

Article

Children's Narratives of Sad Events: Attachment Security and Psychopathological Symptoms

Edoardo Saija¹ , Susanna Pallini² , Roberto Baiocco¹  and Salvatore Ioverno² 

¹ Sapienza University of Rome (Italy)

² University of Roma Tre (Italy)

ARTICLE INFO

Received: July 11, 2024

Accepted: January 14, 2025

Keywords:

Sad events
Middle-childhood
Coping
Attachment
Psychopathological symptoms

ABSTRACT

Background: This study aims to explore how children's experiences of sadness are related to their coping strategies, attachment, and psychopathology. **Method:** A sample of 517 children described a sad event and related coping strategies. Events included bullying/quarrelling, frustration, accidents/illness, experienced/anticipated separation, and loss. Coping strategies included constructive coping, disengagement, and absence-of-coping. **Results:** Constructive coping was associated with secure attachment. Secure children used constructive and disengagement strategies for frustration, constructive coping particularly for bullying situations, and absence-of-coping for loss. Children reporting absence-of-coping during episodes of frustration exhibited more externalizing symptoms. **Conclusions:** The results highlight relationships between circumstantial dimensions and specific emotional experiences, and the importance of context-specific coping strategies in promoting emotional well-being.

Narraciones Infantiles de Acontecimientos Tristes: Seguridad del Apego y Síntomas Psicopatológicos

RESUMEN

Antecedentes: Esta investigación tiene como objetivo explorar cómo las experiencias de tristeza en los niños se relacionan con sus estrategias de afrontamiento, apego y psicopatología. **Método:** Una muestra de 517 niños describió un evento triste y una estrategia de afrontamiento relacionada. Los eventos incluyeron: intimidación/cuestionamiento, frustración, accidentes/enfermedad, separación experimentada/anticipada, pérdida. Estrategias de afrontamiento incluyeron: afrontamiento constructivo, desvinculación, ausencia de afrontamiento. **Resultados:** El afrontamiento constructivo se asoció con un apego seguro. Los niños con apego seguro utilizaron estrategias constructivas y de desvinculación para la frustración, estrategias constructivas particularmente en situaciones de acoso, y estrategias constructivas o de ausencia de afrontamiento para la pérdida. Los niños que reportaron ausencia de estrategias de afrontamiento durante episodios de frustración exhibieron más síntomas externalizantes. **Conclusiones:** Los resultados subrayan la relación entre dimensiones circunstanciales y experiencias emocionales específicas, y la importancia de estrategias de afrontamiento específicas según el contexto para promover el bienestar emocional.

Palabras clave:

Eventos tristes
Infancia intermedia
Afrontamiento
Apego
Síntomas psicopatológicos

Sadness in children is largely unexplored despite its adaptive role (Arias et al., 2020; Saija et al., 2024a; Zeman et al., 2019). It signals a need for caregiver consolation and protection (Obeldobel et al., 2023) while fostering goal restructuring and reducing the impact of sad events (Verduyn et al., 2020). Sadness also supports interpersonal strategies (Forgas, 2017; Spinrad & Eisenberg, 2019) and is associated with sympathy and prosociality (Edwards et al., 2015; Miller et al., 2016). As middle childhood is critical for developing emotion regulation and because of its ties to attachment security (Cassidy, 1994; Cooke et al., 2019; House et al., 2023; Zimmermann & Iwanski, 2018), this study examines coping strategies for addressing sad events during this developmental stage in relation to attachment security and psychopathological symptoms.

Coping is a controlled, effortful process of responding to stress (Compas et al., 2001; Lazarus & Folkman, 1984) and can be categorized as constructive coping, disengagement, or absence-of-coping (Abraham & Kerns, 2013; Contreras et al., 2000; Eisenberg et al., 1996; Saija et al., 2023; Skinner et al., 2003). Constructive coping involves actively regulating emotions and addressing challenges, such as seeking advice to improve study habits after receiving a poor grade (Carver et al., 1989; Saija et al., 2023; Zeman et al., 2002). Disengagement diverts attention from stressors, such as recalling happy memories to distract from sadness (Milojevich et al., 2018; Skinner et al., 2003; Waugh et al., 2020). Absence-of-coping entails inaction or emotional dysregulation, such as uncontrolled anger, crying, or explosive reactions.

Caregivers of securely attached children play a key role in their competence in coping with negative emotions (Cassidy, 1994; Cooke et al., 2019). They respond sensitively to emotional signals, offering a safe haven and a secure base (Ainsworth et al., 1978; Bowlby, 1979; Kerns et al., 2015), enabling children to seek help from caregivers or peers during distress (Pallini et al., 2023; Zimmermann-Gembeck et al., 2017). Caregivers also engage in emotionally rich conversations, enhancing children's emotional understanding and coping skills (Cooke et al., 2019; Dubois-Comtois et al., 2011), and model effective emotion regulation (Brumariu, 2015). Securely attached children develop positive self-images, confidence in managing stress (Pallini & Barcaccia, 2014), and comfort in social interactions, providing opportunities to experience and process diverse emotions (Abraham & Kerns, 2013; Laible & Thompson, 1998; Pallini et al., 2014).

Research on middle childhood consistently finds a connection between attachment security and effective coping with negative emotions, including adaptive strategies like problem-solving and seeking social support (Abraham & Kerns, 2013; Contreras et al., 2000). Sadness is often studied alongside other negative emotions, such as anger and fear, despite having unique characteristics that distinguish it. Sadness arises from events like attachment disruptions due to illness, separation, or loss (Bowlby, 1979; Kobak et al., 2016), or goal failures, such as receiving poor grades (Deveney et al., 2013; Jeronimus & Laucelle, 2017; Shirai et al., 2021). In attachment dynamics, sadness often emerges when efforts to regain a caregiver's presence fail, while fear stems from the caregiver's absence, and anger is expressed as a protest for the absence or during active attempts to search for the caregiver. Securely attached children seek help when sad and use problem-solving when angry or frightened, while insecurely attached children tend to maximize (anxious attachment) or minimize (avoidant attachment) emotions

(Bowlby, 1979). A meta-analysis by Cooke et al. (2019) found securely attached children excel in regulating negative emotions, relying on cognitive coping and social support more than insecurely attached peers.

Distraction, often viewed as both a maladaptive and adaptive coping strategy (see Webb et al., 2012 for a meta-analysis) shows mixed associations with attachment security. While a meta-analysis (Cooke et al., 2019) found no association, Iwanski et al. (2021) reported a negative association between attachment security and distraction for sadness coping. Conversely, other studies suggest distraction benefits securely attached toddlers and adolescents (Gaylord-Harden et al., 2009; McElwain et al., 2015). For example, maternal refocusing, a caregiver-driven distraction, may help alleviate sadness during disappointing tasks (Morris et al., 2011), and distraction can regulate sadness through parasympathetic calming (Davis et al., 2016). These contradictory results may be related to the differences in how studies conceptualize and measure sadness. Some studies explore children's negative emotions broadly, without isolating sadness, whereas those that do focus on sadness often examine varying types of events that elicit it, ranging from the rupture of emotional bonds (Iwanski et al., 2021) to disappointment (Morris et al., 2011). Overall, we hypothesize that the effectiveness of sadness coping strategies depends on the type of event triggering the emotion. For instance, distraction may be maladaptive when facing a loss that requires conscious processing with caregiver support (Pallini et al., 2023; van der Kolk, 2015), but it can be adaptive in response to frustration.

In this process, attachment security may influence the choice of coping strategies. Avoidant children rely on distraction for both minor and major events, distancing from caregivers and minimizing emotions (Bowlby, 1980; Cassidy et al., 2024; Cooke et al., 2019; Main, 2000; Obeldobel et al., 2023; Pallini et al., 2018, 2019a). This pattern is linked to reduced stress reactivity to sad stimuli (Borelli et al., 2014). Insecure anxiously attached or disorganized children may show dysregulated emotions when facing sad events. Securely attached children typically seek caregiver help during attachment-related distress but use distraction for frustration, reflecting their attentive flexibility—the ability to adapt attention to situational demands (Ainsworth et al., 1978; Main, 2000; Pallini et al., 2018, 2019a, 2019b). Several studies showed the secure children's emotional flexibility (i. e. Cooke et al., 2019; Tabachnick et al., 2022). Emotional flexibility is crucial, as its absence may lead to prolonged sadness after negative events, increasing the risk of psychopathological symptoms, including severe depression or thoughts of death (APA, 2013; Obeldobel et al., 2023). Suicide represents the most extreme case of emotional inflexibility, where unregulated sadness and intolerable emotional pain prevent individuals from adapting their emotions or processing alternative emotional perspectives (Al-Halabi & Fonseca-Pedrero, 2024; López-Fernández et al., 2024).

Meta-analyses have examined how security attachment and coping strategies are related to psychopathology. Compas et al. (2017) revealed that emotional expression and cognitive reappraisal were associated with lower psychopathological symptoms, whereas maladaptive coping strategies (e.g., denial and avoidance) were related to high levels of psychopathological symptoms. Madigan et al. (2016) linked insecure attachment to psychopathological symptoms. Other studies show that insecure attachment is associated with

anxiety through negative emotions and passive coping (Brumariu et al., 2012; Brumariu & Kerns, 2013; Shenaar-GolanYatzkar & Yaffe, 2021) and to depressive symptoms via maladaptive coping (Iwanski et al., 2021).

However, there is still a gap in research regarding the interplay between coping, attachment, and psychopathology. Particularly this gap regards the study of sadness distinguishing it from the other negative emotions, the nature of events which cause sadness and the way specific sad events trigger different coping strategies. Indeed, context significantly influences coping (Zimmer-Gembeck et al., 2017) and consequently context influence the coping of sadness. Securely attached children might use disengagement for frustration, while distraction or poor regulation during attachment-related events might signal insecure attachment.

This study explores the relationship between coping strategies, attachment security, and psychopathological symptoms, considering the types of events encountered. We hypothesize that:

- Children's narratives will describe sad events involving attachment disruptions (e.g., losses, separations, illness) and minor setbacks (e.g., frustration).
- For major attachment-related events, children using cognitive strategies and help-seeking (independent variable) are expected to report higher attachment security scores (dependent variable) than those using distraction or absence-of-coping. For frustration-related events, children using cognitive strategies, help-seeking and distraction (independent variable) are expected to show higher attachment security scores (dependent variable).
- Consistent use of cognitive strategies and help-seeking across all events (independent variable) is hypothesized to result in higher attachment security scores (dependent variable) compared to absence-of-coping.
- Absence-of-coping across all events (independent variable) is expected to correlate with higher psychopathological symptoms (see Compas et al., 2017; Madigan et al., 2016) as measured by Strengths and Difficulties Questionnaire (dependent variables) than other strategies.

Method

Participants

A total of 517 children (age range: 7–10, 53.6% female, $M_{\text{age}} = 8.89$, $SD_{\text{age}} = 1.06$), and their teachers were recruited from 50 primary schools in central Italy. These schools represented a diverse range of socioeconomic statuses, spanning from lower to upper middle-class.

Instruments

Sadness Interview (Saija et al., 2023). Two aspects were investigated: specific instances of sadness that children deemed particularly significant, and coping strategies employed in response to the event. Children were presented with the following prompts: “Let’s think of a recent time when you felt very sad and all the little details you can remember. Would you like to describe it in writing?” and “What did you do to make yourself feel less sad?” Children’s narratives were explored using the Thematic Analysis (TA, Braun

& Clarke, 2006).

Security Scale (SS, Kerns et al., 1996). It evaluates attachment security and encompasses 30 items, 15 items for each parent, investigating communication, accessibility, and responsiveness from the perspective of the children. The items are presented in “Some kids/Other kids” format (Harter, 1982), with two contrasting statements (“Some kids turn to their mom when they feel upset, while other kids don’t turn to their mom when they feel upset”). Children had to select the alternative that best described their experience and the degree of truthfulness (“Really true” or “Sort of true”). Composite scores were computed by summing the scores for children’s responses for both parents ($\alpha = .81$). The SS is a reliable measure of perceived attachment security in children. Stability over time, concordance with other attachment measures, predictive power, and validity across cultures have been supported for this measure (see Brumariu et al., 2018 for a meta-analysis).

Strengths and Difficulties Questionnaire (SDQ, Goodman, 1997). Twenty items about psychopathological symptoms were rated by teachers on a three-point scale (0 = Not true; 2 = Absolutely true). It comprises four dimensions: emotional symptoms (“Many fears, easily scared”; $\alpha = .77$), conduct problems (“Often lies or cheats”; $\alpha = .72$), hyperactivity/distraction (“Restless, overactive, cannot stay still for long”; $\alpha = .63$), and peer problems (“Rather solitary, prefers to play alone”; $\alpha = .84$).

Procedure

This study employed a mixed-method approach, incorporating qualitative analysis of the interview responses and quantitative analysis of the questionnaire scores. The data collection process entailed the administration of questionnaires to children and teachers within the school setting during school hours, under the vigilant oversight of the research team. Informed consent was obtained from the parents, teachers, and school principals.

Data Analysis

Thematic Analysis

We employed in our study a bottom-up approach which was followed by a top-down process. Following Braun and Clarke (2006), we focused on the content of the interviews and identified consistent patterns.

We initially allowed themes to emerge organically from the data, capturing the children’s unique experiences. After this inductive phase, we applied a deductive approach by comparing these themes to literature derived categories. This approach ensured that the categories reflected and emphasized the specific experiences of the children while maintaining consistency with prior knowledge regarding sadness, enhancing understanding of the collected interviews.

Coding Process

The categories for events and coping strategies were established through an iterative process involving multiple rounds of discussion between two coders (first and second author) expert on TA and sadness topic (Saija et al., 2023, 2024a, 2024b). In the first step,

the researchers familiarized themselves with the data by reading the transcripts twice to understand both the immediate meaning and emerging nuances. Second, the two coders identified and marked with initial codes the key features of the data to capture significant aspects of sad events and coping strategies. Then, they discussed the emerging themes. Third, coders compared these themes with the existing literature on sadness coping. Fourth, themes were re-evaluated for accuracy and consistency with the coded data, ensuring they reflected the children's key experiences, and were again collaboratively discussed. Fifth, the themes were clearly named and defined in a coherent manner. Sixth, events and coping strategies were systematically coded.

The coders classified the data independently. When disagreements occurred—such as whether a sad event could be classified under two potential categories (e.g., hospitalization as either a separation event or an accident/illness event) or when children reported more than one coping strategy—the data was re-examined. Events and coping strategies were not always easily assignable to a single category. In some instances, children described using multiple strategies. For example, one child who had quarreled with a friend shared the following approach: “I looked for other friends, and so I tried to stop thinking about it.” In such cases, we prioritized identifying the primary intent behind the participant's actions. Through discussion and mutual agreement, the coders reached a consensus. Any disagreement was addressed, enabling the coders to align on the most representative aspects of each theme, to reach consensus on every category. This rigorous process of discussion and refinement helped to solidify a clear, reliable set of categories for the analysis.

Categories of Events, Coping Strategies and Inter-Rater Reliability

The events were coded into five categories: Bullying/quarrel includes interpersonal conflicts or negative peer interactions; frustration refers to situations where goals or desires are blocked; accident/illness involves events that cause physical harm or

health disruptions; separation indicates temporary or anticipated detachment from significant figures (e.g., parental travel); loss involves a permanent absence, such as the death of a loved one.

Children's responses regarding coping strategies were categorized into eight categories: emotion modulation, seeking-help, reappraisal, problem-solving, help received passively, avoidant strategies, emotion dysregulation, and inaction. Then, following Eisenberg et al. (1996), Kerns et al. (2007), Quiñones-Camacho and Davis (2019), Saija et al. (2023), and Skinner et al. (2003), coping strategies were classified into three overarching categories: a) constructive strategies, which involve active regulation efforts (emotional modulation, seeking help, reappraisal, problem-solving); b) disengagement strategies, which involve a conscious distraction from the stressor and passive behavior on receiving help given without be asked for (distraction strategies, help received passively); c) absence-of-coping strategies, which reflect the absence of any possible response to cope with the events (emotion dysregulation, inaction). The category ‘inaction’ was attributed to all the statements: *I did not do anything*.

To assess coding reliability, inter-rater reliability was computed for 64.4% of the total responses. Results revealed a high concordance coefficient for both events ($k = .84$) and coping strategies ($k = .94$). Events and coping strategies were shown in Table 1. A manual approach was chosen for coding and theme development due to the brevity of the interview responses. Despite the advantages of using specialized software, the manual approach enabled deeper, iterative engagement with the data, fostering nuanced interpretation and the organic emergence of themes through continuous, reflective analysis (Basit, 2003; Mattimoe et al., 2021).

Quantitative Analyses

To assess the hypotheses pertaining to differences in mean levels across different events and coping strategies, we employed an ANCOVA and a MANCOVA. In the ANCOVA model, mean differences were calculated on the cumulative attachment score. In

Table 1
Events and Coping Strategies

	Classifications	<i>n</i>	Quotation	
Events	Loss	143	When my grandfather died, and I went to his funeral.	
	Accidents/illness	139	When my sister broke her chin.	
	Frustration	115	For dinner my mom prepared fish sticks. I was hesitant because the breeding would come off whenever I picked up a piece of fish. So, I complained about it, and I know it sounds strange to complain about a piece of fish, but I did. My dad sent me to bed without dinner.	
	Bullying/quarrel	89	I felt sad when I had an argument with a friend of mine over something very silly, which hurt me. I hoped that we could make peace, but I have not succeeded: thus, we interrupted our friendship.	
	Experienced/anticipated separation	80	When I moved, I had to leave my father. I felt so sad.	
Coping strategies	Emotion modulation	88	I tried to calm down.	
	Constructive strategies	Seeking-help	83	I was seeking help from my teacher.
		Problem-solving	53	I made a letter for a child who had to change schools.
	Disengagement strategies	Reappraisal	32	I realized that I couldn't be sad for all my life.
		Avoidant strategies	112	I went to sleep and thought about other things.
		Help received passively	40	My mom consoled me
	Absence-of-coping strategies	Inaction	164	I didn't do anything.
Dysregulation		19	Cry a lot, and screamed very loud.	

the MANCOVA model, mean differences were calculated on the SDQ subscales. To control for the increased risk of Type I error due to multiple comparisons, Bonferroni posthoc analyses were applied. All statistical analyses were conducted using IBM SPSS 28. A posthoc power analysis for MANOVA was conducted to ascertain whether the sample size was sufficiently large to detect the effects of interest. Considering a small effect size ($f^2 = .15$) and an alpha probability of .05, the power analysis revealed that 517 participants ensure a robust ability to detect the anticipated effects with high precision ($\beta = 1.00$). Power analysis was conducted using G*Power version 3.1 (Faul et al., 2009).

Results

Qualitative Results

Events

Bullying/quarrel. Episodes involving bullying, teasing, peer exclusion, and conflicts with peers. The child reports having been ‘really’ sad and hurt, as the bullying behavior represented for him a wound not easily healed.

“One time when I felt really sad was when I was playing with kids from my neighborhood. Because I was young and didn’t say some words right, they made fun of me by copying the wrong sounds I made and laughing at me. They even included my brother, who wasn’t born yet, and said that both he and I were girls. So, I went back home crying because I felt hurt and upset.” (Male child, 10-years-old)

Frustration. Episodes that do not align with children’s desires or plans, such as parental prohibition of desired activities or instances where children received poor grades or harsh reproaches from parents or teachers. In this example, the sadness is related to a minor disappointment, and it is easily managed.

“I felt sad when my mother came to pick me up from dance earlier than usual because we had to go to the doctor.” (Female child, 10-years-old)

Accident/illness. Episodes involving children’s personal injuries, minor accidents, illnesses, and descriptions of someone they care about falling ill. In this example, a significant level of concern emerged regarding the episode in which a child’s mother fell and injured herself, leading to a state of intense agitation what was difficult to handle.

“If I think about a time when I felt sad, it was when my mom fell down the stairs while she was on her way to work.” (Male child, 9-years-old)

Experienced/anticipated separation. Episodes where children experience sadness due to past separations or fear of future separations, such as parental conflicts. In this example, profound sadness related to the absence emerges, as the girl described how much she missed her mother and how deeply she wished to hug her, which was difficult to handle

“My mother is almost always ill and frequently goes to the hospital. Once I felt sad because I couldn’t hug her and I missed her.” (Female child, 8-years-old)

Loss. Episodes where children experience the loss of a parent, relative, or pet. The sadness caused by the death of a loved one is particularly challenging for children to manage. This is evident

in this example, where the child clearly describes the difficulty in coping with this experience of loss.

“I was very sad when my grandfather passed away. It was really heartbreaking. I didn’t want him to go to the cemetery, I just wanted to be with him. I cried a lot, my tears wouldn’t stop, and it was a really tough time for me. The pain was so hard to handle, and I felt completely devastated”. (Male child, 8-years-old)

Coping

Emotional modulation. Strategy aimed at modifying negative emotional states to feel better. For instance, a child described his strategy to cope with a momentarily absent parent:

“I drank water and took deep breaths to calm down” (Female child, 9-years-old).

Seeking-help. Strategy involving seeking help, care, or consolation. For example, one child reported feeling better after asking their mother for help when they felt betrayed by a friend:

“I went to my mother, who wiped my tears away and comforted me” (Male child, 10-years-old).

Seeking-help can also involve seeking advice to resolve conflicts, as described by a child who narrated seeking guidance from parents:

“I talked to my parents about what happened and asked them for advice on how to handle it. As a result, I was able to make peace with my friend, and now we don’t argue as much anymore” (Female child, 8-years-old).

Reappraisal. Strategy that modify negative emotions through cognitive processes. It includes considering different aspects of a situation or focusing on possible positive outcomes. For example, a child described finding the positive side of a quarrel with friends as a way to feel better:

“I tried to find something positive in the situation, and it made me feel better” (Female child, 9-years-old).

Problem-solving. Strategy aimed at solving problems. It involves taking action to address and resolve challenges. For instance, after falling down while running, a child said:

“I took a bandage” (Male child, 7-years-old).

After being excluded, another child said:

“I called my friends to convince them to play in a different place” (Female child, 10-years-old).

Help received passively. Strategy where children receive help without actively seeking it. For example, a child described peers approaching and offering support when he missed his mother at school:

“The others [peers] came to me [without me asking]” (Male child, 10-years-old).

Distraction strategies. Strategy focused on diverting attention from sad situations and negative emotions. It includes engaging in activities such as playing games or watching television to shift focus. For example, one child reported the following strategy after being reproached by his parents:

“I didn’t think about it anymore” (Male child, 10-years-old).

Emotion dysregulation. It refers to the disruption of coping strategies and experiencing overwhelming negative emotions, showing dysregulated emotions such as crying excessively or yelling. For instance, a child described venting their emotions by

throwing their dolls aside during a quarrel with their mother:

"I got really upset and threw my dolls aside, then I went under the covers and wrapped myself and my blankets while facing the wall" (Female child, 10-years-old).

Inaction. Situations where children reported not taking any specific action to cope.

Quantitative Results

Attachment Security Scores Across Events and Coping Strategies

To test differences in attachment security across events and coping strategies, a 5×3 ANCOVA was conducted. Assumptions of homogeneity of variance were met, Levene's Test: $F(14, 502) = 1.124, p = .333$, and no multicollinearity was detected by the Variance Inflation Factor and the Tolerance indices. Age, $F(1, 500) = .23, p = .933, \eta^2 = .000$, and gender, $F(1, 500) = .81, p = .369, \eta^2 = .002$, were included as covariates but were not significant suggesting that they do not influence how attachment security is distributed across events and coping strategies in this sample.

The main effect of events was non-significant, $F(4, 500) = .77, p = .546, \eta^2 = .006$, showing a lack of variability in attachment security associated with the types of events reported by the children. Conversely, coping strategies had a significant, though modest, effect on attachment security, $F(2, 500) = 8.43, p < .001, \eta^2 = .033$, suggesting that coping strategies explain a small portion of the variance in attachment security. Bonferroni posthoc tests (Table 2, last row) showed that children using constructive strategies had higher attachment security levels than those employing disengagement or absence-of- coping, with no significant differences between the latter two.

The events×coping interaction was significant, $F(8, 500) = 2.20, p = .026, \eta^2 = .034$, accounting for a modest portion of the variance in attachment security. Bonferroni posthoc tests (Table 2) showed that during frustration, children using constructive or disengagement strategies had higher attachment security than those reporting absence-of- coping. For bullying/quarrels, children using constructive strategies had higher attachment security levels compared to those using disengagement or no coping strategies, with no differences between the latter two. For loss, children using constructive strategies had higher attachment security scores than those using disengagement, but neither differed from those reporting absence-of- coping. Thus, the lack of coping strategies for loss would be not indicative of different levels of attachment security. No significant differences were observed across strategies for accidents/illnesses or separation, suggesting coping strategies in these situations are not reflective of attachment security.

Psychopathological Symptoms Across Events and Coping Strategies

To test the hypothesis that children with fewer psychopathological symptoms would be more likely to use constructive strategies during sad events, a 5×3 MANCOVA was conducted to examine the effects of events and coping strategies on SDQ scores. Box's M test revealed a violation of the equality of covariance matrices assumption, Box's $M = 339.362, p < .001$. To address this, SDQ variables were log-transformed, improving covariance matrix equality, Box's M

$= 173.336, p = .082$. Pillai's Trace was used for its robustness to variance-covariance violations, particularly with unequal group sizes. Age, Pillai's trace $= .170, F(4, 496) = 2.16, p = .073, \eta^2 = .017$, and gender, Pillai's trace $= .087, F(4, 496) = 11.786, p < .001, \eta^2 = .087$, were included as covariates, with only gender significantly accounting for a moderate portion of the variance in the outcomes. Results showed a marginally significant multivariate main effect of events, Pillai's trace $= .051, F(16, 1996) = 1.60, p = .060, \eta^2 = .013$. Follow-up ANOVAs indicated this effect was primarily reflected in peer problems (see Table 3).

Table 2

Mean and Standard Error of Attachment Security Levels Across Events and Coping Strategies

	Constructive strategies	Disengagement strategies	Absence-of-coping strategies	Total events
	<i>M (SE)</i>	<i>M (SE)</i>	<i>M (SE)</i>	<i>M (SE)</i>
Bullying/quarrel	47.18 (0.88) _{ab}	41.73 (1.54) _a	43.49 (1.15) _b	44.13 (0.71)
Frustration	46.94 (0.9) _a	46.04 (1.09) _b	42.49 (0.95) _{ab}	45.16 (0.57)
Accidents/illness	45.96(0.74)	45.08 (1.08)	44.18 (1.02)	45.07 (0.55)
Loss	46.95(0.79) _a	43.48 (0.93) _a	44.98 (0.91)	45.14 (0.51)
Experienced/anticipated separation	45.32 (1.11)	47.11 (1.15)	45.05 (1.23)	45.83 (0.67)
Total coping strategies	46.47 (0.40) _{ab}	44.96 (0.52) _a	44.04 (0.47) _b	

Note. Values followed by the same subscripts are significantly different at the $p < .05$ level. Bonferroni corrections were applied to the pairwise comparisons.

Table 3

Univariate Effects of Coping Strategies and Sad Events on SDQ Scores

SDQ	Coping strategies		Sad events		Coping×Events	
	<i>F</i> _(2,499)	η^2	<i>F</i> _(4,499)	η^2	<i>F</i> _(8,499)	η^2
Emotional symptoms	0.45	.002	0.95	.004	7.71	.029
Conduct problems	1.01	.005	0.76	.004	7.42*	.035
Hyperactivity/ Distraction	1.62	.006	3.13	.011	8.98*	.030
Peer problems	3.65**	.018	4.65*	.023	5.33	.026

Note. * $p < .05$; ** $p < .01$.

Bonferroni posthoc tests revealed that children reporting episodes of bullying/quarrels had significantly higher peer problems ($M = .89; SE = .07$) than those reporting experienced/anticipated separations ($M = .56; SE = .07$). Marginal differences were observed when comparing bullying/quarrel reports with accidents/illnesses ($M = .62; SE = .06$) and loss ($M = .62; SE = .06$), but not with frustration ($M = .66; SE = .06$).

A significant multivariate main effect of coping strategies was found, Pillai's trace $= .033, F(8, 994) = 2.10, p = .034, \eta^2 = .017$, primarily within peer problems (see Table 3). Bonferroni posthoc tests showed that children employing no coping strategies ($M = .80, SE = .05$) showed significantly more peer difficulties compared to those using constructive strategies ($M = .62, SE = .04$) or disengagement ($M = .59, SE = .06$). No significant differences were observed between the latter two groups.

The MANCOVA revealed a significant events \times coping interaction effect, Pillai's trace = .112, $F(32, 1996) = 1.79$, $p = .004$, $\eta^2 = .028$. The small effect size suggests that the interaction between events and coping strategies accounted for a modest portion of the variance in the SDQ outcomes. Follow-up univariate ANOVAs showed significant interaction effects within the conduct problems and hyperactivity/distraction subscales (see Table 3). For both conduct problems and hyperactivity/distraction, children who faced frustration without coping strategies had significantly higher scores ($M = .76$, $SE = .11$ and $M = 1.11$, $SE = .13$, respectively) compared to those using constructive strategies ($M = .27$, $SE = .10$ and $M = .59$, $SE = .12$, respectively), but no significant differences were observed between children using disengagement strategies ($M = 1.00$, $SE = .33$ and $M = .84$, $SE = .14$, respectively) and the other groups (see supplementary materials for Bonferroni posthocs).

Discussion

The current study explored children's coping strategies for sad events, focusing on variations in attachment security and psychopathological symptoms. Results showed that the relationship between coping and attachment varied by event type. Children employing constructive or disengagement strategies for frustration showed higher attachment security levels than those using no strategies. For bullying/quarrels or loss, constructive strategies were associated with greater attachment security compared to disengagement or no coping. Regarding psychopathology, children using no coping strategies or reporting bullying episodes had higher peer problems. Those using no coping strategies for frustration had higher levels of conduct problems and hyperactivity/distraction symptoms compared to those using constructive strategies.

Children most frequently cited loss, especially of a loved one, as a source of sadness, followed by frustration, bullying/quarrels, and separation. These sources of sadness are well documented in the literature. Loss and separation, both attachment-related experiences (Bowlby, 1980), evoke sadness as an adaptive mechanism for reorganizing goals and mitigating emotional impact (Forgas, 2017; Lazarus, 1991). Sadness from accidents or illnesses arises naturally in response to pain, shaped by factors such as age, gender, temperament, and past experiences (Linder & Hooke, 2019; Pancekaukaitė & Jankauskaitė, 2018). Frustration stems from unmet expectations and blocked goals, leading to disappointment and sadness (Deveney et al., 2013; Leibenluft, 2011). Lastly, bullying and quarrels provoke sadness through feelings of victimization, isolation, and vulnerability (Camodeca & Gossens, 2005; Golmaryami et al., 2016).

Constructive strategies were the most frequently reported, followed by absence-of-coping, and disengagement strategies. Our findings suggest that securely attached children often use constructive strategies, such as problem-solving and reappraisal. For example, one securely attached child in the study reported feeling sad when his father broke his arm but coped by actively helping with tasks like cooking and to knot the tie. Another securely attached child described coping with the death of their dog by reflecting that the dog was no longer in pain and recalling happy memories shared with it. These examples highlight the active nature of their coping, both through tangible actions and reflective thought.

Regarding the relationships between coping strategies, events and attachment, results show interesting patterns. When dealing

with minor frustrations, children employing either constructive or disengagement strategies showed higher attachment security levels than those with absence-of-coping. Securely attached children may use constructive strategies or redirect their attention away from the source of sadness toward new goals, which helps avoid rumination over unmet expectations (Lindblom & Bosmans, 2022; Obeldobel et al., 2023; Pallini et al., 2019a, 2019b).

In contrast, episodes deeply tied to the attachment system, such as bullying, quarrels, or loss—events that involve significant emotional disruptions—revealed that children using constructive strategies had higher secure attachment scores compared to those employing disengagement or absence-of-coping. Loss, being especially critical for the attachment system, requires conscious emotional processing and caregiver support; distraction, in this context, can be maladaptive (Pallini et al., 2023; van der Kolk, 2015). During such events, securely attached children may hold positive expectations regarding the availability of others and trust in being comforted and protected (Bowlby, 1980; Lev-Ari & Levi-Belz, 2019; Parkes & Prigerson, 2013). They generally rely on the consistent support provided by their caregivers to deal with interpersonal difficulties and possess a sense of agency in effectively restoring relationships (Holmes, 2017; Main et al., 2011). Overall, securely attached children activate their attachment system, seeking comfort and support while effectively managing their emotions (Ainsworth et al., 1978; Holmes, 2017; Main et al., 2011). This emotional regulation may allow them to process pain constructively. Conversely, insecure children, particularly avoidant ones, struggle with attachment-related emotions and may suppress their need for support, making it harder for them to cope with such events (Bowlby, 1979; Cassidy, 1994).

Notably, in response to episodes of loss, children who did not use coping strategies did not significantly differ in attachment security scores from those using constructive or disengagement strategies. During loss, children naturally alternate between protesting or seeking help and adopting an unresponsive, undemanding attitude, a response described as the “natural result of the failure to bring about the attachment figure's return” (Fraley & Shaver, 2016, p. 42). Since no coping strategy can reverse the loss, both securely and insecurely attached children may experience feelings of helplessness (Bowlby, 1980). Besides, the association between attachment security and children's coping responses to separation and loss remains an important area for further research (Thompson et al., 2022).

Posthoc tests revealed that children with higher peer problems symptoms reported absence-of-coping more frequently than constructive strategies and disengagement. Additionally, children with high scores of peer problems, conduct problems and hyperactivity/distraction, more likely lack of coping strategies when faced bullying and frustration episodes. However, no difference was found in psychopathological symptoms among children who used constructive or disengagement strategies. This pattern aligns with theories of emotional regulation, coping and psychopathology development, which suggest that the absence-of-coping strategies can exacerbate emotional and behavioral dysregulation, creating a feedback loop that reinforces psychopathological symptoms (Thompson, 2019).

Posthoc tests highlighted that children with higher peer problems symptoms reported bullying/quarrels more frequently than experienced/anticipated separations. Moreover, difficulties

in peer relations are associated with bullying/quarrels and the inability to cope with these situations. Bullying, characterized by repeated experiences of exclusion, victimization, or aggression, can significantly harm a child's self-worth and social competence (Camodeca & Goossens, 2005; Golmaryami et al., 2016). This suggests the importance of adaptive coping strategies in mitigating the negative impact of bullying on children's social functioning. When children do not use coping strategies, they may react to bullying by withdrawing further, which exacerbates interpersonal challenges.

Moreover, children who lack coping strategies in the face of frustration showed significantly higher levels of conduct problems or hyperactivity/distraction than children who used constructive strategies. Both of these psychopathological symptoms involve low frustration tolerance and high levels of emotional reactivity (APA, 2013). Children with behavioral problems are typically impulsive and easily irritable in frustration tasks (Finlay-Jones et al., 2023). They have difficulty delaying tasks and in effortful control and inhibitory processes (Frick & Morris, 2004). All these aspects could explain the lack of strategies among children with conduct problems or hyperactivity/distraction to cope with frustration.

This study has several limitations. First, the use of convenience sampling limits the generalizability of the findings. Future research should include more diverse, clinically assessed samples for a broader understanding. Second, the cross-sectional design prevents tracking developmental trajectories or evaluating the long-term effectiveness of coping strategies. Longitudinal studies are needed to explore how coping strategies evolve and their impact on well-being and psychopathology over time. Third, the reliance on retrospective data limited the observation of children's real-time reactions to sad events. Incorporating real-time observation methods in future studies could provide deeper insights. Fourth, data on children's ethnic backgrounds and family socioeconomic status would help clarify the role of caregivers in shaping coping responses.

Despite these limitations, the study advances our understanding of children's coping strategies for sad events and provides a foundation for exploring their long-term effects on well-being and psychopathology. Its strength lies in combining qualitative data from interviews with quantitative data from multi-informant sources, offering valuable insights into children's experiences and emotional coping processes.

Author Contributions

Edoardo Saija: Conceptualization, Data Curation, Investigation, Resources, Visualization, Writing—original draft. **Susanna Pallini:** Conceptualization, Methodology, Project administration, Resources, Supervision, Writing—original draft. **Roberto Baiocco:** Methodology, Resources, Supervision, Writing—review and editing. **Salvatore Ioverno:** Formal Analysis, Resources, Visualization, Writing—review and editing.

Funding

This study did not receive any specific assistance from the public sector, the commercial sector, or non-profit organizations.

Declaration of Interests

The authors declare that there is no conflict of interest.

Data Availability Statement

Data and materials will be made available to the corresponding author.

References

- Abraham, M. M., & Kerns, K. A. (2013). Positive and negative emotions and coping as mediators of mother-child attachment and peer relationships. *Merrill-Palmer Quarterly*, 59(4), 399–425. <https://doi.org/10.13110/merrpalmquar1982.59.4.0399>
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ.
- Al-Halabi, S., & Fonseca-Pedrero, E. (2024). Editorial for special issue on understanding and prevention of suicidal behavior: Humanizing care and integrating social determinants. *Psicothema*, 36(4), 309–318. <https://doi.org/10.7334/psicothema2024.341>
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Arias, J. A., Williams, C., Raghvani, R., Aghajani, M., Baez, S., Belzung, C., Booij, L., Busatto, G., Chiarella, J., Fu, C. H., Ibanez, A., Liddell, B. J., Lowe, L., Penninx, B. W. J. H., Rosa, P., & Kemp, A. H. (2020). The neuroscience of sadness: A multidisciplinary synthesis and collaborative review. *Neuroscience & Biobehavioral Reviews*, 111, 199–228. <https://doi.org/10.1016/j.neubiorev.2020.01.006>
- Basit, T. (2003). Manual or electronic? The role of coding in qualitative data analysis. *Educational Research*, 45(2), 143–154. <https://doi.org/10.1080/0013188032000133548>
- Borelli, J. L., West, J. L., Weekes, N. Y., & Crowley, M. J. (2014). Dismissing child attachment and discordance for subjective and neuroendocrine responses to vulnerability. *Developmental Psychobiology*, 56(3), 584–591. <https://doi.org/10.1002/dev.21107>
- Bowlby, J. (1979). *The making and breaking of affectional bonds*. Tavistock.
- Bowlby, J. (1980). *Attachment and loss: Loss, sadness and depression*. Basic Books.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Brumariu, L. E. (2015). Parent-child attachment and emotion regulation. In G. Bosmans & K. A. Kerns (Eds.), *Attachment in middle childhood: Theoretical advances and new directions in an emerging field*. *New Directions for Child and Adolescent Development*, 148, 31–45. <https://doi.org/10.1002/cad.20098>
- Brumariu, L. E., Madigan, S., Giuseppone, K. R., Movahed Abtahi, M., & Kerns, K. A. (2018). The security scale as a measure of attachment: Meta-analytic evidence of validity. *Attachment & Human Development*, 20(6), 600–625. <https://doi.org/10.1080/14616734.2018.1433217>
- Brumariu, L. E., & Kerns, K. A. (2013). Pathways to anxiety: Contributions of attachment history, temperament, peer competence, and ability to manage intense emotions. *Child Psychiatry and Human Development*, 44, 504–515. <https://doi.org/10.1007/s10578-012-0345-7>

- Brumariu, L. E., Kerns, K. A., & Seibert, A. (2012). Mother-child attachment, emotion regulation, and anxiety symptoms in middle childhood. *Personal Relationships*, 19(3), 569–585. <https://doi.org/10.1111/j.1475-6811.2011.01379.x>
- Camodeca, M., & Goossens, F. A. (2005). Aggression, social cognitions, anger and sadness in bullies and victims. *Journal of Child Psychology and Psychiatry*, 46(2), 186–197. <https://doi.org/10.1111/j.1469-7610.2004.00347.x>
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, 56(2), 267–283. <https://doi.org/10.1037//0022-3514.56.2.267>
- Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. *Monographs of the Society for Research in Child Development*, 59(2–3), 228–249. <http://dx.doi.org/10.2307/1166148>
- Compas, B. E., Connor-Smith, J. K., Saltzman, H., Thomsen, A. H., & Wadsworth, M. (2001). Coping with stress during childhood and adolescence: Problems, progress, and potential in theory and research. *Psychological Bulletin*, 127(1), 87–127. <http://dx.doi.org/10.1037/0033-2909.127.1.87>
- Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., Williams, E., & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. *Psychological Bulletin*, 143(9), 939–991. <https://doi.org/10.1037/bul0000110>
- Contreras, J. M., Kerns, K. A., Weimer, B. L., Gentzler, A. L., & Tomich, P. L. (2000). Emotion regulation as a mediator of associations between mother-child attachment and peer relationships in middle childhood. *Journal of Family Psychology*, 14(1), 111–124. <https://doi.org/10.1037/0893-3200.14.1.111>
- Cooke, J. E., Kochendorfer, L. B., Stuart-Parrigon, K. L., Koehn, A. J., & Kerns, K. A. (2019). Parent-child attachment and children's experience and regulation of emotion: A meta-analytic review. *Emotion*, 19(6), 1103–1126. <https://doi.org/10.1037/emo0000504>
- Davis, E. L., Quiñones-Camacho, L. E., & Buss, K. A. (2016). The effects of distraction and reappraisal on children's parasympathetic regulation of sadness and fear. *Journal of Experimental Child Psychology*, 142, 344–358. <https://doi.org/10.1016/j.jecp.2015.09.020>
- Deveney, C. M., Connolly, M. E., Haring, C. T., Bones, B. L., Reynolds, R. C., Kim, P., Pine, D. S., & Leibenluft, E. (2013). Neural mechanisms of frustration in chronically irritable children. *American Journal of Psychiatry*, 170(10), 1186–1194. <https://doi.org/10.1176/appi.ajp.2013.12070917>
- Dubois-Comtois, K., Cyr, C., & Moss, E. (2011). Attachment behavior and mother-child conversations as predictors of attachment representations in middle childhood: A longitudinal study. *Attachment & Human Development*, 13(4), 335–357. <https://doi.org/10.1080/14616734.2011.584455>
- Eisenberg, N., Fabes, R. A., Karbon, M., & Murphy, B. C. (1996). The relations of children's dispositional prosocial behavior to emotionality, regulation, and social functioning. *Child Development*, 67(3), 974–992. <https://doi.org/10.2307/1131874>
- Edwards, A., Eisenberg, N., Spinrad, T. L., Reiser, M., Eggum-Wilkens, N. D., & Liew, J. (2015). Predicting sympathy and prosocial behavior from young children's dispositional sadness. *Social Development*, 24(1), 76–94. <https://doi.org/10.1111/sode.12084>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149–1160. <https://doi.org/10.3758/brm.41.4.1149>
- Finlay-Jones, A. L., Ang, J. E., Brook, J., Lucas, J. D., MacNeill, L. A., Mancini, V. O., Kottampally, K., Elliott, C., Smith, J. D., & Wakschlag, L. S. (2023). Systematic review and meta-analysis: Early irritability as a transdiagnostic neurodevelopmental vulnerability to later mental health problems. *Journal of the American Academy of Child & Adolescent Psychiatry*, 63(2), 184–215. <https://doi.org/10.1016/j.jaac.2023.01.018>
- Forgas, J. P. (2017). Can sadness be good for you? *Australian Psychologist*, 52(1), 3–13. <https://doi.org/10.1111/ap.12232>
- Fraley, R. C., & Shaver, P. R. (2016). Attachment, loss, and grief: Bowlby's views, new developments, and current controversies. In J. Cassidy & P. R. Shaver (3rd eds.), *Handbook of Attachment: Theory, Research, and Clinical Applications* (pp. 40–62). The Guilford Press.
- Frick, P. J., & Morris, A. S. (2004). Temperament and developmental pathways to conduct problems. *Journal of Clinical Child and Adolescent Psychology*, 33(1), 54–68. https://doi.org/10.1207/S15374424JCCP3301_6
- Gaylord-Harden, N. K., Taylor, J. J., Campbell, C. L., Kesselring, C. M., & Grant, K. E. (2009). Maternal attachment and depressive symptoms in urban adolescents: The influence of coping strategies and gender. *Journal of Clinical Child & Adolescent Psychology*, 38(5), 684–695. <https://doi.org/10.1080/15374410903103569>
- Golmaryami, F. N., Frick, P. J., Hemphill, S. A., Kahn, R. E., Crapanzano, A. M., & Terranova, A. M. (2016). The social, behavioral, and emotional correlates of bullying and victimization in a school-based sample. *Journal Of Abnormal Child Psychology*, 44, 381–391. <https://doi.org/10.1007/s10802-015-9994-x>
- Goodman, R. (1997). The strengths and difficulties questionnaire: A research note. *Journal of Child Psychology and Psychiatry*, 38(5), 581–586. <https://doi.org/10.1111/j.1469-7610.1997.tb01545.x>
- Harter, S. (1982). The perceived competence scale for children. *Child Development*, 53(1), 87–97. <https://doi.org/10.2307/1129640>
- Holmes, J. (2017). Roots and routes to resilience and its role in psychotherapy: A selective, attachment-informed review. *Attachment & Human Development*, 19(4), 364–381. <https://doi.org/10.1080/14616734.2017.1306087>
- House, H. P., Kochendorfer, L. B., Brumariu, L. E., & Kerns, K. A. (2023). Validating the negative emotion regulation inventory measure of emotion regulation for children in preadolescence. *The Journal of Early Adolescence*, 43(2), 244–259. <https://doi.org/10.1177/02724316221099>
- Iwanski, A., Lichtenstein, L., Mühling, L. E., & Zimmermann, P. (2021). Effects of father and mother attachment on depressive symptoms in middle childhood and adolescence: The mediating role of emotion regulation. *Brain sciences*, 11(9), 1153. <https://doi.org/10.3390/brainsci11091153>
- Jeronimus, B. F., & Laceulle, O.M. (2017). Frustration. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of Personality and Individual Differences* (pp. 1–8). Springer International Publishing. https://doi.org/10.1007/978-3-319-28099-8_815-1
- Kerns, K. A., Klepac, L., & Cole, A. (1996). Peer relationships and preadolescents' perceptions of security in the child-mother relationship. *Developmental Psychology*, 32(3), 457–466. <https://doi.org/10.1037/0012-1649.32.3.457>
- Kerns, K. A., Mathews, B. L., Koehn, A. J., Williams, C. T., & Siener-Ciesla, S. (2015). Assessing both safe haven and secure base support in parent-child relationships. *Attachment & Human Development*, 17(4), 337–353. <https://doi.org/10.1080/14616734.2015.1042487>

- Kerns, K. A., Abraham, M. M., Schlegelmilch, A., & Morgan, T. A. (2007). Mother-child attachment in later middle childhood: Assessment approaches and associations with mood and emotion regulation. *Attachment & Human Development*, 9(1), 33–53. <https://doi.org/10.1080/14616730601151441>
- Kobak, R., Zajac, K., Madsen, S. (2016) Disruptions in attachment bonds: Theory, assessment and reparative processes. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 25–39). Guilford Press
- Laible, D. J., & Thompson, R. A. (1998). Attachment and emotional understanding in preschool children. *Developmental Psychology*, 34(5), 1038–1045. <https://doi.org/10.1037/0012-1649.34.5.1038>
- Lazarus, R. S. (1991). Cognition and motivation in emotion. *American Psychologist*, 46(4), 352–367. <https://doi.org/10.1037/0003-066X.46.4.352>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company. <https://doi.org/10.4135/9781412952576.n198>
- Leibenluft, E. (2011). Severe mood dysregulation, irritability, and the diagnostic boundaries of bipolar disorder in youths. *American Journal of Psychiatry*, 168(2), 129–142. <https://doi.org/10.1176/appi.ajp.2010.10050766>
- Lev-Ari, L., & Levi-Belz, Y. (2019). Interpersonal theory dimensions facilitate posttraumatic growth among suicide-loss survivors: An attachment perspective. *Death Studies*, 43(9), 582–590. <https://doi.org/10.1080/07481187.2018.1504351>
- Lindblom, J., & Bosmans, G. (2022). Attachment and brooding rumination during children's transition to adolescence: The moderating role of effortful control. *Attachment & Human Development*, 24(6), 690–711. <https://doi.org/10.1080/14616734.2022.2071953>
- Linder, L. A., & Hooke, M. C. (2019). Symptoms in children receiving treatment for cancer—part II: Pain, sadness, and symptom clusters. *Journal of Pediatric Oncology Nursing*, 36(4), 262–279. <https://doi.org/10.1177/1043454219849578>
- López-Fernández, F. J., Moreno-Amador, B., Falcó, R., Soto-Sanz, V., Marzo, J. C., Ibáñez, M. I., Cervin, M., & Piqueras, J. A. (2024). Suicidal behavior, mental health, and stressful life events among adolescents. *Psicothema*, 36(4), 351–360. <https://doi.org/10.7334/psicothema2023.126>
- Madigan, S., Brumariu, L. E., Villani, V., Atkinson, L., & Lyons-Ruth, K. (2016). Representational and questionnaire measures of attachment: A meta-analysis of relations to child internalizing and externalizing problems. *Psychological Bulletin*, 142(4), 367–399. <https://doi.org/10.1037/bul0000029>
- Main, M. (2000). The organized categories of infant, child, and adult attachment: Flexible vs. inflexible attention under attachment-related stress. *Journal of the American Psychoanalytic Association*, 48(4), 1055–1096. <https://doi.org/10.1177/00030651000480041801>
- Main, M., Hesse, E., & Hesse, S. (2011). Attachment theory and research: Overview with suggested applications to child custody. *Family Court Review*, 49(3), 426–463. <https://doi.org/10.1111/j.1744-1617.2011.01383.x>
- Mattimoe, R., Hayden, M., Murphy, B., & Ballantine, J. (2021). Approaches to analysis of qualitative research data: A reflection on the manual and technological approaches. *Accounting, Finance & Governance Review*, 27(1), 1–16.
- McElwain, N. L., Holland, A. S., Engle, J. M., Wong, M. S., & Emery, H. T. (2015). Child-mother attachment security and child characteristics as joint contributors to young children's coping in a challenging situation. *Infant and Child Development*, 24(4), 414–434. <https://doi.org/10.1002/icd.1886>
- Miller, J. G., Nuselovici, J. N., & Hastings, P. D. (2016). Nonrandom acts of kindness: Parasympathetic and subjective empathic responses to sadness predict children's prosociality. *Child Development*, 87(6), 1679–1690. <https://doi.org/10.1111/cdev.12629>
- Milojević, H. M., Levine, L. J., Cathcart, E. J., & Quas, J. A. (2018). The role of maltreatment in the development of coping strategies. *Journal of Applied Developmental Psychology*, 54, 23–32. <https://doi.org/10.1016/j.appdev.2017.10.005>
- Morris, A. S., Silk, J. S., Morris, M. D., Steinberg, L., Aucoin, K. J., & Keyes, A. W. (2011). The influence of mother-child emotion regulation strategies on children's expression of anger and sadness. *Developmental Psychology*, 47(1), 213–225. <https://doi.org/10.1037/a0021021>
- Obeldobel, C. A., Brumariu, L. E., & Kerns, K. A. (2023). Parent-child attachment and dynamic emotion regulation: A systematic review. *Emotion Review*, 15(1), 28–44. <https://doi.org/10.1177/17540739221136895>
- Pallini, S., & Barcaccia, B. (2014). A meeting of the minds: John Bowlby encounters Jean Piaget. *Review of General Psychology*, 18(4), 287–292. <https://doi.org/10.1037/gpr0000016>
- Pallini, S., Baiocco, R., Schneider, B. H., Madigan, S., & Atkinson, L. (2014). Early child-parent attachment and peer relations: A meta-analysis of recent research. *Journal of Family Psychology*, 28(1), 118–123. <https://doi.org/10.1037/a0035736>
- Pallini, S., Chirumbolo, A., Morelli, M., Baiocco, R., Laghi, F., & Eisenberg, N. (2018). The relation of attachment security status to effortful self-regulation: A meta-analysis. *Psychological Bulletin*, 144(5), 501–531. <https://doi.org/10.1037/bul0000134>
- Pallini, S., Marella, D., Bove, G., Saija, E., Laghi, F., Barcaccia, B. (2023). Attachment and complicated grief: A retrospective study. *Psychology Hub*, 40(2), 25–30. <https://doi.org/10.13133/2724-2943/17989>
- Pallini, S., Morelli, M., Chirumbolo, A., Baiocco, R., Laghi, F., & Eisenberg, N. (2019a). Attachment and attention problems: A meta-analysis. *Clinical Psychology Review*, 74, 101772. <https://doi.org/10.1016/j.cpr.2019.101772>
- Pallini, S., Vecchio, G. M., Baiocco, R., Schneider, B. H., & Laghi, F. (2019b). Student-teacher relationships and attention problems in school-aged children: The mediating role of emotion regulation. *School Mental Health*, 11, 309–320. <https://doi.org/10.1007/s12310-018-9286-z>
- Pancekaskaitė, G., & Jankauskaitė, L. (2018). Paediatric pain medicine: Pain differences, recognition and coping acute procedural pain in paediatric emergency room. *Medicina*, 54(6), 94. <https://doi.org/10.3390/medicina54060094>
- Parkes, C. M., & Prigerson, H. G. (2013). *Bereavement: Studies of grief in adult life*. Routledge.
- Quiñones-Camacho, L. E., & Davis, E. L. (2019). Emotion regulation strategy knowledge moderates the link between cumulative stress and anxiety symptoms in childhood. *International Journal of Behavioral Development*, 43(4), 369–374. <https://doi.org/10.1177/0165025419833821>
- Saija, E., Ioverno, S., Baiocco, R., & Pallini, S. (2023). Children experiencing sadness: Coping strategies and attachment relationships. *Current Psychology*, 42, 14474–14483. <https://doi.org/10.1007/s12144-022-02771-2>
- Saija, E., Cervin, M., Baiocco, R., Barcaccia, B., Ioverno, S., & Pallini, S. (2024a). Dispositional and state sadness, interpersonal features, and

- internalizing/externalizing symptoms: A network analysis. *Journal of Applied Developmental Psychology*, 94, 101678. <https://doi.org/10.1016/j.appdev.2024.101678>
- Saija, E., Pallini, S., Baiocco, R., Pistella, J., & Ioverno, S. (2024b). Sharing, comforting, and helping in middle childhood: An explorative multimethod study. *Child Indicators Research*, 1–21. <https://doi.org/10.1007/s12187-024-10198-3>
- Shenaar-Golan, V., Yatzkar, U., & Yaffe, Y. (2021). Paternal feelings and child's anxiety: The mediating role of father-child insecure attachment and child's emotional regulation. *American Journal of Men's Health*, 15(6). <https://doi.org/10.1177/15579883211067103>.
- Shirai, M., Soshi, T., & Suzuki, N. (2021). Knowledge of sadness: Emotion-related behavioral words differently encode loss and failure sadness. *Current Psychology*, 40, 895–909. <https://doi.org/10.1007/s12144-018-0010-9>
- Skinner, E. A., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: a review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, 129(2), 216–269. <https://doi.org/10.1037/0033-2909.129.2.216>
- Spinrad, T. L., & Eisenberg, N. (2019). Socialization of moral emotions and behavior. In D. J. Laible, G. Carlo, & L. M. Padilla-Walker (Eds.), *The Oxford handbook of parenting and moral development* (pp. 57–71). Oxford University Press.
- Tabachnick, A. R., He, Y., Zajac, L., Carlson, E. A., & Dozier, M. (2022). Secure attachment in infancy predicts context-dependent emotion expression in middle childhood. *Emotion*, 22(2), 258–269. <https://doi.org/10.1037/emo0000985>
- Thompson, R. A., Simpson, J. A., & Berlin, L. J. (2022). Taking perspective on attachment theory and research: Nine fundamental questions. *Attachment & Human Development*, 24(5), 543–560. <https://doi.org/10.1080/14616734.2022.2030132>
- Thompson, R. A. (2019). Emotion dysregulation: A theme in search of definition. *Development and Psychopathology*, 31(3), 805–815. <https://doi.org/10.1017/S0954579419000282>
- Van der Kolk, B. A. (2015). *The body keeps the score: Brain, mind, and body in the healing of trauma*. Penguin Books.
- Verduyn, P., Résibois, M., & Massar, K. (2020). Sadness. In V. Zeigler-Hill & T. K. Shackelford (Eds.), *Encyclopedia of personality and individual differences* (pp. 4537–4540). Springer International Publishing. https://doi.org/10.1007/978-3-319-28099-8_550-1
- Wagh, C. E., Shing, E. Z., & Furr, R. M. (2020). Not all disengagement coping strategies are created equal: Positive distraction, but not avoidance, can be an adaptive coping strategy for chronic life stressors. *Anxiety, Stress, & Coping*, 33(5), 511–529. <https://doi.org/10.1080/10615806.2020.1755820>
- Webb, T. L., Miles, E., & Sheeran, P. (2012). Dealing with feeling: a meta-analysis of the effectiveness of strategies derived from the process model of emotion regulation. *Psychological Bulletin*, 138(4), 775–808. <https://doi.org/10.1037/a0027600>
- Zeman, J., Cameron, M., Price, N. (2019). Sadness in youth: Socialization, regulation, and adjustment. In V. LoBue, K. Pérez-Edgar, & K. A. Buss (eds) *Handbook of emotional development* (pp. 227–256). Springer. https://doi.org/10.1007/978-3-030-17332-6_10
- Zeman, J., Shipman, K., & Suveg, C. (2002). Anger and sadness regulation: Predictions to internalizing and externalizing symptoms in children. *Journal of Clinical Child and Adolescent Psychology*, 31(3), 393–398. https://doi.org/10.1207/S15374424JCCP3103_11
- Zimmer-Gembeck, M. J., Webb, H. J., Pepping, C. A., Swan, K., Merlo, O., Skinner, E. A., Avdagic, E., & Dunbar, M. (2017). Is parent-child attachment a correlate of children's emotion regulation and coping? *International Journal of Behavioral Development*, 41(1), 74–93. <https://doi.org/10.1177/0165025415618276>
- Zimmermann, P., & Iwanski, A. (2018). Development and timing of developmental changes in emotional reactivity and emotion regulation during adolescence. In P. M. Cole & T. Hollenstein (eds.), *Emotion regulation* (pp. 117–139). Routledge.