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Methodological issues and practical strategies in research on child maltreatment victims' abilities and experiences as witnesses

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Introduction

Modern scientific research on child maltreatment victims' memory abilities and court experiences has informed and guided legal professionals, policy makers, mental health professionals, and the lay public for nearly three decades (Goodman, 1984, 2006). When children are interviewed in a forensic context or testify in court, it is crucial for key players in the legal system to have an accurate understanding of children's abilities and needs (e.g., how best to interview children to obtain accurate and complete information, how best to help children withstand legal involvement). The importance of addressing legal, psychological, and clinical issues on behalf of child witnesses has spawned an abundance of research. Nonetheless, studies in this area face numerous practical challenges.

These challenges are linked to the methodology researchers employ in their attempts to obtain valid scientific knowledge. Although children typically suffer from significant levels of distress in abuse cases, researchers cannot ethically evoke high levels of distress in children.

Methodological challenges also flow from studies regarding child witnesses in court, and these challenges are quite substantial. As one example, to examine the effects of legal involvement on children, in principle, one would want to randomly assign child witnesses to groups (e.g., testifiers vs. nontestifiers). However, random assignment is rarely feasible within the constraints of the legal system. Instead, researchers have turned to quasi-experimental designs, where uncontrolled variables are dealt with statistically, or to correlational or descriptive studies. Although much has been learned from such research, there are still many scientific and practical challenges that must be overcome (e.g., to gain access to participants).

For the past several decades, our laboratory has conducted a number of research projects to examine child maltreatment victims' abilities and experiences as witnesses. In this paper, we first review several scientific studies performed by our

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laboratory with maltreated children and adults. Specifically, we describe some of the laboratory's key studies on maltreated children's memory and suggestibility and then some of our key studies on maltreated children's reactions to criminal and dependency court, including their later reactions as adults. Following this, we address practical strategies used to deal with many of the challenges involved in child witness research projects when actual child victims are involved. We focus on methods for recruiting maltreatment victims, seeking informed consent for research participation, ensuring representativeness of samples, selecting appropriate interview questions and questionnaires, and retaining participants longitudinally. When considering each of these, we first address a number of general points, and then separately discuss problems and practical strategies that emanate from research on memory and suggestibility of maltreated children, followed by problems and practical strategies that arise in research on children's legal involvement. The one exception is that in considering practical challenges of conducting longitudinal research, the issues for memory and suggestibility research and those for children's legal involvement studies largely overlap and are discussed together.

Overview of child witness research involving child maltreatment victims

Memory and suggestibility in maltreated children

How accurate are maltreated children in recounting past experiences and in resisting misleading questioning? These are key issues in legal cases in which children who have abuse histories need to provide forensically relevant information. Important theoretical issues are also involved concerning the effects of trauma on memory. Most studies on children's eyewitness memory test children with no known trauma histories, who come from middle class families, and who live in relatively stable homes. In contrast, Eisen, Goodman, Qin, Davis, and Crayton (2007) compared memory for a stressful event in 3- to 16-year-olds with substantiated maltreatment histories with that of children without known histories of maltreatment. The children had been removed from home and placed in a forensic evaluation unit of a hospital. Maltreated and nonmaltreated children's memory and suggestibility for the forensic medical procedures—an anogenital examination plus venipuncture—were examined in relation to individual differences in stress level, cognitive functioning, and trauma-related psychopathology (e.g., dissociation, posttraumatic stress, depression, anxiety). Memory differences were further analyzed by subtypes of maltreatment (e.g., sexual abuse, physical abuse, neglect). Being older and scoring higher in cognitive functioning predicted better memory performance. Moreover, stress level and trauma symptoms in highly dissociative children were related to greater memory error. Sexually and/or physically abused children showed more accurate memory, implying hypervigilance to trauma-related, stressful information. These findings help legal, clinical, and educational professionals evaluate the memory performance of maltreated children and also help resolve theoretical debates about trauma and childhood memory (see also Eisen, Qin, Goodman, & Davis, 2002; Goodman, Bottoms, Rudy, Davis, & Schwartz-Kenney, 2001).

Legal involvement and child witnesses

Children may become involved in criminal or dependency court actions, or in both court systems. How do child victims react to legal proceedings? In criminal court, the goal is punishment or exoneration of the alleged perpetrator, which may require that children testify. In dependency court, the issue is the children's best interests, and in maltreatment cases, the court will need to decide if the children will be placed in foster care or returned home. Goodman et al. (1992) conducted a study of the psychological effects of testifying in criminal court on child sexual assault victims. Children ages 4- to 17-years-old, who were involved in criminal prosecutions as victims of child sexual abuse, participated in the study. The behavioral disturbance of a group of testifiers was compared with that of a control group of nontestifiers (who were also involved in child sexual abuse prosecutions), with the two groups matched on age, gender, abuse severity, and behavior problem scores at the start of the case. The results indicated that testifiers demonstrated greater behavioral disturbance than nontestifiers, particularly if the testifiers took the stand multiple times, were deprived of parental support, and lacked corroboration of their claims. In courthouse interviews, before and after testifying, the main fear expressed by children concerned facing the defendant. Children who appeared more frightened of the defendant while testifying were less able to answer the prosecutors' questions. Findings from this study provided important information for the protection of child victims who testify in criminal court.

This study later permitted an investigation into long-term outcomes of legal involvement. Specifically, a follow-up study was conducted targeting the child participants of the Goodman et al. (1992) research. Approximately 13 years after their initial participation in the original study (12–19 years after the target child sexual abuse experiences), these individuals were relocated and invited to take part in the follow-up investigation. They were then interviewed regarding their current mental health, attitudes toward the legal system, and lifetime traumatic experiences (Quas et al., 2005). It was found that, under certain conditions, participating in criminal cases of child sexual abuse was associated with long-term negative outcomes: for example, repeatedly testifying in court as a child victim of severe sexual abuse (e.g., prolonged incest) predicted poorer functioning in the victims' current lives, even with psychological problems at the onset of the legal proceedings and life stressors statistically controlled. However, not testifying, especially if the defendant received a lenient sentence or "walked," was also associated with certain negative sequelae, such as feeling that the legal system was unfair.

Although criminal court cases often reach the news, many more children are involved in dependency court actions (Quas, Cooper, & Wandrey, 2009). There are active debates about whether children in maltreatment cases should attend their dependency court hearings (Cooper, Wallin, Quas, & Lyon, 2010; Quas, Wallin, Horwitz, Davis, & Lyon, 2009). Unfortunately, researchers are seldom granted access to dependency court, even though empirical evidence is essential for improving children's dependency court experiences. Fortunately, Block, Oran, Oran, Baumrind, and Goodman (2010) had the rare opportunity to interview maltreated children in a jurisdiction where the children regularly attend their detention hearings in dependency court (see also Quas, Wallin, et al., 2009). Specifically, 7- to 10-year-olds' knowledge and attitudes about court experiences were examined. Immediately after attending their dependency court hearings, the children were interviewed about their knowledge of, attitudes about, and perceived participation in dependency court.

Results showed that, among the children, lack of understanding and presence of negative attitudes were common. Older children had greater court-related knowledge than did younger children. Also, older children and children who were more anxious when they emerged from the courtroom had more negative attitudes toward dependency court. However, when age was statistically controlled, knowledge was related to more positive attitudes. This study addressed debates about children's involvement in legal decision making. Findings suggest that maltreated children might profit from greater understanding of dependency court, and that children with less knowledge and more jaded attitudes toward the dependency court may be in greater need of psychological counseling or other interventions. It was concluded that professionals should consider providing children involved in dependency court hearings with comprehendible, age-appropriate information about the legal proceedings, as well as to give children greater "voice" in legal hearings that affect their lives.

Methodological and practical challenges in child witness research

Because child victims are particularly vulnerable and because the topic of child maltreatment is an especially sensitive one, investigators typically encounter many practical problems when conducting research with maltreated children. These problems include: the difficulty of obtaining permission to approach child abuse victims for research; concerns about confidentiality; impediments to gaining a representative sample, the difficulty of including appropriate interview questions and questionnaires, and for longitudinal research, the burden of maintaining participation over time. Here we describe practical strategies employed in our laboratory for overcoming such problems.

Recruiting participants

Recruiting children with abuse histories for research requires considerable effort and presents major challenges. Gaining the cooperation of key agencies (e.g., mental health centers, district attorneys offices, or child protective service agencies) helps researchers approach potential participants. Legal and health agencies provide some of the most common services abuse victims seek and are likely to work with diverse racial, ethnic, and socioeconomic groups, which is important for the generalizability of study findings. Moreover, these agencies may have important information that substantiates the abuse claims. However, gaining agency cooperation is typically not easy. It can take years to build trust and a common understanding of the research goals and procedures to be employed. And even after years, the final answer may be "no."

Building positive, reciprocal beneficiary relationships between the research team and community agencies can aid recruitment efforts. An ideal situation is when the aims and findings of the research correspond to general goals of the agencies and contribute to enhancing their services. Moreover, investigators can take a number of practical steps to provide important educational services and feedback to the agencies; for example, they can collaborate with attorneys by providing seminars, training, and/or expert testimony. Clinically trained researchers can offer clinical services to the agencies and the victims. Furthermore, it is often important in obtaining agency approval that some direct benefits to the clients will ensue. Researchers at times can assure direct benefits to the clients who partake in research. For example, it is our experience that children and adults with maltreatment histories feel empowered after they voice their opinions and feelings in a context that is sympathetic, nonjudgmental, and supportive. They also feel quite proud to contribute to research that will help future child abuse victims. And perhaps of most importance in gaining agency approval, researchers can find someone in the agency who, as a partner, will effectively advocate for the project. The latter approach has been essential to our success in child witness research with maltreatment samples.

In studies of child witnesses, it may be important to include a nonmaltreated comparison group. Concerns have been raised in the past about how to screen out child maltreatment when recruiting nonabused control groups. The concern is that researchers should arguably not, in the process of screening, inadvertently solicit reports of abuse that may then have to be called in to authorities. What we have found in the past to be acceptable ethically and effective scientifically for recruiting nonabused, matched controls is to ask potential adult participants or caregivers of potential child participants not to participate or not to have the child participate, respectively, if there is a known history of child maltreatment, which is defined in terms of specific behaviors (e.g., sexual contact between a child and an adult, injuries inflicted upon a child by nonaccidental means, failure to meet a child's needs for food, clothing, shelter, or physical safety), as is now standard in child maltreatment research (Manly, Kim, Rogosch, & Cicchetti, 2001). The individuals are informed that researchers may be obligated to tell authorities of any disclosure of previously unreported child maltreatment, and that it is important for scientific purposes that no known victims of child maltreatment participate in the part of the study for which they are being recruited, so that they should simply decline to participate if appropriate. Although the issue is still debated as to

whether or not researchers in such studies should use procedures that, in effect, elicit suspicions of abuse and then report such suspicions, the procedures we have selected are generally considered the most defendable.

Recruiting: Memory and suggestibility in maltreated children

To examine maltreated children's memory and suggestibility, Eisen et al. (2002, 2007) recruited participants from an inpatient hospital unit evaluating child abuse and neglect claims. A clinical psychologist, who was on the staff of the hospital, collaborated with us, supervising all data collection for the study. Collaborating with this staff member greatly facilitated permission for the study, which had to be obtained from the Department of Child and Family Services (DCFS), the presiding judge of the juvenile court, the District Attorney's (DA's) office, the Public Guardian's office, and the hospital unit's administration and staff, not to mention associated Institutional Review Boards (IRBs).

Once permission was obtained, Eisen et al. recruited all children possible at the hospital unit and then divided the children into abused, neglected, and nonabused groups based on information culled from the DCFS's records and the hospital unit's assessment. Children classified as having either a history of abuse or neglect were those whose current cases were determined to be substantiated by DCFS after extensive investigations by local law-enforcement and child-welfare authorities (part of which was conducted during children's hospitalization). In addition, DCFS records were checked to determine if any past allegations of maltreatment had been substantiated. If a child was determined to have been abused or neglected in the past, the information was also used to classify the child's abuse status. For example, if the DCFS records indicated past physical abuse and the hospital unit's evaluation substantiated sexual abuse allegations, the child was classified as having suffered both physical and sexual abuse. If, after the investigation and the check of the child's DCFS records, abuse and neglect were both ruled out, children were classified as nonabused/controls, although they were also inpatients of the unit for suspicions of maltreatment. The DCFS records and/or the hospital assessment results were missing for some children. Abuse status classifications for these children were assigned based on information from either of the two sources, the state's abuse telephone hotline, and the evaluation at the hospital unit. Although our classification system for assigning abuse history was comprehensive, it was not possible to be absolutely certain of the range of experiences to which each child had actually been exposed. However, the abuse-status classifications assigned reflect the children's categorizations within the child protective service system.

Recruiting: Legal involvement and child witnesses

In the Goodman et al. (1992) study of psychological effects on child sexual assault victims of testifying in court, researchers worked with DAs' offices to solicit child participants. Having DAs' offices as the referral source afforded many advantages. First of all, because cases referred for prosecution were more likely to include actual criminal incidents which could be verified, compared with cases reported to the police or social services but not prosecuted, the researchers could better exclude false reports of child abuse from the study. Also, by making sure that the research procedures were approved by the DAs, parents could be assured that the research would not impede prosecution of the case. Additionally, by getting access to the prosecutors' files, important information relevant to the assault cases (e.g., victim-perpetrator relationship, sexual acts, abuse duration) could be gained without the researchers intensively questioning the children.

In compliance with the ethics of recruiting research participants, the researchers did not directly call the victims or their families because their names could not be publicly released without the families' express permission. Instead, victim advocates (VAs) in the DAs' offices called the families, as they would normally do, to inform them of the legal process to be expected when a child sexual abuse case is filed for prosecution. At that time, the VAs also talked about the research project and asked if the family wanted to be contacted for further information. Upon permission from the family, researchers were given contact information, called the family, explained the study, and scheduled an appointment. In case the family did not have a phone, they were contacted through the mail by the VAs and then, with the family's permission, contact was made by the researchers.

Obtaining informed consent

After gaining initial permission to approach maltreatment victims about participating in research, investigators typically must obtain informed consent. It is generally acknowledged that it is more difficult to get consent for research participation from abusive families than from nonabusive comparison families, even when they are not notified that the research focuses on child abuse. Particularly, families of sexually abused children tend to present special challenges (Kinard, 2001; Paradise, Rose, Sleeper, & Nathanson, 1994).

In the process of obtaining consent, to gain the trust of potential participants with maltreatment histories and/or their parents, it is important to convince them that their private information and identity will be protected and kept confidential to the fullest extent possible. A Certificate of Confidentiality can be obtained to bolster confidentiality. However, even with a Certificate of Confidentiality, the consent form can state that if a participant reveals unreported, ongoing abuse of a minor or reveals that a child is at risk of abuse or harm, researchers may be required to report such disclosure to child protective services or law enforcement. Although researchers may not be explicitly listed as mandatory reporters, the legal status often is unclear (e.g., researchers may also function as university teachers, and teachers may be explicitly listed), and there are

moral considerations in any case. Participants and caregivers of minors are therefore forewarned of this obligation verbally and in the consent form.

When studying minors who are child maltreatment victims, particularly those who are in foster care, researchers do not necessarily have to obtain parental consent, because it is assumed that parents who maltreat their children may not be in a position to evaluate the best interests of their offspring. The Code of Federal Regulations, Title 45, Part 46 (Protection of Human Subject) stipulates that "if the IRB determines that a research project is designed for conditions or for a subject population for which parental or guardian permission is not a reasonable requirement to protect the subjects (for example, neglected or abused children), it may waive the consent obligation. . ." (46.408). Still, consent from whoever has legal rights should be obtained, except in a few rare circumstances (e.g., if the study is a federally mandated evaluation). If the children are wards of the court and/or in foster care, agencies (e.g., the juvenile court) typically must be approached and then matters become much more complex. A recent legal trend, in place at least in California, called the "Prudent Parent Law," may ease this situation. This law has been interpreted by some jurisdictions to give foster parents the right to provide informed consent for their foster children to participate in research. This new law is of considerable interest to researchers, since approaching the juvenile courts, child protective services agencies, and public guardians is time consuming and is not necessarily successful in the end. On average, foster parents are likely to be more approachable and cooperative than are bureaucracies like the courts and child protective service agencies.

Informed consent: Memory and suggestibility in maltreated children

In the Eisen et al. (2002, 2007) studies of maltreated children's memory and suggestibility, most of the children had been removed from home by DCFS. For the children who were wards of the court or in foster care, the Public Guardian's office provided informed consent, as approved by DCFS and the presiding judge of the juvenile court. For the children who were placed in the hospital unit by their parents or legal caretakers, those adults were approached for consent. Thus, informed consent was obtained from whoever was the child's legal guardian (i.e., the person who by law had authority to make such decisions for the child). Because all of these agencies had reviewed and approved the study procedures initially, the way was paved for consent to be granted. The university IRB considered the consent process suitable.

Informed consent: Legal involvement and child witnesses

In our research on child witnesses in criminal court (Goodman et al., 1992), after the VA contact was made, the non-offending parent was approached for informed consent if the child had remained in the home. If the child was in foster care, the child's social worker was contacted, and the social worker made arrangements for informed consent to be obtained (e.g., from the child's biological parent or from the juvenile court). However, if the non-offending caregiver stays romantically or interpersonally connected to the alleged perpetrator (e.g., to the accused father or boyfriend), s/he may hesitate to support research or to admit the abusive acts toward the child (Malloy, Lyon, & Quas, 2007).

In the Block et al. (2010) study on knowledge and attitudes of abused and neglected children who attended their dependency court hearings, consent for the child participants was obtained from the presiding judge of the dependency court, thus excluding the possible biases caused by non-offending parents' hesitancy to participate. The presiding judge held more legal authority than did child protective services, the children's attorneys, or even the parents, given the children's circumstance as wards of the court. In some juvenile courts, legally authorized representatives (e.g., children's attorneys) give consent on behalf of potential child participants, following permission from the presiding judge (Quas, Wallin, et al., 2009; Quas, Cooper, et al., 2009). In our experience, some presiding judges are supportive of research, and others are not. Thus, one important practical strategy is to select jurisdictions where the presiding judge is enlightened.

Representativeness of research participants

The generalizability of research findings is in part determined by the degree to which the participants represent the study population. Even when investigators gain permission to recruit maltreated children from legal or health agencies, it is still difficult to ensure the sample's representativeness: Given that participation in research is voluntary, significant differences may exist between participating and nonparticipating individuals.

There are many other factors that can limit representativeness of research participants. Maltreated children recruited from hospitals, particularly emergency rooms, are more likely to suffer severe injuries. Also, if participants are enrolled from special intervention services, mental and physical health outcomes associated with exposure to child maltreatment might be confounded with the treatment effects, making it hard to evaluate the direct influence of abusive experiences (Kinard, 1994). Therefore, even when the recruitment sources are the agencies that serve maltreated children, the possibility of bias in the research sample cannot be easily eliminated. Investigators should be alert to this issue and interpret their findings in light of representativeness considerations.

Representativeness: Memory and suggestibility in maltreated children

In the Eisen et al. (2002, 2007) studies of maltreated children's memory and suggestibility, children were recruited from a DCFS-sponsored child abuse evaluation center located within a hospital. Because most of the children had been removed from home and placed in the unit by DCFS and because DCFS had already approved the study, Eisen et al. were able to enroll the vast majority of the children who entered the unit while the research was in progress. Although the sample was representative of children who entered the hospital unit, questions can still arise about how representative the children were of child abuse victims generally. The hospital catchment area was an urban, inner city one that covered some of the worst housing projects in the city. The children often had experienced multiple traumas (e.g., community violence, gang activity, police raids) in addition to possible child maltreatment. Thus, the findings may only apply to children with similar experiences. There are not many practical solutions to this issue in studies such as this, especially when procedures at a one-in-a-kind program are the to-be-remembered events about which memory is tested. Researchers are fortunate enough to get all the approvals needed to conduct such research at all, without having to worry about representativeness in relation to all child abuse victims nationwide. Still, the results of such research need to be interpreted accordingly.

The representativeness of control groups is a concern rarely discussed but vital for proper scientific inference. In the Eisen et al. studies, which compared cognitive and psychological functioning of maltreated and nonmaltreated children, the entire sample was recruited from the same agency (e.g., a child abuse evaluation unit), which was crucial since the children's memory for the agency's medical procedures was studied. Moreover, recruiting from the same agency helped researchers control for confounding variables. However, at the same time, questions are raised about the representativeness of the nonmaltreated group: The participating nonmaltreated children were from quite adverse environments compared with nonabused comparison children included in most other child memory studies (e.g., Howe, Cicchetti, Toth, & Cerrito, 2004; Valentino, Toth, & Cicchetti, 2009). This may have diminished some of the significant findings between the maltreated and nonmaltreated groups included in the Eisen et al. project. The practical solutions in such situations are few.

Representativeness: Legal involvement and child witnesses

In the Goodman et al. (1992) study, a total of 218 children out of 359 children referred to the DAs' offices during the 2-year recruitment period participated. The most common reason for nonparticipating was the legal system's failure to keep contact with the families due to changes in their addresses. In most of these cases, even the DAs' offices could not find the victims' whereabouts and therefore the prosecution was hindered. In addition, for a few victims, the DAs' offices told the researchers not to solicit the families for fear that the families' cooperation with the prosecutors, which was already tenuous, would be further impaired. Moreover, some families refused to participate in the study. Considering the sensitive nature of child sexual abuse, the participation rate of 61% was regarded as fairly high. However, in comparing the participating and nonparticipating cases, it was found that if children were abused by their parent, usually the father or stepfather, 50% of the families refused to participate in the study, but only 25% of the families declined participation if children were assaulted by strangers. It is not surprising that families with incest incidents were more likely to refuse to participate. However, such trends affect the representativeness of the sample, and findings must be interpreted accordingly.

Interviewing and questionnaires

A crucial decision in studies of child witnesses concerns the interview questions to be asked and the questionnaires to be included. If the questions are inappropriate to the research goal, the findings may be invalid, and if relied on anyway, may lead the legal system seriously astray. For studies of maltreated children's memory and suggestibility, a central issue is the memory interview, that is, the questions to be asked and how well those questions address applied and/or theoretical issues. For studies of maltreated children's reactions to court, the main concern is typically finding and using appropriate questionnaires.

Interviewing: Memory and suggestibility in maltreated children

In several of our studies, we have examined the accuracy of child witnesses' memory when questioned about experienced events that were documented on videotape or by hand so that we could access the children's later memory accuracy with precision (e.g., Eisen et al., 2002, 2007; Goodman et al., 2001). Although the studies address theoretical issues of trauma and memory development, they are also geared to address applied issues concerning forensic interviewing. As a practical strategy to enhance the external validity of our interviews, we have, at times, consulted with police officers or investigators from DA offices to ensure our questions are of forensic interest.

In these studies, free recall and specific questions are usually asked, but we also ask misleading questions, including about potentially abusive acts, to gauge maltreated children's abilities to resist false suggestion. This is a crucial issue in the forensic context. However, in the research context, it raises several ethical issues worthy of discussion. For example, do such questions alter the children's memory, and if so, can such effects be undone? There are also elements of deception involved (e.g., children may not be told initially that their memory will be tested, the interviewer acts as if something happened that did not). What practical strategies can be brought to bear on these issues?

Debriefing is a key practical strategy. It is important to note that we rarely if ever find that the children's *memory* has actually been tainted by our abuse-related misleading questions, even if the child's *report* has been adversely affected. (The report is often not adversely affected as well.) In fact, the children are typically much more resistant to such misinformation than most experimental psychologists would likely suspect. Even children who fall for our misleading questions, when asked for more detail, usually do not provide any additional information, and often acknowledge that the actions really did not occur. However, to the extent that some taint may exist, the practical strategy of debriefing is crucial in such research, in general but perhaps especially for young preschool children, who are most susceptible to our manipulations. The successfulness of such debriefing can be enhanced by explaining to the child that the interviewer made mistakes in the questioning, by pointing out and correcting the mistakes, and by showing the child a videorecording of what really occurred to reinstate accurate memory.

Questionnaires: Legal involvement and child witnesses

There is also the issue of questioning children about their legal experiences when in fact no standardized questionnaires for doing so have been developed. Our practical strategy was to develop our own questionnaires, based in part on past work conducted with adults and on the legal and psychological issues motivating the research. This approach was used both in the Goodman et al. (1992) and the Block et al. (2010) studies. Moreover, in the Block et al. study, the questionnaire about the children's knowledge of and attitudes about dependency court was developed with input from a panel that represented professionals who work with the dependency court. Thanks to the panel, questions such as "Why do both your parents and you have attorneys?" and "Did you get to tell the judge what you wanted?" were included—questions academic researchers might not have thought of on their own.

In studies of children's reactions to legal involvement, several issues arise about the questionnaires to be used. For example, in investigations of children's emotional adjustment, who should complete the questionnaires? Goodman et al. (1992) asked the nonoffending parents to fill out Achenbach's (1991a) Child Behavior Checklist. However, parents know that their children are victims, and the parents are likely worrying about possible adverse emotional effects. Thus, parents may be biased in judging their children's mental health. One practical strategy is to obtain teachers' ratings of the children's behavioral adjustment, using, for example, Achenbach's (1991b) Teacher Report Form, to determine if the findings still hold. Others, who have had sufficient funding, have instead used standardized, psychometrically sound clinical interviews of the children, which is a valid but more expensive approach (Runyan, Hunter, Everson, Whitcomb, & DeVos, 1994).

Attrition and retention

Longitudinal research on child witnesses is important because child abuse often exerts long-term adverse effects on victims, and possible long-term effects of legal involvement are of interest as well. However, maintaining participants over time for follow-up data collection, which is required in longitudinal designs, is quite difficult, labor-intensive, and time-consuming. Locating individuals with maltreatment histories may pose a particular challenge. Changes of addresses and unlisted telephone numbers have been reported as frequent obstacles confronted in longitudinal studies of child abuse victims (Kinard, 2001).

Moreover, maltreated children may be removed from their parents' homes and placed in foster care or in the custody of other relative caregivers at the time of follow-up. These new caregivers may not know the children's abuse histories and may not feel they have legal authority to provide consent. If maltreated children have been adopted, the children's names may change, and all record of the past essentially erased. Such children can be exceptionally difficult to find again. These factors may significantly increase the challenges of examining maltreatment victims longitudinally.

Tracking participants over time demands careful planning, resources, and detective work. We explain here the methods used in our laboratory for obtaining adequate retention rates in our prospective longitudinal study of child sexual abuse victims' reactions to criminal court involvement (e.g., Quas et al., 2005). Fortunately, it was realized during the original study (Goodman et al., 1992) that follow-up would be desirable. Thus, not only were names, addresses, and phone numbers of the participating families obtained at that time, but also detailed information was gathered from participants about alternate contacts in their lives (e.g., friends, relatives) who would "always know" the participants' whereabouts. We had additional information useful for tracking, such as schools children attended. We also obtained permission for follow-up in our original consent letters.

In the process of data collection, to optimize locating the former participants and obtaining a high participation rate, a survey research company that specialized in tracking, soliciting, and interviewing subjects was hired. Furthermore, a private detective was employed to track some individuals down. An investigator from the local prosecutor's office was also hired to train the research staff on locating hard-to-find individuals, largely using the internet. For studies funded by the federal government, it was possible to access computerized credit records (highly useful tracking sources). In addition, Department of Motor Vehicles was contacted for the addresses of participants who had driver's licenses (public information, at least at that time, to trace drivers in traffic accidents). Also, former neighbors were asked for information about families' whereabouts.

Using these approaches (and a few more), 186 (85.7%) of the 218 original participants were located. After being located, the former victims or their caregivers were contacted by phone and asked to participate in a study of attitudes toward the justice system and victimization experiences. The researchers successfully interviewed 175 (80.6%) of the former participants. Of

those located but not interviewed, 10 declined to participate, and 1 was deceased. The hardest former participants to find were those in mental hospitals; those who were "on the run" from the law; and, as noted earlier, those who were adopted and had their names changed.

For longitudinal research, given the difficulty in retaining maltreated children or adults in research, an important practical strategy is that comprehensive tracking techniques are integrated into research designs from the start of the study. It can be crucial to obtain the trust of participants from the beginning, to compensate them generously for participation, to be sure to obtain detailed contact information, and to stay in touch through, for example, newsletters and birthday cards. These practical steps can help minimize attrition and in the end lead to valuable longitudinal research on child maltreatment victims.

General lessons learned

Overall, we have learned many lessons about conducting scientific research on victims of child maltreatment. These lessons include the need to obtain the trust of agencies and participants, to collaborate with practitioners in the field, to work effectively with IRBs, and to have sufficient funding to attract participants, and if longitudinal research is desired, to keep track of individuals' whereabouts. Typically, the studies are a considerable amount of work and much perseverance is required. Moreover, given the children's trauma backgrounds, the studies are not for the light hearted: We have dealt with many heart-wrenching cases of child abuse, and as a result, staff debriefing becomes essential. Fortunately, however, it's very rewarding work. For many of us, knowing that we can contribute to science, justice, and child welfare all at the same time makes such research not just worthwhile but imperative.

Conclusion

We hope that the practical strategies used in previous research will help future investigators carry out child witness studies in more effective and successful ways. We have learned a great deal in the past three decades not only about child witnesses' abilities and needs, but also about how to address the many challenges posed in this area of research. Although there are some challenges we have yet to overcome (e.g., after more than a decade, we are still trying to convince a child protection agency in the United States to permit us to study children's memory for the process of removal from home), with sufficient creativity and determination, many obstacles can be successfully faced (e.g., by finding another country where child protective service agencies are more open to research, such as in Norway, and where we have found researchers to help us study children's memory for removal; see Baugerud, Melinder, Goodman, & Goodman-Brown, 2009). The study of child witnesses—which has informed US Supreme Court rulings, led to scientifically based child forensic interview protocols in place in many countries worldwide, and added crucial new knowledge to our understanding of childhood trauma—is too important for researcher to abandon easily when faced with barriers. Instead, practical solutions can often be found to the benefit of children, science, and society.

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