveness has not been systematically examined previously. Effective rapport building is associated with increased responsiveness from children in forensic interviews (for a review see Hershkowitz, 2011). Accurate re-statements of a child's utterances may reinforce responding by building rapport and communicating to the child that the interviewer is actively listening to what the child is saying. In the clinical literature with adults, counsellors who used more summaries were rated by clients as more interested and supportive (Rautalinko, 2013) and were rated higher in terms of rapport (Sharpley, Fairnie, Tabary-Collins, Bates, & Lee, 2000). In contrast, counsellor's open-ended questions were not positively associated with client-rated rapport (Rautalinko, 2013). Finally, our results also suggest that cued-invitations may be an especially effective questioning approach. They are very open-ended, and yet provide structure to children by indicating the kind of information on which the interviewer would like the child to elaborate. They are effective at eliciting reliable and detailed information (Brown et al., 2013), and in our sample were not associated with heightened non-responding in the same way as broader invitations.

Hypothesis Two: How Did Interviewers Respond to Children's Responses?

To test the prediction that interviewers' reliance on focused questioning may reflect children's non-responses to open-ended prompts, we examined the types of questions interviewers asked to follow up children's responses. We hypothesized that, consistent with Gilstrap and Ceci (2005) and Melinder and Gilstrap (2009)'s findings, interviewers would be more likely to ask focused and closed-ended questions when children were not responsive to the earlier question. We found no significant relationships between non-responses and any interviewer utterance types, however. Thus, although invitations were associated with higher non-responding than expected by chance, interviewers were not more likely to change their questioning strategy and subsequently ask more focused questions. This result suggests that other factors besides heightened non-responding to invitations may contribute to an over-reliance on focused and closed questions. When children did respond, we found interviewers were more likely to use a summary than any other prompt type. Given that summaries seem to be particularly effective in eliciting responses from children, interviewers may recognise

this prompt as a technique that is likely to encourage children to keep talking about the allegation.

Hypothesis Three: Did Interviewers Remain Consistent in Their Questioning Style?

The second key goal of this study was to test the prediction that interviewers' reliance on focused questioning may reflect interviewers' failure to adhere to the pairing principle (following focused prompting with a return to open prompting). As predicted, we found strong consistency in interviewers' questioning behaviours irrespective of intervening child response. Thus we found that interviewers as a group did not adhere to the pairing principle. Even when children were responsive to direct or option-posing questions, interviewers still tended to persist with further use of these prompts, rather than encouraging further elaboration from the children with use of an invitation or cued-invitation. Many opportunities for child-led reporting were thus missed. Individual interviews that included more instances of pairing contained more invitations and cued-invitations and fewer direct and option-posing questions. Our study provides the first evidence that adherence to the pairing principle does indeed facilitate the increased usage of open-ended prompts throughout the interview. Failure to adhere to the pairing principle is clearly a contributing factor to interviewers' use of more focused questioning than is recommended, and one that could easily be targeted in training. Evaluations of interviewing practice should therefore include a routine assessment of this practice.

Hypothesis Four: Did Children Remain Consistent in their Responding Style?

We hypothesized that, consistent with Gilstrap and Ceci's (2005) and Melinder and Gilstrap's (2009) findings, children would remain consistent in their responding style. As expected, children's responding style remained relatively consistent irrespective of the questions posed to them, and further, this consistency persisted throughout the entirety of the interviews. Thus it appears that children who are willing or able to provide information about allegations will do so irrespective of the type of questions posed to them. Conversely, children who are not willing or able to talk about the allegations may not become more forthcoming in response to a different questioning technique, and effective methods of addressing reluctance within an interview are an important direction for future research (Saywitz et al., 2015). Considering that reluctance to disclose sexual abuse is relatively common in children (London et al., 2007), future studies should examine children's reluctance or willingness to talk about allegations of abuse and how this factor influences the nature of the interactions during forensic interviews. Children's reluctance may be influenced by many factors (Pipe, Lamb, Orbach, & Cederborg, 2013), however preparing a child to talk

about the allegations by building rapport and providing episodic recall practice may mitigate motivational barriers and help children understand their role as informants (Brown et al., 2013; Saywitz et al., 2015). In our sample, all but two interviews included rapport building and episodic recall practice and interviewers provided children with multiple opportunities to practice responding to broad open-ended prompts within the episodic recall practice. We are currently examining the sequential relationships between interviewer's questions and children's responses during the preparation phase to determine whether these relate to the interactions between interviewers and children when discussing the allegation, i.e., does 'warming up' the interviewee make a substantive difference to the nature and quality of the subsequent interchange?

Rather than reflecting a dynamic and reciprocal process, our results suggest that two parallel processes occurred during the interview, i.e., individuals "talked past each other". Interviewers' questioning behaviours were chiefly driven by their previous questioning, and similarly, we found children's responding behaviours were chiefly driven by their previous response type. A number of possibilities exist as to why interviewers remain consistent in their questioning strategy. One of these reasons may reflect interviewers' inaccurate monitoring of the kinds of questions they are using (Powell et al., 2013; Yii et al., 2014). In our study, we noted that 12.6% of the direct questions posed started with "Tell me", an introductory language token typically used with invitations. Interviewers, thus, may mistakenly believe they are using more open-ended questions than they actually are, and thereby inaccurately monitor their questioning strategy as it unfolds in the interview. This inaccuracy may have contributed to persistence with focused questioning, and therefore, poor adherence to the pairing principle.

However, other possibilities should be considered given that only a small proportion of direct questions in our sample might be misconstrued as invitations. Interviewers may perceive that open-ended questions are not as effective as more specific prompts (Wright & Powell, 2006) or may under-estimate the role of a sensitive and effective questioning strategy in a successful forensic interview (Wright , Powell , & Ridge 2007). Finally, focused and closed-ended questions might be helpful for eliciting necessary details that have not been obtained from open-ended prompts or for clarifying previous inconsistencies or ambiguous statements (Orbach & Pipe, 2011).

Did Interviewer, Child, or Allegation Characteristics or Interview Length Moderate Any Utterance Associations?

We examined whether background factors affected the strength of the previously identified associations in order to understand better the training needs of forensic interviewers. However, we did not find any significant moderations of these associations by any of the factors we studied. Previous studies have shown that pre-school children were more likely than older children to find answering invitations challenging (Hershkowitz et al., 2012; Melinder & Gilstrap, 2009), however in our study, children's age did not moderate the sequential pattern of Invitation → Non-response. Consistent with other studies that have demonstrated that interviewing experience does not significantly predict quality of interview practice (Powell & Hughes-Scholes, 2009), in our study more interviewer experience was not associated with better adherence to the pairing principle. Furthermore, frequency of interviewing, job description, and allegation characteristics did not moderate contingent behaviours during the interviews, nor did the length of the interview. Previous studies have found that even when interviewers have been extensively trained to utilise a well-validated interviewing protocol such as the NICHD Investigative Interview Protocol, interviewing practice may move away from the ideal model over time in the absence of regular supervision and feedback (Lamb, Sternberg, Orbach, Esplin, et al., 2002). Therefore, our results further highlight the importance of ongoing supervision and feedback for all interviewers, as experience, workload and training background did not act as protective factors against undesirable practice.

Limitations

Although providing important insights into the interactions between forensic interviewer's questions and children's responses, we must acknowledge a number of limitations in our study. Interviewers volunteered to participate in this study and our sample may have been biased through self-selection, perhaps being comprised of interviewers who were more motivated to have their work evaluated and receive feedback about it. The high level of responsiveness overall, and relatively infrequent occurrences of the various types of non-responding (e.g., "I don't know" vs. no response at all) meant that we were unable to detect important differences in how interviewers and children changed their verbal behaviour following different types of non-responding behaviour. Children's responsiveness to questions may also reflect other dimensions of the questions than simply their structure – for example, questions may vary according to the type of content they assess and in grammatical complexity (e.g., length, number of clauses, and so forth). A brief examination of linguistic

complexity indicated that in our sample option-posing questions tended to be longer than invitations ($M = 11.66$, $SD = 2.36$ vs. $M = 9.16$, $SD = 2.32$; $t(102) = -8.27$, $p < .001$), but contained fewer complex words (measured by proportion of words containing 6 or more letters; $M = .06$, $SD = .07$ vs. $M = .15$, $SD = .10$, $t(102) = 7.09$, $p < .001$). However, given that summaries ($M = .21$, $SD = .32$) also contained proportionally more complex words than option-posing questions ($M = .06$, $SD = .07$, $t(96) = -4.32$, $p < .001$), and yet were not associated with higher non-responsiveness, this pattern is inconsistent with the argument that more complex utterances stimulate more non-responding. As such, we did not observe systematic differences in the linguistic complexity of the questions that might account for children's responsiveness and non-responsiveness. The content of both questions and children's responses may also influence the contingencies, however. We were unable to determine whether responsiveness was associated with particular topics, and whether it fluctuated throughout the interview (e.g., initial non-responsiveness to a question but subsequently children provided some detail in response to further queries) and examining these issues in the future with the sequential analytic method will be illuminating.

Future Research

Beyond educating interviewers about the various benefits and pitfalls associated with different question types, it is important that methods of assisting them in improving their use of the pairing technique are developed. This instruction may include work to address potential misunderstanding about what constitutes an invitation or cued-invitation (Powell et al., 2013; Yii et al., 2014), and to develop self-review techniques that focus on how questions are distributed throughout an interview and in relation to each other. It would also be useful to complement sequential analysis methodology in future research with qualitative approaches asking interviewers to review their interviews and describe their impressions of the interview process (Guadagno, Hughes-Scholes, & Powell, 2013). Such data would allow us to understand how implicit and explicit beliefs, expectations, and attributions may contribute to the dynamics of how the interview progresses.

Evaluation of interviews must capture not only the proportion of prompts used, but the chronology of these prompts, their distribution throughout the various stages of an interview, and their relationship to children's responding. Studies examining the effect of ongoing feedback and supervision on interview quality have, to date, focused on providing feedback to interviewers on the overall proportion of different types of questions comprising the interview and adherence to key elements of interviewing protocols (e.g., Lamb et al., 2002). Future studies should also examine how giving feedback in supervision about

86

interviewers' adherence to the pairing principle may affect the interactions between interviewers' questions and children's responses, and subsequent adherence to open-ended prompting.

Conclusions

Our findings suggest that interviewers are not optimally flexible in their questioning strategy and generally do not adjust to children's styles of responding. The consistency in children's responses suggests that children who are ready or willing to talk about the allegation will do so, and children who are not willing or able to talk about the allegation may not be more forthcoming irrespective of the types of questions posed to them. Our findings highlight the need for further research examining the reciprocal dynamics within interviews to complement the existing research base about how to support vulnerable witnesses to give useful evidence. Much yet remains to be done to determine how and why interviewers and children behave the way they do in forensic interviews.

Chapter 7: Exploring Forensic Interviewers' Perceptions of Supervision[3]

In Chapter 5 and 6 we evaluated current forensic interviewing practice with children in New Zealand. Forensic interviewers demonstrated good adherence to the scripted components of the Specialist Child Witness Interviewing model during the preparation phase of the interview. However, forensic interviewers were asking more direct and option-posing questions than is recommended, and did not consistently engage in pairing. Given that child, allegation and interviewer characteristics did not systematically influence interviewing practice in both chapters, supervision was considered as a factor that may facilitate adherence to best-practice recommendations. Research suggests that regular supervision influences interviewing quality with child witnesses (Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002). It is unclear, however, whether interviewers recognise the importance of supervision, and how often they access it. In the present study we surveyed 39 forensic interviewers and explored: 1) their perceptions of supervision, and 2) factors that may influence their access and perceptions.

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[3] This chapter is composed of a manuscript with the following bibliographic detail: Wolfman, M., Brown, D & Jose, P. (accepted). Examining forensic interviewers' perceptions of practice-focused supervision. *Australian and New Zealand Journal of Criminology.*

Interviewing children about allegations of maltreatment is a crucial first step in the process of ascertaining whether the child has been abused or is at imminent risk of abuse. Whilst there are a variety of factors that influence how well children can recount their experiences, there is widespread recognition that interviewing techniques play a significant role (see Lamb et al., 2011). The quality of interviewing is improved when interviewers engage in regular supervision and feedback (Cyr et al., 2012; Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002; Powell et al., 2008).

Despite this, little is known about forensic interviewers' perceptions of supervision, their evaluation of the quality and contribution of supervision to their practice, and their general beliefs about the importance of supervision for maintaining evidence-based practice. The two aims of this study, therefore, were to: (1) establish forensic interviewers' perceptions of supervision, and (2) identify factors that may influence their access and satisfaction.

The Role of Practice-Focused Supervision in Forensic Interviewing

Supervision can be defined in many ways and for many purposes, but two broad themes are identified in the literature – supervision for self-care or well-being, and supervision for quality control (Turner & Hill, 2011). Although supervision plays an important role in the well-being of forensic interviewers (Perron & Hiltz, 2006), in this study we are interested in the second role of supervision, namely supervision for quality control.

Forensic interviewing requires highly specialised skills and knowledge, and it is a cognitively challenging task (Powell et al., 2010). Training may increase knowledge without necessarily improving interviewing skills (Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002). Given the poor adherence of interviewers to recommended guidelines, researchers have developed interviewing protocols such as the National Institute of Child Health and Human Development (NICHD) investigative interviewing protocol (Orbach et al., 2000). Training in following the NICHD protocol (Cyr & Lamb, 2009) or just the general principles underlying it (without implementing the structured protocol e.g., the PEACE model, Clarke & Milne, 2001)   improves interviewing practice by increasing open-ended prompts and reducing closed-ended and suggestive prompts (Cederborg, Alm, Lima da Silva Nises, & Lamb, 2013). Research suggests, however, that the gains from training in a particular interview protocol are only maintained when regular individualized supervision and feedback is provided (Cyr et al., 2012; Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002; Powell et al., 2008). For example, in Lamb, Sternberg, Orbach, Esplin et al's. (2002) study, 8 trained forensic interviewers who received direct and specific feedback about their interviewing practice were more likely to ask open-ended

questions when receiving regular supervision and timely feedback compared to when they did not receive supervision. In other words, when supervision and feedback were withdrawn, interviewers used fewer invitations, but more option-posing and suggestive prompts with alleged child victims of sexual abuse.

In another study, Cyr et al. (2012) trained two groups of specialist interviewers to use the NICHD protocol. After training, one group received written feedback on interviews they conducted with child sexual abuse complainants while another group did not receive written feedback. Although both groups conducted better interviews after they had been trained, the group that received written feedback on interviews were more likely to adhere to the NICHD protocol compared to the group that did not receive any feedback. Specifically, interviewers who received feedback were more likely to ask invitations and cued-invitations (broad open-ended prompts) than those who did not receive feedback (37% vs. 24% of the questions were broad open-ended prompts). Thus while training interviewers in NICHD protocol did improve interview quality, more benefits were evident when regular supervision and feedback was given to interviewers. Overall, the extant evidence suggests that *ongoing* feedback and supervision is necessary for maintaining best-practice interviewing.

According to the Feedback Intervention Theory (Kluger & DeNisi, 1996), feedback brings the locus of attention to how current behaviour is congruent or incongruent with goals or standards. Only when there is a perceived discrepancy between current behaviour and goals will there likely be behavioural change. As such, providing direct feedback on interviewing practice may assist interviewers in recognizing how their interviewing practice compares to (and perhaps falls short of) best-practice guidelines. Specific feedback may subsequently stimulate behavioural change that leads to better adherence to best-practice recommendations.

Given the importance of regular and direct feedback on interviewing quality, it is important to establish forensic interviewers' perceptions of supervision. Reflection upon supervision needs may assist interviewers in accessing additional supervision and/or support. Identifying perceived barriers to accessing supervision will also contribute to the development of future studies (e.g., strategies to support interviewers in maintaining best-practice standards of interviewing). To the best of our knowledge, only one study has examined forensic interviewers' access to practice-focused supervision. La Rooy et al. (2011) surveyed 91 Scottish police interviewers and found that only 39.6% of the respondents received any feedback about their interviews. When interviewers did receive some form of feedback, this typically constituted a discussion of the case rather than specific interviewing

techniques. Furthermore, Powell and Barnett (2014) identified a lack of experienced supervisors as one of the factors hindering forensic interviewers from regularly receiving feedback on their interview practice in Australia. In a Canadian study surveying 171 forensic interviewers working with adults, Snook, House, MacDonald, and Eastwood (2012) found that only 23% of respondents indicated that they received feedback on their interviews. The frequency of this feedback, however, was not assessed nor interviewers' satisfaction with their access to, and the content of supervision. Taken together, these findings suggests that access to supervision and skill development opportunities expressly targeted at both child and adult interviewing practice may be limited, and one potential barrier in accessing supervision may be the lack of experienced supervisors. As such, benchmarking supervision practice will highlight areas of good practice as well as common challenges that can be addressed at a systemic level.

Despite evidence that supervision contributes to good interviewing practice, we do not know whether interviewers themselves recognise this situation, and what their beliefs and expectations of the role of supervision are. Such beliefs may play an important role in whether interviewers engage in supervision activities, when they are available. Examining individual perceptions of the role of supervision may highlight whether interviewers would benefit from education or support to increase their engagement in supervision opportunities.

The Current Study

There were two goals in this study. First, we explored forensic interviewers' perceptions of their access to, and the content of, practice-focused supervision, their beliefs about the quality and value of these activities, and any challenges they encounter with respect to them. We conducted a survey with forensic interviewers assessing: (1) participation in supervision activities; (2) their beliefs about supervision, and (3) perceived barriers in accessing supervision.

Second, we examined factors that were associated with perceptions of practice-focused supervision. We examined whether professional affiliation, interviewing experience, interviewing load (full time vs. part time interviewing and average number of interviews conducted per week), and location influenced perceptions of supervision. We examined professional affiliation given that forensic interviewers in New Zealand are drawn from two distinct organizations with different foundational training pathways and goals: namely, police focused on criminal investigation and social workers focused on care and protection (Westera et al., in press). Given the different institutional goals and culture, interviewers from these two groups may have different perceptions of supervision. We also examined interviewing

experience, load, and location to assist in identifying whether certain groups of interviewers were more likely to face challenges in accessing supervision. In a survey of mental health professionals, for example, Kavanagh et al. (2003)found that senior and more experienced mental health professionals were least likely to receive supervision, possibly because it can be more difficult to find an appropriate supervisor for this group. Geographical isolation has been identified as a barrier in supervision access for mental health professionals who work in rural communities in Australia (Kavanagh et al., 2003). Therefore, it may be possible that more experienced or geographically isolated forensic interviewers may find it more challenging to access supervision.

Methods

Participants

All specialist child witness interviewers in New Zealand ($n = 81$) were invited to complete an online survey between June and July 2013. Thirty-nine interviewers completed the online survey (48% response rate). Seventeen of the interviewers were social workers (44%) and twenty-two were police officers (56%). Twenty-six of the interviewers (67%) worked part-time as specialist child interviewers. Interviewers averaged 6.3 years of experience interviewing children ($SD = 6$ years, *Minimum* = 1 year, *Maximum* = 23 years) and conducted an average of 3 interviews per week ($SD = 1.5$ interviews, *Minimum* = 1 interview, *Maximum* = 6 interviews).

Procedure

All specialist child witness interviewers in New Zealand were invited by email to complete the online survey (Appendix 3). Interviewers were given a web-link that directed them to the consent form and survey. They were given the option to complete the survey anonymously by not completing the section on demographic information (e.g., professional affiliation, whether interviewers work part-time or full time, years of experience, etc.). The survey contained 11 questions assessing supervision practice and needs (see Appendix 3). Three of the eleven questions asked interviewers to rate statements on a Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*) (e.g., "I am satisfied with the current access to supervision"). Interviewers were also given options to comment on these statements. The remainder of the questions were open-ended (e.g., "What would you like for supervision?").

Coding of Survey

Two types of data were collected in the survey: numerical ratings and open-ended responses. An example of a question where numerical response was required was, "How

frequently do you engage in supervision?" Satisfaction with access to, and content of, supervision, as well as perceptions of their importance, were rated on Likert Scales, with 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neither Agree nor Disagree*, 4 = *Agree*, and 5 = *Strongly Agree*.

Open-ended responses to questions such as "What is the purpose of supervision for you?" were coded using thematic analysis. This method identifies, analyses and reports recurrent patterns or themes that emerge within the data (Braun & Clarke, 2006). We independently coded all of the qualitative responses and discussed consistencies and inconsistencies on the themes identified. This approach ensured that identified themes adequately captured the information contained in the surveys.

Results
Aim One: To Explore Forensic Interviewers' Perceptions of Supervision

First, we examined whether respondents indicated that they received some form of supervision focused on their interviewing practice. Two-thirds of the respondents indicated that they received practice-focused supervision (n=26; 66.67%). Those who indicated that they received supervision for well-being (n=9; 23.1%) and never received supervision (n=4; 10.3%) were excluded from subsequent analyses. Over half (57.7%, n = 15) of the respondents received supervision regularly (e.g. weekly, fortnightly or monthly), 23.1% (n = 6) of the respondents engaged in supervision once every 2 to 3 months and 15.4% (n = 4) indicated that they only received supervision one to two times a year. One responded did not answer this question. Respondents who indicated that they received supervision once a year cited attendance at the National Peer Review, which is compulsory for all specialist child interviewers in New Zealand, as their only supervision-based activity.

We next divided the number of interviews that interviewers conducted in a year with the number of supervision sessions they had participated in, to calculate the ratio of interviews to supervision contact. On average, interviewers conducted 22.72 interviews per supervision session (*Min*= 2, *Max* = 52, *SD* = 16).

Respondents engaged with a number of different professionals for supervision: other specialist child interviewers (40.9%), psychologists/ psychiatrists (13.6%), work supervisor/ manager (4.5%) or multiple professionals (e.g., psychologists for external supervision and other specialist child interviewers for peer review; 40.9%).

Satisfaction with supervision access and content. Approximately half of the respondents (53.9%; n = 14) agreed or strongly agreed with the following statement, "I am

93

satisfied with my current access to supervision." However, under a quarter of the respondents (23.1%; $n = 6$) indicated dissatisfaction, and 15.4% ($n=4$) of the respondents neither agreed nor disagreed with the statement. Two respondents did not answer this question. One of the main reasons why respondents were not satisfied with supervision opportunities was the lack of access to supervisors who had expertise in specialist child interviewing. In contrast, those respondents who were more satisfied often commented on having access to a supervisor with expertise in specialist child interviewing. Interestingly, we did not find a significant relationship between the frequency of supervision and satisfaction with access to supervision, $r(22) = -.26, p = .221$.

Just over half of the respondents (57.7%; $n= 15$) agreed or strongly agreed with the statement, "I am satisfied with the current content of my supervision." However, 23.1% ($n=6$) of the respondents expressed dissatisfaction with the content of their supervision and 15.4% ($n=4$) were neither satisfied nor dissatisfied. One respondent did not answer this question. One of the most commonly cited reasons for dissatisfaction was the lack of feedback or critique they received about their interview practice. Thus, even though these interviewers identified that the purpose of their supervision was to review interview practice, some of them felt that this goal was not achieved.

> *"I don't believe my supervisor is skilled enough in the interviewing field to give me satisfactory supervision. My supervisor doesn't work in my geographic area and doesn't know (and understand) the issues we are facing. We don't watch or discuss interviews."*

> *"My formal supervision is not about my practice in interviewing children – it would be much more useful if I was able to discuss issues from interviews with a practitioner skilled in this area"*

Respondents who were satisfied with the content of their supervision often commented that their supervision was directly related to their interviewing practice and they were being supervised by someone who had a background or expertise in child specialist interviewing.

> *"My current supervision is very much related to interviewing as my supervisor is a practicing interviewer"*

> *"I always have access to a supervisor or colleague who has knowledge about specialist child witness interviewing in my unit"*

Interviewers' perceptions of the need for supervision. The majority of respondents (80.7%; *n*=21) agreed or strongly agreed with the following statement, "I think supervision is important for my role as a specialist child interviewer".

When respondents were asked what they would like for supervision, the most common theme identified was more constructive feedback on their interviews (43.6%), specifically, feedback on question types, adherence to the NZ interview model and updates on research, policies and developments in child interviewing.

> *"My supervisor is also a forensic interviewer, therefore has an understanding of the work and impact on the interviewer. When working at a previous site, my supervisor was only familiar with care and protection work and acknowledged that (s)he had no expertise in forensic interviewing. This lack of knowledge impacted greatly on my sense of self-worth in undertaking the forensic work when the only interest from the supervisor was for care and protection matters."*

> *"(I would like) one-on-one watching of DVD and honest critique (at the moment, often I do supervision in local group and I do not always feel like I get honest critique)."*

> *"I would like an experienced interviewer with the knowledge not only around interviewing but also around case law, trends and developments nationally as well as internationally. Ideally someone that has time to look at an interview occasionally and give me direct feedback about my performance."*

> *"I would like to regularly review work I have completed and know that the supervisor is current with best practice and the training coming out of National College."*

We compared interviewers' actual frequency of supervision compared to their ideal frequency of supervision, and determined whether they would like their access to supervision to increase, decrease or remain the same. Half of the respondents wanted their current access to supervision to stay the same. However, more than a third (40.9%) of respondents wanted to increase their access to supervision, whilst 9.1% wished to reduce it. Respondents most frequently indicated a preference for monthly supervision (44%).

Perceived barriers to accessing supervision. Interviewers most commonly cited financial constraints within their organizations (26.6%) as a barrier to accessing supervision.

Time constraint was also frequently cited (23.3%) as well as the limited number of supervisors available with a background in specialist child interviewing (16.6%). For some interviewers in rural interviewing sites, geographical isolation was a barrier to accessing adequate supervision (16.6%), as were accessibility issues such as lack of transport or financial support for travel. Some respondents also raised the lack of understanding by managerial staff of the role of interviewers and the importance of regular peer review or supervision in maintaining the quality of their practice (13.3%).

Financial barrier

"The existence of supervision in this area of work within the department. The reluctance of the department to support external supervision let alone pay for it"

Time

"Sometimes can't attend things as we are busy with our core role"
"Pressures to focus time on interviewing"

Lack of experienced supervisors

"There is no one available in our area that would be qualified enough to give quality supervision"

Lack of understanding / support from the managerial staff
"Amongst the police culture there appears to be a lack of understanding around how difficult it can be to interview children. This can result in the feeling that you are unsupported by management staff."

"It would be great to see an importance placed on interviewers as a specialist area of work that does require additional resourcing to enable us to deliver the best possible service to the children and families we work with."

"There aren't many opportunities provided. Peer review can be difficult for part time staff to access given managers have limited resources to pay for this. I think that Child Youth and Family managers have a limited understanding of Evidential interviewing and therefore do not appreciate that all interviewers need to attend Peer Review"

Geographical isolation

"Because I am isolated (I am the only interviewer in a rural location) I am not peer reviewed on a regular basis. When I am it has to come from me – i.e. I have to arrange to go and do an interview in a larger centre and have another interviewer monitor/review it for me"

Aim Two: To Examine Factors that May Influence Perception of Supervision Access and Satisfaction

We conducted three multiple regression analyses to examine whether professional affiliation (Police vs. Social workers), interviewing experience, interviewing load (Full time vs. Part time; the average number of interviews conducted per week) and location (Metropolitan vs. Rural) predicted interviewers' perception of: (1) frequency of supervision sessions per year, (2) satisfaction with access to supervision, and (3) satisfaction with content of supervision. We did not analyse the beliefs about the importance of supervision for their roles as interviewers as most respondents rated "Agree" or "Strongly agree". We found that no interviewer characteristics significantly predicted any of the responses. This set of findings suggests that variations in supervision access and satisfaction are not related specifically to either professional affiliation, interviewing experience, load and location. Instead, the variation in supervision access and beliefs may be due to other factors such as themes identified in perceived barriers of accessing supervision (Aim one above). It should be mentioned, of course, that since we had a small sample of respondents, the analyses lacked statistical power to find anything other than large effect sizes. Future work with larger samples should re-examine these issues before we conclude that they are irrelevant.

Discussion

The first goal of this study was to examine the extent to which forensic interviewers engage in supervision, their perceptions about the value and quality of opportunities they have for such activities, and perceived barriers they encounter. The results, consistent with our hypotheses, suggest that supervision is not readily accessed by many forensic interviewers, and is often primarily constituted of group-based feedback rather than an individually-tailored process. Studies suggest that what makes supervision particularly effective is direct and specific feedback on interviewing practice, and this goal may be achieved best by receiving individualized feedback. For example, Lamb, Sternberg, Orbach, Hershkowitz, et al. (2002) compared two groups of interviewers who both attended monthly group supervision discussing problematic cases with other experienced forensic interviewers.

One group, however, also received individual oral and written feedback about their interviews. Although the two groups performed better than those who did not receive group supervision or individual feedback, they found that the interview quality was highest for those who received detailed individual feedback. In our study, the need for more specific evaluation and feedback of their interviewing techniques was strongly communicated by the participants. Considerable variability was also noted in how often interviewers engaged in supervision activities, and how satisfying they found it. Taken together the findings highlight that lack of individualised supervision is an issue that warrants further organisational review given that many interviewers were not readily accessing opportunities to have their work individually reviewed. Problems in accessing such opportunities may reflect both systemic (e.g., resources and managerial policies) and individual (e.g., motivation, workload) factors.

The second goal of this study was to examine whether interviewers' access to and perceptions about supervision differed across various characteristics. We did not find any systematic differences in the interviewers' characteristics we assessed (e.g., professional affiliation, interviewing experience, load and location). Of particular interest, there were no relationships between interviewing experience and the frequency of supervision or the satisfaction of their access to supervision. We acknowledge, however, that given the small sample size, our regression analyses lacked statistical power, and our results should be treated as preliminary. Future studies with larger sample sizes should be conducted to examine the relationship between interviewers' perceptions of supervision and their characteristics. However, qualitative responses by interviewers suggested that other variables such as support from managers and whether their supervisors possessed expertise in child interviewing may be more important in predicting interviewers' satisfaction.

Indeed, five major themes in the barriers to accessing supervision were identified: (1) limited financial support, (2) time constraints, (3) lack of experienced supervisors, (4) lack of understanding/support from managerial staff, and (5) geographical isolation. Research suggests that these barriers are not restricted to New Zealand. For example, Powell and Barnett (2014) have identified the lack of experienced supervisors as one of the factors hindering interviewers from regularly receiving feedback on their interview practice in Australia. Many supervisors may have trained in child forensic interviewing some time ago and may even provide feedback to interviewers that is inconsistent with contemporary best-practice recommendations (Powell & Barnett, 2014). Similarly, some of our participants identified a preference for their supervisors to be experienced forensic interviewers themselves and also trained in the current interviewing model to ensure that appropriate

feedback on their interview is given. As such, considerable attention is needed on the interviewing and training status of supervisors themselves and future research should focus on this issue.

In another study, Powell et al. (2010) identified a number of daily work challenges that Australian child forensic interviewers face. Although the focus of this study was to identify work challenges, and not specifically assess engagement in supervision, the themes that emerged echoed many of the same findings in our study. One of the major daily work challenges identified was a heavy caseload which inevitably limits time available for further training and supervision (Powell et al., 2010). Further, participants in Powell et al.'s study felt that the role was under-valued in the police department, and that they were disadvantaged in terms of resource allocations. Consequently, Powell et al. (2010) discussed how forensic interviewing needs to be recognised as a specialised profession to increase the provision for ongoing training and supervision. Although forensic interviewers in New Zealand are considered as specialists with a specific training pathway and accreditation programme (Westera et al., in press), a few respondents noted that this status did not necessarily translate to receiving support from managerial staff for regular access to supervision.

Since the time of data collection of the present dataset a number of initiatives have been introduced in New Zealand, including the appointment of a national coordinator for specialist child witness interviewers, a national accreditation programme (this scheme includes detailed written evaluation and feedback of at least two interviews per annum for every interviewer), regular communication with the interviewing community through a newsletter, and a move to a small group format for the compulsory peer review meetings.

Although some of these initiatives may improve interviewers' satisfaction with their access to supervision and feedback, the lack of national policy in supervision requirement may still be a barrier. A lack of managerial policy specifying frequency and content of supervision was identified as one of the barriers in accessing supervision for allied mental health professionals in Australia (Kavanagh et al., 2003). Similarly, the lack of a national policy about frequency and content of supervision as well as who qualifies to be supervisors for New Zealand forensic interviewers may contribute to some of the barriers interviewers encounter (e.g., limited financial support and lack of understanding/support from the managerial staff).

Future Research

Given the scope for improvement in engagement with practice-focused supervision, and the importance of frequently engaging in such practice, this issue warrants further

attention. To achieve regular and satisfactory supervision, solutions should be explored at both the organisational level (e.g., addressing resourcing constraints and developing a national policy for minimum supervision requirement), and the individual level (e.g., emphasizing and supporting interviewers' responsibility to seek out and engage in supervision activities wherever possible). Interviewers in this study universally acknowledged the importance of supervision, yet there were clear barriers that decreased engagement in supervision. We emphasise that an important area for future research and investment is developing effective approaches to overcoming identified barriers. Although identified as an obstacle by some, financial constraints and geographical isolation need not prevent engagement with the interviewing community if innovative and effective solutions are developed. For example, future research should focus on how to provide supervision activities that are both cost-effective and evidence-based such as web-based supervision activities (e.g., Powell et al., 2010) or self-evaluation (e.g., Cederborg et al., 2013) that may supplement the traditional face-to-face supervision. An evaluation of an e-learning training programme for Australian forensic interviewers of children suggests that online initiatives may improve interviewing practice and can be cost-effective compared to a face-to-face training programme (Benson & Powell, 2015). This suggests that online peer supervision or peer-reviewing sessions may be useful avenues to consider. Finally, some interviewers identified activities they have developed in an informal manner (e.g., local peer review meetings), and as such, promoting the responsibility of interviewers to engage in activities to improve their practice is also a part of this process.

We were interested in whether there might be a relationship between interviewers' perceptions of supervision and their interviewing practice (specifically, the proportion of questions they asked and adherence to the pairing principle). In order to assess this we gained consent from a subset of the interviewers ($n = 17$) who completed the supervision survey that also previously submitted interviews ($n = 70$) for our evaluation study (Chapters 5 and 6). Given the small sample size, our analyses were very preliminary, and must be interpreted conservatively, but are presented in Appendix 4 for the reader's interest. It is important that clear evidence is available demonstrating the link between supervision activities and interviewing practice to inform organisations about the value of such activities for quality control. Whilst actual participation is important, we think it is also important to ascertain whether perceptions of supervision relate to interviewing practice, as such associations may be informative for identifying how to increase recognition in managers and interviewers about the contribution that supervision makes to practice.

Limitations of the Study

Gathering survey data from forensic interviewers is challenging given the small population of interviewers across two distinct organizations and the amount of work pressures they faced every day. Although this study provides important insight into forensic interviewers' perceptions of supervision, we acknowledge several limitations of the study. Firstly, our sample is not entirely representative of all New Zealand forensic interviewers. Interviewers volunteered to participate in this study and so our sample may have been biased through self-selection. It is possible that interviewers who did not participate in the study may have been different in some important way (e.g., perhaps by engaging in fewer supervision sessions compared to the average or not engaging in supervision at all and therefore not recognising any relevance in the study). Secondly, it is important to acknowledge that the survey assesses interviewers' *memory and perceptions* of their supervision practice. For example, the reported frequency of practice-focused supervision may be subjected to individual memory error. Interviewers' reported perceptions about the importance of supervision may also be subjected to social desirability bias which is a common challenge in any survey study irrespective of its data collection method (e.g., paper vs. online survey; Dodou & De Winter, 2014). Furthermore, although two-thirds of the respondents stated that they engaged in practice-focused supervision such as reviewing DVDs, it remains unclear just what the amount and specificity of the feedback they received on their interviewing practice is. Studies have often found discrepancies between self-reported and actual behaviour (Armitage & Conner, 2001), therefore a direct measure of supervision practice should also be used in future research. Finally, interviewers' responses on the surveys may be confounded by the examples given (e.g., "monthly" was used as an example for a question assessing frequency of supervision but no other frequency). However, given the variability of interviewers' responses for this particular question, this is unlikely to be a serious issue. Future supervision studies, however, may be improved by providing all the range of frequencies (e.g., daily, weekly, monthly, bi-monthly etc).

Conclusion

Only two-thirds of our sample indicated that they received some form of practice-focused supervision. Out of these interviewers, there was considerable variability in how satisfied they were with their access to, and the content of, supervision.

Moreover, in our preliminary results we found that frequency of supervision, satisfaction ratings about access to, and content of supervision did not vary by interviewers' characteristics we assessed. Qualitative responses by interviewers suggested that other

variables such as organisational support and availability of experienced supervisors may be more important in predicting interviewers' satisfaction. Given the importance of forensic interviewing techniques for the proper investigation of child abuse cases, developing cost-effective and evidence-based approaches to overcome systemic barriers to regular supervision is an important next step.

Chapter 8: The Impact of Self-review on Forensic Interviewing Practice with Children

The previous chapter explored forensic interviewers' perceptions of access to, and need for supervision. Forensic interviewers varied greatly in terms of how often they accessed supervision, and how satisfying they found it. Given that one-third of the respondents did not receive any practice-focused supervision, and some of those who did participate in such activities felt they did not actually receive specific input about their interviewing, an important area for investment is identifying effective ways of increasing interviewers' participation in regular practice-focused supervision. Therefore this chapter tested the effect of guided self-review on interviewers' questioning when interviewing children (4-16 years old) about alleged physical or sexual abuse. An AB design (baseline vs. intervention) pilot study was used with six interviewers (n =54 interviews). The proportions of different prompt types and adherence to the pairing principle were examined. If regular self-review for forensic interviewing is effective, then it would be a relatively easy and cost-effective method to promote best practice interviewing.

When children are questioned about alleged abuse, the conduct of the interview has a significant impact upon both what children disclose and the contribution of their testimony to any subsequent police investigation or judicial trial (Pipe, Orbach, et al., 2013). Unfortunately, interviewers often struggle to adhere to best-practice techniques even after intensive training and when purportedly following an evidence-based interview protocol (Lamb, Sternberg, Orbach, Esplin, et al., 2002). For example, contrary to evidence-based recommendations (Orbach & Pipe, 2011; Saywitz et al., 2011), interviewers are more likely to ask focused (e.g., "What were you wearing?") and closed-ended/option-posing questions (e.g., "Did he touch you under or over your clothes?") than broad open-ended prompts (e.g., "Tell me everything you can remember about that"; Lamb, Sternberg, Orbach, Esplin, et al., 2002). Such deviations from recommended practice may persist even in the context of increased resourcing for interviewing, including improved training and specialised child forensic interviewing units (Johnson et al., 2015).

Ongoing supervision and practice-focused feedback helps interviewers to use recommended questioning techniques when interviewing children about abuse allegations (Cyr et al., 2012; Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002; Price & Roberts 2011). Accessing appropriately trained and experienced supervisors is often a challenge, however (La Rooy et al., 2011; Powell & Barnett, 2014; Wolfman et al., in preparation). Limited financial resources and geographical isolation have also been identified as barriers to accessing regular and timely supervision (Wolfman et al., in preparation). Alternative approaches that complement traditional face-to-face supervision may offer a solution to this problem (Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002; Powell et al., 2010).

Self-review (also referred to as self-supervision, self-critique, or self-regulated learning in the literature) is a systematic process in which a person independently reviews their professional work and directs their own professional development (Morrissette, 1999). There is some evidence from the counselling and psychotherapy field that systematic guided self-review of the content of sessions positively influences the use of desirable counselling techniques (Altekruse & Brown, 1969; Dennin & Ellis, 2003; Ellis, 2010; Hector, Elson, & Yager, 1977).

Stolzenberg and Lyon (in press) examined the effect of weekly self-review and peer-evaluation on law student's interviewing techniques. Nineteen law students in a ten-week forensic interviewing course interviewed one child weekly (5-10 years old) about a variety of topics. Students transcribed their interviews verbatim and commented on their performance.

The transcripts were then submitted to peer reviewers who examined the question types and provided comments on how to improve practice. Stolzenberg and Lyon found that interviewers decreased the proportion of closed-ended questions asked by 31% whilst increasing the proportion of broad open-ended prompts by 47% by the end of the course. The study provides promising support for the potential of self-review to improve practice. Given that the contribution of the self-review process could not be separated from that of the feedback received from peers, however, it is unclear what was driving the improvements. Further, Stolzenberg and Lyon examined law students' interviewing practice with children about non-sensitive topics in interviews of short duration (interviews lasted between 8 to 10 minutes). The interactions between an interviewer and a child may be markedly different in the forensic interviewing context (Lamb & Brown, 2006; Saywitz et al., 2015). Lastly, the study examined improvement in interviewing practice of law students who were naïve at the outset about effective interviewing skills. Thus the large increase in the proportion of cued-invitations and decrease in the proportion of option-posing prompts may have reflected gains likely to be made by novice interviewers, and may not be replicated with more knowledgeable and experienced forensic interviewers. Therefore, it is important that the impact of guided self-review on forensic interviewing techniques is investigated in isolation from other kinds of supervision or feedback, and in the context that it might be applied.

Self-review is potentially an easily accessible and low cost complementary intervention to face-to-face supervision that may enhance interviewing quality by highlighting deviation from desired practice. We do not propose regular self-review should wholly replace face-to-face supervision with peers or more qualified and experienced interviewers. Instead, self-review may provide information that forms the basis of quality control as well as helping to maintain or enhance best-practice techniques between supervision sessions. Although interviewing quality can be assessed in many different ways (e.g. interviewers' use of supportive statements; Hershkowitz et al., 2006), given the impact of questioning type on children's responding and perceptions of their credibility, the present pilot study evaluated the effect of guided self-review on interviewers' use of recommended question types (i.e., broad open-ended vs. closed-ended prompts) in forensic interviews with children.

Potential Mechanisms for Self-review

The role of feedback on performance has been widely studied in a variety of contexts with particular components identified as important for influencing outcomes (Kluger & DeNisi, 1996). Specifically, feedback that offers frequent information about a specific task

and how to do it more effectively is more likely to improve performance compared to a global evaluation (e.g., "Good job"). Two theories propose similar mechanisms for how feedback or self-review may elicit change: According to *Feedback Intervention Theory,* feedback brings the locus of attention to how current behaviour compares to goals / standards (Kluger & DeNisi, 1996). Only when there is a perceived discrepancy between current behaviour and goals will there likely be a behavioural change. Similarly, *Self-regulation Theory* (Dennin & Ellis, 2003) proposes that self-observation provides information about progress toward a certain goal. When there is a discrepancy between actual performance and the goal, dissatisfaction may occur, which serves as motivation for behavioural change, resulting in improved performance. Numerous studies have demonstrated that self-observation or self-evaluation can result in behavioural change (e.g., weight loss;Baker & Kirschenbaum, 1993).

Elements of Effective Self-review

For guided self-review to be effective, it needs to be structured (Wright , Guadagno , & Powell 2009) and be based on objective evaluation of interviewing practice rather than global and subjective judgments (e.g., "Good" interviewing practice; Agnew et al., 2006). Wright et al. (2009), for example, asked forensic interviewers to engage in self-initiated practice without instructions about format, structure or timing. Interviewers did not consistently adhere to this task, and interviewing performance was not significantly affected. Furthermore, studies suggest that interviewers generally have poor insight in recognizing their use of appropriate and inappropriate interviewing strategies, and there is often a discrepancy between subjective perception and objective evaluation (Agnew et al., 2006; Wright et al., 2007). For example, Agnew et al. asked police officers to rate the appropriateness of their questions when interviewing children with intellectual disabilities. Their ratings ranged from "Okay" to "Good". However, their self-ratings did not reliably discriminate between the best and worst interviewers on the basis of their use of open-ended prompts. In fact, one of the interviewers who rated his performance as "good" also asked the most closed-ended questions. Therefore, any untrained self-initiated practice informed by the interviewers' subjective evaluation is unlikely to be based on an accurate picture of how the interview was actually conducted.

We propose that a guided self-review process that provides a more objective and accurate account of interviewing techniques used is more likely to improve insight into areas of weakness and may assist interviewers in developing goals to improve subsequent interviews. For example, if an interviewer reviewed their own interview and found that 65%

of the questions were closed-ended, this realization may motivate the desire to change their questioning strategy. To be able to do this effectively, however, interviewers need to be able to accurately identify question types. Yii et al. (2014) found that interviewers' ability to identify different types of questions accurately was associated with increased use of open-ended questions in mock interviews. Thus, developing skill and expertise in accurately identifying different types of questions may influence the use of such questions in interviews. Trainee interviewers also highly valued the process of transcribing and coding their own interviews in training designed to increase adherence to open-ended questioning (Powell & Wright, 2008).

To this end and to enhance the likelihood of self-review being accurate and helpful, we developed a process whereby interviewers first were trained in how to code questions, then they transcribed their utterances, and finally they evaluated their questioning techniques by using the data from the coding exercise.

We proposed that a guided self-review process might improve practice through several mechanisms: (1) by increasing interviewers' awareness of the way in which they are constructing their interviews (Powell & Wright, 2008), 2) by increasing their expertise in coding for identifying different types of questions (Yii et al., 2014), and 3) by highlighting discrepancies between interviewers' conduct of interviews and the interview model/ protocol they have been trained in (Dennin & Ellis, 2003).

Research Questions and Hypotheses

This pilot study examined the effectiveness of guided self-review on forensic interviewing practice. First, we examined whether there was a significant difference in interviewing practice prior to implementing the self-review process (base-line) compared to when they implemented it (self-review). We examined interviewers' overall use of different prompt types and adherence to the pairing principle at base-line and self-review phase. The pairing principle recommends following the use of a focused ("Wh-") or closed-ended/option-posing question with a return to a broader open prompt (e.g., "Tell me anything else you can remember about that") to elicit further details (Orbach et al., 2000). We expected that after interviewers conducted their self-review, they would be more likely to be aware of their own questioning strategies, identify areas for improvement and change their questioning strategy if there were discrepancies between current and best-practice interviewing. As such, we hypothesized that interviews conducted during the self-review phase would evidence a higher proportion of broad open-ended prompts and greater adherence to the pairing principle compared to interviews conducted during the baseline phase.

107

Second, we examined the relationship between interviewers' subjective ratings with an objective evaluation of their questioning techniques (. We asked interviewers to make a series of global judgments about the quality of their interview practice (e.g., global assessment rating of the interview quality, whether they thought the interview was mostly comprised of open-ended questions, and whether they thought they adhered to the pairing principle) prior to, and after, completing their self-review. Consistent with Agnew et al. (2006), we expected that interviewers' subjective ratings prior to coding would not be associated with objective evaluations of their performance. Given that no study has examined whether coding question types would change interviewers' subjective ratings of their interviews, no specific prediction was made about the association between post-coding evaluation and objective evaluation.

Methods

Design

The study was conducted with a quasi-experimental intervention design (AB). The AB design has three phases consisting of 1) a pre-intervention baseline phase (A), 2) training on how to conduct self-review, and 3) a self-review phase (B). Since this design does not include a control group, no comparison was made to interviewers who did not receive the intervention. An AB design was adopted for this study to explore whether interviewing quality improved in the presence of regular self-review for the same group of interviewers.

Participants

Specialist child witness interviewers in three metropolitan centres in New Zealand were invited to participate in the research project ($N = 24$), and six interviewers participated. Four of the interviewers were social workers; the remainder were police officers. Five out of six worked full time as child specialist interviewers. Interviewers averaged 6.2 years of experience interviewing children ($SD = 8.5$ years; range 0.2 years to 23 years) and conducted an average of 3.5 interviews per week ($SD = 1.2$ interviews; range 2 to 5 interviews). All interviewers were previously trained in the New Zealand Specialist Child Witness Interviewing model (Appendix 1). Four interviewers contributed ten interviews each (five at base-line and five at self-review phase). Two interviewers withdrew prematurely during the self-review phase due to changes in occupational roles but they were still retained in the sample. One contributed eight interviews (four at base-line and four at self-review phase), and the other interviewer contributed six interviews (three at baseline and three at self-review phase).

These six interviewers conducted 54 interviews (27 at baseline and 27 at self-review phase) with 54 children between 4 and 16 years old ($M = 11.8$ years, $SD = 3.2$ years) who were interviewed about sexual or physical abuse allegations in New Zealand between March 2014 and March 2015. More than half (59%) of the children interviewed were females. Parents/guardians of children who were interviewed gave consent for a copy of the DVD interview recording to be viewed and analysed by the research team.

Interview Characteristics

The majority of the children interviewed were alleged victims (68% vs. 32% who were witnesses). Two-thirds of the interviews assessed allegations of physical abuse and the remainder assessed sexual abuse. Multiple episodes of abuse were common (69%). Many of the suspects were related to the children (59%), 35% were known but not related to the children, and 6% were strangers. Most of the suspects were male (76%). Interviews ranged from 28.8 to 105.5 minutes long ($M = 58.4$ minutes, $SD = 19$ minutes).

Procedure

The baseline phase. Interviewers were asked to send at least five interviews they had recently conducted with children about abuse allegations (sexual or physical) to be transcribed and coded. Interviewers were asked to send the first five interviews they conducted for which they could obtain consent from parents/guardians. Thus, these interviews were sampled opportunistically on the basis of obtained parental consent. On average, interviewers finished this phase within 72.7 days ($SD = 37.4$ days, $Min = 21$ days, $Max = 132$ days).

The training phase. Participants individually attended a training workshop involving two half-day sessions on how to code questions. The coding manual used was based on the National Institute of Child Health and Human Development (NICHD) Investigative Interview coding scheme (Orbach et al., 2000; See Table 5.2). Utterances were coded as either invitations, cued-invitations, direct, option-posing or suggestive questions (see Table 5.2 for definitions and examples). On the first day, all participants coded the same two interview transcripts (de-identified and conducted by another interviewer), and on the second day, participants coded two interviews they had conducted and submitted for the base-line phase.

The self-review phase. Similar to the base-line phase, interviewers were asked to obtain consent from parents/guardians of the children they interviewed. As soon as they conducted the interview, interviewers were asked to complete the guided self-review tool (Appendix 5) and assess the interview. However, considerable variability in the delay between the interview and self-review of that particular interview was evident ($Min = 0$ day,

Max = 25 days, *M* = 6.04 days, *SD* = 8.35 days). During self-review, participants completed a brief questionnaire assessing their subjective perceptions of their interview quality on an ordinal scale from 1 (Strongly Disagree) to 5 (Strongly Agree) for six questions (e.g., "This interview was mostly comprised of open-ended questions"; See Appendix 5), and from 1 (Poor) to 5 (Excellent) for one question ("How would you rate this interview overall?"). Due to unavailability of interview transcripts, interviewers reviewed directly from the DVD recording. Participants reviewed the substantive phase of their interview (from the first question about the allegation or suspected incident(s), until discussion of a neutral topic in preparation for ending the interview) by transcribing and coding every question they asked (Appendix 5). Inter-rater reliability was calculated on interviewers' utterances comparing our coding with the interviewers in the study. Good inter-rater reliability was achieved overall (Cohen's K = .76, $p < .001$; Viera & Garett, 2005). Interviewers then counted the frequency, calculated the proportion of each question type, and plotted each question on a graph which depicted the chronology of the questions to identify the use of, or any missed opportunities for, pairing (See Appendix 5). Participants then rated their interviews again using the same questions prior from coding, with the addition of five questions assessing interviewers' satisfaction with the proportion of each type of questions they asked (e.g., "I am satisfied with the proportion of invitations I asked in this interview"; Appendix 5).

Coding of interviewers' utterances. All of the interviews were transcribed and coded to obtain an objective evaluation of interviewing practice at baseline and during the self-review phase. Even though interviewers submitted their transcripts of interviews conducted during the self-review phase, it was important for interviews to be independently transcribed to ensure accuracy. The objective data for this study were drawn from the substantive phase of the interview (from the first question about the allegation or suspected incident(s), until discussion of a neutral topic in preparation for ending the interview). Interviewers' questions were transcribed from the DVD recording and then coded using the NICHD Investigative Interview Protocol coding scheme (Orbach et al., 2000).

Reliability coding. Reliability coding was conducted on the coding of interviewers' utterances. Fourteen interviews (25.9% of the total) were independently coded by a trained reliability coder. The coder was trained on transcripts as well as interview DVDs until a minimum of 80% agreement was reached. Inter-rater reliability was calculated on interviewers' utterances. Good inter-rater reliability was achieved for interviewers' utterances (Cohen's K = 0.84, $p < .001$; Viera & Garrett, 2005).

110

Results

Preliminary analyses demonstrated that base-line and self-review phase interviews were similar with respect to child and allegation characteristics (see Table 8.1 for details).

Table 8.1

Descriptive statistics for baseline and self-review phase interviews

	Baseline interviews (N =27)	Self-review interviews (N =27)
Gender		
Male	12	10
Female	15	17
Age		
M	11.37 years	12.29 years
SD	3.17 years	3.27 years
Witness or Victim		
Witness	6	11
Victim	21	16
Type of abuse		
Physical	18	18
Sexual	9	9
Episode		
1 episode	6	11
Multiple episodes	21	16
Relationship to suspect		
Relative	20	12
Known person	6	13
Stranger	1	2
Suspect's gender		
Male	21	20
Female	6	7
Duration of interview		
M	62.13 minutes	54.62 minutes
SD	20.45 minutes	16.99 minutes

Did Self-Review Improve Questioning Practice?

Proportion of prompts. We conducted paired samples t-tests to compare the proportion of each type of prompt in interviews between the baseline and the self-review phase and calculated effect size using Cohen's *d* (Cohen, 1992). The comparison was made between the first interview conducted pre-training and the first interview conducted post-training (and so on) for each interviewer. Cohen's *d* of .20 is considered a small effect size, .50 a medium effect size, and .80 a large effect size (Cohen, 1992). Consistent with our expectation, we found a significant difference in the proportion of invitations between the baseline and the self-review phase. Interviewers asked proportionately more invitation questions in the self-review phase ($M = .19$, $SD = .08$) compared to the baseline phase ($M = .14$, $SD = .05$, $t(26) = -3.80$, $p = .001$, $d = -.75$, 95% CI [0.18,1.31]). Conversely, interviewers asked fewer direct questions in the self-review phase ($M = .45$, $SD = .09$) compared to the baseline phase ($M = .41$, $SD = .09$, $t(26) = 2.23$, $p = .035$, $d = -.44$, 95% CI [-0.11,0.99]). No significant differences for other prompt types were found (see Table 8.2).

Table 8.2

Interviewers' prompts at baseline and self-review phase

Prompt type (%)	Baseline phase (*N* = 27)		Self-review phase (*N* = 27)		Difference (t)	*p* value	*Effect size (d)*
	M	*SD*	*M*	*SD*			
Invitation	13.61	5.30	19.25	8.62	-3.80	.001	.78
Cued-invitation	24.35	9.10	25.08	8.22	-.30	.763	.08
Direct	45.24	9.94	40.74	9.06	2.23	.035	-.47
Option-posing	16.40	5.15	14.37	6.62	1.71	.099	-.34
Suggestive	0.39	0.73	0.56	0.96	-.89	.380	.19
Direct→Invitation	9.97	7.14	11.58	9.92	-.978	.337	.19
Direct→Cued-invitation	20.29	7.89	20.96	11.65	-.240	.812	.07
Option-posing→Invitation	8.88	9.76	19.08	15.00	-2.79	.010	.81

Option-posing→Cued-invitation	24.72	14.17	18.25	14.60	1.45	.159	-.45

Adherence to the pairing principle. In order to investigate interviewers' adherence to the pairing principle, we examined the proportion of direct and option-posing questions that were immediately followed by either an invitation or cued-invitation (irrespective of the content assessed in these questions). We excluded any direct or option-posing questions that: 1) did not elicit a substantive response from the child (i.e., child responded with "I don't know/don't remember/don't understand", repeated what had already been said or stayed silent); 2) were followed directly by a monitor's break or 3) were the last question of the interview. We calculated the average proportion of prompts for each interviewer for the following variables: (1) Direct prompts that were followed by invitations, (2) Direct prompts that were followed by cued-invitations, (3) Option-posing prompts that were followed by invitations, and (4) Option-posing prompts that were followed by cued-invitations. Paired samples t-tests revealed that the proportion of ption-posing prompts that were followed by invitations was significantly higher during the self-review phase (M =.19, SD = .15) than at base-line (M = .08, SD = .09, t (26) = -2.79, p = .010, d = -.89, 95%CI [0.32,1.46]). No other significant differences were found (see Table 8.2). In partial support of our hypotheses, self-review was found to increase interviewers' adherence to the pairing principle, but only in conjunction with option-posing prompts.

Were There Any Relationships Between Interviewers' Subjective Ratings of Their Interviews With Independent Evaluations?

Interviewers' perceptions of overall interview quality. Before engaging in self-review, interviewers rated the overall quality of their interviews as "good" for 70.4% (n = 19) of the interviews, "very good" for 14.8% (n =4) of the interviews, and "fair" for 14.8% (n =4) of the interviews (on a 5 point ordinal scale from 1 = Poor to 5 = Excellent). After self-review, they rated 40.7% (n =11) of the interviews as "fair", 37% (n =10) of the interviews as "good", and 18.5% (n =5) of the interviews as "very good" (1 submitted self-review did not have an answer to this question) evidencing a general trend toward lower self-ratings after self-review. The majority of the interviewers did not change their rating (65.3%; n=17), 26.9% (n=7) decreased their rating (e.g., from "Good" to "Fair"), and 7.7% (n=2) increased their rating (e.g., from "Fair" to "Good").

First, we conducted an ordinal logistic regression to predict the ordinal dependent variable of interviewers' ratings before self-review (this ranged from 1 (Poor) to 5 (Excellent)) given the proportion of different types of prompts and adherence to the pairing principle. Suggestive questions were excluded from subsequent analyses given their low prevalence. We found no significant relationship between interviewers' perceptions of overall interview quality before self-review ($\chi^2(5) = 8.75$, $p = .120$). This analyses was repeated two more times for the following ordinal dependent variables: (1) interviewers' ratings after self-review (i.e., 1 (Poor) to 5 (Excellent)) and (2) changes in interviewers' ratings from before and after self-review (i.e., increase, decrease or no change in rating).

We found no significant relationship between change in self-ratings ($\chi^2(5) = 6.21$, $p = .286$) with the independent evaluations of different types of prompts and adherence to the pairing principle. These results suggest that interviewers' subjective ratings of their interview quality prior to self-review or whether they changed their subjective rating after self-review did not reliably predict their actual question use or adherence to the pairing principle. When examining the relationship between interviewers' perceptions of overall interview quality after self-review with the different prompt types and adherence to the pairing principle, the overall model was statistically significant ($\chi^2(5) = 13.84$, $p = .017$). Individual examination of the coefficients, however, revealed no significant relationships between interviewer's perceptions of overall interview quality after self-review with proportions of invitations (Wald $\chi^2(1) = .047$, $p = .829$), cued-Invitations (Wald $\chi^2(1) = .004$, $p = .949$), direct questions (Wald $\chi^2(1) = .053$, $p = .818$), or option-posing questions (Wald $\chi^2(1) = .211$, $p = .646$), as well as adherence to the pairing principle (Wald $\chi^2(1) = 1.27$, $p = .259$). This set of results suggests that interviewers' self-ratings before and after self-review, as well as whether they changed their self-rating, did not uniquely or reliably predict their performance.

Interviewers' estimations of the frequency of their use of open-ended questions.
Before engaging in self-review, interviewers rated the composition of each of their interviews, and agreed or strongly agreed with the statement, "The interview was mostly comprised of open-ended questions" for 48.1% (n =13) of the interviews, rated the statement as "Neither agree nor disagree" for 44.4% (n=12) of the interviews, and disagreed with the statement for 7.4% (n=2) of the interviews. After self-review, they agreed or strongly agreed with the statement for 44.4% (n =12) of the interviews, "Neither agree nor disagree" for 14.8% (n=4) of the interviews, and disagreed or strongly disagreed with this statement for 40.7% (n=11) of the interviews. For the majority of the interviews (48.1%; n=13) there was a decrease in rating (e.g., from "Strongly Agree" to "Neither Agree nor Disagree"). For one-

third (33.3%; $n = 9$) of the interviews there was no change in rating, and only 18.5% ($n=5$) of the interviews there was an increase in rating (e.g., from "Disagree" to "Agree").

First, we conducted an ordinal logistic regression to examine the relationship between interviewers' estimation of their use of open-ended questions before self-review (when rating the following statement "The interview was mostly compromised of open-ended questions" on ordinal scale from 1 (Strongly Disagree) to 5 (Strongly Agree)) with the independent evaluation of the proportion of invitations and cued-invitations. No significant relationship was noted between interviewers' estimations of their use of open-ended questions before self-review ($\chi^2(2) = .685$, $p = .710$). This analyses was repeated two more times for the following ordinal dependent variables: (1) interviewers' ratings after self-review (i.e., 1 (Strongly Disagree) to 5 (Strongly Agree)) and (2) changes in interviewers' ratings from before and after self-review (i.e., increase, decrease or no change in rating). When examining the relationship between interviewers' estimation of their use of open-ended questions after self-review with the proportion of invitations and cued-invitations asked, the resulting model was found to be statistically significant ($\chi^2(2) = 18.03$ $p < .001$). An increase in the proportion of invitations (Wald $\chi^2(1)=4.29$, $p =.038$) and an increase in the proportion of cued-invitations (Wald $\chi^2(1)= 10.64$, $p = .001$) were associated with an increase in the odds of interviewers agreeing to the statement, "The interview was mostly comprised of open-ended questions". This result suggests that interviewers' estimations of their frequency of their use of open-ended questions before self-review did not reliably predict their actual use, but their estimation after self-review did significantly predict their actual use of open-ended prompting. Finally, no significant relationship was found between interviewers' change in self-rating ($\chi^2(2) = 2.81$, $p = .245$) with interviewers' actual use of invitations and cued-invitations.

Interviewers' estimations of their adherence to the pairing technique. Before engaging in self-review, interviewers agreed or strongly agreed with the statement, "I followed a spiral questioning approach [the pairing principle]" for 59.3% ($n=16$) of the interviews, rated this statement as "Neither Agree nor Disagree" for 37% ($n=10$) of the interviews, and disagreed with the statement for 3.7% ($n=1$) of the interviews. After self-review, they agreed or strongly agreed with the statement for 51.8% ($n=14$) of the interviews, rated this statement as "Neither Agree nor Disagree" for 29.6% ($n=8$) of the interviews, and disagreed with this statement for 18.5% ($n=5$) of the interviews. For the majority of the interviews (48.1%; $n=13$) there was no change in rating. However, for 29.6% ($n=8$) of the interviews there was a decrease in rating (e.g., from "Strongly Agree" to "Neither Agree nor

Disagree"), and only 11.1% (*n*=3) of the interviews there was an increase in rating (e.g., from "Disagree" to "Agree"). There was a general movement toward agreeing with the statement less after self-review.

We conducted three ordinal logistic regressions to examine the relationship between interviewers' estimation of their adherence to the pairing principle 1) before self-review, 2) after-self review, and 3) changes in interviewers' rating from before to after-self-review (when rating the following statement "I followed a spiral questioning approach [the pairing principle]") on an ordinal scale from 1 (Strongly Disagree) to 5 (Strongly Agree)) with the independent evaluation of this practice. These analyses were only for interviews conducted in the self-review phase. No significant relationships were found, which indicated that interviewers' self-ratings before ($\chi^2(1) = .342$, $p = .559$), after self-review ($\chi^2(1) = 3.195$, $p = .074$) and change in self-ratings ($\chi^2(1) = .033$, $p = .856$) did not reliably predict their actual adherence to the pairing principle. This result suggests that interviewers' self-ratings before and after self-review, as well as whether they changed their self-rating did not reliably predict whether they were adhering to the pairing principle.

Discussion

Using a quasi-experimental research design we compared interviews conducted at baseline with those conducted later during a self-review phase in order to evaluate changes in forensic interviewers' questioning practice. We hypothesized that interviews conducted during the self-review phase would be comprised of more invitations and cued-invitations and demonstrate higher adherence to the pairing principle because interviewers would be more likely to be aware of their own questioning strategies, identify areas for improvement and change their questioning strategy if there were discrepancies between their interviews and best-practice interviewing.

Our results partially supported this hypothesis. We found that during the self-review phase interviews contained a higher proportion of invitations (e.g., "Tell me more about that" or "Tell me everything that you can remember about that") than base-line interviews. This result is encouraging given that evidence based recommendations strongly encourage interviewers to ask invitations (Orbach & Pipe, 2011), and yet interviewers frequently deviate from this recommendation without ongoing supervision and feedback (Lamb, Sternberg, Orbach, Esplin, et al., 2002). Our findings suggest that engaging interviewers in a guided self-review process may be an effective approach to remedying this deviation from recommended practice. Furthermore, when Invitations and cued-invitations were combined

during self-review these became the predominant types of questions employed (44.33%) rather than direct questions (e.g., "What were you doing?" or "What was he wearing?"). Presumably interviewers were prioritizing the use of invitations, meaning there was less need to direct children's recall with direct questions. Direct prompts are open-ended questions but they narrow the focus of enquiry and recall to a particular type or category of information. Self-review seemed to overcome the trend seen in studies evaluating interviewing practice for direct questions to be the most common form of prompt (e.g., Powell & Hughes-Scholes, 2009).

A challenge for interviewers is that broad open-ended questions may not elicit *all* forensically important information required for the investigations. Given this fact, interviewers may need to ask focused or closed-ended questions to obtain specific details, or clarify ambiguous statements. Indeed, professional groups and interviewing protocols acknowledge that closed-ended questions are sometimes necessary, but they recommend that interviewers subsequently return to open-ended questions to elicit further details (Orbach & Pipe, 2011). In some protocols, this is described as the pairing principle (Orbach & Pipe, 2011), and ensures interviewers maintain an open style of questioning throughout the entirety of the interview. Consistent with our hypotheses, we found that self-review increased this approach in conjunction with option-posing prompts. This outcome is important given that studies have demonstrated that option-posing questions are more likely to elicit errors (Dent & Stephenson, 1979; Orbach & Lamb, 1999) and inconsistencies (Lamb & Fauchier, 2001; Orbach & Lamb, 2001) than more open-ended prompts. By following an option-posing prompt with an invitation, the likelihood of interviewers adopting a progressively narrow questioning style and employing further option-posing questions is minimized. It is possible that the increase in invitations observed during the self-review phase reflected, in part, interviewers' enhanced focus on using this question type after more focused prompts.

We also hypothesized that interviewers' subjective ratings prior to coding would not be associated with the objective evaluation of their performance because Agnew et al. (2006) found that interviewers' global subjective evaluations of their interviews did not reliably discriminate between the best and worst performers. Consistent with this hypothesis, interviewers' subjective ratings prior to coding their own questions did not significantly predict interviewing performance in terms of the proportion of prompts used and adherence to the pairing principle. Thus, supervision informed by the interviewers' subjective evaluation is unlikely to be based on an accurate picture of how the interview was actually conducted. However, in our study after interviewers coded and tallied their own questions,

interviewers' subjective ratings of whether they adhered to open-ended prompting did significantly predict their actual use of open-ended prompts. Presumably, coding and tallying their use of open-ended questions may reduce the discrepancy between interviewers' perceptions of their use of open-ended prompting with their actual use. This finding suggests that self-review that includes coding and tallying questions may improve insight into areas of weakness to focus on to improve subsequent interviews.

Although our findings must be viewed as preliminary given the small sample size, we have provided some evidence that self-review may be a relatively simple and cost-effective method for improving questioning practice. With fairly minimal input at the outset of the project interviewers in this study were able to effectively follow the guided self-review model accurately, with good initial results. Anecdotally some of the interviewers in this study positively evaluated the self-review process but noted that it was challenging to find time to implement. For most interviewers, self-review of a one-hour interview took approximately one to one-and-a-half hours to complete. Limited time for practice evaluation is also an obstacle to regularly accessing external supervision (Wolfman et al., in preparation) and it seems that this issue also applies to self-review. Although clearly an investment in terms of time and individual workload, however, the self-review process limits resources required for including a second person in the evaluation process (e.g., travel, time, supervision fees). Pressure on workload might be ameliorated if positive effects from self-review could be obtained from evaluating shorter excerpts from interviews, rather than the entirety of the substantive phase, and this could be a focus for future research.

Limitations and Future Research

Although this pilot study suggests the potential positive effect of self-review on forensic interviewing practice with children, there are a number of limitations that need to be acknowledged. First, it is important that our study be replicated in the future with a larger sample size, to establish the generalizability of the effects we noted. Interviewers volunteered to participate in this study and therefore, our sample may also have been biased through self-selection. Our participants were clearly motivated to engage in behavioural change to improve their forensic interviewing practice, and consequently, our positive results may not necessarily be replicated when implemented in the wider population. Furthermore, research has demonstrated that mere observation can change behaviour (Lipinski & Nelson, 1974). As such, the awareness that their interviews were being monitored may have led to spontaneous improvements in practice when interviewers submitted interviews at the base-line and the self-review phases, leading us to over-estimate the impact of the self-review process. Given

that most had participated in the evaluation study presented in Chapter 5 and 6, however, we suspect that observation effects may have been minimal because interviewers were accustomed to the involvement of the research team. Our study may also, however, have under-estimated the impact of self-review. If the interviewers in our study were already conducting higher-quality interviews at base-line compared to the wider population of forensic interviewers, then there may have been less room for improvement in practice. When we examined interviewing practice at base-line in this sample, direct questions were most frequently asked (45.24%), followed by cued-invitations (24.35%), option-posing prompts (16.40%), invitations (13.61%) and suggestive prompts (0.39%). In contrast, evaluation of interviewing practice in the wider forensic interviewing community (Chapter 5) revealed that direct questions were most frequently asked (57.1%), followed by option-posing prompts (20.5%), cued-invitations (12.6%), invitations (9.4%) and suggestive prompts (0.5%). Thus, interviewers in this sample were already asking more broad-open ended questions before engaging in self-review (invitations and cued-invitations combined; 37.96%) compared to the wider sample (22%). Untrained interviewers (such as the law students in Stolzenberg and Lyon's study) or those who are conducting poorer quality interviews may gain more benefits from self-review. Secondly, due to lack of control over real world processes, we opted for a quasi-experimental approach to studying the effects of our intervention, and therefore did not enlist a control group. Because of this fact, we were not able to rule out a variety of confounds that may have affected the differences between the two time points (Cook, Campbell, & Day, 1979). Future work would do well to compare the intervention group with a control group to allow for a more confident endorsement of the obtained differences.

Thirdly, interviewers' questioning strategies may be affected by other factors such as children's responsiveness. Gilstrap and Papierno (2004) for example found that interviewers were more likely to ask leading questions with shy and withdrawn children in interviews about a staged event. Although we did not see this same interaction in our evaluation sample (Chapter 6), the content of both interviewers' questions and children's responses may influence each other, and examining these issues in the context of self-review will be helpful in future research.

Finally, we examined the effect of guided self-review on interviewing quality as assessed by the types of questions interviewers asked. There are many other ways of assessing interviewing quality such as interviewers' use of support (which is particularly important with reluctant children; Ahern et al., 2014), and how interviewers conduct rapport building and free-narrative practice designed to prepare children to talk about the abuse

allegation (e.g. Brown et al., 2013). Future studies should examine the impact of guided self-review on a wider range of aspects of interviewing practice.

Conclusions

This pilot study is the first to examine the effect of self-review on forensic interviewing practice in the context of investigating child abuse allegations. As expected, self-review increased the use of recommended questioning techniques. Given the preliminary indication of the positive effects of self-review, future research should evaluate the optimal conditions for achieving benefits with self-review, including the frequency of engaging in the process, how much of the interview needs to be evaluated, the need for booster training, and the duration of positive effects once self-review is discontinued.

If the results are replicated, then self-review of interviewing practice has the potential to be a relatively simple and cost-effective way to maintain the effect of interviewing training and to promote best-practice and high quality interviews with children. This approach may form an effective complement to individual supervision interactions by maintaining quality control between external supervision sessions and highlighting issues for focus in such meetings.

Chapter 9: General Discussion

Research in forensic interviewing with children has evolved from focussing on how interviewers *are* questioning children, to how interviewers *should* question children, and finally how to *improve* interviewers' questioning practice. Like any area of research, there is an emphasis on bridging the gap between theory and practice. The present thesis attempted to answer the question of *why* there is a gap between theory and practice in forensic interviewing with children, and more importantly on how to reduce this gap. To do so, it has resulted in original contributions to the body of knowledge on forensic interviewing practice with children.

Firstly, the findings of this doctoral thesis suggested two reasons why interviewers predominantly ask direct and option-posing questions: 1) interviewers do not follow the pairing principle, resulting in an over-reliance on focussed questioning (Chapter 6), and 2) interviewers were not receiving regular and practice-focussed supervision (Chapter 7). There have been no studies examining the pairing principle even though it is recommended in the APSAC (2012) guidelines, and the NICHD protocol (Lamb et al., 2010; Orbach & Pipe, 2011). This is therefore the first research to clearly demonstrate the utility of the pairing principle in increasing the use of invitations and cued-invitations in forensic interview with children.

Secondly, the present thesis provides some insight about why interviewers are not receiving regular practice-focussed supervision even though it plays a crucial role in improving adherence to best-practice recommendations. An important finding from this thesis was that there are a number of barriers both at the individual and the organisational level that affect interviewers' access to supervision (Chapter 7). Given the importance of supervision for forensic interviewers, identifying barriers that need to be addressed is an important step to increase their access to it. Furthermore, this thesis highlights the importance of understanding the "consumers" of this knowledge – the forensic interviewers themselves. Without understanding interviewers' perceptions of supervision, it is difficult to effectively implement methods to improve their access to supervision. Finally, the question of how to bridge the gap between theory and practice was addressed by investigating self-review as a complementary method to supervision (Chapter 8). The preliminary results were promising, and therefore self-review may offer another step to facilitate best-practice interviewing with children. Together the findings of this thesis have important implications in forensic interviewing practice with children, and point to several avenues for future research.

In the following section, the main results of the four aims of this thesis will be

summarised, integrated with previous literature and theory, and considered with the limitations of each study.

Evaluation of Forensic Interviewing Practice in New Zealand

The first aim of this thesis was to examine forensic interviewing practice with children in New Zealand. Only two published studies have examined forensic interviewing practice with children in New Zealand (Davies & Seymour, 1998; Hanna et al., 2012). The sample sizes of these studies were small, exclusively focused on forensic interviews included in cases that progressed to a court hearing, and made comparisons between interviewers' questioning practice and those of defence and prosecution lawyers. Notably, Davies and Seymour's (1998) study was conducted over 17 years ago.

Research has demonstrated significant differences in child, allegation and suspect characteristics between the child abuse cases referred to court versus those that are not (for a review see Pipe et al., 2013). Specifically, cases involving children who were older, female, and allegedly experienced multiple episodes of penetrative sexual abuse with a stranger from a minority group were more likely to be referred to court (Pipe et al., 2013). Thus, Davies and Seymour's (1998) and Hanna et al. (2012)'s forensic interview samples may only represent these types of cases (allegation, suspect, or child characteristics other than age were not reported in both of these studies), or cases where there was sufficient evidence to prosecute (Pipe et al., 2013). Arguably the forensic interviewing carried out may also have been of better quality as cases with poorly conducted interviews may not proceed to court. In contrast, our study examined DVD recordings of forensic interviews irrespective of whether these cases ultimately reached court. Whilst the use of DVD recordings rather than official police transcripts in our study precluded a closer examination of children's responses in our study, it enabled us to examine a broader cross section of the interviews conducted with children in New Zealand. In this way we minimised the possibility that findings were confounded with the quality of children's evidence or characteristics of the broader investigation.

The results of our evaluation of interviewing practice in New Zealand show that, similar to interviewers around the world, direct and option-posing questions were the predominant strategies used by interviewers (combined they accounted for 77% of the questions posed). Similar findings have been documented in Australia (Powell & Hughes-Scholes, 2009), Canada (Luther et al., 2014), Finland (Korkman et al., 2006; Santtila et al., 2004), Israel (Lamb, Hershkowitz, Sternberg, Esplin, et al., 1996), Norway (Thoresen et al.,

2006), Sweden (Cederborg et al., 2000), United Kingdom (Sternberg et al., 2001) and the United States (Lamb, Hershkowitz, Sternberg, Boat, et al., 1996; Sternberg et al., 1996; Warren et al., 1996). Although direct questions are open-ended, and technically consistent with research-based practice, optimal practice would produce fewer direct questions (and higher use of invitations and cued-invitations). When direct questioning was used, moreover, forensic interviewers failed to adhere to the principle of following a direct or an option-posing prompt with an invitation or a cued-invitation (the pairing principle).

The consistency of interviewers' reliance on more focussed prompts, across a range of countries suggests that interviewers find it difficult to shift away from this style of questioning. Interviewers' beliefs in the value of these questions for obtaining specific information about the allegation, such as identity of the offender or the time and location of the abuse, may contribute to their persistence in using them (Guadagno et al., 2013; Wright & Powell, 2006). Furthermore, this may reflect automatic or habitual tendencies to interact with children in this way (Lamb & Brown, 2006). Interviewers may also prefer asking direct or option-posing questions in favour of invitations and cued-invitations given that there is a lower likelihood of eliciting non-responses from children with them (e.g., Chapter 6; Korkman et al., 2006).

Finally, the beliefs *other* professionals hold about the value of different question types may influence forensic interviewers' questioning strategy. Burrows and Powell (2014) found that Australian prosecutors believe broad open-ended questions in forensic interviews are problematic. As one prosecutor highlighted, "One form of question that often gets used is, "Tell me *everything* about …". That can be problematic when it is non-directive, for example, "Tell me everything about George" ". Children get confused by questions that are open-ended without being focused" (p. 194). Forensic interviewers may therefore ask more direct and option-posing questions to limit the possibility of children being confused about what they should respond to, or because they are aware that such questions are not viewed favourably by the judiciary.

New Zealand forensic interviewers employed more invitations and cued-invitations (combined these accounted for 22% of the questions), and fewer suggestive prompts (0.5%), compared to other countries, where prevalence rates for invitations ranged from 2% (Finland; Korkman et al., 2006) to 16% (Australia; Powell & Hughes-Scholes, 2009), and prevalence rates for suggestive questions ranged from 2% (Australia; Powell & Hughes-Scholes, 2009) to 26% (Finland; Korkman et al., 2006). Our findings also suggest that New Zealand forensic interviewers were showing better adherence to best-practice recommendations when

123

preparing children to talk about the abuse allegations than is observed in other countries. Interviewers consistently discussed ground rules, asked for a promise to tell the truth, and conducted rapport and free- narrative practice. Evaluations from other countries have shown that interviewers often omit ground rules (Luther et al., 2014; Roberts & Cameron 2015; Sternberg et al., 2001) or episodic recall practice (La Rooy et al., 2011; Luther et al., 2014; Westcott & Kynan, 2006).

The improved adherence to several best-practice recommendations relative to other countries may reflect the quality of the protocol followed in New Zealand. First, forensic interviewers in the present sample were following the Specialist Child Witness Interviewing model, which is adapted from the NICHD Investigative Interview protocol and the PEACE framework (Westera et al., in press). In contrast, some of the overseas evaluation studies included interviewers who were 1) not following the NICHD protocol or a particular interviewing model (e.g., Cederborg et al., 2000), or 2) not specifically trained in forensic interviewing (e.g., psychologist and psychiatrists in Korkman et al., 2006). Research suggests that following the NICHD Investigative Interview protocol improves interviewing practice (for a review see La Rooy et al., 2015), although the improvements are contingent upon receiving regular supervision and feedback (Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002).

Training in a particular protocol alone may not assist in overcoming tendencies to use direct and option-posing questions because of the ingrained nature of how adults usually converse with children (Lamb & Brown, 2006). However, training in a best-practice protocol may assist in improving the use of invitations and cued-invitations and reducing the most problematic prompts (suggestive ones) – even if the invitations and cued-invitations remain less frequent than desirable. The second our results may have differed from overseas evaluation studies is the recency of our evaluation may have captured improvements in practice over time that reflect forensic interviewers' growing awareness of what constitutes best-practice interviewing. For example, Thoresen et al. (2006) found a reduction in suggestive and option-posing questions from 1985 to 2002 in Norway, with a comparable increase in direct questions. However, there were no changes in invitations and cued-invitations. These results suggest that increasing interviewer's use of invitations and cued-invitations may require more than increasing knowledge of how *not* to interview children.

Comparing our finding to other overseas studies, we must consider the limitations of the study. First, although we had a healthy sample size compared to the overseas literature, our sample may be biased in terms of the children and the cases investigated. In this study, 51

out of 81 forensic interviewers in New Zealand consented to participate in the study (63% sign up rate) but only 27 submitted interviews (52.9% of those who consented). Anecdotally many interviewers who consented but did not submit interviews discussed how difficult it was to obtain consent from some parents/guardians. Often, these were parents/guardians of children who were interviewed about sexual abuse allegations perpetrated by a family member. As a result, cases with familial suspects may be under-represented and those with strangers and known perpetrator suspects may be over-represented in our sample. For example, in a review of studies examining the prevalence of child sexual abuse in 20 countries, Finkelhor (1994) found one-third to half of the cases related to familial suspects. Given the research that suggests children are more reluctant to disclose abuse when perpetrated by a family member (Hershkowitz et al., 2007), it is likely that children in our sample would be more willing and motivated to discuss the abuse allegation, which may have affected interviewers' questioning strategies.

Secondly, interviewers volunteered to participate in this study and consequently, our sample may have been biased through self-selection. Interviewers in our study were those who were willing to put themselves forward for objective evaluation. It is possible that interviewers who did not participate in the study may have been different in some important way (e.g., perhaps by asking more suggestive questions compared to the average). Taken together, these two limitations suggest that our results may represent an optimistic rather than a realistic picture of forensic interviewing practice in New Zealand.

Finally, given our restricted access to DVD recordings due to legal, practical and ethical constraints, we were unable to transcribe the content of children's responses, and thus, assess the level of details elicited from different prompt types. In particular, the content of children's responses and interviewers' questions might shed some light on the mechanisms underlying the contingencies between the interviewers and children, rather than solely the interviewers' prompt types. For example, Leander (2010) found that in 27 verified cases of sexual abuse, children often avoided responding to questions or denied experiencing sexually abusive acts they had experienced. Furthermore, only one in ten details children reported during the forensic interviews related to the actual sexual acts at the heart of the investigation. When comparing verified cases of physical versus sexual abuse, children who experienced physical abuse were more forthcoming than those who experienced sexual abuse in reporting the abusive acts (Azad & Leander, 2015). Furthermore, children who experienced sexual abuse may have been groomed by the perpetrator which may increase their reluctance to disclose (Paine & Hansen, 2002). This difference suggests that the nature of sexual abuse

may contribute to non-responsiveness to questions assessing the specific abusive act (e.g., "Tell me more about him touching you").

It is also important to note that non-verbal behaviour was not examined in this thesis. This may have further highlighted the mechanisms and nuances underlying interviewer and child exchanges. Bonanno et al. (2002) and Katz et al. (2012) have found significant differences in non-verbal behaviour (e.g., facial expression indicating shame, physical disengagement such as looking away from the interviewer) of children and young people who did not disclose abuse compared to those who did. Forensic interviewers may change (or persist with) their questioning strategy if children are expressing their reluctance or disengagement non-verbally. In laboratory analogue studies, interviewers' use of gestures may be used as a source of information and misinformation for children (Broaders & Goldin-Meadow, 2010; Kirk, Gurney, Edwards, & Dodimead, 2015). Furthermore, children's use of gestures while recalling a staged event contained information that was not expressed verbally (Broaders & Goldin-Meadow, 2010). This finding suggests that the interviewer-child contingencies may be affected by both interviewers' and children's non-verbal behaviours as well. A potentially informative line of future research, therefore, would be to include these dimensions of behaviour in analyses of interactions between children and interviewers.

Factors That Influence Forensic Interviewing Practice

The second aim of this thesis was to identify factors that influence forensic interviewing practice. Understanding individual, case and systemic issues that influence practice is important, for developing effective interventions to support good practice. Research suggests that interviewing practice may vary as a function of the child's age (Kask, 2012; Lamb et al., 2000; Thoresen et al., 2006; Warren et al., 1996) and allegation characteristics (Lamb, Hershkowitz, Orbach , et al., 2008; Sternberg et al., 1996). The training background of interviewers (i.e., social workers vs. police officers) does not appear to influence interviewing practice (Powell et al., 2012), but the influence of experience on interviewing practice has not been consistently demonstrated (La Rooy et al., 2011; Powell & Hughes-Scholes, 2009; Powell et al., 2012; Smith et al., 2009).

Findings in the present New Zealand sample (Chapter 5) also suggest that a number of child and characteristics were associated with variations in interviewing practice. Older children were asked more questions than younger children, consistent with previous research (Sternberg et al., 2001). Children who allegedly experienced penetration compared to non-penetration abuse were also asked more questions. Interviewers were also more likely to ask

cued-invitations if the alleged suspect was a relative or a known person (compared to a stranger), and if they worked in metropolitan interviewing sites compared to rural interviewing sites. The latter finding is interesting and warrants further attention. Given that geographical isolation was one of the barriers identified by forensic interviewers to accessing practice-focussed supervision, difficulty in accessing regular supervision for interviewers in rural sites may contribute to poorer interviewing practice. However, we cannot directly test whether variations in interviewing practice by location is mediated by access to supervision. Future research should work to establish whether this is the case or whether other factors may play a role in the variation of interviewing practice between metropolitan and rural forensic interviewers.

On the other hand, interviewer characteristics such as experience and professional affiliations did not influence interviewing practice. This is also consistent with previous studies (La Rooy et al., 2011; Powell & Hughes-Scholes, 2009; Powell et al., 2012). Furthermore, the child, allegation and interviewer characteristics were not found to influence interviewers' use of pairing, which suggests that other factors such as supervision may play a role. The recommendation of using pairing in forensic interviews has not been widely examined or discussed in the literature (but see APSAC, 2012, Orbach et al., 2000 and Orbach & Pipe, 2011) but promotion of this practice is recommended given our finding that higher adherence to the pairing principle was positively associated with the use of invitations and cued-invitations. It is worth noting that in New Zealand, the "pairing" principle (referred to as "spiral questioning") has only been emphasized recently with the introduction of the New Zealand Specialist Child Witness Interviewing model. Further emphasis on pairing in training, accreditation, and supervision may increase the prevalence of this technique in the future.

Forensic Interviewers' Perceptions of Supervision

The third aim of this thesis was to explore forensic interviewers' perceptions of supervision. Findings in Chapter 7 suggested that New Zealand forensic interviewers varied greatly in terms of how often they accessed supervision, and how satisfying they found it. Importantly, only two-thirds of respondents indicated that they received practice-focussed supervision. Out of these interviewers, more than two-thirds did not receive regular supervision (as defined by weekly, fortnightly or monthly). Although proportionally more of our forensic interviewers accessed supervision than Scottish (La Rooy et al., 2011) or Canadian forensic interviewers who work with adults (Snook et al., 2012), there is still

significant scope for improving access and satisfaction for forensic child interviewers in New Zealand.

Even for those interviewers accessing supervision more frequently, the ratio of supervision to number of interviews conducted was high (an average of 23 interviews per supervision session). Thus, interviewers were engaging in a significant number of interviews before having the opportunity to review their work. The implementation of a national accreditation system to monitor interviewing standards is an important step in monitoring national practice and adherence to the Specialist Child Witness Interviewing model. Although accreditation will be helpful in setting a benchmark of practice, and improving interviewers' access to detailed feedback (by providing detailed feedback of at least two interviews per annum), on its own it is unlikely to be sufficient in maintaining good interviewing practice in the absence of other supporting activities (Cyr et al., 2012; Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002). Exploring other opportunities for effective practice review that can complement the formal accreditation process and traditional supervision will be important. As shown in Chapter 8, guided self-review may offer a unique method to address the gaps in supervision practice.

Although forensic interviewers may demonstrate an awareness of the importance of regular feedback and supervision (e.g., La Rooy et al., 2015), there is a paucity of research regarding the practice and theory of supervision in the context of forensic interviewing. Just as research has developed "best-practice" models on how to interview children (e.g., La Rooy et al., 2015), and how to train forensic interviewers (e.g., Benson & Powell, 2015), a "best-practice" model of supervision for forensic interviewers needs to be developed. Although still in its infancy, best-practice recommendations for supervision have emerged for mental health professionals (e.g., Fleming & Steen, 2013). This may serve as a useful framework for supervision of forensic interviewers. Adding to this issue is the lack of knowledge regarding important characteristics of supervisors. Köpsén and Nyström (2015) argued that supervisors in the forensic field require specific skills to ensure optimal learning for trainees. Yet supervisors typically receive little or no training on how to supervise (e.g., clinical psychology supervisors: Milne, 2010), which highlights another gap in the literature that needs to be addressed in the future.

Although difficult to do, field research makes an invaluable contribution to understanding the challenges faced by forensic child interviewers in adhering to best practice recommendations. In all of our studies we were faced with difficulties in recruitment, meaning smaller samples sizes that we would have liked. As such, the results provide

important directions for future research, but must be replicated across different countries, interviewing protocols, and with more substantial and diverse samples.

The Effectiveness of Self-review on Forensic Interviewing Practice

Given the scarcity of expertise in New Zealand for providing regular, targeted supervision and feedback for conducting forensic interviews with children, we examined an intervention in a pilot study. This aimed to facilitate maintenance of interviewing standards and may be used to complement face-to-face supervision. The third aim of this thesis was to evaluate the effectiveness of a self-review tool designed to increase interviewers' adherence to open-ended questioning and the pairing principle.

Although they should be viewed as preliminary, the finding suggests that the use of a guided self-review tool was found to increase interviewers' use of invitations, reduce use of direct prompts and produce a higher adherence to the pairing principle. If the findings are replicated in future studies with larger sample size, self-review may be a cost-effective complementary method to traditional supervision interactions to increase interviewers' adherence to open-ended questioning. Furthermore, these findings are consistent with both the *Feedback Intervention Theory* (Kluger & DeNisi, 1996) and the *Self-regulation theory* (Dennin & Ellis, 2003), which offer explanations about why self-review is an important component in any behavioural change programme. Systematic self-observation which reveals discrepancies between interviewers' actual performance and the goal or standard (such as the New Zealand Specialist Child Witness Interviewing model) may elicit dissatisfaction in interviewers. This may in turn motivate them to improve their interviewing practice by asking fewer direct prompts in favour of more invitation prompts.

Although the results of this study are encouraging, the small sample size (in terms of the number of interviewers) and the issue of self-selection bias means that interpretation of these findings should be made cautiously. Interviewers in our sample were not only motivated and willing to attend an 8-hour individual training session on the coding of questions, but they were also willing to transcribe and code every single question in the *Account* phase of the interview during the self-review phase. Anecdotally interviewers spent between one to two hours self-reviewing each interview. Furthermore, four out of the six interviewers in this study also participated in the first two studies, which suggest that our group of interviewers was generally more willing and active as research participants. They may also have engaged in other activities (e.g., mentoring trainee interviewers and leading peer-reviews) that may have contributed to their improvement in interviewing practice.

129

Replication of this study with the wider interviewing community may shed more light on the effectiveness of guided self-review with interviewers who are less motivated or more concerned about being evaluated.

Suggestions for Future Research

At the time of the evaluation study (Chapters 5 to 6), Child, Youth and Family and the New Zealand Police were jointly engaged in the process of implementing an accreditation system for forensic interviewers to monitor interviewing standards, identify interviewers in need of support for improving practice, and improving consistency in interviewing throughout the country. One contribution of our study was to identify areas for targeted refresher training, and to provide a baseline of current practice from which to evaluate interviewing standards over time after the accreditation process goes into effect. It will therefore be important that further evaluation of interviewing practice is undertaken once all forensic interviewers have completed their refresher training and a period of interviewing following their first successful accreditation assessment has occurred. It is also important to regularly assess interviewers' satisfaction with their current access to supervision. Given the nature of changes in training opportunities, such as formal feedback about interviewing practice (accreditation), peer review meetings and other kinds of professional development activities, we suggest a replication of this study to assess interviewer perceptions of their effectiveness at a later date. Ideally such a study would include an examination of interviewing practice, and a direct measure of participation in supervision. This would explore possible associations between perceptions, participation, and interview practice. For example, with the implementation of the accreditation programme, interviewers are and will be receiving detailed review/feedback on at least two of their interviews annually and consequently, satisfaction of their access to supervision and feedback may have improved.

Besides replicating all of these studies with a larger sample of interviewers, future research should also systematically investigate elements of effective self-review to establish the necessary elements for achieving positive outcomes. For example, it will be important to assess how often (e.g., weekly, biweekly, monthly) interviewers need to engage in self-review, and how much of their interviews they should evaluate (whole length of the account phase or just a portion), as well as the optimal time delays between conducting the interview and reviewing it. Gaining a better understanding of these factors will enable forensic interviewers to maximize the benefits of self-review whilst minimizing its cost in terms of time and effort.

Conclusions

Improving the quality of forensic interviews with children has been a focus of research for many years. Consistent international evidence has demonstrated that deviation from best-practice recommendations is typical, even with training in following evidence-based protocols. Our evaluation of current forensic interviewing with children in New Zealand has highlighted areas of adherence to evidence-based recommendations, as well as areas for improvement. Undoubtedly, forensic interviewing with children is a challenging task that requires highly specialised skills developed both from training in evidence-based protocols, and, ongoing regular supervision and feedback. Regular supervision and feedback about interviewing practice has consistently been found to improve questioning practice, but is not widely or systematically available to many forensic interviewers at the time of the study. Guided self-review may improve questioning practice, which in turn may improve the quality of evidence elicited from vulnerable witnesses. Given that children's testimony typically makes a critical contribution to investigations of allegations of abuse, it is important to invest in processes that assist interviewers in conducting good interviews. Ensuring evidence-based, high quality interviews are important for protecting children from further abuse, and also for protecting innocent adults from false accusations.

Appendix 1: The New Zealand Specialist Child Witness Interviewing Model

The Officer in Charge of the Case, Interviewer and Monitor should be identified at an early stage to ensure the child needs are met. Prior to the interview the Child, Youth & Family social worker will prepare the child for the interview process.

Interviewer guidelines

Planning & Preparation

Step		Guidelines
1	Child considerations	• Review the written referral from Child, Youth & Family or Police and contact the social worker to ensure early risk assessment and prioritisation can be addressed • Where appropriate obtain any additional information from other sources to ensure the child's safety and needs at interview are met
2	Investigatively important topics	• Familiarise yourself with the allegation in order to identify appropriate topics and transitional questions • Identify potential offences before the interview to allow familiarisation of legal points to cover
3	Interview structure	• Taking into account the child's age and development decide what must be covered under Evidence Regulations 2007 regarding truth, lies and the promises

4	Practical arrangements	• Prepare the interview room, equipment and aids according to the child's needs as identified within the planning, ensuring that:
		    o the child is seated with their face visible to the camera during the entire interview
		    o a simple, clear-faced analogue clock with a second hand, correctly recording the time, is fixed and visible throughout the interview (Reg 8)
		• Brief the monitor about their role and any special requirements for the interview
		
		Interpreter or support person
		• If an interpreter or support person is present seat them out of the child's sight but in view of the camera (Reg 11 & 12)
		• An interpreter using sign language must also be in the full view of the child at all times

Engage & Explain

Step		Guidelines
1	Caregiver	Interview the parent/carer at an early stage: • explain to them the investigation and interview process • if they are also a witness who has not been formally interviewed, be careful about what you disclose about the investigation

		- obtain any further information about the child's needs at interview including their safety and welfare, communication skills and special needs - if they are also the recent complaint witnesses, obtain details about the child's disclosure including how it came up, how it was elicited and what was said - explore alternative hypotheses about what happened, especially if the child is young and there might have been contamination by the parent - obtain signed consent for the interview to be conducted
2	Child familiarisation	To familiarise the child with the interview process: - explain the process - show the child the interview room and monitoring room - introduce the monitor - explain the need to cover truth, lies and promises. Do not discuss the alleged offence(s) at this stage.
3	Introductions	Once the child is settled, signal to the monitor to start the recording. When the recording starts: - introduce yourself by name and role (Reg 8) - state the place, time & date (Reg 8) - state that the interview is being monitored, and the monitor's name and role - ask the child to tell their name and age (Reg 8) **When an interpreter or support person is present** Ask the interpreter and/or support person to state their name. Also ask the interpreter to promise to accurately and completely translate the words of the child.
4	Ground rules	- Explain to the child that it's ok to say: - I don't know - I don't remember - I don't understand - Give them permission to correct you if they feel you have misunderstood them - It may also be useful to practice getting something wrong by using neutral topics to ensure the child has understood
5	Promise to tell the truth	**12 years and older** - Tell the child that it is really important to tell the truth today - Ask the child 'do you promise to tell the truth?' **Under 12 years/where appropriate for developmentally delayed** - Tell the child that it is really important to tell the truth today and not tell lies - Ask the child 'do you promise me that everything you tell me in here today will be the truth?'

| 6 | Rapport and free narrative practice | • Do a free narrative practice by asking the child to identify a neutral event:
   ○ 'Tell me some things you like to do...'
• Use an open invitation to elicit a narrative about the event:
   ○ 'Tell me about what happened the last time that you did (something they like doing)...'
• Use Elicit an Account to focus the child on the one event (e.g. the last time they did that) by asking him or her to:
   ○ have a big think about that time
   ○ think about what you could see (pause)
   ○ think about what was happening around you (pause)
   ○ think about what you could hear (pause)
• Use a range of prompts to extend the narrative and obtain detail, e.g.:
   ○ 'What happened next...'
   ○ 'What else can you remember about that...'
   ○ 'What happened from xxx time to xxx time...' |

Account

Step		Guidelines
1	Opening question	Ask the child what they have come to talk about, e.g.: "What have you come to talk to me about today?"
2	Transitional questions	If they don't know what they have come to talk about, ask further invitational and transitional questions, e.g.: • "Who brought you here today?" • "Was there anything he/she said about coming here today?" • "What do you think it might be about?" • "Is there anything that you don't want to talk about today?" • As a last resort a question such as: "Mum/social worker said that you had something you need to talk about – tell me about that?" If the child still does not know what they are here to talk about proceed to an exploratory format

3	Free narrative	If the child provides a clear response about why they are here:
		• use open invitation (TEDS type) to ask the child to tell you all about what happened
		• when their narrative reaches an end, assist them to elaborate through more open invitations, e.g.:
		   ○ "Tell me about that"
		   ○ "Then what happened?"
		   ○ "What else can you remember about that?"

4	Clarify range and frequency	In order to structure and pace the rest of the interview briefly clarify: • whether anything else like that has occurred with XX, and if so,

		• the frequency

5	Transfer control and reinstate ground rules	• Explain the need to understand more about what happened
		• Transfer control to the child by explaining that you were not there and you need their help working out what happened
		• Reinstate ground rules:
		  o I don't know
		  o I don't remember
		  o I don't understand

6	Report everything	• Ask the child to:
		  o tell you everything, even the little things
		  o not to guess or make things up

7	Eliciting an Account and expanding topics in detail	• Obtain in depth detail on each alleged offence or a selection of offences
		• Use Elicit an Account to focus the child on a specific event (e.g. the time at the bach):
		  o have a big think about that time
		  o think about what you could see (pause)
		  o think about what was happening around you (pause)
		  o think about what you could hear (pause)
		• Use an open invitation to gain more information about that topic e.g. 'Tell me about everything that happened the time you were at the bach...'.
		• Use open invitations and spiralling questions to obtain more detail.

Questioning

Identify topics	Use open invitations and spiral questioning to work through topics in the same order that the child recalled the topics during free narrative (usually)
Generate narratives	At the beginning of each topic use an open invitation to generate a narrative for the topic

Spiral questioning	Question order - use spiralling process to cover relevant topics using preferred question types:
	• Whenever possible use open invitations (TEDS type):
	  o Free narrative invitations, e.g. "Tell me what happened..."
	  o Cued invitations, e.g. "You said Uncle Harry touched you. Tell me more about Uncle Harry touching you..."
	  o Time segmentation/Parameter, e.g. "You said Uncle Harry came into the room. Tell me what happened from

					when Uncle Harry came into the room until he left..."
					• If through open invitations you cannot get sufficient clarity or detail, use:
					o Direct questions (i.e. questions that start with what, where, when, who, how), e.g. "What were you wearing when that happened?"
					o If direct questions provide new information return to using open invitations
					• If through direct questions you cannot get sufficient clarity or detail, use:
					o Option posing questions e.g. "I'm just wondering whether that happened in the morning, afternoon or night time or something else."
					o If option posing questions provide new information return to using open invitations
				Facilitators (guggles)	As appropriate use gestures or utterances to encourage more narration, but be careful not to interrupt the child e.g. 'uh huh'; 'mmhmmm'; 'anything else?'
				Child centred questioning	• Tailor the questioning according to the needs of the child • Where possible use the child's words to formulate the questions • Keep questions short and simple
				Avoid	
				Externally derived questions	• Topics the child has not introduced should not normally be asked as they may mislead the child • When, the interviewer does need to introduce investigatively important topics, do so at the end of the interview after all the child's topics have been explored • If new information arises, use open invitations and spiral questioning
				Topic hopping	• Try to expand on one topic fully before moving onto the next topic • If the child jumps to another topic, acknowledge what they have said, finish the topic you are currently on and return to the other topic later
				Suggestive/ leading questions	• Avoid questions that imply the answer e.g. 'so your dad gave you that bruise didn't he?'; 'show me where he touched you' (when no touching has been disclosed by the child)

		• During the interview obtain the following information if possible:
		   ○ details of alleged offences
		   ○ locations and times
		   ○ content of conversations
		   ○ factual detail such as colours, smells and other observations
		   ○ corroborative evidence
		   ○ potential witnesses
		   ○ description of injuries
		   ○ other relevant information.
		
		Sketch plans/Body diagrams/interview aids
		Use sketch plans, body diagrams and timelines if appropriate (these might be covered before the monitor's break)

8	Recent complaint	For sexual offences use open invitations and spiral questioning to gather recent complaint information or information about why no complaint was made at the time: • who the first person was that they told • when they told them • how come they decided to tell then • how come they didn't tell before (if there's been a delay) • gather any information about the child's demeanour.

9	Monitor's break	• Before the end of the interview have a monitor's break
		• Before leaving the interview room:
		   ○ state the time
		   ○ estimated duration of the break
		   ○ reason for leaving (Reg 9)
		• Confer with the monitor to check what other topics or details need to be covered
		• Decide what, if any, topics or details you want to further explore and the order of those topics
		• Keep the number of monitor's breaks to a minimum as too many checks become disruptive
		• On return to the interview room state the time
		
		Interpreter or support person
		When leaving the room instruct the interpreter or support person not to confer with the child during the break.

10	Clarification	• Ask the child if they have thought of anything else whilst you were out of the room • Use open invitations and spiral questioning to probe new information • Clarify any issues raised by the monitor • Ask the child if there is anything else that they haven't talked about that has happened with the same person

Closure

1	Closure (on camera)	- Ensure all exhibits produced during the interview are labelled with the child's name, are signed and dated - Offer the child the opportunity to add any further information or to ask any questions - Introduce a neutral topic, e.g. what they have missed at school today. Let the child narrate. - Thank the child for talking with you today - State the time at the end of the interview (Reg 8)
2	Closure (off camera)	- Ask the child how they are feeling, acknowledge what they say and thank them - Provide appropriate feedback to caregiver about the outcome of the interview - Give the child time with their caregiver - Label DVDs and seal the Master copy, complete DVD Certificates and logbook, and secure DVDs

NOTE: If at any time during the interview the child is unable or unwilling to proceed, conclude the interview and, if appropriate, reschedule for another interview.

Evaluation

Step		Guidelines
1	Investigation evaluation	- De-brief with monitor, Social Worker & O/C Case (when present) - Complete documentation & reports - Report for NIA & CYRAS - Statistics forms - Provide a case update with Social Worker and/or O/C Case (if not present at interview)
2	Self-evaluation	- Self evaluate your own performance at interview - Discuss with the monitor what worked well in the interview and what may need to be improved next time

Exploratory Format

When the child does not disclose what they are there to talk about more than one interview may be required. If a child alleges abuse during the exploratory format, revert to the 'Free Narrative' phase of the Account and proceed from there.

Step		Guidelines
1	Child welfare evaluation	Consider the factors that may constrain the child's engagement (e.g. shyness, anxiety) and use neutral topics to explore different aspects of the child's situation
2	Engage the child	Use open invitations to engage the child in a discussion that allows them to give information freely
3	Explore potential concerns	Using open invitations and spiral questioning enquire about a range of things in the child's environment

		• Use information that the child has previously offered and general events in children's lives
		• Be alert to issues of concern expressed by the child
4	Focus on areas of concern	• Using open invitations and spiral questioning focus on areas of concern
		• Directly relate this to what the child has already spoken about
		• Get them to clarify these areas of concern
		• Without raising prior knowledge attempt to clarify any issues of concern identified in the referral or consultation process that the child has not previously spoken about during the interview

Appendix 2: The Coding Scheme for Study 1 and 3

Date of coding:_____ Date of interview:_____

1. INTERVIEWER	
Gender: □Male □Female	Years of experience:

2. INTERVIEWEE	
Gender: □Male □Female D.O.B / Age:	Ethnicity:
Any special consideration on part of interviewee?	□None □ Intellectual □ Language □ Hearing □ Other
Any other person present during the interview?	□None □ Parent / nominated adult / support person □ Other

ENGAGE & EXPLAIN PHASE

Start time:_____

Did the interviewer?	Yes	No	Comments
(a) Set up the interview room appropriately: a. The child is seated with their face visible to the camera during the entire interview	□	□	
b. The interviewer is seated with their face visible to the camera during the entire interview	□	□	
c. A simple, clear-faced analogue clock with a second hand, correctly recording the time is fixed and visible throughout the interview	□	□	
(b) State date and time	□	□	
(c) Introduce self	□	□	
(d) Get witness to introduce self	□	□	
(e) Introduce by name & role any other persons in room	□	□	
(f) Explain that the interview is being videotaped	□	□	

(g) Use a manner and tone likely to establish rapport	☐	☐	
(h) Personalize the interview e.g. use interviewee's name	☐	☐	
(i) Show an awareness of and concern for witness's welfare e.g. offer of drink of water	☐	☐	
(j) Explain roles and routines e.g. interviewer's job is to talk to children to find the truth	☐	☐	
(k) Explain the interview process	☐	☐	

(l) Explain ground rules to interviewee:
   a. Okay to say " I don' t know", " I don't remember" and " I don't understand"
   b. Okay to correct the interviewer
	☐
	
	 ☐
		☐
		
		 ☐	

(m) Does the child require additional practice or explanation to the ground rules?	☐	☐	

(n) Truth/ lie promises
   a. Tell them to tell the truth and not lie
   b. Ask for a promise to tell the truth
	☐
	
	 ☐
		☐
		
		 ☐	

(o) Ask the witness to report everything in as much detail as possible	☐	☐	
(p) State that the interviewer doesn't know what had happened (naive to the incident(s))	☐	☐	
(q) Conduct rapport building?	☐	☐	
(r) Conduct an episodic recall practice?	☐	☐	
(s) Used context reinstatement instructions in episodic practice?	☐	☐	

Interviewer utterances

Interviewer utterances	Definitions	Examples
Invitations	Questions or statements that prompted free-recall responses	"Tell me everything you can remember"
Cued-Invitations	Questions or statements that utilised details disclosed by the child as cues to prompt free-recall responses	"You told me that he took you to that special place. Tell me about that special place"

Direct	Open-ended prompts that refocus the child's attention on details about the allegation, and asked for specific information or details using "Wh-" questions	"What were you wearing?" "When did this happen?"
Option-posing	Focus the child's attention more narrowly on aspects of the account that the child did not previously mention but do not imply that a particular response is expected. This might be formatted as a yes/no response, or option-posing question.	"Did anyone see what happened?" "Did he touch you under or over your clothes?"
Suggestive	Statements or questions that communicated to the child what answer they should give or the interviewers assumed certain information that were not disclosed by the child themselves.	"He touched you, didn't he?"
Summaries	Statements that repeated back exactly what the child had said	"You said he touched you" [After the child said " He touched me"]

Start time:_____

Interviewer utterance (question type)	Did the child answer the question and provide substantive information?

End time: _____

ACCOUNT PHASE

Code	Explanation
Response	The child gave details that were related to the question
Non-Response	The child said "I don't know", "I don't remember", "I don't understand", provided off-topic responses, restatements of previous utterances, or stayed silent.

Instruction: Please record time of utterance, code interviewer's utterance and interviewee's response to interviewer's utterance.

Interviewer utterance	Interviewer's code	Interviewee's response

ACCOUNT PHASE (GLOBAL ASSESSMENT)

Did the interviewer?	Yes	No	Comments
(a) Reinstate ground rules	☐	☐	
(b) Used context reinstatement instructions before eliciting a free recall?	☐	☐	
(c) Do they give context reinstatement instruction before each separate episode?	☐	☐	
(d) Initiate a free report using an open question	☐	☐	
(e) Allow interviewee to give a free report without interruptions	☐	☐	
(f) Use additional techniques (tick yes for all that apply):			
a. Sketch plan	☐	☐	
b. Timeline	☐	☐	
c. Body diagram	☐	☐	
d. Dolls	☐	☐	

	Yes	No	Comments
e. Other (please specify):_____	□	□	
(g) Use interviewee compatible questioning using their order, words and pace	□	□	
(h) Assist the child to temporally structure report	□	□	
(i) Use focused retrieval e.g. using child's own information and words to form prompts for further information	□	□	
(j) Covers investigatively important topics after witness topics	□	□	
(k) Expand investigatively important topics in sufficient detail e.g. detail of alleged offences, location and times, content of conversations, factual details such as colours and smells, corroborative evidence, potential witnesses and description of injuries	□	□	
(l) Use pauses and silences	□	□	
(m) Actively listen and not interrupt	□	□	
(n) Deal with difficulties / inconsistencies	□	□	
(o) Take note? If yes, was it consistent throughout the interview? If not, please specify when note-taking does occur	□ □	□ □	

Start time: _____

CLOSURE PHASE

Did the interviewer?	Yes	No	Comments
(a) Give the interviewee opportunity to add anything or to ask any questions	□	□	
(b) Discuss neutral topic e.g. what the interviewee was going to do after the interview	□	□	
(c) Thank interviewee for their time	□	□	
(d) Discuss with interviewee what to do if they think of anything else after the interview	□	□	
(e) State time interview ends	□	□	

End time:_____

Phase	Start time	End time	Duration
Pre-substantive			
Rapport building and/or episodic practice			
Substantive phase			
Closure			
Total duration of interview			

<u>Additional comments:</u>

Demographic information

Unique Identifier Number (on your information sheet:……………………………….

Gender: ☐ Male ☐ Female

Which ethnic group do you belong to? (e.g. New Zealand European) ………………………

Professional affiliation: ☐ Child Youth and Family ☐ Police

Which interviewing site do you work in? (e.g. Koru House in Wellington):………………..

Full time or part time in child interviewing? ☐ Full time ☐ Part time

If part-time please indicate full time equivalence or the number of hours per week interviewing children...

Please indicate on average how many interviews with children you conduct per week
(e.g. three per week)**:** ....

Years of experience conducting specialist child interviewing:……………………...........

Current supervision access and needs

- How frequently do you engage in supervision?
- What does supervision consist of?
- What is the purpose of your supervision?
- Please rate your satisfaction with your **current access** to supervision and comment on the box below

    I am satisfied with the current access to supervision

1	2	3	4	5
Strongly disagree	Agree	Neither	Disagree	Strongly agree

Please comment on your rating (e.g. if you chose 'agree' above, please comment why you are satisfied with your current access to supervision):

- Please rate your satisfaction with the **current content** of your supervision and comment on the box below

I am satisfied with the current content of supervision

1	2	3	4	5
Strongly disagree	Agree	Neither	Disagree	Strongly agree

Please comment on your rating (e.g. if you chose 'disagree' above, please comment why you are not satisfied with the content of your supervision):

- How important do you think supervision is for your role as a specialist interviewer?

  I think supervision is important for my role as a specialist interviewer

1	2	3	4	5
Strongly disagree	Agree	Neither	Disagree	Strongly agree

- What would you like for supervision?
- How frequent would you ideally like to have supervision? (e.g. monthly supervision)
- What would supervision consist of?
- What other resources would you like to support your current role as a specialist interviewer?
- What are the difficulties you face in accessing supervision? Please list as many as you can identify. These may reflect organisational issues and/ or personal difficulties

Additional comment:

Appendix 4: Preliminary Analyses Examining The Relationship Between Perceptions of Supervision And Interviewing Practice

We examined how interviewers' perceptions of supervision influenced actual recorded interviewing practice, in terms of the proportion of different question types interviewers asked and adherence to the pairing principle (Orbach & Pipe, 2011). For a subset of interviewers who previously submitted interviews for an evaluation study (Chapter 5) we examined the relationship between interviewers' perceptions about supervision and their interviewing practice. Given the small sample size (N=15 interviewers who participated in both studies and only those who engaged in supervision for interviewing practice rather than well-being), the following analyses and results are very preliminary, and should be considered cautiously.

We hypothesized, consistent with previous literature (Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002), that interviewers who engaged in more frequent supervision would be more likely to ask Invitations and Cued-Invitations compared to interviewers who engaged in fewer supervision sessions. The role of supervision in adherence to the pairing principle has not been systematically examined but by extending this reasoning, we suspect that interviewers who reported that they engage in supervision would also be more likely to demonstrate pairing. Finally, although a number of studies have demonstrated the importance of ongoing feedback and supervision for interviewing quality, it remains unclear whether interviewers' satisfaction of their access to, and content of supervision may play a role in this relationship. Given the lack of previous research and literature, no specific hypothesis was made about this issue.

Method

In order to explore the relationship between interviewing practice and responses on the survey, participants who submitted interview DVDs in a study evaluating interviewing practice (Chapter 5) were given a unique identifier number ($n = 27$) and asked for their consent to link the evaluation of their practice from that study with their responses in the survey. Seventeen interviewers consented (62% response rate). On average these interviewers conducted three interviews per week ($SD = 1.66$, $Minimum = 1$ interview, $Maximum = 6$ interviews) and had seven years of interviewing experience ($SD = 7.5$ years, $Minimum = 1$ year, $Maximum = 23$ years). Eight of the interviewers were social workers (47.1%), and nine were police officers (52.9%). Approximately half of the interviewers in this sub-sample worked full time as specialist child interviewers (52.9% vs. 47.1% for part-time).

Results

Although 17 interviewers consented for their survey responses to be linked to their interviews (total of 70 interviews), we excluded 2 respondents who indicated that their supervision was predominantly for well-being as we were only interested in examining the relationship between perceptions of practice-focused supervision with interviewing practice. As such, we examined 56 interviews that were conducted by 15 interviewers. Direct questions were most frequently asked (56.6%), followed by option-posing (18.5%), cued-invitation (13.7%), invitation (10.97%) and suggestive (0.52%) prompts (see Table Appendix 4.1). The distribution of prompts very closely matched the frequencies obtained in the larger corpus of 98 interviews in Chapter 5 and 103 interviews in Chapter 6.

Table Appendix 4.1

Descriptive statistics for the number and proportion of interviewers' questions in the Account phase

	Number				*Proportion*	
	M (SD)	*Min*	*Max*	*M(SD)*	*Min*	*Max*
Duration (minutes)	57.50 (21.58)	20.72	114.42			
Interviewers' questions						
Total	128.14 (66.78)	17	308			
Invitation	12.43 (5.82)	3	26	0.11 (0.05)	0.04	0.30
Cued-Invitation	17.95 (12.89)	0	56	0.14 (0.07)	0.00	0.34
Direct	72.25 (39.94)	11	196	0.57 (0.10)	0.32	0.80
Option-posing	23.86 (13.61)	2	53	0.18 (0.05)	0.06	0.30
Suggestive	0.59	0	5	0.01(0.01)	0.00	0.06

	(1.00)					
Direct → Invitation	3.26 (2.57)	0	11	0.03 (0.03)	0.00	0.17
Direct → Cued-invitation	7.31 (6.29)	0	26	0.07 (0.05)	0.00	0.21
Option-posing → Invitation	1.73 (1.48)	0	6	0.02 (0.02)	0.00	0.09
Option-posing → Cued-invitation	2.90 (2.69)	0	11	0.03 (0.02)	0.00	0.12

Next, we examined whether frequency of supervision sessions per year, satisfaction with access to supervision, and satisfaction with the content of supervision predicted the proportion of different question types that interviewers asked when investigating the abuse allegation. We predicted that interviewers who engaged in more frequent supervision would ask more Invitations and Cued-Invitations than those who engaged in less frequent supervision.

Given that interviewers conducted multiple interviews, resulting in nested data, Generalized Estimating Equation (GEE) analysis was used. We conducted binary logistic models with the following as outcome variables: proportion of (1) Invitations, (2) Cued-invitations, (3) Direct, and (4) Option-posing questions (suggestive questions were excluded given the low frequencies), and entered the following predictor variables as co-variates: (1) frequency of supervision sessions per year, (2) satisfaction with access to supervision, and (3) satisfaction with content of supervision. We conducted 4 analyses, one for each question type, applied a Bonferroni adjustment and consequently adopted a significance value of $p < 0.0125$.

We found that interviewers' satisfaction with the content of their supervision was a statistically significant predictor of the proportion of Invitations interviewers asked (Wald χ^2 (1) = 6.92, $p = 0.009$). For every rating increase in the Likert scale (1-5) for the statement, "I am satisfied with the current content of my supervision", the odds ratio of interviewers asking

Invitations increased by 1.12 95% CI [1.03, 1.21]. Interviewers who were most satisfied with the content of their supervision were more likely to ask invitation questions in their interviews compared to those who were less satisfied.

We also found that the reported frequency of supervision per year was a statistically significant predictor of the proportion of cued-invitations interviewers asked (Wald χ^2 (1) = 10.12, p = 0.001). For every increase in supervision sessions that interviewers attended per year, the odds ratio of interviewers asking cued-invitations increased by 1.02 95% CI [1.01, 1.02]. Interviewers who attended more supervision sessions per year were more likely to ask cued-invitations in their interviews compared to those who attended fewer supervision sessions. No other significant relationships between supervision and interviewing practice were found (see Table Appendix 4.2). Thus, consistent with our hypothesis, higher reported frequency of supervision was associated with higher usage of recommended question types.

Table Appendix 4.2

Generalized Estimating Equation (GEE) analyses with binary logistic models to predict the overall proportion of questions and the proportion of direct and option-posing prompts followed by invitation or cued-invitation (i.e. pairing principle)

Outcome variable	Predictor variable	Wald Chi Square	Exp (B)	95% Confidence Interval for Exp (B)	Std Error	Sig.
Invitation	Frequency of supervision	0.15	0.99	0.99, 1.01	0.01	0.694
	Satisfaction with access to supervision	0.38	0.96	0.84,1.09	0.07	0.535
	Satisfaction with content of supervision	6.92	1.12	1.03,1.21	0.04	0.009
Cued-invitation	Frequency of supervision	10.12	1.02	1.01,1.02	0.01	0.001
	Satisfaction with access to supervision	0.72	1.06	0.92,1.23	0.07	0.396
	Satisfaction with content of supervision	0.16	1.04	0.86,1.25	0.09	0.686
Direct	Frequency of supervision	4.11	0.99	0.99,1.00	0.01	0.043
	Satisfaction with access to supervision	0.39	0.95	0.80,1.12	0.09	0.532
	Satisfaction with content of supervision	0.01	1.01	0.86,1.18	0.08	0.949

Option-posing	Frequency of supervision	3.50	1.01	1.00,1.01	0.01	0.061
	Satisfaction with access to supervision	0.30	0.97	0.86,1.09	0.06	0.582
	Satisfaction with content of supervision	0.60	1.05	0.93,1.19	0.06	0.440
Direct → Invitation	Frequency of supervision	0.46	1.00	0.99,1.01	0.01	0.496
	Satisfaction with access to supervision	0.03	1.02	0.82,1.26	0.11	0.862
	Satisfaction with content of supervision	1.26	1.09	0.94,1.27	0.08	0.261
Direct → Cued-invitation	Frequency of supervision	7.81	1.02	1.00,1.03	0.01	0.005
	Satisfaction with access to supervision	1.37	1.09	0.95,1.25	0.07	0.241
	Satisfaction with content of supervision	0.01	1.00	0.82,1.23	0.10	0.967
Option-posing → Invitation	Frequency of supervision	1.88	1.01	0.10,1.01	0.01	0.171
	Satisfaction with access to supervision	1.42	0.87	0.69,1.09	0.12	0.233
	Satisfaction with content of supervision	0.50	1.07	0.89,1.27	0.09	0.478
Option-posing → Cued-invitation	Frequency of supervision	7.13	1.01	1.00,1.02	0.01	0.008
	Satisfaction with access to supervision	0.07	1.03	0.81,1.31	0.12	0.795
	Satisfaction with content of supervision	0.41	0.92	0.71,1.19	0.13	0.523

Adherence to the Pairing Principle

In order to investigate interviewers' adherence to the pairing principle, we examined the proportion of direct and option-posing questions that were followed by either invitation or cued-Invitations. We excluded any direct or option-posing questions that: 1) did not elicit a substantive response from the child (i.e. by responding with " I don't know/don't remember/don't understand", repeating back what was already said or staying silent); 2) were followed directly by a monitor's break or 3) were the last question of the interview. We found that the proportions of direct and option-posing questions that were followed by either invitations or cued-invitations were relatively low (the mean ranging from 2-7% of all direct and option-posing questions; see Table Appendix 4.1). Thus interviewers generally did not engage in pairing because most of the time they did not return to a more open-ended prompt after asking a focused question.

Next, we examined whether adherence to the pairing principle was associated with responses to the supervision survey questions. We conducted GEE binary logistic models and entered the following as outcome variables: (1) the proportion of direct questions that were followed by either an invitation or a cued-invitation, and (2) the proportion of option-posing questions that were followed by either an invitation or a cued-invitation, and entered the following predictor variables as co-variates: (1) frequency of supervision sessions per year, (2) satisfaction with access to supervision, and (3) satisfaction with content of supervision.

We found that the frequency of supervision per year was a statistically significant predictor of the proportion of direct prompts that were followed by cued-invitation prompts (Wald χ^2 (1) = 7.81, p = 0.005). For every increase in supervision sessions that interviewers attended per year, the odds ratio of interviewers asking a cued-invitations after a direct prompt increased by 1.02 95% CI [1.00,1.03]. We also found that the frequency of supervision per year was a statistically significant predictor of the proportion of option-posing prompts that were followed by cued-invitation prompts (Wald χ^2 (1) = 7.13, p = 0.008). For every increase in supervision sessions that interviewers attended per year, the odds ratio of interviewers asking a cued-invitation after an option-posing prompt increased by 1.01 95% CI [1.00, 1.02]. Consistent with our hypothesis, interviewers who attended the most number of supervision sessions per year were most likely to use a pairing approach in their questioning compared to those who attended fewer sessions. There were no other significant associations between adherence to the pairing principle and other supervision characteristics (See Table Appendix 4.2).

Discussion

The goal of these preliminary analyses was to examine the relationship between interviewers' perceptions of their supervision activities and interviewing practice. In previous studies, forensic interviewers who received direct and regular feedback on their interviewing practice were more likely to ask Invitations and Cued-Invitations, which have been shown to be the most reliable and effective prompts for eliciting detailed, coherent and accurate responses from children (Lamb, Sternberg, Orbach, Esplin, et al., 2002; Lamb, Sternberg, Orbach, Hershkowitz, et al., 2002; Orbach & Pipe, 2011). In our preliminary analyses, we found that interviewers' reports of the frequency of supervision activities significantly predicted interviewing practice: interviewers who reported that they engaged in more supervision sessions per year, and were more satisfied with the content of their supervision, were more likely to use invitations and cued-invitations, and "pair" a direct and option-posing question with a cued-invitation.

Although our results suggest that interviewers' perceptions of their supervision are associated with interviewing practice, it is important to emphasize that our findings are very preliminary given the limitations of the data set. First, the preliminary analyses relied on a sub-sample of interviewers who participated in both the evaluation study (Chapter 5 and 6), and the supervision survey study (Chapter 7). These were interviewers who were motivated to participate in both studies, and as such, the results may have been biased through self-selection. Secondly, the interviews were conducted between February 2012 to June 2013 whereas the surveys were completed between June to July 2013. Interviewers' access to, and satisfaction with supervision, may have varied substantially in the course of the previous year when the interviews were submitted for evaluation. Third, given the correlational nature of the study design, we cannot imply that supervision *results in* better interviewing practice. For example, interviewers who were more likely to seek supervision, and ensure that their supervision is more practice-focused may also be more satisfied with their access and content of supervision. Conversely, interviewers who were engaging in best-practice interviewing may have received better feedback, which increased their satisfaction with their access to and the content of supervision. Experimental studies are required to determine the direction of this relationship.

Appendix 5: The Guided Self-Review Tool

Date of review: _____   **Date of interview:** _____

Name: _____

Instructions

1. Please complete Sheet A (before completing the self-review questionnaire) after you conduct your interview
2. Play the interview DVD and fast forward until the beginning of the Account phase e.g. "What have you come to talk to me about?"
3. For each question you ask the child, record it and code on sheet B below.
4. Code each of your questions until the end of the Account phase e.g. "Thank you for telling me about that. That's all the questions I have for you today. Now what have you missed in school today?"
5. Please add the frequencies of each type of question and complete sheet C
6. Look at your question codes in sheet B and plot the questions that you ask over time in sheet D
7. Please complete sheet E (After self-review questionnaire)

SHEET A (Before self-review questionnaire)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The way I conducted this interview was typical of my usual interviewing practice	□	□	□	□	□
The questioning strategies I used were typical of my usual practice	□	□	□	□	□
This interview is typical compared to other interviews I have conducted **in terms of how responsive the child was**	□	□	□	□	□
This interview was mostly comprised of open-ended questions	□	□	□	□	□
This interview contained relatively few closed-ended questions	□	□	□	□	□
I followed a spiral questioning approach (I asked a narrative question after I asked a more focused question)	□	□	□	□	□

	Poor	Fair	Good	Very good	Excellent
How would you rate this interview overall?	□	□	□	□	□

Additional comments:

INTERVIEWER UTTERANCES

Interviewer utterances	Definitions	Examples
Invitations	Questions or statements that prompted free-recall responses	"Tell me everything you can remember"
Cued-Invitations	Questions or statements that utilized details disclosed by the child as cues to prompt free-recall responses	"You told me that he took you to that special place. Tell me about that special place"
Direct	Open-ended prompts that refocus the child's attention on details about the allegation, and asked for specific information or details using "Wh-" questions	"What were you wearing?" "When did this happen?"
Option-posing	Focus the child's attention more narrowly on aspects of the account that the child did not previously mention but do not imply that a particular response is expected. This might be formatted as a yes/no response, or option-posing question.	"Did anyone see what happened?" (A question that requires a yes/ no response) "Did he touch you under or over your clothes?" (A question that requires a selection from options given by the interviewers)
Suggestive	Statements or questions that communicated to the child what answer they should give or the interviewers assumed certain information that were not disclosed by the child themselves.	"He touched you, didn't he?"

Interviewer utterance	Question code

SHEET C

Invitation	Cued invitation	Direct	Option-Posing	Suggestive
Sub-total	Sub-total	Sub-total	Sub-total	Sub-total

Add up all the sub-totals together

Total questions: _____

Proportion of invitation (Sub-total (Invitation) ÷ Total questions) x 100	**%**
Proportion of cued invitation (Sub-total (Cued –invitation) ÷ Total questions) x 100	**%**
Proportion of direct (Sub-total (Direct) ÷ Total questions) x 100	**%**
Proportion of option-posing (Sub-total (Option-posing) ÷ Total questions) x 100	**%**
Proportion of suggestive (Sub-total (Suggestive) ÷ Total questions) x 100	**%**

Example

Invitation	
Cued-invitation	
Direct	
Option-posing	
Suggestive	
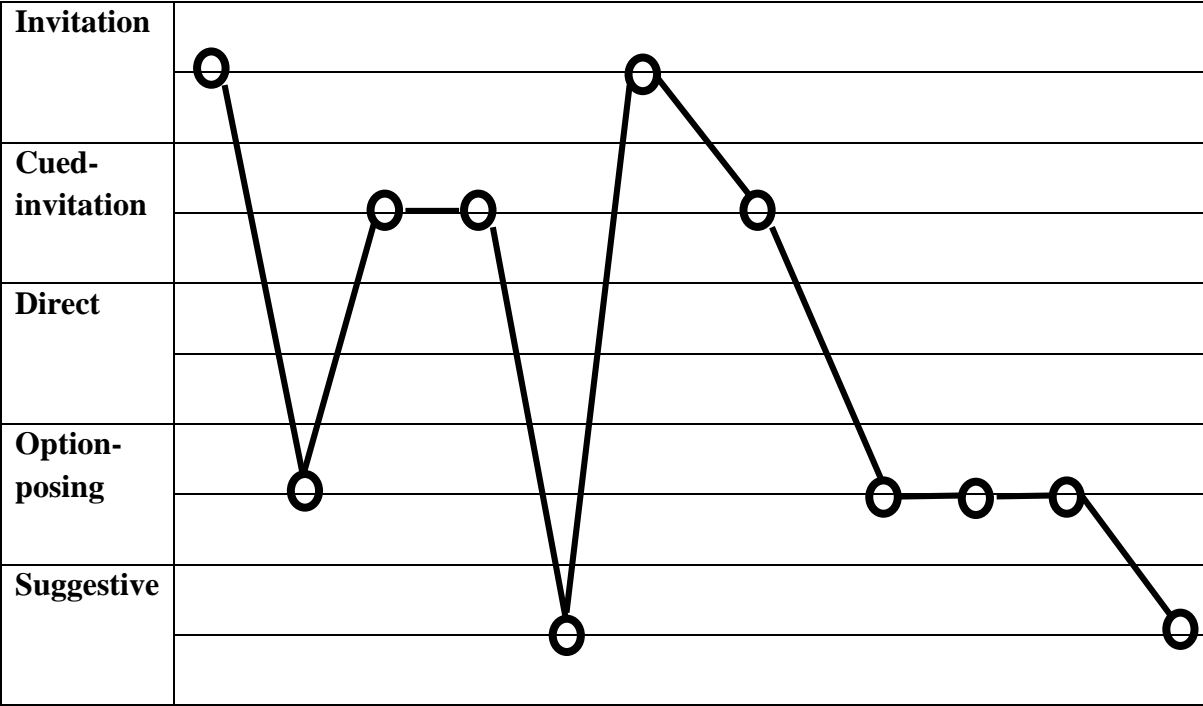
Invitation	
Cued-invitation	
Direct	
Option-posing	
Suggestive	

SHEET E – After self-review questionnaire

Please answer the questions below

	Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
The way I conducted this interview was typical of my usual interviewing practice	☐	☐	☐	☐	☐
The questioning strategies I used were typical of my usual practice	☐	☐	☐	☐	☐
This interview is typical compared to other interviews I have conducted **in terms of how responsive the child was**	☐	☐	☐	☐	☐
This interview was mostly comprised of open-ended questions	☐	☐	☐	☐	☐
This interview contained relatively few closed-ended questions	☐	☐	☐	☐	☐
I followed a spiral questioning approach (I asked a narrative question after I asked a more focused question)	☐	☐	☐	☐	☐
I am satisfied with the proportion of invitation I asked in this interview	☐	☐	☐	☐	☐

I am satisfied with the proportion of cued -invitation I asked in this interview	☐	☐	☐	☐	☐
I am satisfied with the proportion of direct questions I asked in this interview	☐	☐	☐	☐	☐
I am satisfied with the proportion of option-posing questions I asked in this interview	☐	☐	☐	☐	☐
I am satisfied with the proportion of suggestive questions I asked in this interview	☐	☐	☐	☐	☐

	Poor	Fair	Good	Very good	Excellent
How would you rate this interview overall?	☐	☐	☐	☐	☐

Appendix 6: Information Sheet and Consent Form For Parents/Guardians (Study 1)

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI
VICTORIA
UNIVERSITY OF WELLINGTON

Evaluating interviews with child witnesses

Dear Parents/Caregivers,

We are evaluating how interviews with children are conducted when an allegation of sexual abuse has been made. We would like to include your child's interview in our evaluation. The study has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee. This study has also been approved by the New Zealand Police.

What is the purpose of this research?
- The main goal of our study is to explore how children are interviewed by police and / or CYF workers about sexual abuse allegations. Research of this kind can help NZ Police and CYF to understand what they are doing well and areas that can be the focus of ongoing training and resources. This kind of research also helps us to understand how children's memory for different kinds of experiences develops, how they talk about their experiences, and ways that interviewers can support them to tell what they know.
- There are two main purposes of this study. The first is to provide an evaluation of current practice to NZ Police and CYF to assist in developing ongoing training and resources for interviewers working with children. The second is to examine factors relating to the interviewer, the child and how the interview is conducted that may affect how the interview progressed.

Who is conducting the research?
- This study is being conducted by Missy Wolfman, a PhD student, from the School of Psychology at Victoria University with Dr. Deirdre Brown as her academic supervisor. Assistance is also provided by the NZ Police and CYF.

What is involved if your child participates in this study?
- Interviews that are conducted by CYF and / or Police with a child about a sexual abuse allegation are video-recorded. The DVD recording and/or written transcript of your child's interview will be analysed on site at Police National Headquarters or another secure location in Wellington by Missy Wolfman, and may also be analysed

by a police officer or a CYF worker. The interview will be evaluated to identify the kinds of questions the interviewer used, how useful they were in helping your child to talk about their experience (e.g., which kinds of questions led to detailed answers), and factors that affected how well the interview progressed (e.g., your child's age, how experienced the interviewer was, the kind of allegation that was being investigated). The specific content of what your child reports will not be examined, only how much information they responded with to each kind of question or interviewer prompt.

Privacy and Confidentiality
- Consent forms will be kept for five years after publication and then destroyed.
- DVD recordings will only be viewed by associated researchers and professionals in a secure location (e.g. Wellington Police Headquarters) to ensure the confidentiality of your child. Video recordings of interviews will only be available to Missy Wolfman, Dr. Deirdre Brown and representatives from NZ Police and / or CYF who will perform reliability coding.
- Children's names will be removed from the transcripts, and they will only be identified by a participant number.
- Copies of the transcripts with identifying information removed, and the sheets that record the data from your child's interview (with no identifying information on them) will be kept in a secure office in Dr. Brown's laboratory.
- The data will be coded by numbers and therefore your child will never be identified individually.
- Coded data (without your child's name or personal identifiable details) may be shared with other competent professionals and researchers upon request, and may also be used in other studies.

What happens to the information that you and your child provide?
- We may publish the results of the study in scientific journals or present them in conferences. Data will be used in Missy Wolfman's PhD research theses. No child will be identified in the results.
- You may wish to give your permission for parts of your child's interview (without identifying information) to be included in Missy's PhD thesis, journal papers and conference presentations.
  If you do not wish to give consent for this you may still consent to your child's interview being included in the study.
- Only researchers associated with the project will have access to the information reported by your child.

If you have any further questions about the study, you are welcome to contact Dr. Deirdre Brown, ph 4635233 ext 8059, email: deirdre.Brown@vuw.ac.nz or Missy Wolfman, ph 4635233 ext 8496, email: missy.wolfman@vuw.ac.nz. Thank you for your time in considering participating in this study.

Yours sincerely,

Missy Wolfman
PhD Student
School of Psychology

Victoria University of Wellington

And,

Deirdre Brown, PhD, PgDipClPs, MNZCCP
Lecturer in Clinical and Forensic Psychology
School of Psychology
Victoria University of Wellington

Evaluating interviews with child witnesses

Statement of Consent

I have read all the information above and have asked any questions relating to this study, which have been answered satisfactorily.

Please tick the statement(s) that applies:

☐ I consent to the interview with my child being included in the study for the purpose of evaluating current practice and informing the development of training programs

☐ I consent to the interview with my child being included in the study for broader research questions (e.g., factors affecting the conduct of the interview)

☐ I do not consent to my child's interview being included in the study

Child's Name: ……………………………. Date of Birth: ………………………

Parent's / Caregiver's Name:

…………………………………………………………………..

Signature: …………………………………………… Date: ……………………………

Please indicate if any of the following apply to your child:

☐ ADHD ....☐ Intellectual disability   ☐ Autism Spectrum Disorder

☐ Learning disability ....☐ English as second language

Appendix 7: Information Sheet and Consent Form For Forensic Interviewers (Study 1)

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

VICTORIA
UNIVERSITY OF WELLINGTON

Facilitating best practice in investigative interviewing with child complainants of sexual abuse

Dear specialist interviews,

We are evaluating how interviews with children are conducted when an allegation of sexual abuse has been made. We would like to include your interviews in our research project. The study has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee. This study has also been approved by the New Zealand Police and CYF.

What is the purpose of this research?
- The main goal of our study is to explore how children are interviewed by police and / or CYF workers about sexual abuse allegations. Research of this kind can help NZ Police and CYF to understand what they are doing well and areas that can be the focus of ongoing training and resources. This kind of research also helps us to understand how children's memory for different kinds of experiences develops, how they talk about their experiences, and ways that interviewers can support them to tell what they know.

Who is conducting the research?
- This study is being conducted by Missy Wolfman, a PhD student, from the School of Psychology at Victoria University with Dr. Deirdre Brown as her academic supervisor. Assistance is also provided by the NZ Police and CYF.

What is involved if you decide to participate in this study?
- A copy of your video-recording of interviews that you conduct with children, between the ages of 6 – 16 years old, about sexual abuse allegations will be obtained. The DVD recording of your interview(s) will be analysed on site at Police National Headquarters in Wellington by Missy Wolfman, and may also be analysed by a police officer or a CYF worker. The interview(s) will be evaluated to identify the kinds of questions used, how useful they were in helping the child interviewees to talk about their experience (e.g., which kinds of questions led to detailed answers), and factors that affected how well the interview progressed (e.g., the child's age and the kind of allegation that was being investigated).

168

- We will also ask you to fill a brief online questionnaire about your demographic information (e.g. professional affiliation, whether you work part time or full time and the number of years you have been a specialist child forensic interviewer).

Privacy and Confidentiality
- Your interviews will never be individually identified in any way in the results. The main goal is to provide a 'stock-take' of interviewing practice across regions and professional organizations (CYF and Police). As such we will not provide feedback of individual interview to NZ Police or CYF to protect your privacy.
- There is no consequence if you decide not to participate in our study. Your participation or non-participation in this research will not influence your current role as a child forensic interviewer.
- DVD recordings will only be viewed by associated researchers and professionals in a secure location (Wellington Police Headquarters) to ensure your confidentiality. Video recordings of interviews will only be available to Missy Wolfman, Dr. Deirdre Brown and representatives from NZ Police and / or CYF who will perform reliability coding.
- The sheets that record the data from your interview (with no identifying information on them) will be kept in a secure office in Dr. Brown's laboratory.
- The data will be coded by numbers and therefore you will never be identified individually.
- Coded data (without your name or personal identifiable details) may be shared with other competent professionals and researchers upon request, and may also be used in other studies.

What happens to the information that you provide?
- We may publish the results of the study in scientific journals or present them in conferences. Data will be used in Missy Wolfman's PhD research theses. You or your child interviewees will never be identified in the results.
- You may wish to give your permission for parts of your interview (without identifying information) to be included in Missy's PhD thesis, journal papers and conference presentations.
  If you do not wish to give consent for this you may still consent to your interview(s) being included in the study to provide feedback to NZ Police and CYF but not included in future publications.
- Only researchers associated with the project will have access to the information reported in the demographic questionnaire and your interview(s).

If you have any further questions about the study, you are welcome to contact Dr. Deirdre Brown, ph 4635233 ext 8059, email: Deirdre.Brown@vuw.ac.nz or Missy Wolfman, ph 4635233 ext 8496, email: missy.wolfman@vuw.ac.nz. Thank you for your time in considering participating in this study.

Yours sincerely,

Missy Wolfman
PhD Student

School of Psychology
Victoria University of Wellington

And,

Deirdre Brown, PhD, PgDipClPs, MNZCCP
Lecturer in Clinical and Forensic Psychology
School of Psychology
Victoria University of Wellington

170

Facilitating best practice in investigative interviewing with child complainants of sexual abuse

Statement of Consent

I have read all the information above and have asked any questions relating to this study, which have been answered satisfactorily.

Please tick the statement(s) that applies:

☐ I consent to the interviews I conducted with child complainants of sexual abuse to be included in the study for the purpose of evaluating current practice and informing the development of training programs

☐ I consent to the interviews I conducted with child complainants of sexual abuse to be included in the study for broader research questions (e.g., factors affecting the conduct of the interview) which may be presented in scientific journal, conferences and Missy Wolfman's PhD thesis.

☐ I do not consent to participate in this study

Name: …………………………….

Signature: ………………………………………… Date: ……………………………

If you agree to participate in this research please fill the short questionnaire below:

Name:……………………………………………

Gender: ☐ Male ☐ Female

Professional affiliation: ☐ Child Youth and Family ☐ Police

Which interviewing site do you work in? (e.g. Koru House in

Wellington):..

Full time or part time in child interviewing? ☐ Full time ☐ Part time

If part-time please indicate full time equivalence or the number of hours per week

interviewing children..

Please indicate on average how many interviews with children you conduct per week

(e.g. three per week): ....

Years of experience conducting specialist child interviewing:..

Appendix 8: Information Sheet and Consent Form For Forensic Interviewers (Study 2)

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

VICTORIA
UNIVERSITY OF WELLINGTON

Exploring the role of supervision in maintaining best practice investigative interviewing for children

Dear specialist child interviewers,

We are interested in exploring the current supervision practice and needs of specialist interviewers who interview children. The study has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee. This study has also been approved by the New Zealand Police and CYF.

What is the purpose of this research?
- The main goal of our study is to explore current supervision practice and beliefs about the contribution of ongoing supervision on the conduct of interviews. Studies have shown that supervision and regular feedback is important in maintaining best-practice specialist interviewing skills over time. Specifically this study has four objectives:
  - To explore specialist interviewers' current access to formal supervision, and resources to support best-practice in interviewing children
  - To explore specialist interviewers' beliefs about the importance of supervision for the quality of interviews that they conduct with children
  - To explore perceived barriers to accessing formal supervision
  - To explore the relationship between interviewing practice and access as well as perception of supervision

Who is conducting the research?
- This study is being conducted by Missy Wolfman, a PhD student, from the School of Psychology at Victoria University with Dr. Deirdre Brown as her academic supervisor.

What is involved if you decide to participate in this study?
- We will ask you to complete an online questionnaire that asks for your demographic information (e.g. professional affiliation, whether you work part time or full time and the number of years you have been a specialist child specialist interviewer) as well as your current supervision practice and needs.
- You have the option to complete the survey anonymously OR to include the unique identifier code we have provided here when you are completing the survey. By including the unique identifier code we will be able to link your survey responses to the interviews that you have submitted for our first study. **Your unique identifier**

code is : _____ [This paragraph is only on the information sheet for interviewers who have participated in our first study]

- If you would like to participate in this study please go to this link **(insert hyperlink)** to complete the consent form and questionnaire. It is anticipated that the questionnaire would not take more than 15 – 20 minutes to complete.

Privacy and Confidentiality
- You will never be individually identified in any way in the results. The data will be coded by numbers
- The main goal is to provide a 'stock-take' of current supervision practice and needs across regions and professional organisations (CYF and Police). As such we will not provide feedback about individual responses to NZ Police or CYF to protect your privacy.
- There is no consequence if you decide not to participate in our study. Your participation or non-participation in this research will not influence your current role as a child specialist interviewer.
- The data will be kept in a secure office in Dr. Brown's laboratory.
- Coded data may be shared with other competent professionals and researchers upon request, and may also be used in other studies.

What happens to the information that you provide?
- The primary use of the data will be to assess participation and barriers to supervision, and to assess the role of supervision in interviewing practice. Another use of the data is to give feedback to NZ Police and CYF to inform the development of supervision, and resources for developing and maintaining skills in interviewing children.
- We may publish the results of the study in scientific journals or present them in conferences. Data will be used in Missy Wolfman's PhD research thesis.
- You may wish to give your permission for quotes from your questionnaire (without identifying information) to be included in Missy's PhD thesis, journal papers and conference presentations. If you do not wish to give consent for this you may still consent to your questionnaire being included in the study to provide feedback to NZ Police and CYF

If you have any further questions about the study, you are welcome to contact Dr. Deirdre Brown, ph (04) 4635233 ext 8059, email: Deirdre.Brown@vuw.ac.nz or Missy Wolfman, ph (04) 4635233 ext 8496, email: missy.wolfman@vuw.ac.nz.

Thank you for your time in considering participating in this study.

Yours sincerely,

Missy Wolfman
PhD Student
School of Psychology
Victoria University of Wellington

And,

Deirdre Brown, PhD, PgDipClPs, MNZCCP
Lecturer in Clinical and Specialist Psychology
School of Psychology
Victoria University of Wellington

Exploring the role of supervision in maintaining best practice in investigative interviewing children

Statement of Consent

I have read the information about the study and have asked any questions I have, which have been answered satisfactorily.

Please tick the statement(s) that applies:

☐ I consent to participate in this questionnaire study

☐ I consent to the use of excerpts from the questionnaire (that do not identify me in any way) to be used in publications (e.g., journal articles or conference presentations)

☐ I do not consent to participate in this questionnaire study

Name: …………………………….

Signature:…………………………..

Date: ………………………………

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

VICTORIA
UNIVERSITY OF WELLINGTON

Evaluating the effectiveness of guided self-supervision in facilitating best practice interviewing with children about abuse allegations

Dear Parents/Caregivers,

We are evaluating ways of helping interviewers who conduct interviews with children when an allegation of abuse has been made to develop and maintain their skills so that they are conducting high quality interviews. We would like to include your child's interview in our evaluation. The study has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee. This study has also been approved by the New Zealand Police and Child Youth and Family.

What is the purpose of this research?
- We have developed a self-review tool that specialist child interviewers can use to assess their interviewing technique. The main goal of this study is to explore whether using this tool improves their practice. Research of this kind can help specialist child interviewers to understand what they are doing well and identify areas that can be the focus of professional development and supervision.

Who is conducting the research?
- This study is being conducted by Missy Wolfman, a PhD student, from the School of Psychology at Victoria University with Dr. Deirdre Brown as her academic supervisor. Assistance is also provided by the NZ Police and CYF.

What is involved if your child participates in this study?
- Interviews that are conducted by CYF and / or Police with a child about abuse allegations are video-recorded. The DVD recording of your child's interview will be analysed on site at Police National Headquarters or another secure location in Wellington by Missy Wolfman, and may also be analysed by another research assistant. The interview will be evaluated to identify the kinds of questions the interviewer used. The specific content of what your child reports will not be examined.

Privacy and Confidentiality
- Consent forms will be kept for five years after publication and then destroyed.
- DVD recordings will only be viewed by the research team in a secure location (e.g. Wellington Police Headquarters) to ensure the confidentiality of your child. Video

recordings of interviews will only be available to Missy Wolfman, Dr. Deirdre Brown and a research assistant who will perform reliability coding.

- The data will be coded by numbers and therefore your child will never be identified individually. The content of your child's interview will never be disclosed to anyone outside of the research team.
- Coded data (without your child's name or personal identifiable details) may be shared with other competent professionals and researchers upon request, and may also be used in other studies.

What happens to the information that you and your child provide?
- We may publish the results of the study in scientific journals or present them in conferences. Data will be used in Missy Wolfman's PhD research thesis. No child will be identified in the results.

If you have any further questions about the study, you are welcome to contact Dr. Deirdre Brown, ph 4635233 ext 8059, email: Deirdre.Brown@vuw.ac.nz or Missy Wolfman, ph 4635233 ext 8496, email: missy.wolfman@vuw.ac.nz.

Thank you for your time in considering participating in this study.

Yours sincerely,

Missy Wolfman
PhD Student
School of Psychology
Victoria University of Wellington

And,

Deirdre Brown, PhD, PgDipClPs, MNZCCP
Senior Lecturer in Clinical and Forensic Psychology
School of Psychology
Victoria University of Wellington

VICTORIA
UNIVERSITY OF WELLINGTON

Evaluating the effectiveness of guided self-supervision in facilitating best practice interviewing with children about abuse allegations

Statement of Consent

I have read all the information above and have asked any questions relating to this study, which have been answered satisfactorily.

Please tick the statement(s) that applies:

☐ I consent to the interview with my child being included in the study

☐ I do not consent to my child's interview being included in the study

Child's Name: …………………………. Date of Birth:

……………………………………

Parent's / Caregiver's Name:

………………………………………………………………………………………………..

.

Signature: …………………………………… Date:

…………………………………………...

Please indicate if any of the following apply to your child:

☐ ADHD   ☐ Intellectual disability   ☐ Autism Spectrum Disorder

☐ Learning disability ☐ English as second language

Appendix 10: Information Sheet And Consent Form For Forensic Interviewers (Study 3)

TE WHARE WĀNANGA O TE ŪPOKO O TE IKA A MĀUI

VICTORIA
UNIVERSITY OF WELLINGTON

Evaluating the effectiveness of guided self-supervision in facilitating best practice interviewing with children about abuse allegations

Dear specialist child interviewers,

We are interested in assessing whether a guided self-review tool that we have developed can help specialist child interviewers to maintain best practice interview techniques over time. The study has been approved by the School of Psychology Human Ethics Committee under delegated authority of Victoria University of Wellington's Human Ethics Committee. This study has also been approved by the New Zealand Police and CYF.

What is the purpose of this research?
- The main goal of our study is to assess whether a guided self-review tool can supplement formal supervision and contribute in maintaining best practice interview techniques over time. Studies have shown that supervision and regular feedback is important in maintaining best-practice interviewing skills over time. However, given the pressures placed on resources in CYF and Police organizations, we have developed a self-review tool that specialist child interviewers such as yourself can use to assess areas of interviewing practice that you are doing well and areas that may be the focus of improvement for further training or supervision. We want to explore the impact of using the guided self-review tool on the quality of subsequent interviews.
- If the self-review tool improves practice then it would be a practical and cost-effective method to promote best practice interviews.

Who is conducting the research?
- This study is being conducted by Missy Wolfman, a PhD student, from the School of Psychology at Victoria University with Dr. Deirdre Brown as her academic supervisor. Assistance is also provided by the NZ Police and CYF.

What is involved if you decide to participate in this study?
- Firstly, we will ask you to complete a brief online questionnaire about your demographic information (e.g. professional affiliation, whether you work part time or full time and the number of years you have been a specialist child interviewer). Please go to this link [**insert hyperlink**] to sign the consent form and fill the demographic questionnaire.
- There are three phases of the study:
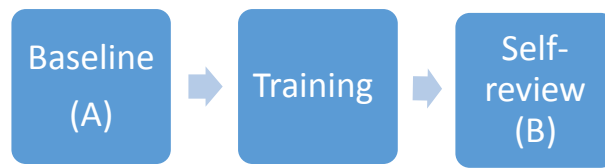
- **Baseline phase:** We will ask you to identify interviews that meet the inclusion criteria (children interviewed for abuse allegation and between the ages of 6 – 16 years old). We will then ask you or your monitor to ask for consent from parents or guardians of children for their interview to be included in the study (this can be done prior to the interview, or during the week following the interview). We will ask you to send a total of five interview DVDs during the baseline phase to Police National Headquarters to be reviewed by Missy so we can establish a comparison to find out whether there is any change in interviewing practice when you use the guided self-review tool

- **Training phase:** We will provide training on how to apply the self-review tool. Missy will contact you to arrange a suitable time for face-to-face training and travel to your workplace to deliver the training.

- **Self-review phase:** We will ask you to identify interviews that meet the inclusion criteria (children interviewed for abuse allegation and between the ages of 6 – 16 years old). We will then ask you or your monitor to ask for consents from parents or guardians of children for their interview to be included in the study. We will ask you to review the interviews using the guided self-review tool. We will ask you to do this for a total of five interviews and send copies of the DVD recordings as well as copies of the self-review sheets to Missy Wolfman at Police National Headquarters.

- The DVD recording of your interview(s) will be analysed on site at Police National Headquarters in Wellington by Missy, and may also be analysed by another research assistant, to check that the scoring we are using can be consistently applied. The interviews will be evaluated to identify the types of questions used (e.g. open-ended vs. closed-ended prompts) and the sequence of questions used.

- If you would like, we can send a summary of the analysis of your interviews at the end of the study.

Privacy and Confidentiality
- Your interviews will never be individually identified in any way in the results. Once the videos have been coded you will not be able to be identified from the data file. The main goal is to assess whether the guided self-review tool improves interview quality. As such we will not provide feedback about individual interviews to NZ Police or CYF to protect your privacy.

- There is no consequence if you decide not to participate in our study. Your participation or non-participation in this research will not influence your current role as a specialist child interviewer.

- Video recordings of interviews will only be available to Missy Wolfman, Dr. Deirdre Brown and the representatives from NZ Police and / or CYF who will perform reliability coding.
- The sheets that record the data from your interview (with no identifying information on them) will be kept in a secure office in Dr. Brown's laboratory.
- The data will be coded by numbers and therefore you will never be identified individually.
- Coded data (without your name or personal identifiable details) may be shared with other competent professionals and researchers upon request, and may also be used in other studies.

What happens to the information that you provide?
- The primary use of the data will be to assess the effectiveness of the guided self-review tool in improving or maintaining interview quality over time. If successful, the guided self-review tool may be offered to NZ Police and CYF organizations as a tool to develop and maintain skills in interviewing children and to supplement face-to-face supervision.
- We may publish the results of the study in scientific journals or present them in conferences. Data will be used in Missy Wolfman's PhD research thesis. You or the child interviewees will never be identified in the results.

If you have any further questions about the study, you are welcome to contact Dr. Deirdre Brown, ph (04) 4635233 ext 8059, email: deirdre.brown@vuw.ac.nz or Missy Wolfman, ph (04) 4635233 ext 8496, email: missy.wolfman@vuw.ac.nz.

Thank you for your time in considering participating in this study.

Yours sincerely,

Missy Wolfman
PhD Student
School of Psychology
Victoria University of Wellington

And,

Deirdre Brown, PhD, PgDipClPs, MNZCCP
Senior Lecturer in Clinical and Forensic Psychology
School of Psychology
Victoria University of Wellington

VICTORIA
UNIVERSITY OF WELLINGTON

Evaluating the effectiveness of guided self-supervision in facilitating best practice interviewing with children about abuse allegations

Statement of Consent

I have read the information about the study and have asked any questions I have, which have been answered satisfactorily.

Please tick the statement(s) that applies:

☐ I consent to participate in this study

☐ I do not consent to participate in this study

Name: …………………………….

Signature: ………………………………… Date: ……………………………

If you agree to participate in this research please fill the short questionnaire below:

Name:…………………………………………………………………………………………………

Gender: ☐ Male ☐ Female

Professional affiliation: ☐ Child Youth and Family ☐ Police

Which interviewing site do you work in? (e.g. Koru House in

Wellington):...

Full time or part time in child interviewing? ☐ Full time ☐ Part time

If part-time please indicate full time equivalence or the number of hours per week

interviewing children...

Please indicate on average how many interviews with children you conduct per week

(e.g. three per week): ....

Years of experience conducting specialist child interviewing:...

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