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Summer August 2, 2021

91. The utility of the birthday prompt in narrative practice with maltreated and non-maltreated 4- to 9-year-old children. Applied Developmental Science.

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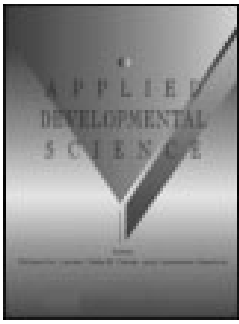
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To cite this article: Hayden M. Henderson, Hailey Konovalov, Shanna Williams & Thomas D. Lyon (2021): The utility of the birthday prompt in narrative practice with maltreated and non-maltreated 4- to 9-year-old children, *Applied Developmental Science*, DOI: [10.1080/10888691.2021.1963729](https://doi.org/10.1080/10888691.2021.1963729)

To link to this article: <https://doi.org/10.1080/10888691.2021.1963729>



Published online: 09 Aug 2021.



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The utility of the birthday prompt in narrative practice with maltreated and non-maltreated 4- to 9-year-old children

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ABSTRACT

Forensic interviewers are encouraged to elicit a practice narrative from children in order to train them to answer free recall questions with narrative information. Although asking children about their last birthday has been recommended, concerns have been raised that many children will have nothing to report. This study asked 994 4- to 9-year-old maltreated and non-maltreated children to recall their last birthday. Although a fair number of children initially failed to recall information (9%), virtually all children recalled information with persistent encouragement (99%). Younger children and maltreated children were less responsive and spoke less, but nevertheless, 93% of the youngest children (4-year-olds) and 97% of maltreated children recalled information with persistent encouragement. The results suggest that children's failures to recall information about birthdays are predominantly attributable to a failure to provide additional support.

Forensic interview practice guides routinely recommend that interviewers engage children in narrative practice, which means asking open-ended recall questions about a non-abusive event in order to elicit a narrative, before moving to the allegation phase of the interview (American Professional Society on the Abuse of Children (APSAC), 2012; Lamb et al., 2018 [NICHD protocol]; Lyon, 2014 [Ten-step interview]; Newlin et al., 2015 [OJJDP guidelines]; State of Michigan Governor's Task Force on Child Abuse and Neglect and Department of Human Services, 2017). Narrative practice acquaints the child with the same kind of open-ended recall questions tapping the child's episodic memory that the interviewer is hoping to use to elicit details of the allegation (Roberts et al., 2011).

A practical concern is whether certain narrative practice topics will often fail to elicit details from children, particularly younger children and children who have experienced maltreatment. Although interview guides sometimes recommend questions about children's birthdays (Lyon, 2014), concerns have been raised about their utility (Roberts et al., 2011). We questioned a large sample of maltreated and non-maltreated children to assess their ability and willingness to recall their last birthday.

Benefits of Narrative Practice

A substantial amount of research supports the use of narrative practice in forensic interviews (e.g., Anderson et al., 2014; Hershkowitz, 2009; Lyon et al., 2014; Price et al., 2013; Roberts et al., 2004; Sternberg et al., 1997; Yi & Lamb, 2018). Observational research examining interviews with children disclosing maltreatment has found that asking open-ended recall questions during the pre-substantive phase of the interview (i.e., before questions about the allegation) is associated with more details during the allegation phase (Anderson et al., 2014; Hershkowitz, 2009; Price et al., 2013). Sternberg et al. (1997) showed that when interviewers were trained to substitute yes/no questions with open-ended recall questions during narrative practice, children's initial disclosures of sexual abuse were longer and more detailed. Experimental work has similarly shown that open-ended questions about non-substantive topics in the early phases of interviews increased children's accuracy (Roberts et al., 2004; Yi & Lamb, 2018) and productivity (i.e., number of details or words; Lyon et al., 2014; Yi & Lamb, 2018) in response to subsequent questioning about an event.

Beyond simply asking open-ended recall questions, some research has found that eliciting a narrative

about an experienced event is superior to generic questions about the child's likes or activities, both in the lab (Brown et al., 2013; Brubacher et al., 2011) and in the field (Price et al., 2016). A systematic review of experimental work on rapport building noted some conflicting findings but found support for the proposition that "conversing with children using open-ended prompts and practice retelling a past event during a preliminary stage [of questioning] leads children to provide a greater number of details in subsequent substantive questioning" (Saywitz et al., 2015, p. 381).

Benefits of the Birthday Narrative

Practitioners could benefit from knowing what topics are best for narrative practice. Children's birthdays have long been recognized as rapport building topics, but recognition of their value for narrative practice has evolved over time. For example, Elkind (1960) recognized the motivational value of asking about birthdays but suggested asking about future birthdays. Similarly, an early questioning guide for attorneys suggested asking about birthdays but recommended closed-ended recognition questions largely about dates and ages (Perry & Teply, 1984). Indeed, a study examining preliminary questions in court found that although attorneys frequently asked about birthdays, they only very rarely asked children to provide narrative information about their birthday experiences (Ahern et al., 2015).

Since Yuille et al. (1983) introduced the concept of a practice interview, researchers and practitioners have recognized the last birthday as a promising narrative practice topic (Lamb et al., 1998). Birthdays tend to be ubiquitous, eventful, and memorable. Historians Baseline and colleagues (2019) described children's birthday celebrations as "the annual family ritual that persists so strongly today" (p. 262). Family studies scholars Lee et al. (2009) discussed how birthday celebrations typically include artifacts, scripted events, performance roles, and an audience, thus providing plenty of content for rapport-building conversations. Whiting and Price's (2017) experimental work found some benefits to practice about notable events (including birthday celebrations) compared to commonplace events (e.g., what happened yesterday).

Potential Disadvantages of the Birthday Narrative

Asking children about their birthdays poses potential problems. Practice guides caution that children's

households might not celebrate birthdays (Roberts et al., 2011); for example, Jehovah's Witnesses are widely recognized as disapproving of birthday parties (Lee et al., 2009). Practice guides suggest that interviewers should question caretakers first in order to screen for problems (American Professional Society on the Abuse of Children [APSAC], 2012), but interviewers often question children in contexts in which it is not feasible to question caretakers, who might not accompany the child or who might be unapproachable because of the nature of the allegations (e.g., intrafamilial abuse). Moreover, caretakers may be unaware because children might recall celebrations occurring in contexts separate from the caretakers, such as school (or, in one of our interviews, a celebration by relatives who didn't share the parents' objections).

Interviewers might feel especially wary of asking questions about birthdays when questioning potential victims of maltreatment, because they may have less to report. There are potential hints of problems with neglected birthdays in data designed to assess maltreated children's ability to estimate the timing and numerosity of court visits and placements (Wandrey et al., 2012): 35% of the 6-year-olds did not know their birthday month. This compares unfavorably to non-maltreated groups of children, a majority of whom know their birthday month by 4 years of age (Friedman, 1992).

Practice guides also caution that children's last birthdays might be too remote to remember (Roberts et al., 2011; Whiting & Price, 2017). Furthermore, maltreated children tend to exhibit verbal and cognitive delays compared to non-maltreated children (Williams et al., 2020), and those delays may impair their ability to produce narratives more generally. To our knowledge, however, no research has examined children's ability to recall their birthdays; consequently, whether maltreatment, age, and time since the child's last birthday affects recall is unknown.

One might suggest that before inquiring into birthdays, interviewers could directly ask children whether they celebrated or remember their last birthday. However, yes/no questions can easily lead to false "no" responses (Lyon et al., 2019). "Did you do anything for your birthday?" seems like an innocuous question, but the use of "anything" questions suggest "no" responses (Heritage et al., 2007). "Celebrate" is likely a difficult word for young children, and younger children will answer yes/no questions containing words they don't understand with a "no" (Fritzley & Lee, 2003). "Do you remember" questions risk underestimating children's memory, particularly when they

are reluctant to speak (Lyon et al., 2019). Additionally, interviewers may be reluctant to ask yes/no questions about birthdays for fear that a negative response (e.g., about celebrating) will elicit negative emotions and undermine rapport.

In discussions with practitioners, we have found that because of their conviction that birthday narratives are counterproductive, many have abandoned asking about birthdays altogether. For example, at one conference for attorneys who represent children, one practitioner announced that “the birthday question has brought many of my clients to tears.” Concerns about the counterproductiveness of the birthday prompt might particularly resonate with interviewers who are skeptical of the utility of practice narratives in general. In a survey of Swedish child interviewers, Magnusson et al. (2020) found that practice narratives were rated as less important than other components of the interview (e.g., instructions, open-ended questions), and 15% specifically complained that they were time-consuming, difficult to carry out, and confusing for children.

On the other hand, assumptions about children’s birthday experiences may be exaggerated. Although surprisingly little research has explored the question, the limited survey evidence suggests that principled objections to birthday celebrations are quite rare (Lee et al., 2009). When researchers surveyed low-income rural mothers about their children’s birthday celebrations, only 3% referred to religious objections or negative parental beliefs about celebrations. Eleven percent reported that they “did not or could not celebrate children’s birthdays *in ways other families do*” (Lee et al., 2009; p. 542, emphasis added), but the survey did not inquire into whether a celebration of any sort occurred. As noted above, Jehovah’s Witnesses are known to have religious objections to birthday celebrations, but a national survey found that Jehovah’s Witnesses comprise less than 1% of the U.S. population (Pew Research Center, 2014).

Current Study

In order to address practitioners’ concerns that children will either be unable or unwilling to recall information about their birthdays, we analyzed 994 4- to 9-year-old maltreated and non-maltreated children’s responses to requests to narrate their most recent birthday. Children were participants in a series of studies utilizing the broken toy paradigm, in which some children had been admonished to keep wrongdoing a secret. Interviewers were trained to ask a free

recall question (“Tell me everything that happened on your last birthday”) and to rephrase the question if the child initially demurred. We assessed whether children reported information from their last birthday, assessing differences attributable to age, remoteness of the birthday, maltreatment, and whether the child had been implicated in a minor transgression and admonished to keep a secret. We were particularly interested in determining whether maltreated children would recall information, given the use of narrative practice in questioning children about maltreatment and the anecdotal feedback we received from practitioners criticizing the birthday narrative. Given our experience with asking about birthdays in forensic interviews, we predicted that the large majority of children would be able to provide details about their birthday in response to free recall questions, particularly if the interviewer followed up initial non-responsiveness with additional questioning.

Materials and Methods

Participants

Data for the study were compiled from a series of experimental studies in a single lab recruiting both maltreated and non-maltreated children and using the broken toy paradigm (Ahern et al., 2016; McWilliams et al., 2021; Quas et al., 2018; Stolzenberg et al., 2017, Williams et al., 2020). A total of 994 children ($N_{\text{female}} = 498$) 4 to 9 years of age ($M = 6.64$, $SD = 1.6$) participated. The sample included 402 maltreated and 592 non-maltreated children. Within the sample, 778 children were in the transgression condition, in which the child appeared to break two toys while playing with a stranger and the stranger admonished the child to keep the breakage a secret. The other 216 children were in the control condition, in which nothing untoward occurred while playing with the stranger. The sample was 70% Latinx, 21% African American, 4% Caucasian, 4% biracial, and <1% unknown/other.

Children in the maltreated sample had substantiated cases of neglect and/or physical or sexual abuse and had been removed from the custody of their parents. The Presiding Judge of Juvenile Court consented to their participation. Maltreated children were excluded from participating in the experiment if they were scheduled to attend a hearing at which they might testify or if they did not speak English. Children in the non-maltreated sample were recruited from schools serving predominantly ethnic minority families in neighborhoods comparable to those from which most maltreated children were removed.

Children in the non-maltreated sample who were not in the custody of one or both parents were excluded because of the potential that they had been removed from their parents' care due to maltreatment. Both groups were predominantly low income: prior research with children drawn from the same populations has found that 72–96% of the maltreated and non-maltreated groups were eligible for federal food assistance (Lyon et al., 2014; Lyon & Saywitz, 1999). All children gave assent to their participation.

Materials and procedures

After obtaining assent from the child and administering some standardized individual difference measures, the interviewer explained that she had to leave the room to retrieve some papers. In the interval, a stranger appeared who engaged the child in play with a series of toys. For children in the transgression condition, two toys appeared to break in their hands, leading the stranger to express concern and admonish secrecy. For children in the control condition, nothing untoward occurred. The stranger left the room and the interviewer returned, questioning the child about what occurred while the interviewer was gone. A full description of the study procedures and additional analyses can be found elsewhere (Williams et al., 2020).

Before questioning the child, the interviewer engaged in three to five minutes of narrative practice rapport building modeled after the National Institute of Child Health and Human Development (NICHD) structured protocol (Lamb et al., 2018). This included a free recall question asking children to narrate their last birthday (“Tell me everything that happened on your last birthday”). If children were non-responsive, the interviewer made up to two additional attempts to elicit a response. Encouragements included rephrasing the question (e.g., “What did you do on your last birthday?”), offering a supportive statement (e.g., “It’s really important that I get to know you”), or repeating the question. When children were responsive, the interviewer asked cued recall “what happened next” questions, building on the child’s initial response (e.g., “So you said you put your face on the cake. Then what happened?”). When the child indicated they had reached the end of the narrative, the interviewer asked up to two “tell me more” questions asking for elaboration about details (e.g., “Tell me more about putting your face on the cake”).

Coding

All sessions were videotaped and transcribed. We coded the birthday narratives for responsiveness. If a prompt elicited at least one detail about the child’s last birthday, the child was coded as responsive. Non-responsive utterances included denials of activity (e.g., “I didn’t have a party” or “I didn’t do anything”) as well as don’t know/remember responses, clarification-seeking responses (e.g., “what?”), and off-topic responses. Initial responsiveness reflected responsiveness to the first birthday prompt. As noted above, interviewers were trained to encourage initially non-responsive children to respond (up to two times). Ultimate responsiveness reflected responsiveness to either the first or subsequent prompts. Initial non-responsiveness reflected non-responsiveness to the first birthday prompts. Ultimate non-responsiveness reflected non-responsiveness after any additional encouragement.

Unfortunately, some children’s ultimate non-responsiveness might have been due to interviewer error, because interviewers sometimes forgot to encourage non-responsive children. Therefore, for some analyses, we distinguished between ultimate responsiveness (with or without persistent encouragement) and ultimate responsiveness (with persistent encouragement). The former underestimates the effects of encouragement (because it includes some children who didn’t receive encouragement), and the latter overestimates the effects of encouragement (because interviewers may have withheld encouragement from children who were more likely to remain non-responsive). For all ultimately responsive children, we also calculated total word count per response, which has been found to correlate highly with more labor-intensive methods for counting details (Dickinson & Poole, 2000). Word counts excluded single word repetitions and most dysfluencies.

Interrater reliability

Interrater reliability was conducted on 20% of the sample, and Cohen’s Kappa indicated high agreement on whether children were responsive and whether interviewers’ offered encouragement ($K = 1.0$). Word count was machine calculated; thus, we did not run reliability.

Analysis plan

First, descriptives were calculated regarding initial and ultimate responsiveness and word count. Because descriptives showed that non-responsiveness was rare,

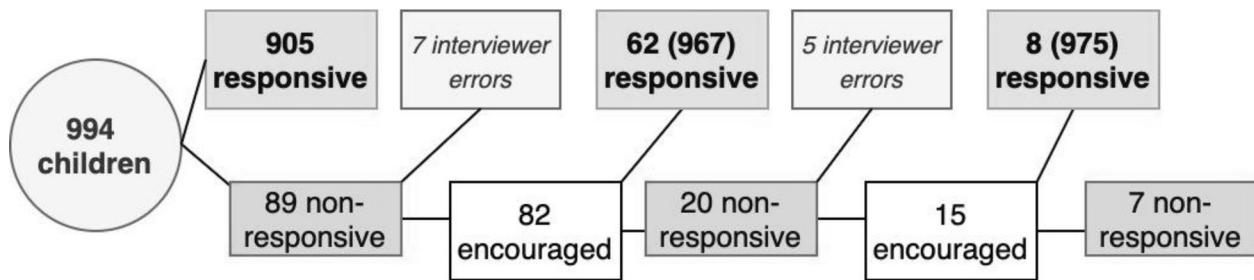


Figure 1. Children's responsiveness and interviewers' encouragement and errors.

Table 1. Responsiveness and word count by age.

Age	N	Initial (%)	Persistent encouragement (%)	Word count per utterance (SD)
4-year-olds	81	83	93	15 (17)
5-year-olds	219	85	97	17 (21)
6-year-olds	196	92	99	20 (20)
7-year-olds	148	95	100	23 (24)
8-year-olds	178	93	99	28 (31)
9-year-olds	172	96	99	31 (35)

Note. Persistent encouragement excludes interviewer errors ($n = 12$).

analyses controlled for the imbalanced dataset by using bias-reduced binomial-response generalized linear models (BRGLM) with the *brglm* package in R (Kosmidis, 2019), which employ Firth's (1993) penalized likelihood. BRGLMs examined the effects of child's age (continuous), days since the child's last birthday (continuous), maltreatment (maltreated, not), and transgression condition (transgression, no transgression) on children's initial and ultimate responsiveness. Preliminary analyses confirmed that gender and ethnicity were not associated with responsiveness, so they were excluded from subsequent analyses. Ultimate rates of responsiveness were calculated both including the cases with interviewer failures to provide encouragement (i.e., ultimate responsiveness with or without persistent encouragement) and excluding those cases (i.e., ultimate responsiveness with persistent encouragement).

Last, a generalized linear mixed model (GLMM) including the same factors (i.e., age, days since last birthday, maltreatment, and transgression condition) was conducted to explore the number of words elicited per prompt by children who were ultimately responsive ($n = 975$). Preliminary analyses confirmed that ethnicity was not associated with word count; however, gender was significantly associated, so it was also included in the model. In order to control for overdispersion, an observation-level random effect was included; additionally, a random effect of child was included to control for both the different number and types of questions addressed to each child as well as children's individual response proclivities. The GLMM was performed using the *glmer* function in the R

package *lme4* with the bobyqa optimizer and Laplace approximations (Bates et al., 2015).

Results

Responsiveness

The overall pattern of responsiveness is depicted in Figure 1. Rates of responsiveness and word count by age are in Table 1, by days since the last birthday are in Table 2, and by transgression condition and maltreatment are in Table 3. The descriptive statistics suggest increases in responsiveness and word count with age, and a small decline in responsiveness (but no differences in word count) with days since the last birthday.

Initial responsiveness

In response to the initial birthday prompt, 91% of children responded with details ($n = 905$, $M_{\text{age}} = 6.71$, $SD = 1.59$, $M_{\text{days since last birthday}} = 199$). Nine percent of children failed to do so ($n = 89$, $M_{\text{age}} = 5.93$, $SD = 1.54$, $M_{\text{days since last birthday}} = 224$). The initial responsiveness rate for maltreated children was 89%, while the initial responsiveness rate for non-maltreated children was 92%. The model, which included age, days since last birthday, maltreatment, and transgression condition, showed that older children were significantly more likely to answer responsively to the first prompt ($B = 0.30$, $SE = 0.07$, $Z = 4.06$, $p < .001$, $OR = 1.35$, $CI\ 97.5\% [1.17, 1.58]$). Days since last birthday, maltreatment, and transgression condition

Table 2. Responsiveness and word count by days since last birthday.

Days since birthday	<i>N</i>	Initial (%)	Persistent encouragement (%)	Word count per utterance (SD)
1 month or less	57	97	100	21 (19)
1 to 3 months	109	93	100	26 (29)
3 to 6 months	216	92	98	21 (24)
6 to 9 months	256	92	98	23 (28)
9 to 12 months	267	88	97	23 (25)

Note. Persistent encouragement excludes interviewer errors ($n = 12$).

Table 3. Responsiveness and word count for transgression/no transgression and maltreated/non-maltreated groups.

Child characteristic	<i>N</i>	Initial (%)	Persistent encouragement (%)	Word count per utterance (SD)
Maltreated	402	89	97	13 (58)
Non-Maltreated	592	92	99	16 (55)
Transgression	778	91	98	15 (47)
No Transgression	216	90	97	14 (62)

Note. Persistent encouragement excludes interviewer errors ($n = 12$).

Note. Word counts per utterance are adjusted means from GLMM controlling for gender, age, and days since birthday.

were not significantly associated with initial responsiveness.

Ultimate responsiveness (with or without persistent encouragement)

Ultimately, after any interviewer encouragement, 98% of children were responsive ($n = 975$, $M_{\text{age}} = 6.67$, $SD = 1.59$, $M_{\text{days since last birthday}} = 200$). Two percent of children were ultimately non-responsive ($n = 19$, $M_{\text{age}} = 5.42$, $SD = 1.61$, $M_{\text{days since last birthday}} = 255$). The ultimate rate of responsiveness for maltreated children was 97%, while the ultimate rate of responsiveness for non-maltreated children was 99%. The model showed that older children were more likely to be responsive ($B = 0.50$, $SE = 0.17$, $Z = 2.99$, $p = .003$, $OR = 1.64$, $CI\ 97.5\% [1.19, 2.46]$). In addition, when the children's last birthdays happened more recently, they were more likely to be responsive ($B = -0.01$, $SE = 0.002$, $Z = -2.20$, $p = .03$, $OR = 0.995$, $CI\ 97.5\% [0.989, 1.00]$). Last, maltreated children were less likely to be responsive than non-maltreated children ($B = -0.92$, $SE = 0.46$, $Z = -1.99$, $p = .047$, $OR = 0.43$, $CI\ 97.5\% [0.15, 1.06]$). Transgression condition was not significantly associated with ultimate success rate.

Ultimate responsiveness with persistent encouragement

Of the 19 ultimately non-responsive children, 12 ($M_{\text{age}} = 6$, $SD = 1.71$, $M_{\text{days since last birthday}} = 245$) might have been attributable to interviewer error because the interviewer failed to provide persistent encouragement. In 7 cases, the interviewer accepted the child's initial non-responsiveness, and in 5 cases the interviewer persisted only once. Therefore, we examined children who received persistent encouragement (i.e.,

up to two encouragements). When interviewers gave persistent encouragement, less than 1% ($n = 7$, $M_{\text{age}} = 4.43$, $SD = 0.79$, $M_{\text{days since last birthday}} = 271$) of children failed to provide details. The ultimate rate of responsiveness for maltreated children who received persistent encouragement was 97%, while the ultimate rate of responsiveness for non-maltreated children who received persistent encouragement was 99%. The model showed that older children were more likely to be responsive ($B = 1.35$, $SE = 0.45$, $Z = 3.01$, $p = .003$, $OR = 3.87$, $CI\ 97.5\% [1.67, 21.04]$). As well, maltreated children were less likely to be responsive than non-maltreated children ($B = -1.69$, $SE = 0.86$, $Z = -1.97$, $p = .049$, $OR = 0.18$, $CI\ 97.5\% [0.01, 0.93]$). Days since last birthday and transgression condition were not significantly associated with ultimate responsiveness.

Word count per response

Children who were ultimately responsive ($n = 975$) were asked, on average, 4.21 questions ($SD = 1.96$; Median = 5), ranging from 1 to 12 questions. We excluded children who were ultimately non-responsive ($n = 19$). In order to assess the number of words elicited per prompt, the best fit GLMM examined the effect of child's age, days since birthday, maltreatment, transgression condition, child's gender and an interaction between maltreatment and days since birthday on the total number of words elicited by each prompt in the child's narrative practice. As children got older, they spoke more per utterance ($B = 0.27$, $SE = 0.02$, $Z = 15.69$, $p < .001$). Maltreated children used fewer words per utterance ($M = 13$, $SD = 57$, $CI\ 95\% [12.21, 14.4]$) than non-maltreated children ($M = 16$, $SD = 55$,

CI 95% [14.78, 16.9]; $B = -0.17$, $SE = 0.04$, $Z = -4.02$, $p < .001$, $OR = 1.19$). Days since last birthday was positively associated with word count ($B = 0.07$, $SE = 0.02$, $Z = 3.11$, $p = .002$); however, this was qualified by an interaction with maltreatment, which showed that as days since last birthday increased, the non-maltreated children spoke more per utterance compared to maltreated children ($B = -0.07$, $SE = 0.03$, $Z = -2.22$, $p = .03$). Males ($M = 13$, $SE = 47$, CI 95% [11.7, 13.6]) used fewer words than females ($M = 17$, $SE = 61$, CI 95% [15.4, 17.8]; $B = -0.27$, $SE = 0.03$, $Z = -7.91$, $p < .001$, $OR = 1.31$). Transgression condition was not significantly associated with word count per response.

Discussion

The birthday narrative is a potentially useful tool for narrative practice, but only if children are able and willing to recall their last birthday. This study examined 994 maltreated and non-maltreated 4- to 9-year-olds' ability and willingness to recall information in response to free recall questions about their last birthday. We found that although a fair percentage of children were initially non-responsive (9%), particularly if they were younger, virtually all children were ultimately responsive if interviewers encouraged them with additional free recall questions (99%). Maltreated children were less responsive and spoke less than non-maltreated children, but with persistent encouragement, their responsiveness rates were also extremely high (97%). The amount of time that had elapsed since children's birthdays also showed some tendency to increase children's difficulty, but here too persistent encouragement all but guaranteed responsiveness (97%). Whether children had just been coached to conceal a transgression and were thus likely to be guarded in their responses had no effect on their responsiveness.

Because interviewers sometimes erred and neglected to follow-up when children were initially non-responsive ($n = 12$; thereby excluding these children from the persistent encouragement group), the success rate for persistent encouragement might be exaggerated, particularly if interviewers sensed in these instances that follow-ups would be unsuccessful. However, even if one assumes that children would have ultimately failed in all the cases in which interviewers erred, the ultimate responsiveness rate was 98% overall (and 97% for maltreated children).

The results suggest that worries about children's inability or unwillingness to respond to questions

about their last birthday may be unwarranted. The fact that children sometimes needed encouragement to recall details suggests that interviewers who experience difficulties asking questions about children's birthdays may be asking suboptimal questions, particularly when children initially fail to provide details. As noted in the introduction, various sorts of yes/no questions are likely to elicit false "no" responses, including "Do you celebrate your birthday?" "Did you do anything for your birthday?" and "Do you remember your last birthday?"

Limitations and future directions

A limitation of the study is that the maltreated children in the sample were under the jurisdiction of the juvenile court. Their birthday experiences might have improved since coming to court: foster parents, relatives taking in children, and parents hoping to win back custody of their children may be more attentive to children's birthdays. When maltreated children are first questioned, their last birthdays may be less eventful.

Another limitation is that we were unable to assess the accuracy of children's responses. This problem is common in studies examining narrative practice because they naturally choose topics from children's personal experiences rather than controlled lab events (e.g., Brubacher et al., 2011; Roberts et al., 2004). Nevertheless, one might worry that children were confabulating details, particularly if they were initially non-responsive and the request was repeated. Repeated questions are often cited as a source of error in forensic interviews (Bruck & Ceci, 1999). However, although repeated yes/no and suggestive questions have been found to increase error, repeated recall questions have not (Memon & Vartoukian, 1996; Poole & White, 1991). Here, interviewers followed up by asking additional recall questions and by providing encouragement without probing for specific information.

Furthermore, the study was designed to determine whether children could and would recall their birthdays rather than how much they could report. Because interviewers asked a limited number of follow-up questions, with a limited amount of time, we could not examine the number of details that children could report about their birthdays if they were questioned at greater length. More extensive practice would also enable us to assess other qualities of narrative practice, such as the extent to which children's birthday narratives are coherent (with, for example,

sequential and causal language; Szojka et al., 2020), and the extent to which they detail unique instantiations of repeated events (Brubacher et al., 2011), which would lend further support to the utility of narrative practice in improving children's reports. Researchers who study family rituals (Lee et al., 2009) have noted that the typical child's birthday is a highly salient day in which a series of significant events occur, each of them with partly scripted and partly unique elements (e.g., cakes and presents are common, but what type they are and when and how they are enjoyed vary). As such, they seem well-suited for producing extended and coherent narratives.

Future work can compare the benefits of birthday narratives to other events. As noted in the introduction, Whiting and Price (2017) found that questions about birthdays and other unique and memorable events enhanced subsequent productivity more than narratives about "what happened yesterday." When questions about birthdays fail to elicit information, it might be possible to elicit productive narratives by giving the child the opportunity to choose a unique event, such as by asking about "a fun thing that has happened."

Furthermore, other types of encouragement may elicit narratives from initially non-responsive children. Here, we either simply repeated the question ("Tell me everything that happened,"), rephrased it as a slightly more direct "what did you do" question, or uttered the supportive statement "it's really important that I get to know you." Because maltreated children are often reluctant to disclose abuse, researchers have explored how multiple types of supportive statements facilitate disclosure (Blasbalg et al., 2019), and support may similarly enhance their practice narratives. Furthermore, reluctant children may prematurely provide unthinking "don't remember" responses. An unexplored topic is whether children's free recall can be enhanced (and accuracy maintained) by asking initially non-responsive children to take a moment and "please try hard to remember."

Future work can also explore the success of birthday narratives in the field, and answer some of the questions raised here. Why do some practitioners appear to experience unusually high failure rates? How well do practitioners use invitations in order to elicit complete narratives? Do maltreated children only recently recognized as such also have birthday narratives to report? When interviewers consistently ask open-ended recall questions and provide sufficient encouragement and support, what practice topics are most productive? Finding the most successful

narrative practice topics will ensure that interviewers can maximize children's responsiveness before transitioning to abuse allegations.

Acknowledgment

The authors would like to thank Kevin Salas and Georgia Lundon for their assistance.

Funding

This study was supported in part by the National Institute of Child Health and Human Development (Grant HD087685).

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Data availability statement

Due to the nature of this research, participants of this study only agreed for their data to be shared publicly in aggregate form, so supporting data is not available.

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