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A comparison of expert evidence and judicial directions to counter misconceptions in child sexual abuse trials

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Abstract

Studies on the influence of expert evidence and judicial instructions in child sexual abuse (CSA) cases have produced mixed outcomes. Using repeated measures, we tested the effectiveness of expert evidence and judicial directions in challenging common misconceptions about children's memory and responses to sexual abuse. A CSA Misconceptions Questionnaire was administered to 118 psychology undergraduates who later served as virtual jurors in a simulated criminal trial. Specialized CSA knowledge was provided by a psychologist or via judicial directions. Expert evidence had two levels: clinical versus scientific testimony. Timing of judicial instructions had two levels: directions presented before the child testified versus during the judge's summing up. In a fifth control condition, no specialized CSA information was included. After reading a trial transcript, mock-jurors assessed witness credibility, rendered verdicts and again completed the CSA Misconceptions Questionnaire. All four interventions significantly increased jurors' CSA knowledge. The more they knew, the more likely they were to convict. Perceived victim credibility fully mediated the effect of CSA knowledge on verdict: information presented via expert testimony or judicial directions enhanced perceptions of victim credibility, which in turn increased convictions. Conviction rates were significantly higher in response to expert testimony from a clinical psychologist and a judicial instruction provided in the trial summation. These results are promising for courts and policy-makers grappling with low conviction rates in CSA jury trials.

Keywords

child sexual assault, credibility, expert evidence, jury directions, misconceptions, specialized knowledge

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Introduction

The nature and scope of common misconceptions held by jurors and laypeople about child sexual abuse (CSA) and children's reliability as witnesses has been established in numerous studies (Calvert and Munsie-Benson, 1999; Cossins et al., 2009; Kovera and Borgida, 1997; Morison and Greene, 1992; Quas et al., 2005). In general, the findings support the existence of systemic biases against child witnesses that have contributed to the low conviction rates observed in CSA cases tried before a jury (Fitzgerald, 2006). This body of research has established a need to convey specialized knowledge about CSA cases to jurors to assist in creating a less biased and more informed context in which allegations of sexual assault by a child complainant are assessed. This is particularly important given the well documented ways that oral questioning strategies used in court have been shown to confuse child witnesses (Perry et al., 1995), undermine children's testimony (Brennan, 1995; Cossins, 2009) and reduce their credibility (Shao and Ceci, 2010).

Three primary legal procedural safeguards exist to counteract biases in jury decision making: expert evidence, judicial instructions and jury deliberation. The present research tested the efficacy of two of these methods to present specialized knowledge in court to counter juror misconceptions about child sexual abuse: expert evidence and judicial directions. Until recently, in Australia, the admission of expert testimony in CSA cases was rare (Cossins, 2008).

While recent changes to the law regarding expert presentation of specialized knowledge in CSA cases are a positive development for the prosecution of child sex offences, they have occurred in the absence of research to guide their use. Although communicating with juries via judicial directions is routine, and all Australian jurisdictions have introduced reforms to improve children's experiences in court, no jurisdiction has proposed a jury direction such as the innovative and unique instruction devised specifically for this research and tested in this study.

The legal context

Explicit provisions to enable expert opinion evidence about child development and behaviour were introduced in those four jurisdictions (Tasmania, NSW, Victoria and the ACT) which have adopted what is known as the 'uniform evidence legislation'[1] in order to overcome the unnecessary strictness of the common law in the area of child abuse prosecutions. Although Tasmania was the first jurisdiction to introduce such a provision, it was under-utilized due to the lack of suitably qualified experts in that State (Cossins, 2008). It is not possible to gauge the utilization and effectiveness of similar provisions in NSW, Victoria and the ACT without empirical research and because of the recency of their introduction (s. 79(2) commenced operation in 2008 in NSW and the ACT, and in 2010 in Victoria).

In order for expert evidence to be admitted in child sexual assault trials, the expert must have specialised knowledge (based on training, study or experience) of child

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development and behaviour which may include knowledge about the effect of sexual abuse on children's behaviour, development and memory. In larger jurisdictions, such as NSW and Victoria, it is likely there will be sufficient experts available to meet the strict criteria of s. 79(2), although cost is a major disincentive for the prosecution to utilize expert evidence when its efficacy is mostly confined to enhancing the credibility of the child complainant (Goodman-Delahunty et al., 2010).[2] Therefore, it can be expected that prosecutors will select cases in which expert evidence will enhance prosecutions.

Studies of jury decision-making in CSA trials have demonstrated the centrality of the credibility of the child complainant to their deliberations, leading some researchers to conclude that the 'believability of the child is often the strongest predictor of defendant guilt' (Goodman et al., 1998; Schmidt and Brigham, 1996). Because evidence of this type was so infrequently admitted, expert testimony in CSA trials has not been empirically investigated in Australia for over 15 years (Crowley et al., 1994) and little is known about its influence or factors that make expert testimony effective (Klettke et al., 2010). The recent legislative change created an imperative to examine methods to convey specialized knowledge on CSA so that experts, legal professionals and policy-makers are better informed about their utility.

Presenting specialized knowledge in child sexual abuse cases

In CSA cases, the specific objective in admitting specialized knowledge about CSA in court 'is to educate jurors, either by adding new information about child sexual abuse and child memory or by addressing certain ''myths'' that jurors may hold' (Kovera et al., 1997: 180). In the absence of specialized knowledge about CSA, many jurors erroneously interpret a child's counterintuitive behaviour (such as delay in complaint or ongoing contact with the offender) as indicators of the unreliability of the complaint (Cossins et al., 2009; Goodman-Delahunty et al., 2010). Several factors affect juror ratings of child believability (Cashmore and Trimboli, 2006; Redlich et al., 2002). One reason that the child is often regarded as lacking in credulity is the lack of forensic or eyewitness evidence to corroborate their testimony (Blackwell, 2008). Because a majority of CSA cases do not involve corroborative evidence (Blackwell, 2008; Duggan et al., 1989), it is important to examine whether corroborative information in the form of expert evidence or a specialized judicial direction, which confirms the validity of certain aspects of the complainant's testimony, will enhance jury perceptions of the credibility of the child complainant.

Generally, expert witness testimony is admitted when the expert's opinion is required to assist jurors in understanding the meaning and implications of particular evidence or facts, such as DNA profiling evidence or the results of a medical examination of a child complainant. In order to bolster a child's credibility, two distinct types of experts may be asked to provide expert testimony in CSA cases: (a) clinical practitioners, such as psychiatrists or psychologists whose expertise derives from training and practical experience working with children who have been victims of sexual assault; and (b) academic researchers, whose expertise derives from training in empirical social scientific research on the responses of child victims to sexual assault. Since most clinicians adhere to a scientist-practitioner or evidence-based model to guide their professional practice

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(Shapiro, 2002), their testimony may qualify for admission both as non-scientific and as scientific expert evidence (Sanders, 2001), although Australian courts are less rigorous than US courts in differentiating these types of experts and in screening the reliability of the underpinnings of expert testimony (Edmond, 2008).

A second method for the presentation of specialized scientific information to jurors is via jury instructions that summarize reliable social scientific findings pertinent to the issues in a case (Monahan and Walker, 1988). This model has been adopted in New Zealand, where a Court may provide directions about the normative aspects of delayed complaints and the reliability of children's evidence (Blackwell, 2005) to guide jurors in interpreting the related facts. For example, if a child complainant is under six years of age, s. 49 of the Evidence Regulations 2007 (NZ) permits the Judge to give the jury a direction to the following effect:

(a) even very young children can accurately remember and report things that have happened to them in the past, but because of developmental differences, children may not report their memories in the same manner or to the same extent as an adult would;
(b) this does not mean that a child witness is any more or less reliable than an adult witness;
(c) one difference is that very young children typically say very little without some help to focus on the events in question;
(d) another difference is that, depending on how they are questioned, very young children can be more open to suggestion than other children or adults;
(e) the reliability of the evidence of very young children depends on the way they are questioned, and it is important, when deciding how much weight to give to their evidence, to distinguish between open questions aimed at obtaining answers from children in their own words from leading questions that may put words into their mouths.

However, the effectiveness of this judicial instruction remains untested in terms of its impact on jury decisions. The present study evaluated the efficacy of both methods to convey specialized knowledge about CSA to jurors. We anticipated that specialized knowledge regarding the typicality of some features of CSA cases (such as delayed complaint and ongoing association with the offender) would positively influence the child's credibility and increase perceptions of the defendant's culpability.

The influence of clinical versus scientific expert testimony

The jury, as trier of fact, is required to decide what is known as the ultimate (or fact in) issue in the trial. In a CSA trial the ultimate issue is whether or not the defendant committed the alleged sexual act(s) which comprise the offence. The common law developed a rule to ensure that expert evidence, in particular, does not encroach upon the jury's decision-making by preventing the admissibility of expert opinion about the ultimate issue. Although the uniform evidence legislation in NSW, Victoria, the ACT and Tasmania has abolished the ultimate rule (s. 80(a)), it can be expected that judges will still exercise caution if an expert is asked for an opinion as to whether a child complainant has been sexually abused (Ligertwood and Edmond, 2010: 639), for the reasons discussed below.

Studies of jury decision-making have shown that expert testimony by a clinical practitioner who interviews or assesses the child in the current case is more persuasive

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than research-based scientific expert testimony provided by academicians (Boccaccini and Brodsky, 2002; Krauss and Sales, 2001). Expert evidence which presents key findings from the CSA scientific research literature is referred to as scientific, standard, or 'social framework' evidence (Monahan et al., 2009). For instance, a scientific expert who presented information about children's typical reactions to sexual abuse, including a statement that the victim in the case exhibited these reactions, was rated by mock jurors as less important and less helpful than testimony specific to the child that included a credibility assessment of the victim (that the child was telling the truth), or that discussed the victim's use of an anatomical doll to explain the abuse (Kovera et al., 1994). However, these variations in the nature of the expert evidence did not produce differences in the conviction rate.

Contrary outcomes emerged in a trial simulation in which the experts who presented specialized information linked the scientific CSA findings to the case at hand (Gabora et al., 1993). In one version, the expert linked the research on children's behavioural reactions to sexual abuse to the facts of the case, and offered an opinion that the child was abused. In another version, the expert provided information about the common emotional and behavioural reactions of children to sexual abuse and acknowledged on cross-examination that the statements provided to the court were 'generalizations to which there are always exceptions' (Gabora et al., 1993: 108). In a third control condition, no expert evidence was provided. Undergraduate students ($N = 352$) served as mock jurors. Neither type of expert testimony had any effect on juror perceptions of the credibility of the child complainant, although ratings of the defendant's credibility were lower and the conviction rate was significantly higher following clinical as opposed to social framework evidence based on scientific findings or no expert testimony. Because several features of the clinical expert evidence (providing test results for the child, interview material from the child), distinguished the content of that testimony from testimony proffered by the social framework expert, the precise cause of differences in conviction rates remained unclear (Gabora et al., 1993). One potential explanation for the outcomes is that expert evidence that is clearly related to the facts of the case is more influential than more general, abstract information about children and sexual abuse (Brekke and Borgida, 1988; Kovera et al., 1997).

A third study comparing clinical with standard scientific evidence in a simulated CSA trial using 298 undergraduate students confirmed that expert testimony influenced their judgements of the child's credibility. Unexpected findings were that mock jurors:

> were significantly more likely to convict when the child witness was more prepared and they viewed either the standard or the repetitive expert testimony. Those participants who viewed concrete expert testimony, however, were more likely to convict when the child witness was less prepared. (Kovera et al., 1997: 187)

These interactive effects indicated that the clinical, more specific or 'concrete' expert testimony had the greatest effect when the child's demeanour was 'congruent with the behavior described by the expert witness' suggesting that 'concrete evidence sensitizes jurors to behavioral correlates of sexual victimization' (Kovera et al., 1997: 188) in ways that scientific and repetitive expert testimony do not.

In sum, few studies have compared the influence of clinical versus scientific testimony from psychological experts in simulated CSA cases, and the existing research has

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produced contradictory and disparate outcomes, precluding specific hypotheses about their respective influence. Because the influence of the type of expert testimony on decisions in CSA cases is more complex than anticipated (Kovera et al., 1997), the current study includes a comparison of the influence of clinical versus scientific expert evidence.

Prior research on expert evidence in child sexual assault trials

In several simulated CSA trials, the introduction of expert testimony has increased the conviction rate. For example, 161 undergraduate student mock jurors exposed to scientific expert evidence about the common fears of sexually abused children, and the behavioural indicators of abuse exhibited by the child complainant 'were more likely to convict the defendant and had better recall for the judge's instructions' compared to mock jurors who did not hear any type of expert testimony (Kovera et al., 1994: 668). A more recent study of expert evidence in child sexual abuse cases used a 500-word vignette, a repeated measures design and 64 undergraduate students as mock jurors (Klettke et al., 2010). Independent variables were expert credentials (PhD from a prestigious university, many publications versus masters degree and clinical practical experience), the strength (correspondence between specialized knowledge and case facts) and coherence (presence/absence of inconsistencies) of the expert evidence. Variations in the expert credentials made no difference, but strength and coherence of the testifying expert's evidence were crucial determining factors: guilt ratings were lower and the victim was rated less credible when both evidence strength and coherence were low. When evidence strength was high, however, coherence of the expert testimony did not differentially influence ratings of defendant guilt or victim credibility, suggesting that the inconsistencies in expert evidence about child sexual abuse are overlooked when the evidence in the case is strong. In this study, a direct relationship between the expert testimony manipulations, mock jurors' verdicts, and ratings of victim credibility emerged; however not all studies support the notion of a direct connection.

In other studies, although juror perceptions of the credibility of the child were influenced by the expert evidence, this had no impact on the conviction rate. For example, psychological scientific expert testimony which summarized 'the major findings from research into children's memory competence, susceptibility to suggestion, and reality monitoring' was examined in a simulated CSA trial by Crowley et al. (1994: 95). The mock jurors included 72 undergraduate students and 72 jury-eligible citizens from the Australian community. Exposure to the expert evidence significantly enhanced ratings of the child's memory expertise, reality monitoring and resistance to suggestion, however, 'the effect of the presence or absence of expert testimony on dichotomous guilty/innocent verdicts failed to reach significance' (Crowley et al., 1994: 100). Results of another study pointed to a relationship between juror gender, perceptions of the credibility of the child complainant and verdict. In a trial simulation reviewed by 170 community mock jurors, both juror gender and child believability 'directly predicted pre-deliberation perceptions of guilt', although believability of the child was the stronger predictor (Redlich et al., 2002: 325). The researchers concluded that whether jurors believe a child is critical in determining the culpability of the defendant, raising the possibility that child credibility mediates the influence of specialized knowledge on verdict.

The foregoing review indicates that few previous studies have established a direct link between the admission of expert testimony and conviction rates. Prior research has failed

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to specify the precise relationship between the child's credibility and verdict. Although expert testimony has resulted in enhanced mock juror perceptions of the credibility of the child complainant, it remains unclear 'whether that increased ''value'' of the child's testimony mediates increased numbers of guilty verdicts' (Crowley et al., 1994: 100). Whether the effectiveness of expert testimony is mediated through decreased perceptions of the defendant's credibility, rather than increased perceptions of the credibility of the complainant was identified as 'an important issue for future study' (Gabora et al., 1993: 118). This mediation hypothesis is investigated in the current study.

Judicial instructions versus expert evidence

Juror responses to judicial directions have been the subject of extensive empirical research (Ogloff and Rose, 2005). Only a few studies have examined the effectiveness of providing specialized knowledge in the form of a judicial direction. One such instruction, the *Telfaire* instruction on eyewitness memory, was used in the USA when the case involved questionable eyewitness memory before use of an expert witness on eyewitness memory became commonplace. The *Telfaire* instruction, which arises in cases where the identity of the defendant must be established by the prosecution beyond reasonable doubt, informs the jury of all the matters they must take into account when assessing the reliability of a witness's identification evidence. A study of mock jury performance showed that although jurors exposed to the *Telfaire* instruction rated it as useful, they performed no differently from those who received no instruction (Greene, 1988). Compared to actual expert testimony, the *Telfaire* instruction was less effective in sensitizing mock jurors to the issues regarding eyewitness accuracy (Cutler et al., 1990). Accordingly, we hypothesized that in CSA cases, expert evidence would have a greater impact than judicial directions in conveying specialized knowledge to jurors in terms of jurors' perceptions of the defendant's and child's credibility and case outcomes.

Prior research on the timing of judicial instructions

Past studies have shown that expert evidence has a greater impact on jurors when it is presented earlier in a trial (Brekke and Borgida, 1988). Similarly, some previous research on the timing or placement of jury instructions investigated the influence of pre-instruction. Early mock-jury studies disclosed no influence of substantive legal pre-instructions on verdict (Cruse and Brown, 1987) or juror comprehension (Elwork et al., 1977). By contrast, pre-instructions on the presumption of innocence, reasonable doubt, and the burden of proof were found to decrease convictions (Kassin and Wrightsman, 1979) and pre-instructions changed juror beliefs on some factual issues (Elwork et al., 1977).

The use of substantive pre-instructions to enhance juror competence was studied in a series of civil trial simulations (ForsterLee and Horowitz, 1997). Mock jurors who received pre-instructions were better at differentiating between different plaintiffs according to the severity of their injuries to render appropriate awards. Pre-instructions also had a significant effect on the amount of probative evidence recalled by jurors which, in turn, had 'an effect on the quality of decision made by the juror' (ForsterLee and Horowitz, 1997: 316). Overall, these findings 'provided evidence that timing of judicial instructions may be an avenue for empowering the juror', enhancing their ability to understand the

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evidence given by a witness and improving their decision-making capacities (ForsterLee and Horowitz, 1997: 317).

One possible explanation is that 'substantive pre-instruction aided jurors in forming schemas (or legal, cognitive frameworks) that contain more probative, legally relevant, evidence' which enhances cognitive performance (ForsterLee and Horowitz, 1997: 306; Smith, 1991). The generation in pre-instructed jurors of a cognitive framework which enhances their performance in assessing and evaluating trial evidence is particularly salient in CSA cases since many studies have shown that jurors hold particular misconceptions about children's reliability as witnesses and their behaviour following sexual abuse.

In the context of a criminal case, an instruction from the trial judge to avoid reliance on emotional responses when viewing gruesome photographic evidence, delivered at the time the photographic evidence was introduced, was effective in reducing the negative emotions of jurors and the probative weight assigned to the photographic evidence, compared to standard post-trial instructions presented by the judge in summing up (Cush and Goodman-Delahunty, 2006).

Together, these findings indicate that a substantive judicial direction summarizing scientific research findings regarding CSA may be more effective in reducing juror misconceptions when delivered just before the child witness gives evidence, that is, at the time when jurors will be forming their credibility assessments, than if delivered during the judicial summing up. These findings also indicate that pre-instruction may exert more influence on assessments of the credibility of the child witness and thus on verdict.

Study aims

The primary aims of the current study were to investigate: (a) the influence of expert evidence and judicial directions summarizing scientific findings in challenging laypeople's misconceptions about children's memory and responses to sexual abuse; and (b) the relationship between increased knowledge about CSA, perceptions of victim credibility and conviction rates in CSA cases.

Preliminary evidence suggesting that expert evidence and judicial directions are effective legal mechanisms to manage juror misconceptions in CSA trials was gathered in a trial simulation (Goodman-Delahunty et al., 2010). Community members who endorsed CSA misconceptions had negative perceptions of the credibility of the child complainant and were more likely to acquit the defendant. Judicial directions provided before the child complainant testified enhanced complainant credibility, which in turn predicted guilty verdicts. The current study aimed to replicate these findings and extend that research by testing the mediation hypothesis proposed by Gabora et al. (1993) and Crowley et al. (1994).

Method

Design and research hypotheses

A randomized experimental study was conducted to investigate the impact of expert evidence and the timing of judicial directions in challenging commonly held misconceptions about CSA, and the extent to which ratings of complainant credibility account for the relationship between enhanced knowledge about CSA cases and verdicts.

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The first independent variable, CSA Expert Evidence, had two levels: clinical and scientific. The second independent variable, Timing of Judicial Direction, had two levels: directions presented before the child witness testified or during the judge's summing up. A fifth condition where no scholarly information about CSA was provided served as a control group. A full 3x3 design was not applied because it is unrealistic to include conditions in which expert evidence and substantive judicial directions on CSA information are provided in the same trial. All five versions of the mock trial were tested using the same case transcript.

The following research hypotheses were tested:

1. Specialized knowledge which explains the typical features of CSA cases (such as delayed complaint and ongoing association with the offender) will reduce CSA misconceptions;
2. Expert evidence will be more effective than judicial directions in reducing CSA misconceptions.
3. A judicial direction which summarizes the research findings about CSA will be more effective in reducing CSA misconceptions when delivered before the child's evidence than during the judicial summing up.
4. Increases in mock juror CSA knowledge will enhance their perceptions of the child's credibility, and the influence of specialized CSA information on verdict will be mediated by those credibility assessments.

Participants

Participants were 118 undergraduate psychology students who received course credit for their participation. The mean age of participants was 19.4 years (range: 18–48 years). The majority of the participants were female (72%). Just over half (56%) of the participants reported their cultural background as Asian, 27% reported their cultural background as Australian, 10% as European and the remaining 7% reported a number of different cultural backgrounds. The majority of the participants reported some experience working with children (74%), although only two participants were parents. All participants were legally eligible to participate in a jury trial in Australia.

Materials and procedure

Trial transcript

A transcript of a CSA trial was developed from testimony provided in an actual CSA case, with opening and closing addresses by the prosecution and defence, evidence-in-chief and cross-examination of the child complainant, judicial instructions regarding CSA cases or expert psychological testimony (in the relevant versions of the trial) and a case summation by the judge. The transcript ranged in length from 18 to 26 double-spaced pages. The longer versions contained the psychological expert's evidence-in-chief and cross-examination. Participants read the transcript in 30–40 minutes.

Expert testimony The expert testimony was presented in 1980 words (approximately six pages). Core information on CSA, extracted from major findings reported in

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psychological studies, stated that children's counterintuitive behaviours in response to sexual abuse are not necessarily evidence of fabrication and are typical in children who have been abused (i.e. delay in complaint, continued contact with and affection for the abuser, etc). The expert also provided information about children's memory, susceptibility to suggestion and capacity to provide reliable testimony. On cross-examination, the psychologist admitted that the information presented was based on generalizations to which there could be exceptions, and the possibility existed that the child believed she was abused due to repeated suggestions regarding the alleged incident and repeated questioning by adults.

Both experts provided the same core information about CSA, although the clinical expert stated that the information was derived from her practical experience while the scientific expert explained the findings in terms of what the research literature demonstrated. The experts were presented with parallel credentials: the clinician reported 20 years of clinical work with victims of CSA; the academic reported 20 years of research on the topic, although the basis of their opinions diverged. The clinical expert reviewed documents contained in the police investigative file, such as transcripts of police interviews with the complainant, conducted an in-person interview of the complainant, and concluded with an opinion that the complainant had been abused by her step-father. The scientific researcher reviewed identical documents and the research literature, but did not conduct an in-person interview with the child. She concluded with an opinion that the complainant's behaviour was consistent with the research findings about reactions of children who have been abused.

Judicial directions The judicial direction which summarized the research findings about CSA addressed the same core topics as the expert testimony in a more concise form, 574 words (one page). The judge explained that she was required by law to provide the direction because the complainant was a minor testifying about a sexual offence. The judicial direction summarized the scientific research findings on children's responses to sexual abuse (that counterintuitive behaviours such as delay in complaint, continued contact with and affection for the abuser are not evidence of a fabricated complaint) and stated children can provide reliable accounts of their experiences if questioned appropriately.

Dependent measures

CSA Misconception Questionnaire The 26-item CSA Misconception Questionnaire was administered before the mock jurors read the trial transcript and again during a post-trial juror questionnaire. The CSA Misconception Questionnaire was developed to test the knowledge and misconceptions of jury-eligible Australian citizens about CSA cases (Cossins et al., 2009). Based on a search of the literature, questions about five major topics were devised: (a) children's reactions to sexual abuse; (b) children's reliability as witnesses; (c) their ability to accurately recall experienced events; (d) their susceptibility to suggestive questioning; and (e) the typical offence characteristics of CSA. Mock jurors rated their agreement with 26 statements on a 7-point scale (1 = strongly disagree, 7 = strongly agree). Potential total scores ranged from 26 to 182, with higher scores reflecting stronger endorsement of misconceptions about CSA cases.

CSA knowledge gain scores were calculated for each participant by subtracting post-trial scores from pre-trial misconception scores for each item and summing the

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differences. A positive change score indicated an increase in knowledge (or a decrease in misconceptions). A comparison of the number of correct responses to the pre-trial versus the post-trial questionnaire yielded an objective measure of the extent to which the respective experimental interventions were effective in improving mock-jurors' knowledge about CSA cases.

Juror questionnaire Mock jurors provided individual verdicts (guilty/not guilty) after the presentation of the trial materials and rated their agreement/disagreement on a 7-point scale (scores ranged from 1 = strongly disagree to 7 = strongly agree) with the following statements:

Factual guilt: mock-jurors indicated whether (a) the defendant sexually abused the complainant; (b) the complainant had the knowledge to fabricate the allegation of sexual abuse; and (c) had fabricated the alleged abuse.

Victim credibility: Mock jurors assessed the child complainant's believability, reliability, consistency, credibility and whether the child could distinguish fact from fantasy. Responses were highly correlated, so scores were summed and divided by five (the number of items) to produce an overall measure of the child complainant's credibility. The internal reliability of these items was adequate, with a Cronbach's alpha = 0.83, suggesting it was appropriate to create a summed score.

Perceptions of the judicial directions: mock jurors rated the persuasiveness of the judge's instructions.

Perceptions of the expert: in the two expert witness conditions, mock jurors rated their agreement with four statements regarding the expert's reliability, credibility, trustworthiness, and the scientific validity of the expert information.

Manipulation check: A series of nine true/false questions assessed whether mock jurors paid attention to the trial information and could accurately recall trial details.

Results

Responses of seven mock jurors (6%) who answered fewer than 75% of the manipulation check items correctly were excluded from further analyses. The excluded mock jurors did not differ significantly from the remaining mock jurors in terms of age, gender, parental status, or education. The results reflect the responses of the 111 mock jurors who answered seven or more of the nine manipulation check items correctly.

The influence of pre-trial CSA misconceptions

Overall, the child complainant was perceived as moderately credible ($M = 4.75$, $SD = 0.97$), and the defendant was rated as likely to have sexually assaulted the complainant ($M = 5.00$, $SD = 1.43$). In turn, the victim was perceived as unlikely to have fabricated ($M = 3.01$, $SD = 1.38$), or unlikely to be equipped with the knowledge to fabricate the allegation of sexual assault ($M = 3.20$, $SD = 1.58$). Mock jurors' pre-trial misconception scores negatively influenced perceptions of complainant credibility ($r = -0.41$, $p < .01$) and culpability ratings of the defendant ($r = -0.29$, $p < .01$); that

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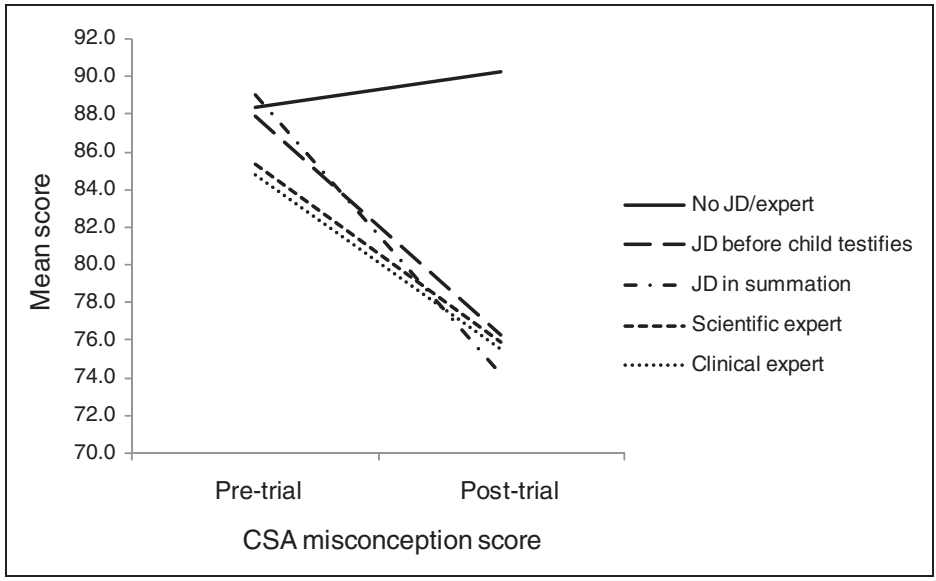

Figure 1. Pre-trial and post-trial misconception scores, by trial intervention (mean).

is, the more mock jurors endorsed misconceptions about CSA cases before they read the trial transcript, the less credible they perceived the complainant to be and the less culpable they perceived the defendant.

Effectiveness of specialized knowledge in reducing CSA misconceptions

A between-groups repeated measures analysis of variance (ANOVA) investigated the extent to which each experimental intervention was effective in changing misconceptions about CSA cases, and which intervention was most effective in this regard. As is shown in Figure 1, the views about CSA held by mock jurors in all trial conditions were similar at the outset: no significant differences emerged between mock jurors' pre-trial misconception scores in the five experimental groups ($F(4, 103) = 0.70$, $p > .05$, $\eta_p^2 = 0.02$).

Following exposure to the trial transcript, there was a significant shift in mock jurors' endorsement of CSA misconceptions. The main effect for time (pre-trial vs. post-trial misconception scores) was significant (Wilk's Lamba $= 0.57$, $F(1, 103) = 77.18$, $p < .001$, $\eta_p^2 = 0.43$); that is, pre-trial CSA misconception scores ($M = 87.0$, $SE = 1.18$) exceeded post-trial misconception scores ($M = 78.4$, $SE = 1.40$). However, the main effect for time was qualified by a significant interaction between time and experimental group (Wilk's Lamba $= 0.75$, $F(4, 103) = 8.65$, $p < .001$, $\eta_p^2 = 0.25$). Analysis of the simple slopes revealed that all experimental manipulations were effective in reducing misconceptions about CSA cases. As is shown in Figure 1, mock jurors' post-trial misconception scores were significantly lower than their pre-trial scores in the trial conditions containing specialized knowledge about CSA, compared to the control condition. Thus, a judicial direction provided before the child testified ($F(1, 103) = 18.63$, $p < .001$, $\eta_p^2 = 0.15$) or in

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Table 1. Mean CSA knowledge change scores, victim credibility ratings and guilty verdicts (percent), by experimental conditions

	No judicial direction; no expert	Direction before child testified	Direction in judicial summation	Scientific expert	Clinical expert
CSA knowledge change	−1.96[a]	9.36[b]	9.17[b]	11.78[b]	14.87[b]
Victim credibility	4.18[a]	5.11[b]	4.95	4.72	4.79
Guilty verdicts (%)	37.5[a]	52.2	77.3[b]	65.0	71.4[b]

Note: Means in the same row marked with the same superscript (a and a, or b and b) are not significantly different from one another; means marked with different superscripts from one another (a vs. b) are significantly different from one another. Other unmarked differences are ns ($p < .05$).

summation ($F(1, 103) = 16.69$, $p < .01$, $\eta_p^2 = 0.15$), and information provided by a research or clinical expert ($F(1, 103) = 25.05$, $p < .01$, $\eta_p^2 = 0.20$ and $F(1, 103) = 44.76$, $p < .01$, $\eta_p^2 = 0.30$, respectively) significantly decreased mock jurors' misconceptions about CSA cases. When no such information was provided (in the control condition, $F(1, 103) = 0.85$, $p > .05$, $\eta_p^2 = 0.008$), mock-jurors' misconceptions about CSA cases increased slightly (although non-significantly), suggesting that exposure to testimony and arguments in a CSA trial in the absence of educative information about CSA may reinforce people's misconceptions and increase their reliance on those misconceptions.

The effectiveness of expert evidence and judicial directions

Difference scores calculated for each participant, by comparing the number of correct responses to the pre-trial versus the post-trial misconception questionnaire, provided a measure of the extent to which each experimental intervention was effective in changing participants' misconceptions and increasing their knowledge about CSA cases. CSA knowledge change scores were calculated by subtracting post-trial misconception items from pre-trial misconception items, and summing the differences. A positive score indicated an increase in knowledge (or a decrease in misconceptions).

As expected, following the repeated measures analysis, a one-way ANOVA revealed that the mean CSA knowledge change scores differed significantly by trial condition (see Table 1; $F(4, 102) = 8.57$, $p < .001$, $\eta_p^2 = 0.25$). Follow-up post-hoc tests using the Tukey procedure revealed that the four experimental interventions presenting specialized knowledge resulted in significant increases in knowledge about CSA cases, compared to when this information was absent (the control condition). Contrary to the hypothesis that knowledge change scores following exposure to expert evidence would exceed those following exposure to judicial directions, the observed knowledge change scores between the four experimental conditions did not differ significantly from one another. Clinical expert evidence was no more influential than scientific expert evidence in reducing CSA misconceptions, and the earlier presentation of the judicial direction did not produce any additional learning gain over a direction presented in the judicial summation. These results suggested that neither trial intervention was more effective than the other at enhancing knowledge about CSA cases.

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The influence of CSA knowledge on perceived victim credibility and verdict

A one-way ANOVA revealed a significant difference in ratings of victim credibility ($F(4, 103) = 3.23$, $p < .05$, $\eta_p^2 = 0.11$). Post-hoc Tukey tests demonstrated that presentation of a specialized judicial direction before the child testified significantly enhanced the perceived credibility of the child victim compared to the perceived credibility by mock jurors in the control group who did not receive any specialized information about CSA cases (see Table 1). The perceived credibility of the child complainant by mock jurors who received information in the judicial summation or from a clinical or scientific expert was undifferentiated from that among mock jurors in the other groups.

Logistic regression was used to assess whether the experimental manipulations influenced mock jurors' verdicts. The overall model was significant ($\chi^2 = 9.86$, df = 4, $p < .05$), suggesting that verdicts differed between the experimental groups. Significantly more mock jurors convicted the defendant (returned a guilty verdict) when the specialized jury direction was presented in the judicial summation (Wald Statistic = 6.89, df = 1, $p < .01$) and following testimony by a clinical expert (Wald Statistic = 4.95, df = 1, $p < .05$), compared to the control condition (Table 1). The proportion of mock jurors selecting a guilty verdict when they heard testimony from a research expert was marginally higher than that in the control condition (Wald Statistic = 3.21, df = 1, $p = .07$). Mock jurors who received information in the form of a judicial direction before the child testified were not significantly more likely to convict the defendant than those in the control condition (Wald Statistic = 1.02, df = 1, $p > .05$).

The influence of the source of the specialized information

Although each procedural trial intervention produced similar knowledge gains (there were no significant differences between the CSA knowledge change scores in the four experimental jury groups), a number of significant differences emerged in victim credibility and verdict ratings depending on the source of the specialized information. Perceptions of the expert and the judge were analysed to explore the source of these differences.

A series of questions exploring perceptions of the expert witness were completed only by mock jurors exposed to the expert evidence. To reduce the likelihood of Type I errors, a more stringent alpha level of 0.01 was selected to determine significance with these items. Results of a series of independent t-tests revealed no significant differences between the clinical and the scientific expert on ratings of the reliability, trustworthiness and scientific basis of their evidence. Overall, both experts were rated as moderately reliable ($M = 5.70$, SD = 0.97) and trustworthy ($M = 5.54$, SD = 1.29), while the information they provided during the trial was generally regarded as scientific ($M = 4.98$, SD = 1.29). A marginally significant difference in the rating of the credibility of the expert evidence emerged ($t(41) = -2.03$, $p = .05$, $\eta^2 = 0.10$)) in the hypothesized direction: clinical expert testimony ($M = 6.43$, $SD = 0.68$) was perceived as marginally more credible than similar testimony from a scientific expert ($M = 5.90$, $SD = 0.97$).

Results of a one-way ANOVA revealed that perceptions of the persuasiveness of the judicial instructions varied according to the timing of the instruction ($F(4, 105) = 5.12$, $p < .01$, $\eta_p^2 = 0.16$). Post-hoc tests disclosed that mock jurors who received a judicial direction in summation ($M = 5.73$, SD = 1.35) rated the judge's instructions as

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significantly more persuasive than mock jurors who received a judicial instruction before the child testified ($M = 4.13$, SD = 1.58), and those who were exposed to expert evidence from a scientist or clinical psychologist ($M = 4.05$, SD = 1.57 and $M = 4.05$, SD = 1.46 respectively). Ratings of the persuasiveness of the information provided by the judge in the latter three jury groups did not differ significantly from one another. However, mock jurors' ratings of the persuasiveness of the judicial instruction provided in summation did not differ significantly from the standard judicial directions without any specialized information (i.e. the control condition, $M = 4.79$, SD = 1.53).

Analysis of the mediating influence of the perceived credibility of the child on verdict

One of the aims of this research was to explore how information about CSA cases influenced juror perceptions in CSA trials, and whether ratings of victim credibility mediated the relationship between knowledge about CSA and verdicts. Mediation analysis tests whether an independent variable (IV) indirectly influences a dependent variable (DV) through a third mediator variable using a statistical procedure (Preacher and Hayes, 2004). Four criteria were specified by Baron and Kenny (1986) to establish mediation: (i) a statistically significant, direct relationship between the IV and the DV is necessary to establish that there is an effect to be mediated (path *c* in Figure 2); (ii) the IV must be significantly related to the mediator (path *a* in Figure 2); (iii) the mediator must be significantly related to the DV (path *b* in Figure 2); and (iv) the relationship between the IV and the DV must be non-significant once the mediating variable is included in the model (path *c'* in Figure 2).

When all four criteria are present, the independent variable is said to influence the dependent variable through the mediator variable. However, these criteria comprise an informal test of mediation. Additional formal statistical techniques such as the Sobel test are applied to assess the mediation hypothesis (Preacher and Hayes, 2004; MacKinnon et al., 2002). To test whether perceptions of victim credibility mediate the relationship between endorsement of CSA misconceptions and convictions in CSA cases, a Sobel test was applied to mock jurors' CSA knowledge change scores as these scores reflected the impact of the trial interventions on endorsement of CSA misconceptions.

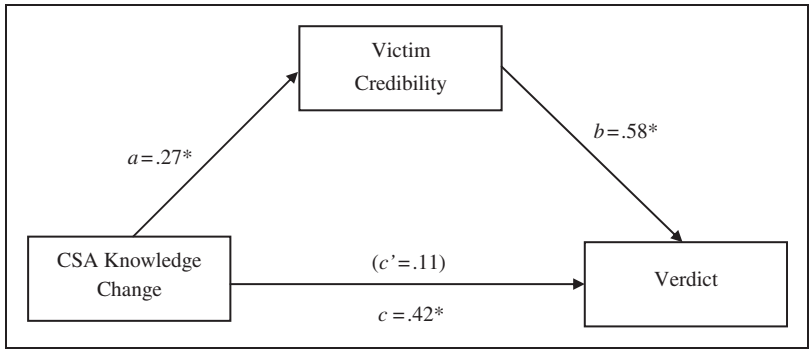

Figure 2. Simple mediation model for direct and indirect effects of CSA knowledge gains on conviction rates (*$p < .05$).

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First, as is shown in Figure 2, the total effect of CSA knowledge scores on verdict ratings was significant ($c = .42$, Wald Statistic = 12.41, df = 1, $p < .001$); that is, the more mock jurors learned during the trial, the more likely they were to convict the defendant. Second, knowledge scores were related to ratings of victim credibility ($a = .27$; $t(103) = 6.18$, $p < .001$, $r = 0.52$) such that the more mock jurors learned during the trial presentation, the more the complainant's credibility increased. Third, ratings of victim credibility significantly predicted verdicts, such that the more credible the victim was perceived to be, the more likely mock jurors were to convict the defendant ($b = .58$, Wald Statistic = 15.27, df = 1, $p < .001$). Finally, Figure 2 revealed that the direct effect of CSA knowledge change scores on guilt ratings was not significant ($c' = .11$, Wald Statistic = 0.91, df = 1, $p > .05$). The fact that the effect of CSA knowledge on verdicts was not significant once victim credibility was controlled confirmed that victim credibility completely mediated the effect of CSA knowledge change scores on verdict. Results from a Sobel test supported the full mediation model (Sobel z-value = 3.31, $p < .001$). These results confirmed the hypothesis that specialized knowledge about CSA cases presented during the trial, either in the form of psychological expert testimony or a judicial direction, enhanced perceptions of victim credibility, which in turn, increased the conviction rate.

Discussion

Common misperceptions about CSA were effectively countered by specialized CSA knowledge presented either in the testimony of a psychological expert or in a specially crafted unique judicial direction. The hypothesis that the presentation of specialized CSA knowledge to mock jurors would decrease their misconceptions about CSA cases was confirmed. An important related outcome was the finding in the control group that exposure to testimony and arguments in a CSA trial without the benefit of specialized educative information about CSA did not diminish mock-jurors' misconceptions, but appeared to reinforce their reliance on mistaken beliefs.

The results of this study provided no support for the hypothesis that an expert presenting information based on clinical expertise and methods is more effective at reducing CSA misconceptions than an expert presenting information based on scientific expertise and methods. With the exception of a marginally significant advantage to clinicians over scientists in terms of credibility, the two types of experts were rated as equivalent in terms of their perceived reliability, trustworthiness and scientific strength. These outcomes are similar to those reported by Klettke et al. (2010) and Gabora et al., 1993, in that both clinical and scientific expert testimony were '*equally* effective in overcoming misconceptions concerning child sexual abuse' (Gabora et al., 1993: 118). However, in line with the credibility ratings of the two experts, the conviction rate following exposure to the clinical psychological expert significantly exceeded that following exposure to the scientific expert. This outcome, notwithstanding the perceived equivalence of the two experts, was consistent with some previous research showing a preference for clinical over scientific experts.

The hypothesis that specialized CSA knowledge presented by the judge before the child witness testified would more effectively reduce CSA misconceptions was not supported – this form of pre-instruction was just as effective in reducing CSA misconceptions as a judicial direction containing the same information presented at the end of the trial. Mock juror perceptions that the judicial direction was more persuasive in summation were

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unrelated to changes in their CSA misconceptions. However, the hypothesis that the earlier delivery of the judicial instruction would significantly impact the perceived credibility of the child complaint was confirmed – the credibility of the child was significantly enhanced by a judicial direction presented before the child testified. Assessments of the child's credibility were significantly lower when the specialized knowledge was presented after the child's testimony, whether that information was introduced by an expert witness or a judicial direction.

The hypothesis that specialized CSA knowledge presented before the child witness testified would exert more influence on assessments of the child's credibility and thus on verdict was partially supported. As expected, mock jurors' assessments of the persuasive force of the judicial directions (on ratings of victim credibility) were highest in the group that received the specialized judicial instruction before the child complainant testified. However, contrary to expectations, the conviction rate in the group of mock jurors who received the specialized judicial instruction in summation was significantly higher than the conviction rate in the pre-instructed group. Although some past research suggests that expert evidence or judicial instructions presented earlier rather than later in the trial have more impact on mock jurors' decisions (Brekke and Borgida, 1988; Cush and Goodman-Delahunty, 2006), the current results suggest the relationship between timing of information and outcome is more complex. Pre-instruction may influence perceptions of the child complainant (as expected), without necessarily influencing the conviction rate. Further investigation regarding the influence of the timing of specialised instructions is required to clarify which may have the greatest impact upon verdicts.

In this study, no experimental manipulation of the timing of the expert evidence was included: in both expert versions, the expert testimony was presented after the child complainant had already given evidence. Future studies should investigate whether psychological expert testimony presented before the child gives evidence more effectively reduces misconceptions and enhances evaluations in CSA cases. In this study, the experts offered opinions that the child complainant had been sexually abused, and no such opinion was conveyed via the judicial direction. Despite speculation that what influences jurors the most is an explicit statement by the expert that the child was sexually abused (Gabora et al.,1993), in this study, the conviction rate following the clinical expert evidence was not significantly different from that following exposure to the specialized judicial direction in the judicial summing up. This outcome indicates that the force of an ultimate opinion by an expert that the child was sexually abused may be overrated; a finding in line with outcomes in studies of the influence of an ultimate opinion by an expert in other types of cases (Nietzel et al., 1999).

Whether an expert should offer an opinion on the ultimate issue in a case to be decided by a jury is a question that has been extensively debated (Melton et al., 2007). One US survey revealed that judges and prosecutors preferred experts to offer this opinion, although defence lawyers were less supportive (Redding et al., 2001). Typically, experts offering scientific social framework evidence do not link the research findings directly to the specific facts in issue as do clinicians who have interviewed the child complainant, although this limitation has been vigorously debated (Monahan et al., 2009). Some scholars contend that the fit between general research findings and the facts of a case must be established empirically (Monahan and Walker, 2008). Thus, scientists who have no empirical evidence about a particular child and who opine that the child was sexually abused are

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seen to be making an impermissible personal, subjective judgement – a mere educated guess. Further research is needed on how, and whether or not, expert opinions should link the scientific evidence and the facts of the case. For example, the use of terminology such as 'consistent with', 'identical', 'match', 'similar in all respects tested', was recently criticized as lacking in specificity and scientific rigour (Monahan et al., 2009).

The hypothesis that specialized information provided to mock jurors would influence assessments of the credibility of the child complainant and that any influence of specialized information on verdict would be mediated by assessments of the credibility of the child complainant, was confirmed. These findings demonstrated that knowledge of child sex abuse was associated with determinative credibility judgements of the child complainant and assessments of the defendant's culpability. Although this study involved a group of student mock jurors who read a trial transcript rather than viewed a trial, our findings on the relationship between credibility and verdict confirm the results reported in an Australian jury study which found that *actual* jurors' perceptions of the complainant's credibility were significantly related to verdict in child sexual assault trials (Cashmore and Trimboli, 2006).

The implication of this outcome is that prosecutors should be encouraged to call experts to give evidence in child sexual assault cases, as their specialized knowledge has a significant impact on the perceived credibility of the child complainant and in turn, the outcome of the case. This finding emerged both in the current study and a previous study with a community sample of mock jurors (Goodman-Delahunty et al., 2010).

Limitations and recommendations for future research

These findings were gathered in the context of an exploratory jury simulation that tested the efficacy of interventions to correct for established jury biases in CSA cases, including the application of an experimental, non-existent specialized jury direction. None of these hypotheses could have been tested in the context of an actual CSA trial (Rose and Ogloff, 2001). At such a preliminary stage in the research programme, the goal was not to generalize to actual juries, but to test the influence of these measures on individual mock jurors. As such, a number of methodological limitations of the current study exist. Future research using more ecologically and externally valid materials and methods is planned using a videotaped trial and non-empanelled jury-eligible participants who are provided the opportunity to deliberate about the evidence in a group.

In this study, all the mock jurors were undergraduate students who had recently completed high school. Past studies of jurors have shown that a sizeable proportion of actual jurors hold a tertiary degree (32.7% in Cashmore and Trimboli, 2006; 26.1% in O'Brien et al., 2008). The influence of education on mock jurors' responses to CSA cases remains to be tested. One possibility is that university students may view a scientific expert more favourably than do members of the general public who are more likely to encounter a clinical psychologist in their daily activities than a scientific expert. However, in our previous study using a similar methodology, a sample of community members rated the clinical and scientific experts equivalently in terms of their reliability, trustworthiness and scientific validity, and did not favour expert evidence by the clinical psychologist over that of the scientific expert (Goodman-Delahunty et al., 2010). This outcome controverted a finding in the context of a US death penalty trial simulation that

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a clinical expert exerted more influence on psychology undergraduate mock jurors than an actuarial expert (Krauss and Sales, 2001). Further research is needed to explore the potential influence of different types of expert evidence in CSA cases.

The current study only employed a relatively small sample, which may have limited the power to detect significant effects. Nonetheless, a number of interesting effects were detected. These require replication with larger, more representative samples, to ensure the generalizability of these results.

In this study, no assessment of the interventions on the perceptions of the credibility of the defendant were assessed. Prior research disclosed no discernible prejudicial effect of expert evidence on perceptions of, and inferences about, the defendant's credibility (Kovera et al., 1997). However, before evidence-based policy recommendations can be formulated, further research is needed that includes these measures to ensure that the interventions proposed are not prejudicial to the defendant.

Because of the exploratory nature of this research, and the focus on measuring individual knowledge change scores, the third major legal procedural safeguard against jury bias, namely jury deliberation, was not tested. Although in general, deliberation is regarded as a measure to reduce jury error and misconceptions (Devine et al., 2001), a number of studies have shown that deliberation failed to enhance jury performance after exposure to expert testimony and specific legal instructions. For example, following exposure to expert evidence on DNA profiling, deliberation failed to enhance jury performance (Dann et al., 2007). One empirical comparison of the accuracy of groups and individuals in applying a legal instruction showed that:

> [g]roup deliberation did not have an impact on application test performance ... [T]he fact that group decisions on the application test were not significantly better than individual decisions contradicts both the law's view of group superiority, and at least some of the research. (Rose and Ogloff, 2001: 426–428)

Future studies that include deliberation are recommended to assess the extent to which deliberation serves to reduce juror misconceptions in CSA cases.

Conclusion

It is impractical for courts to survey and select jurors with low CSA misconception scores to serve in CSA trials. This research revealed that expert testimony and a specially crafted judicial instruction, both of which presented similar specialized information about CSA, were effective procedural mechanisms in challenging common juror misconceptions about CSA. Both methods produced significant knowledge changes in mock jurors which enhanced the credibility ratings of the child complainant and increased the conviction rate. Taking into consideration the practical realities of adducing expert testimony in CSA trials, the availability and costs of experts, courts may be encouraged by preliminary findings which demonstrate the viability of a cost-effective alternative to delivering specialized information about CSA. Significantly, a judicial direction presented during summation had as much impact on the verdict as did expert testimony proffering an opinion that the child had been sexually abused. Although these preliminary findings require replication, the reduction in the guilty verdict rate (from 37.5% to

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77%) with judicial summation suggested that judicial direction during summation may offer an efficient, less expensive and less contentious method of counteracting misconceptions and informing juries than expert witness testimony.

Further refinement of this methodology through more ecologically valid research will assist in identifying the legal procedures or types of expert testimony best suited to Australian criminal trials and practical guidance for jurors in future CSA cases. Empirical demonstrations of a range of procedures that can be applied to remedy the low conviction rate in CSA trials may encourage the police and prosecutors to send more CSA cases to trial.

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Notes

1. Section 79A, Evidence Act 2001 (Tas); s. 79(2), Evidence Act 1995 (NSW); Evidence Act 2009 (Vic) and Evidence Act 1995 (Cth).
2. See s. 108C, Evidence Act 1995 (NSW); Evidence Act 2009 (Vic) and Evidence Act 1995 (Cth).

References

Baron RM and Kenny DA (1986) The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality & Social Psychology* 51: 1173–1182.

Blackwell S (2005) Expert psychological evidence in CSA trials in New Zealand. Paper presented at the Children and the Courts ConferenceNational Judicial College, Canberra, ACT, Australia, November.

Blackwell S (2008) Child sexual abuse on trial in New Zealand. Paper presented at the Criminal Law SymposiumAuckland, New Zealand, November.

Boccaccini MT and Brodsky SL (2002) Believability of expert and lay witnesses: Implications for trial consultation. *Professional Psychology: Research and Practice* 33: 384–388.

Brekke N and Borgida E (1988) Expert psychological testimony in rape trials: A social cognitive analysis. *Journal of Personality and Social Psychology* 55: 372–386.

Brennan M (1995) The discourse of denial: Cross–examining child victim witnesses. *Journal of Pragmatics* 23: 71–91.

Calvert JF and Munsie-Benson M (1999) Public opinion and knowledge about childhood sexual abuse in a rural community. *Child Abuse & Neglect* 23: 671–682.

Cashmore J and Trimboli L (2006) Child sexual assault trials: A survey of juror perceptions. *Contemporary Issues in Crime & Justice* 102: 1–20.

Cossins A (2008) Children, sexual abuse and suggestibility: What laypeople think they know and what the literature tells us. *Psychiatry, Psychology and Law* 15: 153–170.

Cossins A (2009) Cross-examination in CSA trials: Evidentiary safeguard or an opportunity to confuse? *Melbourne University Law Review* 33: 68–104.

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Cossins A, Goodman-Delahunty J and O'Brien K (2009) Uncertainty and misconceptions about child sexual abuse: Implications for the criminal justice system. *Psychology, Psychiatry & Law* 16: 1–18.

Crowley MJ, O'Callaghan MG and Ball PJ (1994) The juridical impact of psychological expert testimony in a simulated child sexual abuse trial. *Law and Human Behavior* 18: 89–105.

Cruse D and Brown BA (1987) Reasoning in a jury trial: The influence of instructions. *Journal of General Psychology* 114: 129–133.

Cush RK and Goodman-Delahunty J (2006) The influence of limiting instructions on processing and judgments of emotionally evocative evidence. *Psychiatry, Psychology and Law* 13: 110–123.

Cutler BL, Penrod SD and Dexter HR (1990) Nonadversarial methods for sensitizing jurors to eyewitness evidence. *Journal of Applied Social Psychology* 20: 1197–1207.

Dann BM, Hans VP and Kaye DH (2007) Can jury trial innovations improve jury understanding of DNA evidence? *Judicature* 90: 152–156.

Devine DD, Clayton LD, Dunford BB, Seying R and Price J (2001) Jury decision making: 45 years of empirical research on deliberating groups. *Psychology, Public Policy, and Law* 7: 622–727.

Duggan III LM, Aubrey M, Doherty E, Isquith P, Levine M and Scheiner J (1989) The credibility of children as witnesses in a simulated child sex abuse trial. In: Ceci SJ, Ross DF and Toglia MP (eds) *Perspectives on Children's Testimony*. New York: Springer-Verlag, pp. 71–99.

Edmond G (2008) Specialised knowledge, the exclusionary discretions and reliability: Reassessing incriminating expert opinion evidence. *University of New South Wales Law Review* 31: 1–55.

Elwork A, Sales BD and Alfini JJ (1977) Juridic decisions: In ignorance of the law or in light of it. *Law and Human Behavior* 1: 163–189.

Fitzgerald J (2006) The attrition of sexual offences from the New South Wales criminal justice system. *Crime and Justice Bulletin* 92: 1–12.

ForsterLee L and Horowitz IA (1997) Enhancing juror competence in a complex trial. *Applied Cognitive Psychology* 11: 305–319.

Gabora NJ, Spanos NP and Joab A (1993) The effects of complainant age and expert psychological testimony in a simulated child sexual abuse trial. *Law and Human Behavior* 17: 103–119.

Goodman GS, Tobey AE, Batterman-Faunce JM, Orcutt H, Thomas S, Shapiro C and Sachsenmaier T (1998) Face-to-face confrontation: Effects of closed-circuit technology on children's eyewitness testimony and jurors' decisions. *Law and Human Behavior* 22: 165–203.

Goodman-Delahunty J, Cossins A and O'Brien K (2010) The effect of expert evidence and judicial directions on enhancing the credibility of complainants in CSA trials. *Behavioral Sciences and the Law* 28: 769–783.

Greene EL (1988) Judge's instruction on eyewitness testimony: Evaluation and revision. *Journal of Applied Social Psychology* 18: 252–276.

Kassin SM and Wrightsman LS (1979) On the requirements of proof: The timing of judicial instructions and mock juror verdicts. *Journal of Personality and Social Psychology* 37: 1877–1887.

Klettke B, Greaesser AG and Powell MB (2010) Expert testimony in child sexual abuse cases: The effects of evidence, coherence and credentials on juror decision making. *Applied Cognitive Psychology* 24(4): 481–494.

Kovera MB and Borgida E (1997) Expert testimony in child sexual abuse trials: The admissibility of psychological science. *Applied Cognitive Psychology* 11: 105–129.

Kovera MB, Gresham AW, Borgida E, Gray E and Regan PC (1997) Does expert psychological testimony inform or influence juror decision making? A social cognitive analysis. *Journal of Applied Psychology* 82: 178–191.

Kovera MB, Levy RJ, Borgida E and Penrod SD (1994) Expert testimony in child sexual abuse cases: Effects of expert evidence type and cross-examination. *Law and Human Behavior* 18: 653–674.

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Krauss DA and Sales BD (2001) The effects of clinical and scientific expert testimony on juror decision making in capital sentencing. *Psychology, Public Policy & Law* 7: 267–310.

Ligertwood A and Edmond G (2010) *Australian Evidence: A Principled Approach to the Common Law and the Uniform Acts*, 5th edn. Sydney: LexisNexis.

MacKinnon DP, Lockwood CM, Hoffman JM, West SG and Sheets V (2002) A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods* 7: 83–104.

Melton GB, Petrila J, Poythress NG and Slobogin C (2007) *Psychological Evaluations for the Courts: A Handbook for Mental Health Professionals and Lawyers*, 3rd edn. New York: Guilford.

Monahan J and Walker L (1988) Social science research: A new paradigm. *American Psychologist* 43: 465–472.

Monahan J, Walker L and Mitchell G (2008) Contextual evidence of gender discrimination: The ascendance of 'social frameworks'. *Virginia Law Review* 94: 1705–1739.

Monahan J, Walker L and Mitchell G (2009) The limits of social framework evidence. *Law, Probability & Risk* 8: 307–321.

Morison S and Greene E (1992) Juror and expert knowledge of child sexual abuse. *Child Abuse & Neglect* 16: 595–613.

Nietzel MT, McCarthy DM and Kerr MJ (1999) Juries: The current state of the empirical literature. In: Roesch R, Hart SD and Ogloff JRP (eds) *Perspectives on Psychology and Law: The State of the Discipline*. New York: Plenum Press, pp. 23–52.

O'Brien K, Goodman-Delahunty J, Clough J and Pratley J (2008) Factors affecting juror satisfaction and confidence in New South Wales, Victoria and South Australia. *Trends & Issues in Crime and Criminal Justice* 354: 1–6.

Ogloff JRP and Rose VR (2005) The comprehension of judicial instructions. In: Brewer N and Williams KD (eds) *Psychology and Law: An Empirical Perspective*. New York: Guilford Publications, pp. 407–444.

Perry NW, McAuliff BD, Tam P, Claycomb L, Dostal C and Flanagan C (1995) When lawyers question children: Is justice served? *Law and Human Behavior* 19: 609–629.

Preacher KJ and Hayes AF (2004) SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers* 36: 717–731.

Quas JA, Thompson WC and Clarke-Stewart KA (2005) Do jurors 'know' what isn't so about child witnesses? *Law and Human Behavior* 29: 425–456.

Redding RE, Floyd MY and Hawk GL (2001) What judges and lawyers think about the testimony of mental health experts: A survey of the courts and bar. *Behavioural Sciences & the Law* 19: 583–594.

Redlich AD, Myers JEB, Goodman GS and Qin J (2002) A comparison of two forms of hearsay in child sexual abuse cases. *Child Maltreatment* 7: 312–328.

Rose VG and Ogloff JRP (2001) Evaluating the comprehensibility of jury instructions: A method and an example. *Law and Human Behavior* 25: 409–431.

Sanders J (2001) *Kumho* and how we know. *Law & Contemporary Problems* 64: 373–415.

Schmidt CW and Brigham JC (1996) Jurors' perceptions of child victim-witnesses in a simulated sexual abuse trial. *Law and Human Behavior* 20: 581–606.

Shao Y and Ceci SJ (2011) Adult credibility assessments of misinformed, deceptive and truthful children. *Applied Cognitive Psychology* 25: 135–145.

Shapiro DA (2002) Renewing the scientist-practitioner model. *The Psychologist* 15: 232–234.

Smith VL (1991) Impact of pretrial instruction on jurors' information processing and decision making. *Journal of Applied Psychology* 76: 220–228.

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