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Disclosing adult wrongdoing: Maltreated and non-maltreated children's expectations and preferences

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ABSTRACT

Little is known about the process by which children disclose adult wrongdoing, a topic of considerable debate and controversy. In the current study, we investigated children's evaluations of disclosing adult wrongdoing by focusing on children's preferences for particular disclosure recipients and perceptions of the consequences of disclosure in hypothetical vignettes. We tested whether children thought that disclosure recipients would believe a story child as a truth teller and what actions the recipients would take against the "instigator" who committed the transgression. Maltreated and non-maltreated 4- to 9-year-olds ($N=235$) responded to questions about vignettes that described a parent's or stranger's transgression. Older children preferred caregiver recipients over police officer recipients when disclosing a parent's transgression but not a stranger's transgression. Maltreated children's preference for caregiver recipients over police officer recipients developed more gradually than that of non-maltreated children. Older children expected disclosure recipients to be more skeptical of the story child's account, and older children and maltreated children expected disclosure recipients to intervene formally less often when a parent, rather than a stranger, was the instigator. Results contribute to understanding vulnerable children's

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development and highlight the developmental, experiential, and socio-contextual factors underlying children's disclosure patterns.

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Introduction

During recent years, increased attention has focused on understanding the process by which children disclose negative prior experiences, particularly maltreatment perpetrated by adults to whom children are closely related (London, Bruck, Wright, & Ceci, 2008; Lyon, Ahern, Malloy, & Quas, 2010; Pipe, Lamb, Orbach, & Cederborg, 2007). Much of this attention stems from evidence indicating that children often delay disclosing maltreatment, fail to provide complete details about their maltreatment experiences, and sometimes retract prior allegations, all of which can profoundly affect the believability of children's claims and the outcome of legal proceedings. To intervene effectively and protect child victims, it is imperative to determine why children decide to disclose and what influences their decisions. More generally, it is important to understand how children reveal negative acts and the transgressions of others, including developmental changes and experiential and socio-contextual influences on that understanding.

The overarching purpose of the current study was to investigate the factors underlying children's decisions to disclose adult wrongdoing. We were specifically interested in children's perceptions of how disclosure recipients (individuals to whom disclosure may occur) would react to a story child's disclosure of an adult's wrongdoing, whether children's perceptions vary depending on a story child's relationship to the instigator (individual who committed the wrongdoing), and whether children's attitudes are related to their age and history of substantiated maltreatment. Surprisingly few studies have examined children's expectations concerning disclosure of adult wrongdoing directly, and even fewer have focused on maltreated children, a group of great interest for theoretical reasons and generalizability purposes. The current study helps to fill an important gap by focusing on to whom children prefer to disclose and their expectations concerning the consequences of disclosure.

As we review next, a sizable body of work has examined secrecy and nondisclosure in children using both naturalistic designs and experimental procedures. Findings reveal that children are often reluctant to disclose wrongdoing, that reluctance is related both to children's relationship to the instigator and to expectations concerning how disclosure recipients will react to disclosure, and that children's developmental level may influence their expectations. Finally, findings suggest that having a history of maltreatment may be related to children's expectations that recipients will react negatively to disclosure.

First, evidence indicates that children are often reluctant to disclose wrongdoing that they have witnessed or experienced. As mentioned, naturalistic studies indicate that many children delay reporting abuse for substantial periods of time, months or even years (Goodman-Brown, Edelstein, Goodman, Jones, & Gordon, 2003; London et al., 2008; Malloy, Brubacher, & Lamb, 2011), and that children sometimes recant former disclosures (Elliott & Briere, 1994; Malloy, Lyon, & Quas, 2007). Nondisclosure also appears in laboratory analogue studies, with children commonly failing to disclose their own transgressions (Bussey, Lee, & Grimbeek, 1993; Lewis, Stanger, & Sullivan, 1989; Polak & Harris, 1999; Talwar, Gordon, & Lee, 2007; Talwar & Lee, 2002; Talwar, Lee, Bala, & Lindsay, 2002), the transgressions of others (Bottoms, Goodman, Schwartz-Kenney, & Thomas, 2002; Bussey & Grimbeek, 1995; Ceci & Leichtman, 1992; Pipe & Wilson, 1994; Talwar, Lee, Bala, & Lindsay, 2004), and transgressions in which they are jointly implicated (Lyon & Dorado, 2008; Lyon, Malloy, Quas, & Talwar, 2008).

Second, consistent with principles of classic social cognitive theory (Bandura, 1986), a primary motivation for secrecy among children is to avoid punishment (Last & Aharoni-Etzioni, 1995). As such, whether children disclose an adult's wrongdoing is likely related to the outcomes they expect for disclosing (Bussey & Grimbeek, 1995). Wagland and Bussey (2005) tested this possibility by asking 5- to 10-year-olds about disclosure likelihood in relation to vignettes describing minor transgressions. Children, not surprisingly, predicted less disclosure when there were warnings not to tell and expectations

that disclosure would lead to punishment. These findings are consistent with retrospective surveys of disclosure in adults victimized as children. Adults often report that their decisions regarding whether to disclose were affected by fears or expectations about others' reactions (e.g., disbelief, blame) and the effects of disclosure on themselves and others (Anderson, Martin, Mullen, Romans, & Herbison, 1993; Fleming, 1997). These surveys are limited by the dangers of reappraisal or forgetting, but similar reasons for delays in disclosure have been given by child victims across a wide age range (Goodman-Brown et al., 2003; Hershkowitz, Lanes, & Lamb, 2007; Malloy et al., 2011; Sas & Cunningham, 1995). Surveys (of adults or children) are necessarily limited to those who ultimately disclosed. Without questioning children who were never abused, the extent to which the former's attitudes are shaped by their maltreatment experiences remains unknown. It is imperative that field work examining victims' perceptions of the consequences of disclosure be complemented with experimental investigations.

One other important issue regarding children's motivation to disclose concerns their relationship to the individual who committed the wrongdoing. Because of children's attachment to and dependency on known and trusted adults, children may be particularly disinclined to disclose parental wrongdoing. Numerous studies have demonstrated that children are less likely to disclose and more likely to delay disclosing abuse by family members (see reviews in London et al., 2008; Lyon, 2002, 2007, 2009; Paine & Hansen, 2002) and are more likely to recant when they have claimed abuse against a parent figure and their non-offending caregiver reacts in an unsupportive manner to disclosure (Elliott & Briere, 1994; Malloy et al., 2007). According to one laboratory study, 6- to 10-year-olds were less likely to disclose the transgressions of parents than of other adults (Tye, Amato, Honts, Devitt, & Peters, 1999).

Third, deciding whether to disclose an act of wrongdoing requires recognition of the socio-motivational reasons why one might desire to conceal an event; such recognition likely varies developmentally. According to the social cognitive model of disclosure (Bussey & Grimbeek, 1995), children reason about the consequences of disclosure and are influenced by their cognitive capabilities and social experience, both of which increase with age, and situational factors (e.g., instigator identity). For instance, relative to older children, younger children are less aware of the potential consequences of revealing secrets and transgressions (Bottoms et al., 2002; Bussey & Grimbeek, 1995; Polak & Harris, 1999; Talwar & Lee, 2002). In addition, with age, children increasingly value secrecy as a component of friendship (Rotenberg, 1991; Rotenberg et al., 2004) and develop a more complex understanding of family loyalty, the latter of which includes the reciprocal nature of familial obligations (e.g., "owing" parents for care provided; Leibig & Green, 1999). Accordingly, older children may be more likely to recognize or predict negative consequences of disclosure than younger children, particularly when compared to preschool-aged children (e.g., Malloy et al., 2011).

Fourth, there are several reasons to suspect that a history of maltreatment may influence children's expectations concerning how others, especially those who are closely related, will react to disclosure. Compared with non-maltreated children, maltreated children are less likely to trust that an adult will not cause them harm (Shields, Ryan, & Cicchetti, 2001), are more likely to expect others to behave antisocially (e.g., Dodge, Pettit, Bates, & Valente, 1995; Toth, Cicchetti, Macfie, Rogosch, & Maughan, 2000), and have more negative representations of caregivers (Toth, Cicchetti, Macfie, & Emde, 1997). Maltreated children also tend to interpret ambiguous situations as hostile and demonstrate hypersensitivity to negative emotions (Dodge et al., 1995; Pollak, Cicchetti, Hornung, & Reed, 2000). Therefore, maltreated children may be less protective of caregiver instigators and less trusting of caregiver disclosure recipients.

In what appears to be the first study of maltreated children's evaluations of disclosing adult wrongdoing, Lyon et al. (2010) asked maltreated and non-maltreated 4- to 9-year-olds *whether* a child character in a series of brief vignettes would or should disclose a wrongdoing committed by an adult, with the vignettes varying the identities of the instigator and disclosure recipient. When asked what children would do, even 4- and 5-year-olds predicted less disclosure against parent instigators than against stranger instigators, and when asked what children should do, children endorsed less disclosure of parents than of strangers by 6 or 7 years of age. Finally, when asked specifically about disclosing to police officers, with age, non-maltreated children grew increasingly protective of parent instigators, whereas maltreated children showed no preference for protecting

parent instigators from the police. Overall, maltreated and non-maltreated children exhibited reverse age trends; maltreated children endorsed more disclosure with age, and non-maltreated children endorsed less.

Although [Lyon and colleagues' \(2010\)](#) study revealed the importance of considering both age and maltreatment history in assessing children's attitudes about disclosing wrongdoing, several critical questions were left unanswered, most noteworthy those concerning the reasons underlying children's disclosure patterns. In the current study, we expanded Lyon and colleagues' investigation by testing potential factors that underlie children's disclosure patterns, focusing on children's preferences regarding disclosure recipients and expectations concerning the consequences of disclosure, including whether children expected that the disclosure recipient would believe a story child as a truth teller and how a recipient would react to disclosure (i.e., what actions the disclosure recipient would take against the instigator). To the extent that children consider the consequences of disclosure when deciding whether to disclose, asking them about their expectations of consequences can help us to understand their decision making. Insight into children's perceptions can provide novel information about when and to whom children elect to disclose transgressions. Such insight may also reveal why maltreated and non-maltreated children's perceptions differ and how children's perceptions change across age.

The current study

In the study, 4- to 9-year-old maltreated and non-maltreated children answered questions about three types of vignettes that described a child character (story child) disclosing or potentially disclosing wrongdoing committed by an adult instigator to another adult recipient. In *Recipient Preference* vignettes, we assessed children's perceptions of to whom the story child would choose to reveal a wrongdoing, given evidence from naturalistic studies that children typically first disclose maltreatment to caregivers ([Arata, 1998](#); [Sauzier, 1989](#)). Second, because caregivers' reactions have considerable implications for children's subsequent disclosure patterns and adjustment ([Elliott & Carnes, 2001](#); [Lawson & Chaffin, 1992](#); [Malloy et al., 2007](#)), we asked about children's expectations of belief and perceptions of the consequences of disclosing to caregiver disclosure recipients in *Belief* and *Consequences* vignettes. Across the vignettes, the instigator who committed the wrongdoing (parent vs. stranger) and the recipient to whom the child would disclose (caregiver vs. police officer) were systematically varied to investigate how the story child's relationship to these individuals influenced children's perceptions. In addition, because children often fear being blamed by others for abuse, particularly when they believe that they participated in, were complicit in, or deserved abuse (e.g., [Feiring, Taska, & Lewis, 1998](#); [Quas, Goodman, & Jones, 2003](#)), the instigator was described in the vignettes as having made the child do "something really bad."

Several hypotheses were advanced. First, with respect to the *Recipient Preference* vignettes, we hypothesized that when the instigator was a parent, children would prefer caregivers over police officers as disclosure recipients. (No such differences in recipient preferences were anticipated with a stranger instigator.) Older children were expected to be particularly likely to exhibit this bias because of their greater ability to reason about the consequences of disclosing to authority figures. We also anticipated that non-maltreated children would be more protective than maltreated children of a parent instigator and, thus, be less willing to select a police officer as a disclosure recipient than a caregiver as a disclosure recipient. Second, with respect to the *Belief* vignettes, we hypothesized that children would anticipate that the recipient would tend to believe the story child as a truth teller more when the instigator was described as a stranger than as a parent and that this difference would increase with age and be larger among maltreated children. Third, with respect to the *Consequences* vignettes, we predicted that children would anticipate recipients' reluctance to initiate formal intervention (i.e., involve legal authorities) when the instigator was a parent vs. a stranger. Older children and maltreated children were expected to be particularly likely to distinguish between parent and stranger instigators in terms of predicting recipients' reluctance to report to authorities—older children because of their greater awareness of the potentially negative consequences of disclosing transgressions and maltreated children because of their belief that caregivers would be unsupportive.

Method

Participants

A sample of 235 4- to 9-year-olds ($M = 6$ years 7 months, $SD = 1.65$ years; 129 girls and 106 boys; 75 4- and 5-year-olds, 78 6- and 7-year-olds, and 82 8- and 9-year-olds), approximately half of whom were maltreated ($n = 107$), served as participants. An additional 27 children (15 non-maltreated and 12 maltreated) failed to complete the task due to expressing a desire to stop after the procedure began ($n = 4$), uncommunicativeness ($n = 11$), or interruption by school or court officials ($n = 6$); for 6 children, the reason for termination was missing. Children were primarily from ethnic/racial minority backgrounds: 60% Latino, 28% African American, 8% Caucasian, and 4% other. Neither ethnicity nor gender varied across age or between the maltreated and non-maltreated samples.

The maltreated sample consisted of children substantiated as having experienced neglect, emotional abuse, and/or physical or sexual abuse who had been removed from the custody of their parents or guardians. They were drawn from the Los Angeles County dependency court population on the U.S. west coast, a court population that tends to be of disproportionately low socioeconomic status (Lyon & Saywitz, 1999). Because children had been removed from parental care, the Presiding Judge of Juvenile Court and the Los Angeles County Children's Law Center granted consent for all children in the maltreated sample. Maltreated children were ineligible if they were awaiting an adjudication or contested disposition hearing on the date of testing (because they might be asked to testify) or if interpreter services were provided to their family and they were incapable of communicating with the researchers in English.

The non-maltreated sample consisted of children recruited from schools in nearby predominantly low-income ethnic minority neighborhoods, which were comparable to those from which a large majority of the maltreated children were removed (see similar approach in Pollak, Vardi, Putzer-Bechner, & Curtin, 2005). The non-maltreated children were drawn from schools in which 65–100% of children were considered to be economically disadvantaged, according to school records. Children not in the custody of one or both parents were excluded from the non-maltreated sample because of the potential that they had been removed from their parents' care due to maltreatment (see similar approach in Carrick, Quas, & Lyon, 2010; Lyon et al., 2010).

Materials

Vignettes

Three types of vignettes were included: *Recipient Preference*, *Belief*, and *Consequences*. All followed a similar format and included three characters presented without facial expressions: an instigator, a disclosure recipient, and a story child who matched the participant's sex. The instigator was the story child's father, the story child's mother, or a stranger (the stranger was described as "a man [the story child] does not know"). The recipient was the story child's mother, the story child's grandmother, or a policeman/policewoman. We did not test father recipients because they are rarely disclosure recipients (Anderson et al., 1993; Kogan, 2004) and because prior experimental work did not find different attitudes regarding mother and father recipients (Lyon et al., 2010). The characters had lightly shaded skin tones and were drawn without facial or hair features that would suggest a specific ethnicity. Physical positioning of the characters was counterbalanced. Sample vignettes are presented in the Appendix.

Five Recipient Preference vignettes assessed to whom children preferred to disclose wrongdoing. Children were told that the instigator made the story child do something really bad. The instigator was the father, the mother, or a stranger. Children then were asked to choose which of two disclosure recipients the story child would tell about the wrongdoing. The recipient choices were mother or police officer and grandmother or police officer. Therefore, the five vignettes asked about (a) a father instigator/mother or police officer recipient, (b) father instigator/grandmother or police officer recipient, (c) mother instigator/grandmother or police officer recipient, (d) stranger instigator/mother or police officer recipient, and (e) stranger instigator/grandmother or police officer recipient. The following is

an example of a vignette: “Here is a *girl*. Here is her *dad*. The *girl's dad* made the *girl* do something *really bad*. Who will this *girl* tell—her *mom* or a *policeman*?”

Five Belief vignettes tested children’s perceptions of whether a story child or an instigator would tell the truth about a possible wrongdoing and whether these perceptions varied depending on the story child’s relationship to the instigator. Children listened to vignettes in which an instigator may have done something “really bad,” and a potential disclosure recipient wanted to know what happened. The instigator could be the father, the mother, or a stranger, and the recipient was either the mother or the grandmother. Therefore, the five vignettes asked about (a) a father instigator/mother recipient, (b) father instigator/grandmother recipient, (c) mother instigator/grandmother recipient, (d) stranger instigator/mother recipient, and (e) stranger instigator/grandmother recipient. Children then answered questions about who the disclosure recipient would believe and who they themselves would believe—the story child or the instigator. The following is an example of a vignette: “Here is a *girl*. Here is her *dad*. *Maybe* the *dad* made the *girl* do something *really bad*. The *mom* wants to know what *really* happened.” Questions about who the disclosure recipient would believe and who the child believed (e.g., “Who does the *mom* think will tell the *truth*—the *girl* or the *dad*?”; “Who do you think will tell the *truth*—the *girl* or the *dad*?”) were counterbalanced.

Five Consequence vignettes assessed children’s perceptions of the consequences of disclosing an adult’s wrongdoing after being warned not to tell. In these vignettes, children were told that the story child disclosed, and were then asked what the disclosure recipient would do as a result. The vignettes systematically varied the instigator (father, mother, or stranger) and the disclosure recipient (mother or grandmother). Therefore, as in the Belief vignettes, the five vignettes asked about (a) a father instigator/mother recipient, (b) father instigator/grandmother recipient, (c) mother instigator/grandmother recipient, (d) stranger instigator/mother recipient, and (e) stranger instigator/grandmother recipient. The following is an example of a vignette: “Here is a *girl*. Here is her *dad*. The *dad* makes the *girl* do something *really bad*. The *dad* doesn’t want anyone to know. He says to the *girl*, ‘Don’t tell.’ Now this *girl* is with her *mom*. The *girl* tells her *mom* what her *dad* did. Now what will the *mom* do?”

In addition to being asked about how the disclosure recipient would behave following disclosure, children were asked how the recipient would react emotionally toward the story child (e.g., “How does the *mom* *feel* about the *girl*—happy or mad?”). However, because the question’s phrasing did not allow us to determine whether the disclosure recipient was upset with the child for disclosing the wrongdoing or for being involved in the wrongdoing, children’s responses to this question were not analyzed.

Vocabulary subsection of Woodcock–Johnson Tests of Achievement

To determine whether there was a need to control for differences in verbal skills, children completed the Woodcock–Johnson Tests of Achievement (WJ-R; Woodcock & Johnson, 1989) vocabulary subtest, a widely used standardized measure of verbal performance.

Procedure

All study procedures were approved by relevant institutional review boards. Interviews were videotaped and began with children providing assent. After a brief rapport-building phase, the vignettes were presented via either paper (33%) or computer (67%). The vignettes took approximately 15 min to administer. The order of the vignettes was standardized across children. Because the Belief vignettes were worded to make it unclear whether a transgression had occurred, they were always presented first. The Recipient Preference vignettes were presented second because they specified that a transgression had occurred but the story child had not yet disclosed. The Consequences vignettes were always presented last because a transgression had occurred and the story child had disclosed. Within each vignette type, the instigator–recipient combinations and the order of response options were counterbalanced, and the police officer alternated between being presented as a policeman and a policewoman. After the first vignette, the story child was introduced as “a *different girl/boy*.” After the vignettes were complete, the WJ-R was administered. Finally, children were thanked, debriefed, and given a prize for participating.

Results

Preliminary analyses and analytic approach

Preliminary analyses tested for response differences based on presentation type (paper or computer) and child gender, ethnicity, and verbal skills. Next, differences between mother and father instigators, between male and female police officer recipients, and between mother and grandmother recipients were tested.

There were no effects of presentation type on children's responses and no Age \times Presentation Type interaction. In the Recipient Preference vignettes, girls were more likely than boys to indicate that the story child would choose to disclose to a caregiver rather than a police officer ($M_s = .47$ and $.39$, $SD_s = .36$ and $.39$, respectively), with higher scores reflecting preference for a caregiver recipient, $F(1, 232) = 4.13$, $p = .043$, $\eta^2 = .02$. In the Consequences vignettes, girls ($M = .23$, $SD = .26$) were also more likely than boys ($M = .16$, $SD = .22$) to predict that disclosure recipients would respond with formal intervention when the story child disclosed, $F(1, 232) = 6.89$, $p = .009$, $\eta^2 = .03$. Including gender in the primary analyses did not affect the results, and so gender is not further discussed.

One ethnicity effect emerged. In the Recipient Preference vignettes, with verbal performance controlled, there was a main effect of ethnicity, which was subsumed by an Ethnicity \times Instigator interaction, $F(2, 199) = 3.31$, $p = .038$, $\eta^2 = .03$. Latino children more often chose the caregiver disclosure recipient when a parent ($M = .47$, $SD = .35$) rather than a stranger ($M = .31$, $SD = .36$) was the instigator. Caucasian children exhibited the same pattern ($M_s = .59$ and $.42$, $SD_s = .31$ and $.39$, for parent and stranger, respectively), but their numbers were small (8% of the sample) and the difference was non-significant. African American children did not distinguish between parent and stranger instigators ($M_s = .51$ and $.49$, $SD_s = .36$ and $.34$, for parent and stranger, respectively). Because this was the only ethnicity effect, and because a similar examination of recipient preferences found no ethnic differences (Lyon et al., 2010), ethnicity was not included in the primary analyses.

Verbal performances (raw scores on the WJ-R vocabulary subtest) were comparable between maltreated ($M = 23.73$, $SD = 4.28$) and non-maltreated ($M = 24.28$, $SD = 5.18$) children, including within each age ($M_s = 20.53$, 23.06 , and 27.17 , $SD_s = 2.80$, 3.00 , and 4.02 , for maltreated 4- and 5-year-olds, 6- and 7-year-olds, and 8- and 9-year-olds, respectively, and $M_s = 20.37$, 24.44 , and 27.69 , $SD_s = 4.54$, 4.21 , and 3.99 , for non-maltreated 4- and 5-year-olds, 6- and 7-year-olds, and 8- and 9-year-olds, respectively). Within each age group, verbal performance was unrelated to children's responses.

Next, instigator and recipient characteristics were examined. No significant differences in responses emerged between mother and father instigators for any of the three vignette types. Thus, they were averaged into "parent" scores. Nor were there significant differences in children's disclosure recipient responses between male and female police officers for the Recipient Preference types, which were then collapsed into "police" scores. Finally, when caregiver disclosure recipients were compared, results revealed that children perceived the mother and grandmother recipients similarly when responding to the Recipient Preference and Consequence vignettes. For the Belief vignettes, when discussing their own beliefs, children thought that a mother recipient would believe the story child as a truth teller ($M = .70$, $SD = .34$) more often than they thought a grandmother would ($M = .59$, $SD = .34$), with higher scores reflecting belief in the child. However, children's predictions of recipient belief of the story child did not differ based on recipient identity ($M_s = .65$ and $.65$, $SD_s = .32$ and $.33$), $F(1, 228) = 7.88$, $p = .005$, $\eta^2 = .03$. That is, children were equally likely to expect the mother recipient and the grandmother recipient to believe the story child. Therefore, scores were collapsed across mother and grandmother recipients into "caregiver" scores. The outcome measures for each vignette set represented mean scores across several vignettes (three vignettes involving a parent instigator and two vignettes involving a stranger instigator). Thus, mixed-model analyses of variance (ANOVAs) were conducted.

Recipient Preferences

In the Recipient Preference vignettes, children were asked to choose whether they would disclose a wrongdoing committed by a parent or a stranger to a caregiver (mother/grandmother) or a police

officer. We expected that children, especially those who were older, would prefer a caregiver over a police officer recipient when the instigator was a parent rather than a stranger and that older non-maltreated children would be more likely than older maltreated children to exhibit this preference. Mean scores were calculated by averaging children's responses across the vignettes concerning the parent instigator (mother or father, $n = 3$ vignettes) vs. the stranger instigator ($n = 2$ vignettes), with higher scores reflecting choice of the caregiver recipient. Children's mean responses are depicted in Fig. 1.

Children's mean preference scores were entered into a 3 (Age: 4- and 5-year-olds vs. 6- and 7-year-olds vs. 8- and 9-year-olds) \times 2 (Maltreatment Status: maltreated vs. non-maltreated) \times 2 (Instigator: parent vs. stranger) ANOVA, with the instigator factor varying within participants. Significant main effects of age, maltreatment status, and instigator emerged, $F_s(1 \text{ or } 2, 228) \geq 5.13$, $p_s \leq .007$, $\eta^2 = .04$ to $.06$, but were subsumed by two significant interactions. First, as expected, a significant Age \times Instigator interaction, $F(2, 228) = 9.11$, $p < .001$, $\eta^2 = .07$, emerged. The oldest age group was more likely to choose a caregiver disclosure recipient when disclosing wrongdoing committed by a parent than by a stranger, $F(1, 79) = 24.25$, $p < .001$, $\eta^2 = .24$. The 6- and 7-year-olds exhibited a similar trend in terms of selecting a caregiver disclosure recipient when the wrongdoing was committed by a parent as opposed to a stranger, $F(1, 76) = 3.47$, $p = .067$, $\eta^2 = .04$, whereas the 4- and 5-year-olds did not differ in their preference for a caregiver based on who committed the wrongdoing. Second, an unexpected Age \times Maltreatment Status interaction, $F(2, 228) = 6.08$, $p = .003$, $\eta^2 = .05$, revealed that, among the 6- and 7-year-olds, non-maltreated children were more likely to choose a caregiver disclosure recipient, whereas maltreated children were more likely to choose a police officer recipient, $F(1, 76) = 23.80$, $p < .001$, $\eta^2 = .24$. In addition, as suggested in Fig. 1, the maltreated 6- and 7-year-olds failed to

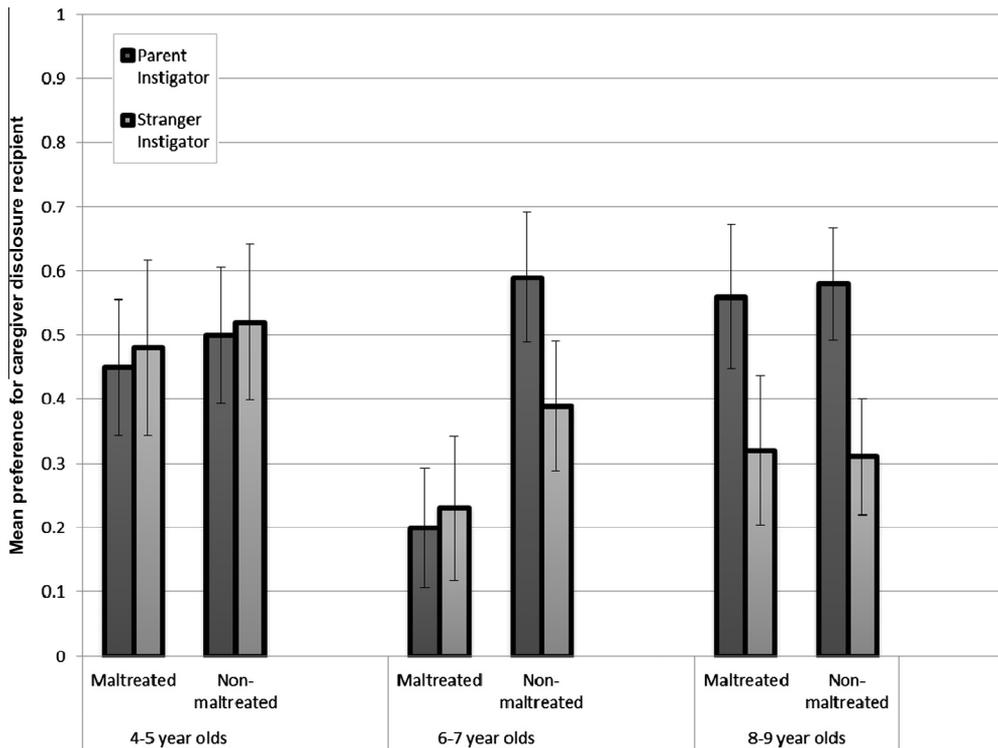


Fig. 1. Children's preference for caregiver disclosure recipients by age, maltreatment status, and instigator identity. Error bars represent the 95% confidence interval for the mean scores.

distinguish between parent and stranger instigators when choosing a recipient, whereas the non-maltreated 6- and 7-year-olds, as well as the older age group, appeared to make such a distinction.

Taken together, these findings suggest that, whereas both groups of 4- and 5-year-olds chose randomly between disclosing to a caregiver and disclosing to a police officer, the oldest age group clearly preferred disclosing a parent’s transgression to a caregiver and a stranger’s transgression to a police officer. However, the trend suggests that this pattern began to emerge among non-maltreated children at 6 or 7 years of age, whereas maltreated 6- and 7-year-olds exhibited a general preference to choose a police officer as the recipient.

Belief

In the Belief vignettes, children were asked (a) who the disclosure recipient expected to tell the truth and (b) who they expected to tell the truth about a potential wrongdoing—the story child or the instigator. We hypothesized that children would be more likely to expect the disclosure recipient to believe the story child when a stranger, rather than a parent, was the instigator and that this difference would increase with age and be larger among the maltreated children. Mean scores were calculated separately for children’s responses about the disclosure recipient’s beliefs and their own beliefs first by averaging responses for the parent instigator (father and mother) and second by collapsing across mother and grandmother disclosure recipients. This resulted in two mean scores for disclosure recipients’ beliefs (parent instigator and stranger instigator) and two mean scores for children’s own beliefs (parent instigator and stranger instigator), with higher scores reflecting belief of the story child as the truth teller. Children’s responses are depicted in Fig. 2.

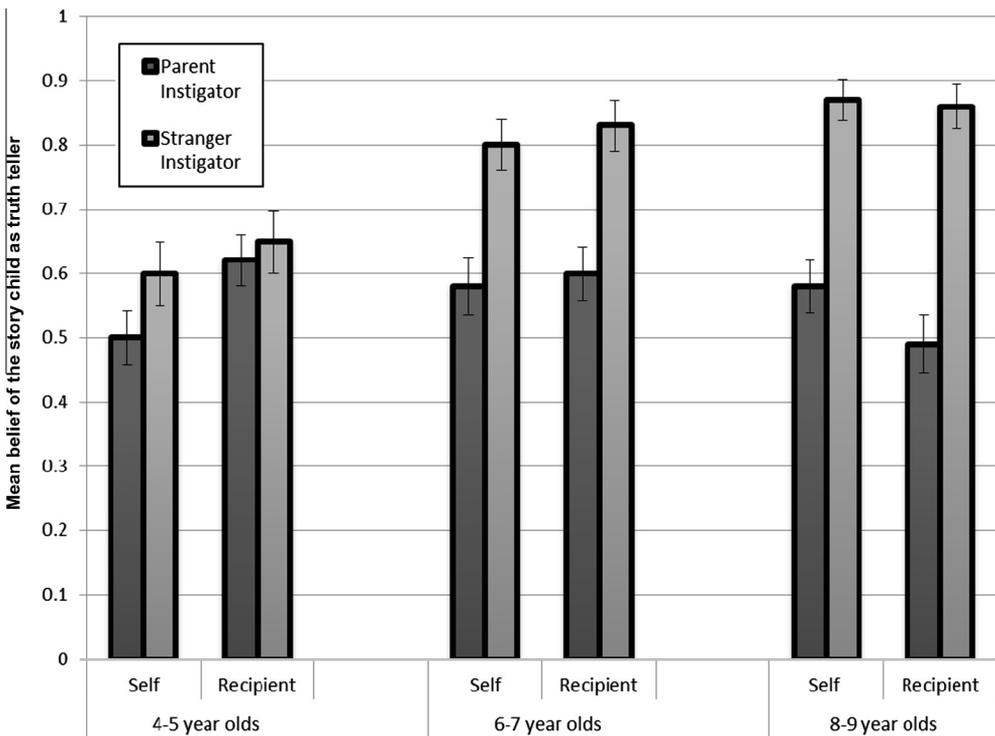


Fig. 2. Children’s own belief and predictions of recipients’ belief of the story child as truth teller by age and instigator identity. Error bars represent the 95% confidence interval for the mean scores.

Children's mean scores were entered into a 3 (Age) \times 2 (Maltreatment Status) \times 2 (Instigator) \times 2 (Self/Recipient Belief: child participant vs. disclosure recipient) mixed-model ANOVA. Significant main effects of age, $F(2,228) = 7.28$, $p = .001$, $\eta^2 = .06$, and instigator, $F(1,228) = 92.87$, $p < .001$, $\eta^2 = .29$, emerged but were subsumed by significant interactions of Age \times Instigator, $F(2,228) = 13.11$, $p < .001$, $\eta^2 = .10$, and Age \times Self/Recipient Belief, $F(2,225) = 3.39$, $p = .036$, $\eta^2 = .03$. Contrary to our hypothesis, there were no effects of maltreatment status. Follow-up analyses on the Age \times Instigator interaction revealed that the two older age groups distinguished between the parent and stranger instigators when predicting who would tell the truth (with regard to both who they thought the recipient would believe and their own perceptions). Specifically, 6- and 7-year-olds and 8- and 9-year-olds expected recipients to believe the story child more often when the instigator was a stranger rather than a parent, $F(1,76) = 30.04$, $p < .001$, $\eta^2 = .28$, and $F(1,79) = 84.48$, $p < .001$, $\eta^2 = .52$, respectively. The youngest children (4- and 5-year-olds), however, exhibited only a trend to distinguish between instigators, $F(1,73) = 3.71$, $p = .058$, $\eta^2 = .05$ (Fig. 2).

Regarding the Age \times Self/Recipient Belief interaction, follow-up analyses revealed that the 4- and 5-year-olds predicted that disclosure recipients would more often believe the story child as the truth teller ($M = .64$, $SD = .34$) than they would ($M = .55$, $SD = .36$), $F(1,73) = 4.25$, $p = .043$, $\eta^2 = .06$. The two older age groups did not differ in their ratings of disclosure recipients' belief and their own belief, although the 8- and 9-year-olds exhibited a nonsignificant tendency to predict that disclosure recipients would believe the story child less often ($M = .49$, $SD = .25$) than they would if the instigator was a parent ($M = .58$, $SD = .33$).

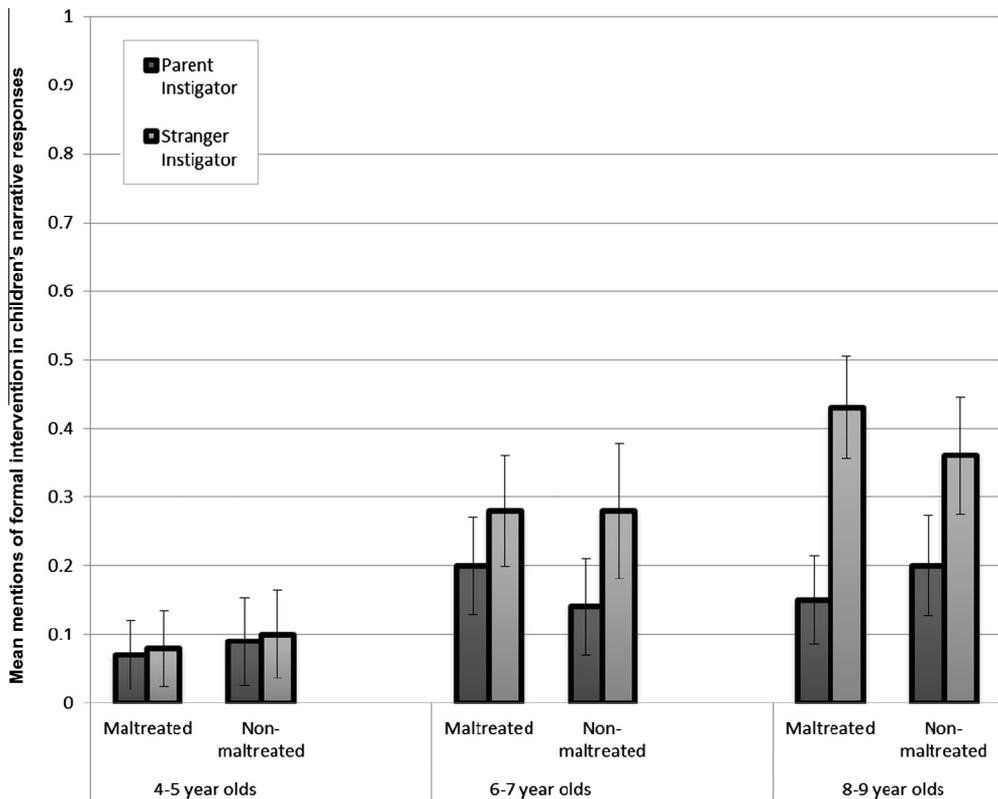


Fig. 3. Children's responses predicting formal intervention based on age, maltreatment status, and instigator identity. Error bars represent the 95% confidence interval for the mean scores.

In sum, the two older groups of children anticipated that disclosure recipients would be more likely to believe the story child when accusing a stranger than when accusing a parent, and they were also more likely to believe that the story child accusing a stranger would be telling the truth. The youngest children anticipated that recipients would believe the story child more than they should. Unexpectedly, maltreatment status did not influence children's responses to the Belief vignettes.

Consequences

In the Consequences vignettes, children were asked what disclosure recipients would do after the story child disclosed. We expected children, especially older and maltreated children, to predict that disclosure recipients would react by initiating formal intervention (i.e., involving legal authorities) more often when the instigator was a stranger than was a parent. Children's narrative responses were coded for the mention of formal intervention, defined as reference to the police, jail, or other formal punishment. Three raters coded 20% of children's responses (agreement kappas $\geq .78$). Children rarely said "I don't know" ($M_s = .05, .03, \text{ and } .01, S_D_s = .16, .09, \text{ and } .05$, for 4- and 5-year-olds, 6- and 7-year-olds, and 8- and 9-year-olds, respectively) or failed to provide a response ($M_s = .01, .002, \text{ and } .002, S_D_s = .06, .02, \text{ and } .02$, for 4- and 5-year-olds, 6- and 7-year-olds, and 8- and 9-year-olds, respectively), and there were no differences in their tendency to do either based on age or maltreatment status. Mean responses were calculated by averaging across vignettes involving the parent instigator and stranger instigator. Children's responses are depicted in Fig. 3.

We entered children's mean scores reflecting how often they mentioned formal intervention as a consequence of disclosure into a 3 (Age) \times 2 (Maltreatment Status) \times 2 (Instigator) mixed-model ANOVA. Analyses revealed significant main effects of age, $F(2, 228) = 19.55, p < .001, \eta^2 = .15$, and instigator, $F(1, 228) = 58.89, p < .001, \eta^2 = .21$, as well as interactions of Age \times Instigator, $F(2, 228) = 16.95, p < .001, \eta^2 = .13$, and Age \times Maltreatment Status \times Instigator, $F(2, 228) = 3.45, p = .033, \eta^2 = .03$. Follow-up analyses of the Age \times Maltreatment Status \times Instigator interaction revealed that the oldest children (8- and 9-year-olds) expected disclosure recipients to respond with formal intervention less often when a parent than a stranger was the instigator and that this difference was most robust among the oldest maltreated children, $F_s(1, 36 \text{ or } 43) \geq 14.16, p_s \leq .001, \eta^2 = .25 \text{ to } .57$ (Fig. 3).

Discussion

Naturalistic studies of child maltreatment allegations and experimental work have found that when a parent is implicated in wrongdoing, children are less forthcoming than when a stranger is implicated (Hershkowitz, Horowitz, & Lamb, 2005; London et al., 2008; Tye et al., 1999). The overarching purpose of the current study was to advance understanding of the factors underlying children's decisions to disclose adult wrongdoing. We were especially interested in children's disclosure recipient preferences and expectations concerning the consequences of disclosing an adult's wrongdoing, the effects of children's relationship to the person who committed the wrongdoing (i.e., the instigator) on children's perceptions, and whether children's perceptions vary depending on their age and history of substantiated maltreatment. This is the first experimental study to examine children's expectations of recipients' beliefs and recipients' help seeking following disclosure. The results complement those of non-vignette studies in which alleged victims describe their expectations concerning abuse disclosure (e.g., Hershkowitz et al., 2007) and, with respect to recipient preferences, are consistent with findings of a previous vignette study (Lyon et al., 2010).

Several key findings emerged, including those with important developmental and practical implications. First, in the Recipient Preference vignettes, with age, children increasingly preferred a caregiver over a police officer as a disclosure recipient when the instigator was a parent, with no similar age-related changes in preferences when the instigator was a stranger. This preference for a caregiver disclosure recipient, however, appeared to emerge more gradually in maltreated children than in non-maltreated children. Second, in the Belief vignettes, older children (6- to 9-year-olds) recognized that disclosure recipients would be more skeptical of the story child's account when the child

accused a parent rather than a stranger of wrongdoing. Third, in the Consequences vignettes, the oldest children expected the caregiver disclosure recipient to seek formal intervention less often when a parent was the instigator than when a stranger was the instigator, and the oldest maltreated children were particularly attuned to this differential treatment of parent vs. stranger instigators by caregiver recipients. Each of these findings is discussed in turn.

Recipient Preferences

The results support the proposition that as children mature, they understand the significance of the disclosure recipient when they decide whether to disclose wrongdoing, and they prefer keeping information about wrongdoing within the family. When children disclose abuse, they most often disclose to mothers (Anderson et al., 1993; Fleming, 1997), and abuse by a parent is less likely than abuse by a stranger to be reported to the police (Hanson, Resnick, Saunders, Kilpatrick, & Best, 1999). As children mature, they better understand family loyalties and obligations (Leibig & Green, 1999), develop faith in secret keeping as an important aspect of friendship (Rotenberg, 1991), and become less likely to endorse disclosure of wrongdoing by peers (Piaget, 1932/1965; Watson & Valtin, 1997). By 6 or 7 years of age, our non-maltreated children exhibited a trend for choosing caregivers over the police as preferred recipients for wrongdoing implicating a parent. The results for non-maltreated children are consistent with those of Lyon et al. (2010), who asked children whether a story child would or should disclose transgressions by a parent or a stranger to the police; by 6 or 7 years of age, non-maltreated children preferred parent recipients to police recipients when deciding whether to disclose parental wrongdoing.

With respect to maltreated children, we found similar attitudes emerging among the oldest children (8- and 9-year-olds), whereas Lyon et al. (2010) found no preference. The studies used somewhat different approaches. In this study, the wrongdoing also implicated the story child, and the story child always disclosed; the question was to whom the child disclosed. In Lyon and colleagues' study, the wrongdoing involved only the instigator, and children were asked whether the story child would or should disclose. We suspect that the need to keep wrongdoing within the family was more salient in this study because disclosing the wrongdoing would implicate both the story child and the instigator. Therefore, the oldest maltreated children in our study exhibited some awareness of this dynamic.

Nevertheless, there were still signs of distrust in caregivers among the maltreated children, a phenomenon found in prior research (Toth et al., 1997). The younger maltreated children showed an interesting pattern. Once they exhibited any kind of recipient preference, by 6 or 7 years of age, they showed a strong preference for police recipients regardless of the instigator's identity. By 8 or 9 years of age, however, they resembled their non-maltreated counterparts, distinguishing between parent and stranger instigators when choosing disclosure recipients.

Belief

The results show that as children mature, they also acquire the understanding that caregivers will be more skeptical of their disclosures if they accuse a parent. Among participants age 6 years and older, children assumed that a caregiver would believe the story child over the stranger more than 80% of the time, whereas they anticipated similar faith in the story child's report no more than 60% of the time. Former abuse victims often refer to the fear that they would not be believed as a deterrent to disclosure (e.g., Anderson et al., 1993), and children disclosing abuse anticipated less support from their parents if they were accusing someone known to the family (Hershkowitz et al., 2007; Malloy et al., 2011).

Surprisingly, no differences emerged between maltreated and non-maltreated children in terms of anticipated belief. We expected that maltreated children would assume greater skepticism by caregivers given their expectations of adult unsupportiveness. Perhaps maltreated children do not doubt that caregivers will believe their disclosures but doubt that caregivers will respond in a protective manner, supporting Elliott and Carnes's (2001) view that caregiver supportiveness in situations where child maltreatment is suspected should encompass more than a simple belief of the allegations.

Consequences

The oldest children recognized that caregiver recipients are less likely to notify the authorities when a child accuses a parent, and the oldest maltreated children were especially attuned to this difference. This complements both experimental and observational research showing how children exhibit greater understanding of the potential consequences of disclosure as they mature (Malloy et al., 2011; Wagland & Bussey, 2005). The maltreatment effect supports the proposition that what makes maltreated children different is not whether they expect to be believed but rather what they expect to happen when they disclose to a caregiver.

An unanswered question is how expectations that authorities will be contacted affects children's attitudes about disclosure. Formal intervention can be either a deterrent to or an incentive for disclosure. Therefore, when children choose a parent recipient over a police recipient, they may do so precisely because they anticipate that the parent will never contact the police. Future research can explore how different attitudes and expectations work together in influencing children's ultimate decisions regarding whether and to whom to disclose.

Concluding remarks

A few tentative findings are promising avenues for future work. We found that Latino children uniquely exhibited a preference for caregiver recipients when the instigator was a parent compared with Caucasian and African American children. In contrast, Lyon et al. (2010) did not find any ethnic differences in children's willingness to endorse disclosure of parental wrongdoing in a vignette-based study that included maltreated and non-maltreated children with similar proportions of Latino children. Similarly, observational research has not consistently found ethnic differences in abuse disclosure patterns (London et al., 2008; Malloy et al., 2007). Nevertheless, some commentators have noted that strong familial ties may deter disclosure of abuse among Latinos (e.g., Fontes, 1993; Shaw, Lewis, Loeb, Rosado, & Rodriguez, 2001), and this is worthy of future work.

Two issues are important to consider regarding our investigation. One is whether differences between maltreated and non-maltreated children could be attributable to different assumptions between the groups in what the "really bad" transgressions committed by the adults could have been. At the end of the testing session, we asked children what each adult instigator did that was "really bad." Responses were reliably coded for transgression type ($kappas \geq .78$). No differences emerged in the types of transgressions children mentioned based on maltreatment status or instigator identity. Children most often mentioned theft ($M_s = .14$ and $.12$ for maltreated and non-maltreated children, respectively), minor infractions or rule breaking ($M_s = .16$ and $.19$), property damage ($M_s = .07$ and $.09$), or physical harm ($M_s = .21$ and $.13$). Children said "I don't know" ($M_s = .12$ and $.08$ for maltreated and non-maltreated children, respectively) or failed to provide a response ($M_s = .03$ and $.02$) relatively infrequently. Although "other" responses (i.e., responses that did not fit our coding categories) were relatively common, maltreated and non-maltreated children did not differ in their tendency to respond in this manner ($M_s = .24$ and $.26$, respectively).

Despite the novel findings that emerged in our study, limitations also need to be mentioned. One is that we relied on hypothetical vignettes, which were highly useful in allowing us to ask children directly about their perceptions and to identify the factors that influence their judgments (Lagattuta, Wellman, & Flavell, 1997; Wagland & Bussey, 2005). Vignettes, however, are imperfect guides to actual behavior. It will be important to assess the relation of children's perceptions of disclosure to their disclosure behaviors both in the field and in the laboratory. In addition, the vignettes primarily required forced-choice responses that limited potential responses (e.g., there was no "non-disclosure" option); the elicitation of narrative responses may reveal subtle differences in children's perceptions. Furthermore, because the nature of the vignettes required that children receive the sets in the same order, we were unable to test for fatigue effects. However, children's productive narrative responses to the open-ended questions in the Consequences vignettes and final questions asking what the instigators did wrong suggest that fatigue was not a major issue.

Second, caution is warranted with respect to interpreting differences (or the lack of differences) between maltreated and non-maltreated children. We did not formally screen for maltreatment in

our non-maltreated sample; therefore, some of the children may have been misclassified. However, by excluding from the non-maltreated sample children whose consent forms were signed by non-parents, we excluded children who had been recognized as maltreated by the state and who had been removed from their parents' custody (Carrick et al., 2010; Lyon et al., 2010). If maltreated children were among the children classified as non-maltreated, this would mask differences between maltreated and non-maltreated children, making our study a more conservative test of our hypotheses. Relatedly, maltreatment experiences vary considerably (Cicchetti, 2004; Cicchetti & Toth, 1995), and the different forms of maltreatment may differentially affect children's evaluations of disclosure. Although researchers have long noted the difficulties associated with making meaningful comparisons based on maltreatment subtype and the accuracy of agency records on specific subtypes (e.g., McGee, Wolfe, Yuen, Wilson, & Carnochan, 1995), such will be important to consider in future research.

To the extent that we found maltreatment effects, we are unable to determine whether they were due to maltreatment per se or to some related variable (e.g., state intervention). For example, violation of parental trust or disruption of the attachment relationship may be the mechanisms underlying observed differences. The current study involved children who were involved in dependency proceedings and removed from parental care due to substantiated maltreatment (i.e., the perpetrator had a custodial interest in the child and/or the non-offending caregiver was unable or unwilling to protect the child). Thus, most cases involved allegations of intrafamilial abuse or neglect and, therefore, victims who raise the most concern due to their greater reluctance to disclose and risk of recantation (Hershkowitz et al., 2005; Hershkowitz et al., 2007; Malloy et al., 2007; see Pipe et al., 2007, for a review). In addition, for ethical reasons, we did not ask children about disclosing acts of child maltreatment specifically. Thus, caution should be exercised in applying the findings directly to maltreatment disclosure. Future research should ask victims of child maltreatment *prospectively* about their own disclosures. That is, longitudinal studies could examine children's fears and expectations about maltreatment disclosure at the start of an investigation (e.g., Goodman-Brown et al., 2003; Malloy et al., 2011), which would help to tease apart the sources of their attitudes and understand how children's perceptions affect their disclosures over time. Furthermore, because children most often disclose first to caregivers, we were interested in children's perceptions of disclosing adult transgressions to adult caregivers in particular. It will be important in the future to investigate children's attitudes about peers, both as instigators and as disclosure recipients, given the increasing significance of peer relationships as children approach adolescence (Buhrmester & Prager, 1995; Hunter & Youniss, 1982), and the likelihood that older children disclose abuse to peers rather than to parents (Fleming, 1997; Malloy, Brubacher, & Lamb, *in press*). It will also be important to evaluate, in a more systematic manner, the conditions under which children meaningfully distinguish between a parent recipient and another trusted adult recipient, such as a grandmother, in terms of the consequences expected for disclosing.

In closing, the current study sheds light on children's expectations and preferences concerning disclosure and the potential impediments to disclosing adult wrongdoing. The results have practical implications for those who investigate child maltreatment allegations. In current practice, investigative interviewers fail to systematically ask children about their fears, expected responses, or pressures to remain silent or recant even though children are particularly vulnerable to such pressures (e.g., Goodman-Brown et al., 2003; Malloy et al., 2007). Although further research is certainly needed before specific recommendations can be made to legal and social service professionals, it may be useful for interviewers to address children's fear of disbelief and the appropriateness of talking to formal authorities about an adult's—even a parent's—act of wrongdoing. The results also have implications for intervention programs for maltreated children and their caregivers. Information concerning children's expectations and preferences about disclosure highlight the conditions under which children expect unsupportive reactions from caregivers. Interventions aimed at enhancing caregiver supportiveness and maintaining children's allegations may be targeted more appropriately toward children who are at greatest risk for failing to disclose.

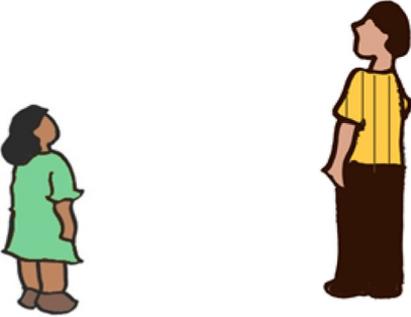
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Appendix

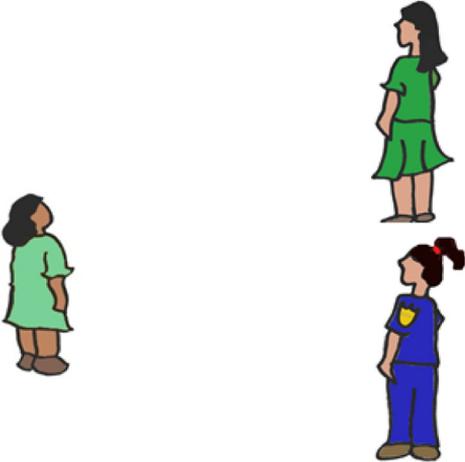
Example of Recipient Preference vignette (father instigator–mother vs. police officer disclosure recipient)



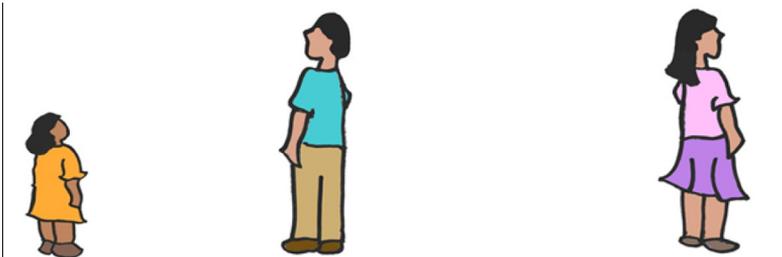
Here is a DIFFERENT GIRL. Here is this girl's DAD.

The DAD made the girl do something REALLY BAD.

Who will this girl tell - her MOM or a POLICEWOMAN?



Example of Belief vignette (stranger instigator–mother disclosure recipient)



Here is a GIRL. Here is a man she does not know. He is a STRANGER.

MAYBE the STRANGER made the girl do something REALLY BAD.

The MOM wants to know what REALLY happened.

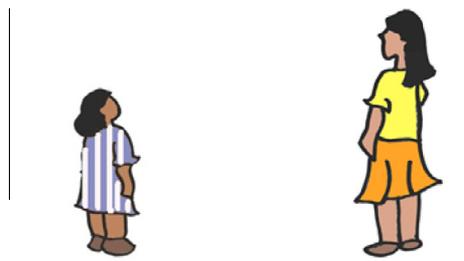
Who do YOU think will tell the TRUTH - the GIRL or the STRANGER?



Who will the MOM think will tell her the TRUTH – the GIRL or the STRANGER?

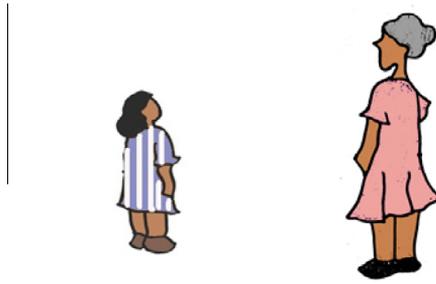


Example of Consequence vignette (mother instigator–grandmother disclosure recipient)



Here is a DIFFERENT GIRL. Here is this girl's MOM.

The MOM makes the girl do something REALLY BAD. The mom doesn't want anyone to know. She says to the girl, "Don't tell."



Now this girl is with her GRANDMA. The girl TELLS her grandma what her MOM did.

NOW what will this GRANDMA do?

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