Young Children with Suicidal Thoughts and Behaviors More Likely to Resolve Conflicts with

Violence, Homicide, or Suicide: A Study of Internal Working Models Using Narratives

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Abstract

There is mounting evidence that young children who express suicidal ideation (SI) have a different conceptualization of death than their peers. This study characterizes 3- to 6-year-olds' depictions of violence, death, and suicidal themes in a story completion task as a function of their history of SI. Participants were 228 children with depression (3.0–6.9 years) who completed a comprehensive psychiatric assessment and four story stem narratives. For each narrative an interviewer began a story with a conflict that the child was encouraged to resolve. Children's resolutions were coded for standard themes and negative atypical themes including violence and homicide, accidental harm or death, and suicidal ideation/acts. Themes were examined as a function of children's SI-status: active-SI (n=25), passive-SI (n=28), no history of SI (n=175). Across the narratives 89 children described at least one negative atypical theme: violence or homicide (n=78), accidental harm or death (n=22), and suicide (n=13). The responses of children with active-SI included significantly more violence or homicide than children without SI. Moreover, current active-SI predicted suicidal themes. There were no group differences in accidental harm or death, nor in common aggressive or punitive acts (e.g., hitting, yelling, spanking), indicating specificity between active-SI and more intense violence and death-related themes. In sum, young children with active SI are more likely than their depressed peers without SI to incorporate violence, homicide, and suicide into their narratives around conflict resolution. These themes appear more salient to depressed children with SI and pervasive in their thoughts and problem-solving strategies.

General Scientific Summary: This study demonstrates that depressed young children who exhibit suicidal thoughts are more likely than their depressed peers without suicidal thoughts to resolve conflicts in narratives with violence or suicide. This work is the first to report on observed differences in young children's behavior based on their history of suicidal thoughts and indicates that these intense themes of violence and suicide are more pervasive in the thoughts and problem-solving strategies of depressed young children with suicidal thoughts relative to depressed peers without suicidal thoughts. These findings have implications for risk assessment in clinical settings and in understanding the development of suicidality.

In youth, death by suicide has nearly tripled in the last decade in the United States (Curtin & Heron, 2019). Moreover, recent research finds that by 9-10 years 6.4% of children report experiencing passive suicidal ideation (a wish to be dead), 6.8% report active suicidal ideation (wanting to end one's life), and 1.3% report at least one suicide attempt (DeVille, et al., 2020). Despite these alarming rates, little is known about the nature of suicidal ideation and behaviors (SI/SB) in childhood (Ayer et al., 2020). Risk factors implicated in SI/SB include parental history of suicide attempts/psychopathology, child's history of SI/SB, child psychopathology, and family conflict (Sheftall et al., 2016). However, the current predictive value of these risk factors is poor.

Even less is known about SI/SB in preschool-age children. Longitudinal work with depressed preschoolers demonstrates that SI/SB presents as early as the preschool period, remains stable into school-age, and confers risk for later psychopathology (Whalen et al., 2015). Specifically, preschool-onset suicidality was found to be concurrently associated with attention-deficit/hyperactivity disorder and oppositional defiant disorder (ODD) and predicted later depression and ODD. A more recent study of depressed 3- to 6-year-olds enrolled in a treatment study found even higher rates of suicidality (19.1%). Children with SI/SB presented with increased depressive symptom severity, preoccupation with death, and increased family conflict and violence exposure relative to depressed peers without SI/SB (Luby et al., 2019). This work is a downward extension of Pfeffer and colleagues who began documenting suicidality and associated preoccupations with death over 30 years ago in children as young as 6 years of age (e.g., Pfeffer, 1981), and raises critical questions about the correlates and antecedents of SI/SB at this early stage of development.

A leading theoretical framework of suicidality, the interpersonal theory of suicide (IPTS), suggests that elevated suicide risk is characterized by factors like repeated exposure—mentally,

vicariously, and directly—to stimuli associated with physical pain, injury, and death, in addition to forms of thwarted belongingness and perceived burdensomeness perceived as intractable (Van Orden et al., 2010). According to this perspective, a suicidal mindset includes a unique psychological and physical posture towards violence and death, one that displays relative comfort and interest in these themes. Although childhood suicidality has received increasing recognition as a growing public health concern, few studies draw on existing theoretical frameworks or developmentally adapt them for younger children (Ayer et al., 2020). As recent studies have found links between childhood suicidality, preoccupation with death (Luby et al., 2019), and associations between death and violence (Hennefield et al., 2019), the IPTS—with its inclusion of a unique mindset regarding violence and death—provides a potentially useful framework from which to examine suicidality in early childhood. The present work investigates violence, death, and suicidality in depressed children's conflict resolutions during play narrative story stems, with a focus on resolutions depicted by children with SI/SB.

Young children who express SI/SB appear to have a different conceptualization of death than their peers. Recent findings demonstrate that depressed 4- to 6-year-olds with SI/SB have a better understanding of what it means to die than depressed children without SI/SB and healthy peers. Moreover, children with SI/SB were more likely to describe death as caused by violent events, suggesting that children with SI/SB have a stronger mental association between death and violence than their peers (Hennefield et al., 2019). This result is consistent with the IPTS as delineated above, but continued investigation of this theory is needed, including whether similar processes are evident earlier in development. An investigation of the theoretical underpinnings of SI/SB in early childhood, in addition to its phenomenology, can inform the design of more targeted prevention efforts.

In adolescents and adults the strongest predictors of suicide (which even in this context prediction accuracy remains very low) are prior psychiatric hospitalization, suicide attempt, and SI (Franklin et al., 2017). Given the low prevalence of attempts and other suicide-related behaviors observed in young children, coupled with their inherently shorter psychological histories, SI is a critical symptom to assess and represents a significant form of morbidity (Jobes & Joiner, 2019). Moreover, although SI/SB in young children is typically captured via parent-report (Luby et al., 2019; Whalen et al., 2015), by late childhood there is high discordance between child and parent-reports of SI/SB (DeVille et al., 2020). Thus, there is a pressing need to assess children's own thoughts as they relate to suicidality.

Suicidal mental imagery (i.e., having mental images of suicide such as hanging oneself) has recently been linked to suicidal behavior in adolescents (Lawrence et al., 2021) and is also quite common in suicidal adults (Crane et al., 2012; Holaday & Brausch, 2015). It is thus plausible that young children with SI/SB, including those at most risk for suicidal behaviors, might also experience suicidal mental imagery, and furthermore, that such imagery might be evidenced in children's internal representations of suicide and/or death. Story-stem narratives, in which children are presented with socio-emotional conflicts to resolve in play, are designed to tap into young children's inner thoughts, feelings, and expectations about people and events (Bretherton & Oppenheim, 2003). These narratives offer a promising method to assess depressed young children's internalized experiences with suicidality and provide unique insight into their internal representations of relationships with others, thoughts of death, and problem-solving strategies. Moreover, the IPTS describes among other things a dimensional view of suicide risk and asserts that, at the clinically worrisome end of this spectrum, the idea of death pervades the mind, and, at the same time, may be difficult to confide to others. In young children, these story stems may

represent an unthreatening, inviting, and rare invitation to talk relatively freely about an otherwise difficult-to-talk-about topic.

Narratives and related doll-play have a history of use in both clinical psychology and developmental research (see Yuval-Adler & Oppenheim, 2015, for a review). In contrast to caregiver-report and observational measures, narratives provide a unique opportunity to capture children's own perspectives and organization of experiences, including those that children may be unaware of or unable to describe, and thus would not be captured in a standard interview. For example, researchers have found concurrent and prospective positive associations between preschoolers' anxiety symptoms and their perceptions of ambiguous stories as threatening (Dodd et al., 2012), and between social worries, anxious-depressed symptoms, and anxious negativity in preschooler's school-related narratives (Pass et al., 2012). Furthermore, preschoolers with dysregulated mood use narrative props in violent or unusual ways much more frequently than healthy preschoolers, potentially indicating disordered thoughts (Hutchison et al., 2010). These findings highlight novel applications of narrative approaches in clinical psychology and links between psychopathology and narrative content. Relatedly, links between aggressive themes and externalizing problems have been found in nonclinical samples. For example, one study found that children who depicted more aggressive themes at 5 years of age had more externalizing problems at both 5 and 7 years and more internalizing problems at 7 years (Oppenheim et al., 1997). The latter finding raises the possibility that early depictions of aggression in the narratives might capture something about the internal working models of children with depression that is more difficult to capture by more direct assessments.

The present investigation assessed themes of violence, death, and suicide in depressed children's narrative responses as a function of their history of SI/SB. These themes were compared

to typical acts of aggression (e.g., hitting, yelling) and punishment (e.g., spanking) that are often normative, to identify differences between children's depictions of intense violent and death-related themes and more commonplace and developmentally expected aggressive acts. Based on previous findings that children with SI/SB have a higher preoccupation with death and in keeping with the IPTS, we hypothesized that children with SI/SB would be more likely to depict death-related themes such as homicide, accidental death, and suicide in their narrative completions. Such findings would provide insight into how children with SI/SB approach and resolve conflicts and have the potential to serve as early warning signs or indicators of SI/SB.

Method

Study Sample

The sample included data from 228 children (149 boys) between 3.0-6.9 years of age prior to their randomization in a parent-child psychotherapy trial for preschool depression (N=288). Children were recruited from primary care and daycare sites in St Louis and screened with the Preschool Feelings Checklist (PFC) to ascertain a group of children who met criteria for depression. Those with PFC scores $\geq$3 and without major medical illness, neurologic disorder, and not currently receiving pharmacological or psychotherapy were screened for Major Depressive Disorder (MDD). Only children who passed screening criteria and subsequently met all criteria for MDD or MDD-NOS on the KSADS-EC (see below) were included in our analysis. Additional study details have been previously described (Luby et al., 2019). All study procedures were approved by Washington University's Institutional Review Board and informed consent from caregivers and children obtained.

Measures

Assessment of Psychopathology and Suicidal Ideation

A comprehensive age appropriate psychiatric interview regarding the presence of DSM-V psychopathology, the Kiddie Schedule for Affective Disorders and Schizophrenia-Early Childhood (KSADS-EC; Gaffrey & Luby, 2012) was administered to the parent/primary caregiver by a clinician trained to reliability (kappas ranged from .74—1.0). The KSADS-EC generated psychiatric diagnoses and assessed parent report of child past and current SI, SB, and non-suicidal self-injurious behaviors (NSSI). SI was defined by active expression of thoughts or plans to end one's life such as "I am going to kill myself" or passive expression of thoughts of one's own death such as "I wish I were dead". Suicidal behaviors (e.g., trying to choke self) were included as active expression. Children in the active or passive-SI groups endorsed clinically significant threshold levels of at least one SI item described above in their lifetime. A subset who endorsed SI over the past two weeks were considered to have current-SI. The decision to differentiate children with active-SI from passive-SI was made *a priori* to examine whether themes such as active depictions of suicide were more prevalent in narratives of children with active-SI. A separate and partially overlapping group of children who exhibited NSSI, defined as self-harm without intent to die (e.g., hitting oneself to the point of injury), was used as a comparison group in a subset of analyses.

The Story Stem Narratives

Story stem narratives, a reliable and valid measure of 3- to 7-year-old children's internal working models (Bretherton & Oppenheim, 2003), were administered to assess children's internal working models of interpersonal dynamics and conflict resolution. For each of four story stems, an interviewer introduced a conflict/problem involving a family member using play figures and setting and the child was encouraged to finish the story. Stories consisted of spilled juice (child sitting around a table with family, reaches across the table, knocks over a cup, spills juice on the floor; Bretherton & Oppenheim, 2003), bed-time (parent says it is bedtime, to turn off the

television, child says no and wants to stay up; Zahn-Waxler, Cole, Richardson, Friedman, Michael, & Belouad, 1994), sad mom (mom shows child a picture of deceased uncle and starts crying; Dealy, Mudrick, & Robinson, 2018), and band-aid (child cuts finger with knife while cooking, yells "ouch!", parents come running in; Hutchison, Beresford, Robinson, & Ross, 2010). These stories were selected for their potentially unique relevance to mood disorders from previously published literature (see S1A for additional details). Stories were accompanied with doll figures to represent each character and props for the child to use to act out the ending. Stories were administered in a fixed order following standard procedures detailed in Brethereton and Oppenheim (S1B).

Narratives were coded from video by clinicians with expertise in preschool MDD using a modified version of the MacArthur Narrative Coding Manual (Robinson et al., 2002). Clinicians were blind to the child's clinical and psychosocial status and trained to reliability. Based on our previous work linking SI/SB to violence attributions (Hennefield et al., 2019), the present investigation focused on aggressive content themes. Aggression themes were coded using the standard system and consisted of verbal aggression (e.g., name-calling, shaming), physical aggression (e.g., pushing, hitting), verbal or non-physical punishment (e.g., scolding, time-outs), and physical punishment (e.g., spanking). Reliability was substantial for aggression (Fleiss' k=.61) and moderate for punishment (k=.41). Training for this coding followed the procedures outlined in Robinson & Mantz-Simmons (2003; S1C).

Within aggressive themes, clinicians identified a subset of child responses that were coded as Negative Atypical Events (NAEs; Fleiss' k=.61). NAEs consisted of *any atypical, disorganized, and disturbing response that leaves the coder with a sense of concern and that has a negative tone to it.* Written transcriptions of these NAEs were independently coded for suicide (Cohen's k=.74),

self-harm (k=.68), violence (k=.93), homicide (k=.88), and death themes (k=.76) by two naïve researchers blind to children's SI status (JMC, CG; disagreements resolved by a 3rd blind coder). Table 1 describes NAE codes.

Analysis Plan

Narrative content was examined as a function of children's history of SI. Children were categorized into one of three groups based on the KSADS-EC measure of lifetime SI: active-SI (includes children who expressed both active and passive-SI), passive-SI, or no-SI. Groups were compared on all demographic factors (Table 2). A subset of analyses compared children with current-SI to those without on key variables of interest.

For each theme a child received a score of (1) if that theme was present in any of the four narratives, and (0) if it was absent. This binary approach was implemented based on the low prevalence of each theme; the majority of children depicted either 0 or 1 instance of a theme across the narratives (Table S1). SI-groups were dummy coded to allow for comparisons between the three groups. Binary logistic regressions were performed independently for violence or homicide, accidental harm or death, and suicidal ideation/acts to assess whether NAE themes could be predicted by SI-group. Follow-up analyses examined differences between violence and homicide events.

Violence and homicide were combined to increase power. As the distinction between violence and homicide was based on whether the violent act was likely to cause death (e.g., cutting off one arm was coded as violence, cutting off both arms and both legs was coded as homicide) this code was not as clearly delineated as others. However, as homicide is a stronger form of violence and arguably qualitatively different, it seemed important to explore whether this difference was reflected in children's narratives.

To investigate the specificity between SI and content themes, logistic regressions tested whether non-suicidal self-harm content differed as a function of SI-status, and whether children with NSSI differed from those without NSSI on their inclusion of the key themes.

To clarify the distinction between atypical and typical forms of aggressive and punitive behaviors in the narratives, a series of binary logistic regressions examined typical acts of aggression and punishment as a function of SI-status.

All analyses covaried for age, sex, and race. The Benjamini-Hochberg procedure was used to control the false discovery rate (FDR) within each set of analyses. Significant findings for primary variables of interest are reported in text with full statistical models available in Supplementary Tables S1-S6.

Results

Demographic Characteristics. Our sample consisted of 175 depressed children without SI, 28 with passive-SI, and 25 with active-SI. Significantly more children with active or passive-SI were male, non-White, and older than their depressed peers without SI (Table 2). However, when age, sex, and race are included in a single model, only age and sex remain unique predictors of SI-status.

Seven children had current active-SI (4 male; 1 4-year-old, 2 5-year-olds, 4 6-year-olds). This subsample did not significantly differ from the overall sample on age, sex, or race.

Negative Atypical Events. Of the 228 children who completed the narratives, 89 (39%) expressed at least one NAE (Table 3). Boys were 2.70 times more likely than girls to express NAE content (B=.99, *SE*=.31, 95%CI[1.46-4.98], *p*=.002).

Violence/Homicide. Logistic regressions revealed that SI-status and sex independently predicted children's expressions of violence/homicide. Relative to children without SI, children

with active-SI were 3.59 times more likely to depict violence/homicide in their narratives (B=1.28, *SE*=.48, 95%CI[1.40-9.18], *p*=.008). There was no significant difference in violence/homicide depictions between children with no-SI and passive-SI. A trend toward children with active-SI depicting more violence/homicide than children with passive-SI (B=1.29, *SE*=.60, OR=3.64, 95%CI[1.13-11.67], *p*=.030) did not survive FDR corrections. Boys were 3.13 times more likely to depict violence/homicide than girls (B=1.14, *SE*=.35, 95%CI[1.58-6.17], *p*=.001; S2). There was also a trend toward current active-SI (but not current passive-SI) predicting children's depiction of violence/homicide (B=1.46, *SE*=.85, OR=4.31, 95%CI[.82-22.62], *p*=.084; S3).

Violence. Trends toward children with active-SI depicting more violence than children without SI (B=1.03, *SE*=.48, OR=2.81, 95%CI[1.09-7.25], *p*=.032) and with passive-SI (B=1.41, *SE*=.68, OR=4.10, 95%CI[1.08-15.61], *p*=.039) did not survive FDR corrections. Neither current active- or passive-SI predicted violence (S4).

Homicide. There were no significant differences in children's depiction of homicide between SI-groups. Boys were 8.22 times more likely than girls to depict homicide (B=2.11, *SE*=.76, 95%CI[1.85-36.50], *p*=.006). Children with current active-SI (but not current passive-SI) were 11.82 times more likely to depict homicide than children without current active-SI (B=2.47, *SE*=1.07, 95%CI[1.46-95.58], *p*=.021; S4).

Accidental Harm/Death. There were no significant differences in children's depiction of accidental harm/death between SI groups for lifetime (S2) or current SI-status (S3).

Suicidal Acts/Ideation. There were no significant differences in children's depictions of suicidal acts/ideation between SI groups for lifetime SI (S2). However, children with current active-SI (n=7) were significantly more likely to depict suicidal themes (B=4.45, *SE*=1.59, OR=85.24, 95%CI[3.76-1932.28], *p*=.005; S3). Specifically, 28.5% of children with current

active-SI depicted suicidal acts/ideation compared to 3.4% of children without current active-SI.

Non-Suicidal Self-Harm. Of the 12 children who included nonsuicidal self-harm content in their narratives, 11 were in the no-SI group; thus the model to assess this content as a function of SI-group did not converge to allow for further analyses. Moreover, depressed children with NSSI were not more likely than those without NSSI to depict violence/harm, accidental harm/death, suicidal acts/ideation, or NSSI (S5). These findings support the notion that SI is a unique predictor of violence, homicide, and suicidal themes in children's narratives.

Typical acts of aggression and punishment. Across the four narratives, 120 children (53%) depicted at least one typical act of verbal aggression (n=13; 6%), physical aggression (n=41; 18%), or both verbal and physical aggression (n=66; 29%). There were no differences in children's inclusion of aggression between SI groups for lifetime or current-SI. Boys were 3.08 times more likely than girls to depict acts of aggression (B=1.24, *SE*=.31, 95%CI[1.69-5.62], *p*<.001).

Moreover, 163 children (72%) depicted verbal or non-physical punishment and 46 children (20%) depicted physical punishment. There were no differences in children's inclusion of punishment between SI groups for lifetime or current SI-status. Girls were 2.86 times more likely than boys to depict punishment (B=-1.05, *SE*=.40, 95%CI[1.32-6.22], *p*=.008; S6).

Additional Analyses. Based on previous findings that linked SI/SB with aggression, and violence linked to ODD (Whalen et al., 2015), the primary analyses were replicated controlling for ODD, which did not alter any findings or conclusions (S7). Similarly, replicating the primary analyses without the inclusion of 3-year-olds (as there was only one 3-year-old with SI), did not alter any findings or conclusions (S8).

Discussion

The present study investigated themes of violence, death, suicidality, and self-harm in

depressed children's interpersonal relationships and conflict resolution using a narrative story completion approach. Key analyses focused on how these themes differed as a function of children's history of past and current-SI. Study findings indicate that depressed children with active-SI depicted higher atypical levels of violence and homicide in their narrative resolutions than depressed children without SI. Moreover, depressed children with current active-SI depicted both suicide and homicide more frequently than their depressed peers without current active-SI. Notably, these differences appear specific to intense and deliberate acts of violence and death, and not to accidents that result in death, self-harm, or more common acts of aggression or punishment. This specificity might result from the inherent nature of suicide as both an act of dying and of killing and reflect the salience of both constructs to young children with active-SI.

As the narratives focus on resolving potential conflicts, the present findings indicate that depressed children with active-SI conceive of violence and suicide as problem solving strategies to a greater extent than depressed children without SI. This suggests they may have greater exposure to such experiences, have learned to expect others to use violence or suicide to resolve conflict, and/or been taught these strategies themselves to solve problems.

Whereas previous investigations of early childhood SI combined children with active and passive-SI (e.g., Luby et al., 2019; Whalen et al., 2015), the present findings provide evidence for differences in behaviors of children with active-SI distinct from those of children with passive or no-SI. This finding underscores a clinically meaningful difference between passive and active-SI even as young as preschool age. Building on the utilization of narrative techniques in clinical settings (e.g., Gaensbauer, Gray, & Hatch, 2019), the current findings suggest this method of assessing suicidality in young children may also have direct applications to clinical assessment and care. Furthermore, questions and observations about violence and suicidal play themes in

clinical assessments could serve as a useful indicator to help assess risk of active self-harm in young children presenting with SI/SB. Suicidal mental imagery, which has a positive association with suicidal behavioral in adolescents (Lawrence et al., 2021), may be analogous to suicidal play themes and deserve particularly close attention.

Boys depicted more atypical and typical acts of physical aggression, including homicide, than girls. In contrast, girls depicted more (primarily) verbal or non-physical punishment. These findings align with stereotypical sex differences in aggressive themes found in previous narratives studies (von Klitzing et al., 2000; Oppenheim et al., 1997); however, the findings regarding boys' aggressive themes are more robust and extend to atypical aggression. The present findings also accord with developmental literature showing that, although aggression tends to peak during toddlerhood, sex differences are evident early (Baillargeon et al., 2007) and persist throughout childhood (Card et al., 2008). Moreover, although the sex gap in suicide deaths in early adolescents has narrowed in recent years, boys are still nearly twice as likely as girls to die by suicide (Ruch et al., 2019). An important future direction is thus to assess whether boys' early reliance on and preoccupation with aggression might underpin these later disparities.

Whereas the IPTS specifically predicts that the *capability for suicide* is a necessary pre-condition for serious suicidal behavior (e.g., lethal, near-lethal, or medically damaging attempt), the theory is silent regarding the role of capability in suicidal ideation (and specifies that perceived burdensomeness and thwarted belongingness drive ideation). Nonetheless, the theory is clear that a suicidal mindset may arise from mental preoccupation with themes related to physical pain, injury, violence, death, and suicide (Van Orden et al., 2010). Such preoccupation may facilitate the unique mindset towards violence and death that the theory predicts. In line with this account, our results indicate that mental preoccupation with these themes as operationalized by their

occurrence and prevalence in young children's story completions was associated with active-SI. Moreover, although both passive and active-SI have a theoretical relationship to preoccupations with these themes within the IPTS, this may be a differential relationship such that active-SI is more related to such mental preoccupations than passive-SI. We are persuaded that this may be so not only for empirical reasons (i.e., the differential relations evidenced in the current study) but also because, conceptually, there are at least two plausible reasons. First, there is a somewhat normative aspect to phenomena having to do with understanding death, including passively conceiving of one's own death, whereas there is not with regard to active thoughts of killing oneself (or anyone else). Indeed, Joiner et al. (2016) proposed that active engagement with killing oneself or another is a candidate for the single most pathognomonic sign of psychopathology (rivaling or exceeding for example cruelty to animals as a sign of conduct disorder/antisociality). Second, and relatedly, a proposed mechanism for high capacity for suicide is habituation to injury or death. Active-SI mentally engages this mechanism more than does passive-SI, because it involves both killing and dying (vs. dying only).

The IPTS has been empirically evaluated in more than a hundred distinct samples (Chu et al., 2017), but has not been previously explored in samples of young children. Unsurprisingly in light of numerous challenges in this area of inquiry (e.g., measurement/construct imprecision, statistical challenges), the signal-noise issues are inevitably great. Against this backdrop, it is notable that the theory has nevertheless performed reasonably well, though support for it is not total (Chu et al.). Moreover, although the theory is meant to encompass suicidality across the lifespan, developmental adaptations might be necessary to capture the experiences of young children. For example, it is unclear whether young children experience perceived burdensomeness in the same way as adolescents or adults because they are, by nature of being young children,

intrinsically more reliant (a necessary burden) on others. Similarly, although the present findings detail a preoccupation with violence and death themes in young children with SI, further work is needed to characterize the scope and stability of these themes, and to assess their usefulness as predictors of future suicidal behaviors.

One limitation of the present investigation is the lack of a healthy comparison group. Without such a group it is not possible to assess how common suicidality or other negative atypical events are in non-depressed children's conflict resolutions in narratives. A second limitation is that, because the narratives were administered in a fixed order to all participants, we could not separate the role of story content from story order on children's responses. Third, the small number of children with current active-SI limited statistical power to test differences within this subgroup. Finally, the study grouped children based on their caregiver's reports of the child's expressions of SI/SB. Given the high discordance between child and caregiver's reports of SI/SB in late childhood (DeVille et al., 2020), it is likely that some children in the present sample experienced SI but did not disclose these thoughts to others, and therefore would have been mistakenly categorized in the no-SI group. Directly assessing SI/SB in young children, concordance with parent-reports, and how children with self-reported SI/SB might differ clinically from those with parent-reported SI/SB, are important next steps for future research.

Another important future direction is to elucidate the role of early exposure to violence on SI/SB. Specifically, it is important to determine whether differences in frequency, intensity, or modality of violence exposure are driving the present findings, or if children with SI/SB–or those who later develop SI/SB–are influenced by certain aspects of violent events differently from peers.

The findings that children with active-SI depict more violence and death in narrative play than their depressed peers without active-SI suggest these factors are associated with early

expressions of SI. Thus, in young children who express SI/SB information about violence and death themes in play should be obtained. Decreasing violence exposure may be an important future prevention target, but future studies that address causal relationships will be needed to confirm this hypothesis.

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Table 1.

Descriptions and examples for negative atypical events.

Code	Description	Examples
Accidental Harm/Death	unintentional non-self-inflicted physical harm or death of a character; code also includes ambiguous deaths	child is electrocuted by television wire; child announces "then everyone dies" without describing how
Violence/Homicide	intent by one character to cause physical harm (violence) or death (homicide) to another character	child cuts mom's legs with knife; mom bombs the television and bed that child and dad are sleeping in; child kills mom by putting poison in her tea
Suicidal Acts/Ideation	intent by a character to cause physical harm or death to self, accompanied by thoughts about wanting to be dead or describing or acting out suicidal actions	child cuts his head off; child cuts out both eyeballs and dies; child reports that mom wants to kill herself so she can go be with the uncle; mom stabs herself in stomach with fork and dies
Non-Suicidal Self-Harm	a character deliberately causes harms to self without intent to die	child bangs head on floor; child cuts herself with knife

Table 2.

Sample demographics by SI-group.

	No-SI (n=175)	Lifetime Passive-SI (n=28)	Lifetime Active-SI (n=25)	Statistic	p
Demographics					
Sex (% male)	105 (60%)[a]	24 (86%)[a]	20 (80%)	$x_{(2)}^2$=9.71	.008
Age in Years					
3	35 (20%)	1 (4%)	0 (0%)		
4	55 (31%)	3 (11%)	4 (16%)		
5	45 (26%)	11 (39%)	10 (40%)		
6	40 (23%)	13 (46%)	11 (44%)		
Age *M (SD)*	5.04 (1.07)	5.80 (.82)	5.69 (.82)	$F_{(2)}$=9.71	.000
Income-to-needs *M (SD)*	3.06 (1.30)[a]	2.67 (1.47)[a]	2.84 (1.37)	$F_{(2)}$=1.181	.309
Race					
White	143 (82%)[ab]	17 (61%)[a]	15 (61%)[b]	$x_{(2)}^2$=10.38	.006
non-White	32 (19%)[ab]	10 (35%)[a]	10 (40%)[b]		

Note: Superscripts indicate significance (*p*<.05) between SI-groups.

Table 3.

Number of children who depicted each theme as a function of SI-status

Code	Total Cases N=228	No-SI n=175	Lifetime Passive-SI n=28	Lifetime Active-SI n=25	NSSI n=40[a]
Violence/Homicide	78 (34%)	52 (30%)	10 (36%)	16 (64%)	13 (33%)
Accidental Harm/Death	22 (10%)	14 (8%)	6 (21%)	2 (8%)	5 (13%)
Suicidal Acts/Ideation	13 (6%)	8 (5%)	2 (7%)	3 (12%)	2 (5%)
Non-Suicidal Self Harm	12 (5%)	11 (6%)	1 (4%)	0 (0%)	4 (10%)

Note: Themes are not mutually exclusive. [a]No-SI, passive-SI, and active-SI groups are mutually exclusive and exhaustive; NSSI is a separate group.