Self-Esteem and Learning Disabilities: A Systematic Review of Psychological, Social and Educational Interventions

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Abstract

Background: Self-esteem is a pivotal yet fragile factor influencing the learning and psychosocial outcomes of students with learning disabilities (LD). Although widely discussed, evidence has been inconsistent and dispersed across cultural and methodological contexts.

Methods: This systematic review followed PRISMA 2020 guidelines. Databases search identified 54 records from Scopus and Web of Science, of which eight studies published between 2008 and 2023 met the inclusion criteria. The studies were synthesized into three domains, psychological dimensions, social support and educational interventions.

Results: Findings revealed consistent psychological vulnerabilities. Students with LD reported lower academic self-concept than peers, while large-scale evidence showed overall moderate self-esteem with gender differences favoring males. Qualitative accounts from adults indicated ambivalent identities, blending positive traits such as independence with negative perceptions of anxiety and inadequacy. Social support emerged as a protective factor with friendships, parental involvement and teacher encouragement fostering resilience and buffering against stigma. Interventions demonstrated tangible benefits, educational therapy with 150 children improved self-esteem and reduced behavioral problems, while adapted cognitive-behavioral therapy enhanced emotional regulation and self-worth in adults.

Conclusion: The evidence highlights the need for integrated, culturally responsive and gender-sensitive approaches that address both academic competence and psychosocial well-being. Future research should adopt larger, longitudinal and cross-cultural designs to better capture developmental trajectories across the lifespan.

Keywords: Self-esteem; Learning disabilities; Psychology; Education; Social; Systematic literature review

Introduction

Self-esteem plays a vital role in the holistic development of individuals and influences their emotional well-being, social interactions and overall life satisfaction (1–3). The students with holistic achievement need to be excel in their intellectual quotient, spiritual quotient, emotional quotient

and adversity quotient as mentioned in previous research (4). The ability of the students to empower all the quotient can enhance their self-esteem. While the importance of self-esteem is widely recognized in general education, it becomes even more relevant for students with learning disabilities (LD) (5,6).

LD present unique challenges that can impact various aspects of academic (2,7) and personal life (8,9), making the study of self-esteem in this population an important area of research (10–12). Students with LD often face barriers to academic achievement and social integration (12,13), which can lead to lower self-esteem (7,14). Understanding the intricate interplay between self-esteem and LD is essential for the development of effective interventions and support systems tailored to the specific needs of this population (6,15). The early school experiences of students with LD significantly influence their self-esteem (2,12,14). The paradigm of inclusive education, which aims to integrate students with different abilities into mainstream classrooms (16,17), makes the relationship between self-esteem and LD even more complex (9,18) in an educational context.

Despite the growing body of literature, findings on self-esteem in learners with LD remain inconsistent. While some studies report globally lower self-esteem across domains (12,14,19), others suggest that only academic self-concept is affected with global self-worth remaining intact (7,20,21). A recent systematic review and meta-analysis confirmed a moderate association between poor reading and lower self-concept overall, with the strongest effects in academic and literacy-related domains, while other domains such as social or athletic self-concept showed weaker or negligible associations (20). These contradictions highlight the need for a more comprehensive synthesis of evidence. Existing reviews have begun to address related issues, study (20) synthesized self-concept in struggling readers and study (22) examined psychological and social adjustment among students with LD in Saudi Arabia. Together, these studies demonstrate the importance of both cognitive and psychosocial perspectives but reveal that existing work has not integrated the broader influences of

social support and educational or therapeutic interventions. The novelty of the present review lies in synthesizing three interrelated domains, psychological vulnerabilities, protective social factors and educational interventions, across diverse cultural and methodological contexts. By bridging these dimensions, this review provides a more comprehensive understanding of self-esteem in learners with LD and generates evidence-based insights to guide inclusive practices, targeted interventions and future research directions.

Materials and Methods

The methodology of this study was a systematic literature review (SLR). The literature on self-esteem in LD was systematically reviewed and synthesized based on the SLR methodology. The SLR is employed to scrutinize the information by training specific and precise inquiry and review actions (23,24). It comprised investigation questions, finding applicable studies, abstracting information, uniting conclusions and interpreting outcomes to engender new insights or conceptual frameworks. Particularly, the SLR approach to the methodology of systematic reviews is based on the recommendations of the work by (25). Preferred Reporting Items for Systematic Reviews and Meta-Analyses 2020 (PRISMA 2020) (26), a published guideline for performing systematic literature review is used in this study. This guideline will help writers to analyze and review the correctness, ensuring they include essential details. PRISMA 2020 emphasizes the need for randomized study assessment surveys in systematic analysis reports for various study types for instance (27–31). PRISMA 2020 provides three distinct advantages: 1) it defines specific research questions that allow for systematic research, 2) it sets inclusion and exclusion criteria, and 3) it aims to review an extensive database of scientific literature in a specified time (30,31). PRISMA 2020 allows for a rigorous search of terms related to the relationship between self-esteem and LD.

This study was guided by the PICo framework (Population or Problem, Interest and Context)

which provides a systematic structure for qualitative and mixed method reviews by aligning key research components (26,32). In this study, the Population (P) refers to students with LD across educational levels, while the Interest (I) focuses on psychological well-being, self-esteem, friendship and resilience as influential factors. The Context

(Co) encompasses educational settings, including schools, universities and inclusive programs where these students engage. The flowchart of suggested reporting items for systematic literature reviews was utilized in this study (Fig. 1). Consequently, this SLR study evaluated viable papers.
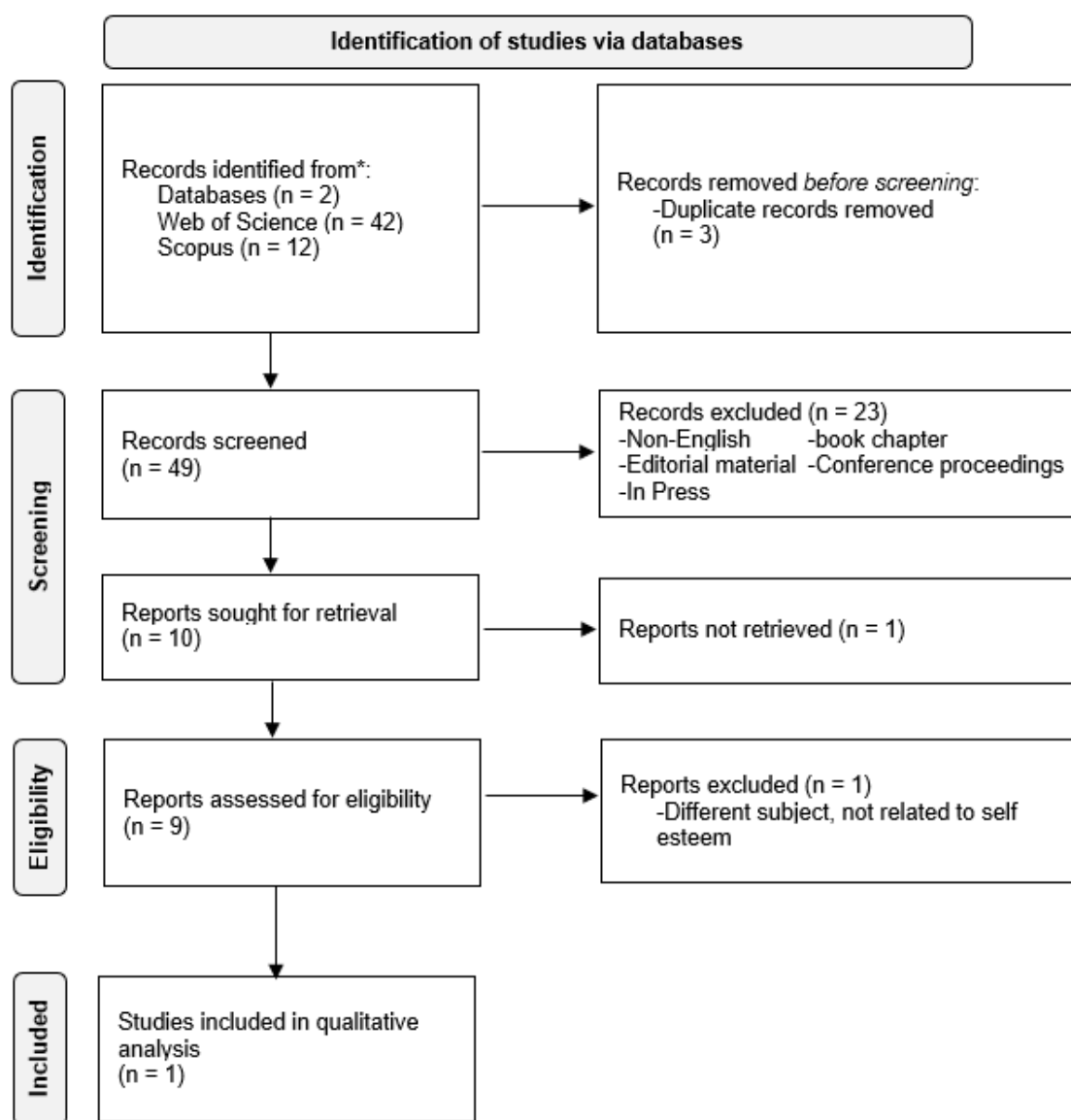

Fig. 1: The PRISM flow diagram of the study

Identification

A systematic search was conducted across two major academic databases, Scopus and Web of Science which were widely recognized for indexing high-quality, peer-reviewed research in education and psychology. The decision to focus on these two databases was guided by their comprehensive coverage and reputation for academic rigor (31). The systematic literature review approach involves three major stages in selecting many appropriate papers for this study. The initial step is to identify keywords and then search for related, similar terms using thesaurus, dictionaries, encyclopedias and past studies (26). As a result, once all relevant keywords were defined, search phrases were generated in Scopus and Web of Science (WoS). The analysis focused on key themes such as self-esteem of LD people. Boolean operators (AND, OR, NOT) were applied to refine keyword combinations and optimize search precision. Initial searches in WoS using the query string TS = ("self*esteem" OR "self*worth") AND ("Learning disabilit*" OR "learning deficit" OR "learning disorder" OR "learning impairment") retrieved 42 articles in any language up to December 2023. Concurrently, SCOPUS was searched using TITLE-ABS-KEY ("self*esteem" OR "self*worth") AND (Learning disabilit* OR "learning deficit" OR "learning disorder" OR "learning impairment"), 12 articles appeared. In the first step of the systematic literature review procedure, a total of 54 papers were successfully retrieved from the WoS and Scopus databases as part of the current study project.

Screening

After the initial search, all 54 records retrieved from Scopus and Web of Science were carefully examined. The two databases have been widely utilized in previous studies as primary sources for reviewing literature within specific fields of study (33,34). Duplicate articles should be excluded in the first phase of screening (35). The screening process was carried out independently by two authors at the title and abstract level, using predefined inclusion and exclusion criteria. The search process was conducted independently by both authors and any potential disagreements were resolved through discussion until consensus was reached. All procedures, including study design and article selection, were conducted in accordance with the PRISMA 2020 checklist, which serves as the recommended reporting protocol for systematic reviews.

At this stage, records were excluded if they were non-English to avoid confusion in translating or categorized as book chapters, editorials material, conference proceedings or articles in press. Review articles were excluded during the screening process to ensure the analysis focused exclusively on primary empirical studies, directly reported by original researchers. This approach is aligned with recent methodological standards requiring clear inclusion/exclusion criteria to minimize redundancy and enhance the validity of evidence synthesis (36–38). It is important to note that the timeline was chosen to cover a period of fifteen years (2008–2023). A total of 23 publications based on specific parameters were excluded. Following the screening process, four articles from Scopus and five articles from Web of Science were retained for further eligibility assessment, which one article could not be retrieved due to lack of access. PRISMA 2020 emphasizes documenting both numbers screened and reasons for exclusion to enhance reproducibility (26).

Eligibility

In total, 9 articles have been produced for the third level were available for full-text review, known as eligibility. At this point, all article titles and important content were rigorously assessed to ensure that the inclusion standards were met and that they fit into the current study and the current research goals. Studies were excluded if they were outside the scope of the research objectives, if their titles were insufficiently relevant or if the abstracts did not directly address the aims of the study. One article was excluded because the content addressed a different subject and was not directly related to self-esteem. However, one qualitative study from Web of Science were included in this review while the studies retrieved from Scopus consisted of quantitative data. Following this process, four

studies from Scopus and four studies from Web of Science were retained for final evaluation.

Data Abstraction and Analysis

The remaining 8 articles were reviewed and evaluated. Efforts were focused on specific studies that addressed the defined questions. The data was extracted by reading the abstracts first, followed by the entire articles (in-depth) to find relevant topics and sub-themes. Content analysis was used to conduct a qualitative investigation of self-esteem in learning disability students. According to Cochrane guidance, the inclusion of a clear flow diagram alongside narrative reporting improves transparency and strengthens methodological rigor (39). The approach revealed three major themes: 1) psychological factors 2) social support 3) educational interventions.

Quality Appraisal

The methodological quality of the included studies was assessed using the Mixed Methods Appraisal Tool (MMAT) (40). This tool was selected because it allows evaluation of qualitative, quantitative and mixed methods designs within a single framework. As shown in Table 1, the methodological quality of the eight included studies was appraised using the MMAT (40). The table provides an overview of each study's design, key strengths and limitations, thereby offering a transparent account of the evidence base on which this review is built.

Table 1: Quality assessment of included articles

Author(s)	Study Design	MMAT Appraisal (Key Criteria)	Strengths	Limitations
Al Zyoudi (7)	Cross-sectional survey	Clear aim, defined sample, validated measure, appropriate analysis	Moderate sample size; included comparison group	Single district; cross-sectional only; potential cultural bias
Shany et al (13)	Cross-sectional survey	Clear objectives; standardized scales; appropriate statistical analysis	Focus on university students; gender differences examined	Small sample (n=102); self-report bias; limited generalizability
Pestana (9)	Qualitative (IPA interviews)	Clear research aim; data collection adequate; findings supported with quotations	Rich narrative data; illuminates adult perspectives	Very small sample (n=8); limited transferability; researcher bias possible
Jiménez-Fernández & Defior (11)	Conceptual framework	Theoretical clarity; grounded in prior research; practical recommendations	Novel contribution; integrates literacy and psychosocial support	No empirical data; framework untested; limited evidence of impact
Harðardóttir et al (6)	Mixed methods (survey + interviews)	Clear design; integration of quantitative + qualitative; triangulation used	Large survey (n=270) with interviews; resilience perspective	Context-specific; potential selection bias; no longitudinal assessment
Saday Duman et al (14)	Experimental (intervention vs control)	Clear allocation; valid measures; robust statistical analysis	Reasonable sample size (n=150); direct evidence of efficacy	Short intervention duration; no long-term follow-up; culturally specific
Evans & Allez (12)	Case study	Clear clinical focus: intervention described; outcomes documented	Innovative CBT adaptation; applied clinical insight	Single participant; no generalizability; outcomes self-reported
Alkhasawneh et al (2)	Cross-sectional survey	Large sample; validated instrument; analysis aligned with aims	Strong demographic analysis; generalizable within context	One-country only; self-report data; no longitudinal insights

The MMAT (40) appraisal indicated that most studies demonstrated methodological clarity with appropriate aims, defined samples and suitable analytical approaches. Strengths included the use of validated instruments, reasonable sample sizes in some cases and innovative contributions such as qualitative insights and intervention trials. Limitations were recurring, including small or context-specific samples, cross-sectional designs, reliance on self-report measures and limited longitudinal or experimental evidence.

Results and Discussion

Self-esteem is important in the context of LD because it influences how people evaluate their abilities and potential in the face of problems (7,13). This systematic review synthesized eight peer-reviewed studies published between 2010 and 2022 examining self-esteem, self-concept, social support and interventions for individuals with LD. The studies reflect diverse methodologies which were quantitative surveys, experimental designs, qualitative interviews and case studies, spanning contexts from schools to universities, supported living arrangements and clinical settings across Jordan, Israel, Spain, Iceland, Turkey and the United Kingdom. This discussion engages explicitly with the findings of each study and implicitly with theoretical frameworks, positioning LD within a biopsychosocial paradigm and tracing the trajectory of research development over the past decade.

The review resulted in three main themes and eight articles related to adaptation practices as shown in Table 2.

Table 2: Literature Summary

No	Themes	Country, Citation
1	Psychological Factors	Jordan (2,7) and United Kingdom (9)
2	Social Support	Israel & Canada (13) and Iceland (6)
3	Educational Interventions	Spain (11), Turkey (14) and United Kingdom (12)

The three main themes are psychological factors with three articles, social support with two articles and educational interventions with three articles. Furthermore, one study applied a qualitative approach (9), another one study adopted a mixed method approach (6) while the remaining studies (2,7,11–14) used quantitative analytic methods. Regarding years published, the review identified one study each in 2010, 2013, 2015, 2017, 2018 and 2022, while two studies were published in 2014. This distribution indicates a steady, though limited, progression of research across the decade, with a notable concentration in 2014. The research article findings are based on the proposed searching criterion. The discussion can be made in several sub-sections.

The reviewed studies were conducted in Jordan, the United Kingdom, Israel, Canada, Iceland, Spain and Turkey, reflecting representation from both European and Asian contexts. This cross-cultural spread underscores that challenges related to self-concept, social support, and educational interventions are not limited to a single region but resonate across diverse educational systems. The presence of studies from both Western and Middle Eastern settings suggests that sociocultural norms play a critical role in shaping how LD are understood and addressed. Consequently, comparing these perspectives provides valuable insights for developing culturally sensitive strategies aimed at enhancing the educational and psychosocial outcomes of learners with disabilities.

Psychological Factors
Evidence across different age groups and cultural contexts demonstrates that individuals with LD often experience diminished self-concept in domains most directly related to academic performance. Significantly lower scores were observed in Jordan, among secondary school students with LD

on the intellectual and school status subscales of the Piers–Harris Children's Self-Concept Scale compared with peers without LD, whereas global self-concept showed no significant group differences (7). This suggests that deficits are domain-specific rather than generalized, with academic challenges being the most salient.

The recurring pattern across these studies reflects the mechanisms by which LD undermines psychological well-being. According to Bandura's Social Cognitive Theory (41), repeated experiences of failure reduce self-efficacy, which in turn erodes self-concept in related domains. These findings align with this proposed mechanism, indicating that students perceived themselves as less competent in intellectual and school domains where their disabilities most directly manifest (7). This illustrates a domain-specific vulnerability: global self-worth may remain intact, but repeated academic struggles directly weaken scholastic self-concept.

A qualitative study in the United Kingdom provided deeper insight into adult perspectives, revealing that individuals with mild LD articulated both positive and negative attributes of self-concept (9). Participants described themselves as friendly, helpful, capable and independent, yet some also identified as anxious, impatient, slow or not normal. These mixed self-perceptions illustrate the multidimensionality of self-concept and its susceptibility to both supportive and stigmatizing social feedback.

Psychological self-concept is not static but dialogical constructed at the intersection of personal narratives and social experiences (9). Participants' simultaneous positive and negative self-descriptions illustrate how internalized stigma (e.g., feeling not normal) coexists with affirmed identities (e.g., being friendly or capable). This reflects Cooley's looking-glass self-concept (42), where individuals develop self-concept based on how they believe others perceive them. Adults with LD, having experienced long-term feedback from educational and social systems, internalize both supportive and derogatory messages, producing ambivalent identities.

More recently, moderate levels of self-esteem were reported in a recent survey of 2,000 primary school students with LD in Jordan (2). The study also highlighted gender differences, with male students scoring higher than females, while grade level showed no significant effect. This large-scale evidence suggests that psychological vulnerabilities are shaped not only by learning difficulties but also by sociocultural variables such as gender norms and expectations.

The findings illustrate the influence of sociocultural context on psychological outcomes (2). In societies where male competence is more highly valorized, boys may receive more reinforcement or face less stigma, leading to higher self-esteem relative to girls. This aligns with Bronfenbrenner's ecological systems theory (43), which posits that identity develops within nested social systems, including cultural norms, family expectations and institutional practices. The lack of grade-level differences suggests that the challenges associated with LD are enduring and not easily mitigated by age or educational progression without targeted interventions. Table 3 illustrates that a substantial portion of the reviewed literature is categorized under the psychological theme, addressing issues of self-esteem and self-concept in learners with LD. This thematic clustering underscores the importance of psychological dimensions as a core determinant of both educational trajectories and psychosocial outcomes.

Taken together, these findings highlight that psychological factors in LD are multidimensional, socially constructed and culturally mediated. They reveal not only what students and adults with LD feel about themselves, but also why and how these self-perceptions emerge. The vulnerability of academic self-concept stems from repeated cycles of failure and comparison, while mixed identities in adulthood result from the interplay of supportive and stigmatizing experiences. Large-scale evidence further underscores the role of cultural expectations in shaping self-esteem trajectories.

Table 3: The research related to the theme of psychological factors

Author(s)	Country	Study Design	Population / Sample	Outcome Measures / Focus	Main Findings
Al Zyoudi (7)	Jordan	Quantitative (survey)	124 secondary students (50 LD, 74 non-LD)	Self-concept (PHCSCS scale)	LD students had lower intellectual/school self-concept; no difference in global self-concept.
Pestana (9)	UK	Qualitative (IPA)	8 adults with mild LD	Self-concept domains (social, physical, psychological, occupational, cultural)	Participants described mixed attributes (friendly/helpful vs anxious/slow); highlighted need to support self-concept.
Alkhasawneh et al (2)	Jordan	Quantitative (survey)	2000 primary students with LD	Self-esteem scale (40 items)	Self-esteem levels moderate; gender differences (boys > girls); grade level not significant.

These insights carry important implications for practice. First, educators and practitioners must recognize that global self-esteem may mask domain-specific vulnerabilities. Students with LD may appear resilient overall but still experience profound doubts about their academic competence, which can affect motivation and persistence. Second, qualitative accounts demonstrate that interventions should not merely remediate deficits but also work to counter internalized stigma by affirming strengths and identities beyond academics. Third, demographic findings indicate the necessity of gender-sensitive and culturally responsive approaches that account for how social expectations interact with disability to shape self-esteem outcomes.

Social Support

The role of social relationships in shaping self-esteem and self-concept among individuals with LD was examined in two key studies. (13), drawing on a sample of 102 university students in Israel and Canada (50 with LD and 52 without), investigated whether friendship quality predicted global self-worth and domain-specific self-concepts. Findings revealed that students with LD scored significantly lower on both academic self-concept and global self-worth than their peers without LD, with women showing particularly pronounced vulnerabilities. Crucially, however, stable and intimate friendships predicted higher global self-worth and stronger social self-concept for students with LD. Notably, such friendships did not improve academic self-concept, highlighting the limits of social support in addressing academic vulnerabilities. The evidence illustrates the mechanisms through which social support operates as a protective factor. Peer friendships have been shown to enhance self-esteem by fostering social belonging, validating identity, and providing emotional reassurance (13). This resonates with Cooley's (42) looking-glass self, which proposes that individuals construct their self-concept partly by imagining how they are perceived by others. For students with

LD, who often internalize academic struggles, friendship quality affirms their worth in non-academic domains, thereby bolstering global self-esteem even in the face of scholastic difficulties. Complementing this, a mixed-methods study of Icelandic adolescents with learning difficulties drew on survey data from 270 students and interviews with 10 participants, revealing stigma and labeling as recurring challenges (6). However, participants consistently emphasized that encouragement and support from caring adults, especially teachers and parents were decisive in fostering resilience and sustaining self-worth. The qualitative narratives portrayed supportive relationships not as peripheral but as central to students' ability to persevere despite systemic barriers and negative labeling.

This study further shows how supportive adults counteract the negative impact of stigma and labeling (6). This aligns with attachment theory (44) which emphasizes that secure, supportive relationships with caregivers or significant adults provide a foundation for self-confidence and resilience. For adolescents navigating the dual challenges of LD and social comparison, encouragement from teachers' and parents' functions as a stabilizing force, enabling them to cope with adversity.

Together, these studies demonstrate that friendships and adult support can buffer against the adverse psychosocial consequences of LD, particularly by reinforcing social self-concept and resilience, even if they do not directly remediate academic self-concept. These findings also support protective factor models of resilience (45), which argue that resilience is not a fixed trait, but a dynamic process shaped by relational and contextual resources. Social support allows individuals with LD to reinterpret challenges not as personal deficiencies but as obstacles that can be navigated with help. This reframing foster agency, persistence and psychological growth, highlighting why and how social relationships play a decisive role in outcomes. Table 4 illustrates the studies categorized under the social support theme, highlighting how interpersonal relationships such as peer friendships and adult encouragement serve as protective factors that buffer against stigma and foster resilience in students with LD.

Table 4: The research related to the theme of social support

Author(s)	Country	Study Design	Population / Sample	Outcome Measures / Focus	Main Findings
Shany et al (13)	Israel & Canada	Quantitative (survey)	102 university students (50 LD, 52 non-LD)	Global self-worth, academic & social self-concept, friendships	Stable, intimate friendships predicted higher global and social self-concept but not academic self-concept.
Harðardóttir et al (6)	Iceland	Mixed methods (survey + interviews)	270 students (survey) + 10 interviews	Resilience & coping with LD	Identified stigma and labelling; support from adults fostered resilience.

Thematically, these studies reinforce that social support provides a crucial buffer against the psychological risks of LD, though its effects are domain specific. Friendship quality enhances social self-concept and global self-worth, while adult encouragement fosters resilience, yet neither directly resolves academic self-concept vulnerabilities.

This domain specificity underscores the enduring centrality of academic struggles in shaping identity, while also highlighting the transformative power of supportive relationships in mitigating secondary psychosocial risks such as low self-esteem and social isolation.

From a broader perspective, these findings implicitly critique deficit-oriented educational practices that emphasize diagnostic labeling without providing relational scaffolds. Labeling may inadvertently reinforce stigma and diminish self-worth, while support from teachers and families has the opposite effect, validating competence and fostering resilience. The contrast between supportive and stigmatizing environments shows how schools and families act as critical mediators of psychosocial outcomes.

In practical terms, these insights imply that educators and policymakers must go beyond literacy-focused interventions to cultivate inclusive classroom environments and strong relational networks. Peer mentoring programs, teacher encouragement and parental involvement should be institutionalized as part of holistic LD support systems. By doing so, education systems can counteract stigma and empower learners with LD not only academically but also socially and emotionally.

Educational Interventions

Three studies included in this review explicitly examined interventions targeting both academic skills and psychosocial outcomes for individuals with LD. The proposed model emphasized phonological training, reading fluency, and comprehension strategies, while also recognizing the importance of emotional well-being particularly self-esteem in supporting academic development. By situating literacy instruction within a broader therapeutic framework, the approach advocated interventions that integrate cognitive and emotional domains (11).

The reviewed evidence shows that holistic interventions are essential because academic remediation alone is insufficient to sustain long-term engagement or improve self-esteem. This aligns with Self-Determination Theory (46), which posits that human motivation flourishes when three psychological needs are met: competence, autonomy and relatedness. Interventions that focus exclusively on competence (e.g., phonological training) may improve reading accuracy, but without addressing autonomy (empowering students in the learning process) and relatedness (fostering supportive relationships), such gains risk being unsustainable. The framework reflects this theory by embedding emotional and relational dimensions into academic support (11).

Empirical evidence further supports this integrative approach. An experimental study involving 150 Turkish children diagnosed with specific LD reported that the intervention group, which received educational therapy, demonstrated significant improvements in self-esteem and reductions in problem behaviors compared with controls (14). These outcomes suggest that academic interventions can generate dual benefits: enhancing scholastic competence while simultaneously supporting psychosocial functioning. Educational therapy appears effective because improvements in literacy skills increase feelings of competence, while individualized attention and supportive feedback foster self-esteem and reduce behavioral difficulties.

The findings further clarify why and how educational therapy works: improvements in literacy skills enhance feelings of competence, while the therapeutic environment often characterized by individualized attention and supportive feedback, strengthens self-esteem and reduces behavioral issues (14). This suggests that interventions are most effective when they reinforce positive feedback loops, where academic success enhances self-belief, which in turn motivates further learning.

Therapeutic innovation was illustrated through a United Kingdom–based case study that applied cognitive-behavioral therapy (CBT) tailored to the cognitive and communicative needs of an adult with mild LD (12). Modifications included slower pacing, visual aids and simplified language. Results showed substantial gains in self-esteem and emotional regulation, demonstrating that psychosocial interventions remain effective beyond childhood when tailored to learners' profiles. This case highlights the importance of developmentally and cognitively responsive approaches, as adults with LD often carry long-standing negative self-beliefs. Adapted CBT shows how reframing maladaptive thoughts and building coping strategies can interrupt cycles of self-criticism, enabling psychosocial growth across the lifespan.

Collectively, these studies reinforce that interventions for LD must move beyond deficit remediation to embrace biopsychosocial integration. Academic struggles may erode self-esteem, but interventions that incorporate emotional support and relational scaffolding can reverse this trajectory. The evidence illustrates that:

- Conceptual models integrating psychosocial concerns into academic interventions were proposed (11).
- Evidence from controlled trials indicated that educational therapy enhances both academic and emotional outcomes (14).
- Adaptability across developmental stages was demonstrated, with self-esteem and resilience shown to remain malleable in adulthood (12).

Implicitly, these findings also critique traditional educational systems that compartmentalize academic and psychological support. By failing to address socio-emotional needs alongside academic instruction, such systems risk perpetuating cycles of underachievement and low self-esteem. Integrated interventions are therefore not optional add-ons but core requirements of effective LD support. Table 5 presents studies under the educational interventions theme, showing how frameworks, educational therapy and adapted psychological approaches support literacy while enhancing self-esteem and emotional regulation in learners with LD.

Table 5: The Research Related to the Theme of Educational Interventions

Author(s)	Country	Study Design	Population / Sample	Outcome Measures / Focus	Main Findings
Jiménez-Fernández & Defior (11)	Spain	Conceptual framework	N/A (speech therapy practice)	Intervention framework for dyslexia	Emphasized phonological training, fluency, comprehension + emotional support.
Saday Duman et al (14)	Turkey	Experimental	150 children with SLD (intervention vs control)	Self-esteem & behavior scales	Educational therapy improved self-esteem and reduced problem behaviors.
Evans & Allez (12)	UK	Case study	1 adult with mild LD	CBT for low self-esteem	Adapted CBT improved self-esteem & emotional regulation.

Practically, these findings support the institutionalization of integrated support systems in schools and community settings. This includes embedding socio-emotional learning within literacy programs, training teachers in relational pedagogy and ensuring that therapeutic services are accessible across the lifespan. Theoretically, the convergence of evidence aligns with ecological systems theory (43), which emphasizes that individual development is shaped by multiple interacting systems. Interventions that address only cognitive skills without engaging emotional, relational and systemic dimensions fail to reflect this complexity. Thus, the reviewed literature calls for a paradigm shift: interventions should be reconceptualized not merely as remedial tools but as frameworks for fostering competence, resilience and holistic well-being among individuals with LD.

Conclusion

Understanding the dynamics of self-esteem in students with LD is crucial, as it significantly impacts their academic journey and overall development.

This systematic review demonstrates that self-esteem in learners with LD is shaped by interconnected psychological, social and educational factors, with evidence spanning diverse cultural and developmental contexts. Across the eight studies, low academic self-concept and mixed self-perceptions consistently appeared as psychological challenges, whereas friendships, parental support and teacher encouragement served as protective factors that helped build resilience. At the same time, educational and therapeutic interventions from structured dyslexia frameworks to educational therapy and adapted cognitive-behavioral approaches proved effective in enhancing both academic outcomes and self-esteem, underscoring the value of holistic and context-sensitive support. Taken together, these findings highlight the need to reconceptualize LD through a biopsychosocial lens, where cognitive challenges, emotional well-being and relational resources are addressed in tandem to promote equitable educational experiences and long-term psychosocial development. Future research should expand beyond small-scale and single-context studies by employing longitudinal and cross-cultural designs, while practice should prioritize integrated, gender-sensitive and culturally responsive interventions that simultaneously strengthen academic competence, nurture self-esteem, and foster resilience across the lifespan.

Journalism Ethics considerations

The study received approval from the Educational Policy Planning and Research Division, Ministry of Education, Malaysia (KPM.600-3/2/3-eras (19883) on 8th April 2024. Written consent was acquired from the parents' respondents.

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Conflict of Interest

The authors declare that there is no conflict of interests.

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