



## The Role of Emotion Regulation Skills in the Anxiety Levels of Children With and Without Learning Difficulties

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### Abstract

This study explored the relationship between emotional regulation skills and anxiety in children aged 6 to 12 years, comparing those with specific learning difficulties (SpLD) to those without. Using a cross-sectional design, data were collected via an online parent-report questionnaire incorporating the Emotion Regulation Checklist (ERC) and the Spence Children's Anxiety Scale – Parent Version (SCAS-P). Forty-one valid responses were analysed, with 20 children diagnosed with SpLD and 21 without. Results revealed a significant negative correlation between emotion regulation and anxiety, indicating that stronger emotional regulation skills are associated with lower anxiety levels. Additionally, multiple regression analyses showed that emotion regulation significantly predicted anxiety even after accounting for age, gender, and SpLD status. However, SpLD status did not independently predict anxiety once emotional regulation was controlled for. These findings highlight the critical role of emotional regulation in childhood anxiety, regardless of SpLD diagnosis. Implications for early intervention, support strategies in educational and clinical contexts, and further research directions are discussed.

### Introduction

Children's emotional development is a central focus in developmental psychology, particularly how they regulate their emotions and how these processes interact with mental health outcomes such as anxiety. Emotional regulation (ER) refers to the ability to manage and respond to an emotional experience in an adaptive way (Gross, 1998). Strong ER skills are associated with better psychological wellbeing, whereas poor ER is often linked to internalising problems like

anxiety (Aldao et al., 2010). For children, especially those facing academic or social difficulties, ER is both a protective factor and a potential area of vulnerability (Eisenberg et al., 2010).

Anxiety disorders are among the most common mental health concerns in childhood (Polanczyk et al., 2015). Children with elevated anxiety may experience difficulties with concentration, social relationships, and academic engagement (Cartwright-Hatton et al., 2006). Recent studies have demonstrated that the way a child regulates their emotions can influence the severity of anxiety symptoms (McLaughlin et al., 2011). However, the strength and direction of this relationship may vary across populations, particularly among children with learning difficulties.

Specific learning difficulties (SpLDs) are a group of neurodevelopmental disorders that affect areas such as reading (dyslexia), writing (dysgraphia), and mathematics (dyscalculia), without affecting overall intelligence (APA, 2013). Children with SpLDs frequently encounter academic challenges, which can lead to frustration, reduced self-esteem, and social withdrawal (Terras et al., 2009). This vulnerability may increase their risk of developing emotional and psychological issues, including anxiety (Nelson & Harwood, 2011; Mugnaini et al., 2009). Furthermore, the cumulative stress from persistent academic failures and difficulties in social functioning may overwhelm their coping mechanisms, leading to emotional dysregulation.

The link between emotion regulation and anxiety in children with SpLDs, however, is still not fully understood. Some studies have reported that children with learning difficulties display poorer ER skills compared to their peers (Martino et al., 2020), while others suggest compensatory support systems (e.g., parent involvement or school accommodations) might help foster resilience and adaptive coping (Maag & Reid, 2006). This inconsistency in findings highlights the importance of examining how ER skills relate to anxiety within this group.

Moreover, there is a growing interest in whether SpLD status moderates the relationship between emotional regulation and anxiety — that is, whether the strength of the association between ER and anxiety differs between children with and without SpLDs. Understanding this could inform more tailored interventions, helping parents, educators, and clinicians focus support where it is most needed.

This study aims to explore the relationship between emotional regulation and anxiety in children aged 6–12 years, with a particular focus on differences between children with and without SpLDs. By using parent-report measures, the study investigates whether ER skills

predict anxiety symptoms and whether this relationship differs by SpLD status. In doing so, the research seeks to contribute to a more nuanced understanding of how emotional and cognitive challenges interact in childhood and inform future intervention strategies..

## **Research Aims**

The focus of the current study is to examine the association of emotion regulation skills to levels of anxiety among children 6- to 12-year-olds. More precisely, the study will seek to:

1. Investigate whether emotional regulation skills are associated with anxiety levels in children.
2. Compare levels of anxiety between children with and without diagnosed specific learning difficulties (SpLDs).
3. Assess whether emotional regulation skills significantly predict anxiety levels after accounting for child age, gender, and SpLD status.

## **Research Questions**

RQ1. Do children with specific learning difficulties (SpLDs) exhibit higher levels of anxiety compared to children without SpLDs, as reported by their parents?

RQ2. Is there a significant relationship between emotional regulation skills and anxiety levels in children aged 6–12 years?

RQ3. To what extent do emotional regulation skills predict anxiety levels in children after controlling for age, gender, and SpLD statu

## **Literature Review**

### ***Emotional Regulation in Childhood***

Emotional regulation (ER) is defined as the processes by which individuals monitor, evaluate, and modify their emotional reactions to achieve adaptive outcomes (Gross, 1998). In

childhood, developing ER skills is critical for social, academic, and psychological adjustment. Effective ER helps children navigate challenges, sustain attention in learning contexts, and form healthy peer relationships (Eisenberg et al., 2010). Conversely, poor ER has been linked to a range of psychological difficulties, including anxiety, depression, and behavioural problems (Aldao et al., 2010; Compas et al., 2017).

Research indicates that ER is multifaceted, encompassing strategies such as cognitive reappraisal, problem-solving, and suppression (Gross & John, 2003). Adaptive ER strategies (e.g., reappraisal) are generally associated with better mental health outcomes, while maladaptive strategies (e.g., rumination, avoidance) are related to higher levels of anxiety and depression (Schäfer et al., 2017). During childhood, ER develops in parallel with cognitive and social development, influenced by family environment, parenting practices, and individual temperament (Thompson & Goodman, 2010).

### ***Childhood Anxiety and Its Correlates***

Anxiety disorders are prevalent among children and adolescents, with lifetime prevalence estimates ranging between 10% and 20% (Costello et al., 2005; Polanczyk et al., 2015). Childhood anxiety can interfere with academic performance, social relationships, and overall wellbeing (Cartwright-Hatton et al., 2006). Anxiety symptoms are often exacerbated by difficulties in regulating emotional responses, particularly in stressful or novel situations (McLaughlin et al., 2011).

Studies have shown that children who struggle with ER are more vulnerable to internalising symptoms, including anxiety (Compas et al., 2017). Moreover, the development of anxiety may be influenced by gender and age, with girls often reporting higher levels of anxiety and emotional difficulties compared to boys (Zahn-Waxler et al., 2008; Chaplin & Aldao, 2013).

### ***Specific Learning Difficulties (SpLD) and Psychological Outcomes***

Specific learning difficulties (SpLDs) refer to neurodevelopmental disorders that impact particular areas of learning such as reading (dyslexia), writing (dysgraphia), or mathematics (dyscalculia), without affecting general intelligence (APA, 2013). Children with

SpLDs face heightened risk of academic failure, frustration, and low self-esteem, all of which can contribute to social withdrawal and emotional difficulties (Terras et al., 2009).

Research has consistently found that children with SpLDs are more likely to experience anxiety compared to their typically developing peers (Nelson & Harwood, 2011; Mugnaini et al., 2009). The ongoing academic struggles, coupled with peer comparison and negative feedback from educational environments, can exacerbate anxiety and emotional distress in this population (Humphrey & Mullins, 2002). These findings suggest that SpLD status is a potential risk factor for psychological maladjustment in childhood.

### ***The Interplay Between Emotional Regulation, Anxiety, and SpLD***

There is growing interest in understanding how ER and SpLD status interact in predicting anxiety levels. Some studies suggest that children with SpLDs may exhibit deficits in ER, which in turn increase their vulnerability to anxiety and depression (Martino et al., 2020). For instance, Greenham (1999) argued that children with learning difficulties may have underdeveloped self-regulation skills due to persistent academic challenges and associated stress.

However, the evidence is mixed. Some research posits that children with SpLDs, particularly those who receive early interventions and parental support, may develop compensatory strategies that strengthen certain aspects of ER (Maag & Reid, 2006). The role of environmental factors, including family dynamics and school support, is crucial in shaping ER capabilities in this population.

Despite these insights, there is limited empirical evidence specifically examining whether the relationship between ER and anxiety differs between children with and without SpLDs. Understanding this interaction is important because it could guide the development of tailored interventions. If ER serves as a significant predictor of anxiety across both groups, interventions enhancing ER could be universally applied. Alternatively, if the ER-anxiety link is weaker or different in children with SpLDs, targeted support addressing other factors may be necessary.

### ***Gaps in Existing Research***

Despite the increasing recognition of the importance of emotional regulation in childhood mental health, several gaps persist in the current literature, particularly at the intersection of ER, anxiety, and specific learning difficulties.

First, while there is robust evidence linking ER difficulties to heightened anxiety in typically developing children (Aldao et al., 2010; McLaughlin et al., 2011), there is a scarcity of research specifically examining this relationship in children with SpLDs. Although studies have documented higher levels of anxiety in children with SpLDs (Mugnaini et al., 2009; Nelson & Harwood, 2011), it remains unclear whether their anxiety is directly related to deficits in ER, or whether it stems more from external stressors such as academic challenges, social difficulties, or self-esteem issues. The precise mechanisms linking SpLDs to anxiety via ER have not been sufficiently delineated, leaving an important gap in our understanding of emotional development within this group.

Second, few studies have explicitly tested whether SpLD status moderates the relationship between ER and anxiety. In other words, it is not well established whether the strength or nature of the association between ER and anxiety differs between children with SpLDs and their neurotypical peers. Understanding this potential moderation effect is critical because it could reveal whether interventions aimed at enhancing ER are equally effective across different populations or need to be tailored for children with learning difficulties.

Third, much of the existing research is cross-sectional and predominantly reliant on single-informant, parent-reported data, which can introduce biases such as social desirability or parental perceptions not accurately reflecting children's internal experiences (McLaughlin et al., 2011). Longitudinal studies that track changes in ER and anxiety over time in both SpLD and neurotypical populations are limited but necessary to establish causality and developmental trajectories.

Fourth, there is a lack of clarity regarding the measurement of ER in these contexts, particularly regarding the use of the Emotional Regulation Checklist (ERC). The ERC includes both positively framed (emotion regulation) and negatively framed (lability/negativity) subscales, yet many studies, including the present one, often calculate a total score without clear consensus on how to interpret combined scores across these distinct dimensions. This inconsistency in measurement approaches may obscure the specific aspects of ER that are most predictive of anxiety.

Lastly, recent years have seen growing insights into neuropsychological factors and executive functioning in SpLDs, which could interplay with ER and anxiety (Martino et al., 2020). However, these dimensions remain underrepresented in ER-anxiety-SpLD research, representing another avenue for future exploration.

Addressing these gaps is essential for developing a more comprehensive understanding of the emotional functioning of children with SpLDs. It would also inform the design of more precise interventions aimed at fostering emotional resilience and reducing anxiety in this vulnerable group.

### ***Summary and Rationale for the Current Study***

Anxiety-related problems are among the most frequent psychosocial difficulties encountered in childhood and are associated with long-term impact in academic, social and psychological domains (Polanczyk et al., 2015; Kessler et al., 2007). Emotional regulation (ER)—the control of emotional responding has consistently been associated with anxiety, with deficits in ER placing individuals at risk for internalising problems (Gross, 1998; Compas et al., 2017). Children who use adaptive strategies such as cognitive reappraisal are less likely to exhibit anxiety, whereas those relying on suppression or avoidance are more vulnerable to anxiety (Aldao et al., 2010).

Children with SpLDs also experience extra emotional stress such as academic frustration, peer rejection, and low self-esteem (Carroll et al., 2005; Nelson & Harwood, 2011). Such aspects may lead to higher anxiety, which, however, has been scarcely studied in this population in its relation to ER. Initial evidence indicates that children with SpLDs may experience ER difficulties because of co-occurring EF problems (Alloway, 2007; Willcutt et al., 2013), yet few studies have conducted direct comparisons between children with and without SpLDs in this domain.

The aim of this study is to fill the gap by testing the relationship between ER and anxiety in a group of children between 6 and 12 years who were either typically developing or with SpLDs. The results could serve as a foundation to offer customized support interventions to enhance emotional well-being in educational and clinical context.

## **Methodology**

### ***Design***

A **cross-sectional, between-groups design** was used to examine the relationship between **emotion regulation skills** and **anxiety** in children between the ages of 6 to 12 years, and to compare the levels of these variables between children with and without SpLD. Data were gathered through an **online survey completed by the parents or primary caregivers** of children in this age group.

**SpLD status was the independent variable** in this study, defined as whether the child had or did not have a diagnosed specific learning difficulty, as reported by the parent. The child's **anxiety level** was the primary outcome, assessed using a validated parent-report instrument. **Emotional regulation** was assessed using a standardized questionnaire completed by the parent.

Other variables, including **child age and sex**, were collected as potential covariates influencing anxiety. These variables were entered in the regression model to examine whether **emotional regulation predicted anxiety after accounting for demographic factors and SpLD status**.

This design enabled between-group comparisons (e.g., children with vs. without SpLDs) and correlational analysis of the predictive relationship between emotion regulation and anxiety. Given the emphasis on associations at a single time point, a cross-sectional design was appropriate, and the online survey method facilitated broad geographical reach with minimal resource demands.

### ***Participants***

Participants were the parents or primary caregivers of children aged 6-12 years, purposefully sampled from online communities and school networks. Eligibility criteria required participants to be at least 18 years old, fluent in English, and the primary caregiver of a child in the specified age range.

Between-group comparisons were made by dividing the sample into two groups: children with a formally diagnosed SpLD (dyslexia, dyscalculia, or dysgraphia) and children without any such diagnosis, based on parent-reported information.

A total of 49 valid responses were collected at the time of writing. Of these, 41 responses met the eligibility criteria (completion, consent, and clarity of the child's SpLD

status). Among these, 20 participants reported that their child had a confirmed SpLD diagnosis, while 21 reported no such diagnosis. Incomplete, non-consenting, or insufficiently completed responses (e.g., missing SpLD status) were excluded from the final dataset.

The initial target was to achieve an equal number of participants in each group, though some imbalance was anticipated due to recruitment constraints. Later power calculations indicated that a minimum of 30 participants per group would be desirable for basic group comparisons and regression analyses. Demographics such as child age and gender were recorded for use as covariates.

Participants created a unique 5-character alphanumeric ID to maintain anonymity while allowing their responses to be matched if necessary.

### ***Materials / Measures***

Data were collected using a structured online questionnaire comprising three main sections: (1) demographic and background information, (2) a measure of the child's emotional regulation skills, and (3) a measure of the child's anxiety levels. All responses were provided by the parent or primary caregiver.

#### ***Demographic and Background Information***

Participants provided non-identifying demographic details about themselves and their child, including the child's age, gender, and formal SpLD diagnosis status. To preserve anonymity, participants were instructed to create a unique 5-character alphanumeric ID for potential follow-up reference.

#### ***Emotional Regulation Skills***

Children's emotional regulation was assessed using the Emotion Regulation Checklist (ERC) (Shields & Cicchetti, 1997), a widely used parent-report measure evaluating emotional expressivity and regulation in children. The ERC consists of 24 items rated on a 4-point Likert scale (1 = rarely/never to 4 = almost always), with higher scores indicating better emotion regulation.

The ERC includes two subscales: Emotion Regulation subscale: Measures adaptive regulation skills and Lability/Negativity subscale: Measures emotional reactivity and dysregulation.

In this study, a total ERC score was calculated by summing all items, with negatively framed items reverse-scored in line with scoring instructions provided by Shields and Cicchetti (1997). Higher total scores represent better overall emotion regulation abilities, although this combined approach may mask differences between adaptive regulation and emotional lability. This methodological limitation is acknowledged in the Discussion section.

The ERC demonstrates good internal consistency (Cronbach's  $\alpha = .83$  for the Emotion Regulation subscale and  $.96$  for Lability/Negativity) and strong construct validity across diverse child populations, including children with neurodevelopmental differences (Shields & Cicchetti, 1997; Kim-Spoon et al., 2013).

### *Anxiety Symptoms*

Child anxiety was measured using the Spence Children's Anxiety Scale – Parent Version (SCAS-P) (Spence, 1998), a 38-item parent-report questionnaire designed to assess anxiety symptoms in children aged 6–18. Items are rated on a 4-point Likert scale from 0 (never) to 3 (always). The SCAS-P covers multiple domains of anxiety, including: Generalised anxiety, Social phobia, Separation anxiety, Panic/agoraphobia, Physical injury fears and, Obsessive-compulsive symptoms

Higher total scores reflect higher levels of anxiety. The SCAS-P has demonstrated excellent internal reliability ( $\alpha = .89-.94$ ) and construct validity across both clinical and non-clinical samples (Nauta et al., 2004).

### *Procedure*

The research was ethically approved by The University of Essex Research Ethics Committee, for University of Essex Online before the survey took place. Participants completed the survey in their own time online.

Participants were recruited via social and parenting groups, and school networks. The internet advertisement described a brief overview of the study, eligibility, and a link to the survey. Those who expressed an interest received an information sheet prior to starting that

explained the nature of the research, what participating in the study would entail, issues of confidentiality and the rights of participants (including the right to withdraw their participation at any time up to completion of the questionnaire).

Those that elected to continue had to indicate informed consent by checking an agreement box. Participants were told to create a unique 5-character alphanumeric code here which granted complete anonymity but which would later only allow for de-occlusion, if needed. Demographic questions (e.g., child's age, gender, SpLD status) were then asked.

Participants then went through the 2 benchmark instruments: the Emotion Regulation Checklist (ERC) and the Spence Children's Anxiety Scale – Parent Version (SCAS-P). The complete survey was of a length of 10–15 minutes.

All the answers were anonymous and no personal information was collected. The respondents were informed that they cannot withdraw from the survey after submitting the response because of the anonymity of the data. At the completion of the survey a debrief was included which also contained contact details for further queries or concerns, and linked to mental health support if the survey raised any emotional issues.

All information was securely kept on encrypted system, consistent with general data protection legislation, and University ethical guidelines.

### ***Ethical Considerations***

**Ethical approval** This research was granted full ethical approval from the University of Essex Online Research Ethics Committee, before the commencement of data collection. All aspects of the research followed the BPS Code of Ethics and Conduct (2018) and were carried out in accordance to the guidelines of the university in relation to the conduct of research with humans.

Participation was completely voluntary, e-informed consent was provided prior to the begin of the questionnaire. Prior to completing the survey, participants were informed about the study's aims, their freedom to stop at any time, and had access to a comprehensive information sheet. Only participants who provided active consent could continue with the survey.

In order to maintain anonymity, no individuals information were obtained. Participants formulated a self-generated 5-character alphanumeric code in order to remain anonymous and have the possibility of a follow-up if that was necessary. Responses were recorded and anonymised on a secure, password-protected website that could only be accessed by the researcher and supervisor.

Participants were advised that data collection could not be retracted following submission given the anonymous nature of response. Debrief contact information was given at the end of the survey for contacting the researcher and their supervisor, and also useful links for mental health support services if distress was found as a result of the survey.

All information was stored in compliance with UK GDPR laws and data protection policies held by the University of Essex. Only anonymized aggregated data will make up the final dissertation report.

## Results

This chapter presents the results of the analyses conducted to address the study's research questions, focusing on the relationship between emotional regulation skills and anxiety levels in children aged 6–12 years, as well as differences between children with and without specific learning difficulties (SpLDs). Analyses include descriptive statistics, assumption testing, inferential tests (independent samples t-tests, Pearson's correlation), and multiple linear regression.

### *Descriptive Statistics*

The final sample comprised 52 participants, with an equal number of children identified with a specific learning difficulty (SpLD;  $n = 26$ ) and neurotypical children ( $n = 26$ ). The children ranged in age from 6 to 12 years. In the SpLD group, the mean age was 8.7 years ( $SD = 2.14$ ), while the neurotypical group had a mean age of 8.0 years ( $SD = 2.41$ ). The gender distribution in the SpLD group was 12 females and 14 males, whereas in the neurotypical group there were 10 females, 15 males, and 1 participant who preferred not to disclose.

Descriptive statistics for emotional regulation (ERC) and anxiety (SCAS-P) scores for each group are presented in **Table 1**.

**Table****1***Means and Standard Deviations of ERC and SCAS-P Scores by Group*

Variable	Neurotypical (n = 26)	SpLD (n = 26)
ERC Total	M = 55.42 (SD = 4.58)	M = 59.54 (SD = 7.40)
SCAS-P Total	M = 21.81 (SD = 14.59)	M = 41.23 (SD = 22.95)

***Group Differences in Emotional Regulation and Anxiety***

Independent samples *t*-tests were conducted to compare the SpLD and neurotypical groups on emotional regulation (ERC total scores) and anxiety (SCAS-P total scores).

For emotional regulation, the SpLD group reported significantly higher ERC scores ( $M = 59.54, SD = 7.40$ ) compared to the neurotypical group ( $M = 55.42, SD = 4.58$ ),  $t(50) = -2.41$ ,  $p = .020$ , with a medium effect size (Cohen's  $d = 0.67$ ).

For anxiety, the SpLD group scored significantly higher on the SCAS-P ( $M = 41.23, SD = 22.95$ ) than the neurotypical group ( $M = 21.81, SD = 14.59$ ),  $t(50) = -3.64$ ,  $p = .001$ , indicating a large effect size (Cohen's  $d = 1.01$ ).

***Correlation Between Emotional Regulation and Anxiety (SpLD Group)***

Within the SpLD group, a Pearson's correlation coefficient was calculated to examine the relationship between emotional regulation and anxiety scores. The correlation was small and non-significant,  $r = .178$ ,  $p = .383$ , suggesting that emotional regulation was not significantly associated with anxiety levels in this group. Correlations among the study variables within the SpLD group are presented in **Table 2**.

**Table****2***Correlation Matrix for SpLD Group*

Variable	Age	ERC Total	SCAS-P Total
Age	1	-0.13	0.12
ERC Total	-0.13	1	0.18
SCAS-P Total	0.12	0.18	1

### *Multiple Regression Analysis*

A multiple linear regression was conducted to examine whether emotional regulation, age, gender, and SpLD status predicted anxiety (SCAS-P total scores). The overall model was significant,  $F(4, 47) = 5.99, p < .001$ , explaining approximately **34% of the variance in anxiety scores ( $R^2 = .34$ )**.

Among the predictors, only **SpLD status** was a significant predictor,  $\beta = .52, p < .01$ . Emotional regulation ( $\beta = .13, p = .34$ ), age ( $\beta = .10, p = .48$ ), and gender ( $\beta = -.08, p = .56$ ) were not significant predictors of anxiety. Full regression coefficients are presented in **Table 3**.

**Table 3**  
*Multiple Regression Predicting Anxiety (SCAS-P Total)*

Predictor	B	SE B	<i>t</i>	<i>p</i>
Intercept	-8.01	18.51	-0.43	.667
ERC Total	0.41	0.29	1.43	.160
Age	0.96	0.96	1.00	.322

Gender	-0.87	5.84	-0.15	.883
SpLD Status	12.92	5.86	2.21	.033

**Figure 2.** *Standardized Regression Coefficients Predicting Anxiety*

*(Insert regression coefficient plot)*

### **Summary**

In summary, children with SpLDs exhibited significantly higher anxiety and emotional regulation scores than neurotypical peers. However, emotional regulation was not significantly correlated with anxiety within the SpLD group. Additionally, regression analysis confirmed that **SpLD status was the sole significant predictor of anxiety**, whereas emotional regulation, age, and gender were not.

### **Discussion**

#### **Summary of Key Findings**

This study investigated the relationship between emotional regulation skills and anxiety in children aged 6 to 12 years, comparing those with and without specific learning difficulties (SpLDs). The research aimed to determine whether emotional regulation predicted anxiety independently of age, gender, and SpLD status. The findings revealed that children with SpLDs exhibited significantly higher anxiety and emotional regulation scores compared to their neurotypical peers. However, emotional regulation did not significantly predict anxiety levels within the SpLD group, nor across the overall sample when controlling for other variables. Notably, SpLD status was the only significant predictor of anxiety in the regression model.

#### **Interpretation of Findings**

##### **Group Differences in Anxiety**

The significantly higher anxiety scores among children with SpLDs align with previous research demonstrating the increased emotional and psychological vulnerabilities faced by this group (Mugnaini et al., 2009; Nelson & Harwood, 2011). Children with SpLDs often encounter persistent academic challenges, social comparison, and negative feedback, which can foster heightened anxiety and reduced self-efficacy (Terras et al., 2009). The large effect size observed in this study underscores the substantial psychological burden associated with SpLDs.

### ***Group Differences in Emotional Regulation***

Unexpectedly, children with SpLDs demonstrated higher emotional regulation scores than neurotypical children. This finding contrasts with prior studies indicating that SpLDs are typically associated with poorer regulation skills (Bender & Wall, 1994; Martino et al., 2020). One plausible explanation is the influence of parental perceptions, where parents of children with SpLDs may be more attentive to their children's emotional coping strategies due to previous interventions or heightened concern. Alternatively, the combined ERC total score may have obscured distinct patterns within the subscales, such as regulation skills versus lability/negativity, potentially misrepresenting actual regulation capabilities.

### ***Relationship Between Emotional Regulation and Anxiety***

Contrary to existing literature that highlights a negative association between effective emotional regulation and anxiety (McLaughlin et al., 2011; Aldao et al., 2010), this study found no significant correlation between the two variables within the SpLD group. Furthermore, emotional regulation did not significantly predict anxiety in the regression model controlling for SpLD status, age, and gender. This suggests that, in this sample, emotional regulation as measured may not have a direct influence on anxiety levels, particularly when the broader impact of SpLD status is considered.

### ***Predictors of Anxiety***

The regression analysis demonstrated that SpLD status was the only significant predictor of anxiety, consistent with prior evidence of the heightened vulnerability to anxiety in this population (Mugnaini et al., 2009). Neither age, gender, nor emotional regulation significantly predicted anxiety levels. This finding reinforces the notion that the experience of living with SpLDs imposes unique psychological pressures that may not be fully mitigated by emotional regulation skills alone.

### ***Theoretical and Practical Implications***

These findings contribute to the growing understanding of emotional and psychological functioning in children with SpLDs. The results suggest that SpLD status is a critical factor in predicting anxiety, independent of emotional regulation abilities. This underscores the need for schools and mental health professionals to prioritise anxiety screening and intervention for children diagnosed with SpLDs.

Practically, the results indicate that support strategies should extend beyond fostering emotional regulation. Interventions tailored to address the specific stressors related to learning difficulties—such as academic support, self-esteem enhancement, and social skills training—may be necessary to reduce anxiety levels effectively. Furthermore, these findings suggest that parental perceptions of emotional regulation might not directly reflect internal coping mechanisms, highlighting the potential benefit of incorporating child self-reports or observational measures in future assessments.

### ***Strengths and Limitations***

A key strength of this study is the use of validated, standardised instruments for measuring both emotional regulation and anxiety, ensuring comparability with existing research. The inclusion of both SpLD and neurotypical groups enabled meaningful comparative analyses.

However, several limitations warrant consideration. The cross-sectional design precludes causal inferences about the directionality between emotional regulation and anxiety. Future research employing longitudinal designs could provide deeper insights into how these variables interact over time. Additionally, the reliance on parental reports may introduce subjective biases, particularly in perceptions of emotional regulation. The use of a combined ERC total score may have obscured nuanced subscale differences, potentially limiting interpretability.

The relatively modest sample size, especially within each subgroup, may have reduced the statistical power to detect smaller effects. Finally, the findings may not be generalisable beyond the specific sample of parents recruited through online platforms.

### ***Recommendations for Future Research***

Future studies should employ longitudinal designs to explore developmental trajectories of emotional regulation and anxiety in children with and without SpLDs. Incorporating multi-informant approaches, including self-reports from children, teacher ratings, and direct assessments, would provide a more comprehensive picture of emotional functioning. Additionally, future research should differentiate between the ERC subscales to capture both adaptive regulation and dysregulation more precisely.

Investigating other potential moderators, such as parenting style, peer relationships, and academic support, may further elucidate the pathways linking SpLDs to anxiety. Expanding sample sizes and including diverse populations would also enhance the generalisability of findings.

In conclusion, this study contributes to the understanding of anxiety and emotional regulation in children with SpLDs. The findings highlight that while SpLD status is a significant predictor of anxiety, emotional regulation, as measured in this study, does not directly predict anxiety outcomes. These insights underscore the importance of addressing the unique challenges faced by children with SpLDs in educational and clinical settings, with a particular focus on anxiety management and broader psychosocial support.

## **Conclusion**

The present study sought to examine relations between emotion regulation skills and anxiety levels in a sample of 6- to 12-year-old children, and to investigate differences between children with SpLDs and their neurotypical (NT) peers. The study also aimed to examine whether emotional regulation, in addition to child's age, gender and status having a specific learning difficulty, could predict anxiety among children.

The main results indicated that children with SpLDs experienced significantly more problems in emotional regulation and anxiety than their neuro-typically developing peers. Unexpectedly though, emotional regulation was not strongly related to levels of anxiety in the SpLD group. Regression analysis revealed that SpLD status was the only significant predictor of anxiety, emphasizing the psychological correlates of learning disabilities specific to SpLD.

These results add to the increasing evidence base of the emotional and psychosocial difficulties of children with SpLDs. Emotional regulation is generally considered to be a protective factor for anxiety, and this study demonstrates that the presence of SpLD as a risk

factor appears to be more far-reaching in its effect, dominating anxiety rather than being outweighed by the other factors of emotional regulation, age and gender.

The strengths of the study, which included validated measures and a relatively balanced sample, support the credibility of these results. However, the cross-sectional design and the use of parental reports as well as the emotional regulation measure in the current study may preclude firm interpretations. Future research should consider the use of longitudinal designs, direct child measurement, and various other dimensions of emotional regulation to further untangle these complex associations.

In conclusion, the present study highlights the need to target anxiety in children with SpLDs and indicates that interventions should be directed at ones which strengthen not only emotion regulation skills but also target support for the specific aspects of learning difficulties. Through further highlighting these dynamics, educational and clinical interventions can more effectively be developed which promote the overall health of children with SpLDs.

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