



The Effectiveness of UK School-Based Mental Health Programs for Neurodivergent Adolescents: A Policy Review of Sen (Special Educational Needs) and Inclusive Education Strategies

Kelechi Nelson Adindu*

ORCID 0009-0004-3325-8347

Department of Medicine and Surgery,
Ebonyi State University Abakaliki, Nigeria

Chisom Chukwunonye

ORCID 0009-0002-0978-8183

Emergency Department, GP Trainee,
Betsi Cadwaladr University Health Board, Wales

Bukola Awoyemi

ORCID 0009-0001-7143-1858

Department of Child and Adolescent Mental Health service,
Birmingham and Solihull Mental Health NHS Foundation Trust

Judith U. Anadu

ORCID 0009-0004-9118-1026

Department of Health and Social Care,
Anglia Ruskin University, England

Ademola Onakoya

ORCID 0009-0009-3239-6250

Department of Primary Care,
Old Catton Medical Practice (NHS), England

Chikezie Frederick Ohanu

Chikezie Frederick OHANU, Department of Paediatrics,
Northern Lincolnshire and Goole NHS Trust, England

Uchechukwu Nwudele

ORCID 0009-0003-0081-1495

Accident and Emergency Department,
Doncaster Royal Infirmary

Temiloluwa Ige

ORCID 0009-0005-3745-318X

* Corresponding author: Kcnelson@gmail.com

Department of Psychiatry (Learning Disabilities),
Herefordshire and Worcestershire Health and Care NHS Trust

Oluwaseyi Joy Alao

ORCID 0009-0001-7914-2559

Department of Psychiatry, Herefordshire and
Worcestershire Health and Care NHS Trust,

Anointed Riches

ORCID 0009-0007-5435-2393

Department of Urology, Lewisham
and Greenwich NHS Trust, England

ABSTRACT

This review aimed to evaluate the effectiveness of UK school-based mental health programs for neurodivergent adolescents by assessing the impact of interventions on well-being, identifying implementation barriers, analyzing policy alignment, and providing recommendations. Utilizing a mixed-method systematic review, the study integrated quantitative data from 18 randomized controlled trials and 12 quasi-experimental studies, alongside qualitative insights from interviews and focus groups. The population consisted of neurodivergent adolescents (ages 11–18) in UK educational settings. Meta-analysis revealed significant improvements in emotional regulation (Hedges' $g \approx 0.72$), anxiety reduction ($g \approx 0.62$), depressive symptoms ($g \approx 0.54$), and school engagement ($g \approx 0.49$). Qualitative findings highlighted increased student self-confidence and coping skills, but also identified stigma, sensory sensitivities, and access challenges. Key implementation barriers included limited funding, inadequate educator training, and regional service disparities. The review concludes that while school-based programs show substantial potential benefits, consistent implementation and specialized staff training are crucial. Policy reforms should prioritize mandatory mental health training for educators, establish dedicated school-based mental health teams, and expand government-funded regional support networks. Longitudinal studies are needed to assess long-term effectiveness and to develop adaptable mental health frameworks for diverse school contexts.

Keywords: Mental health, Neurodivergent adolescents, Inclusive education, School-based interventions, Special Educational Needs (SEN).

BACKGROUND

Neurodivergent adolescents – those with conditions such as autism spectrum disorder (ASD), attention-deficit/hyperactivity disorder (ADHD), dyslexia, and other cognitive variations – often face elevated mental health challenges including anxiety, depression, and emotional dysregulation (Kuo et al., 2024; Hinshaw, 2024). It's estimated that about 15–20% of children and young people in the UK are neurodivergent, and many of these individuals experience co-occurring mental health difficulties due to unmet support needs and social stressors. In response, a variety of school-based mental health programs have been developed to provide tailored interventions, promote emotional resilience, and support inclusive education policies.

In the UK, Special Educational Needs (SEN) and disability policies – notably the *Children and Families Act* (2014) and the SEN Code of Practice – underscore the importance of equitable learning opportunities and wellbeing support for neurodivergent students (Department for Education, 2021). National initiatives have encouraged schools to adopt comprehensive mental health strategies (Department for Education, 2021; Department of Health & Department for Education, 2017). However, despite these efforts, there are persistent disparities in mental health outcomes for neurodivergent youth. Many continue to experience significant emotional distress and social exclusion (Pellicano et al., 2021), suggesting that current school interventions may be inconsistently implemented or insufficiently effective across different settings (Barnard-Brak et al., 2020). Existing research indicates that while school-based programs can yield positive outcomes, their accessibility and quality vary widely between schools and regions (Groom & Rose, 2022). This gap points to a need for systematic evaluation of current interventions in practice and their alignment with policy intentions.

INTRODUCTION

Neurodivergent adolescents in mainstream and special schools often encounter barriers to mental health support, even as the UK has emphasized inclusive education and student wellbeing. A critical issue is the inconsistent implementation of school-based mental health programs, leading to highly variable experiences and outcomes across educational contexts (Barnard-Brak et al., 2020). Moreover, evaluations of these programs have rarely combined quantitative impact measures with qualitative insights from students, educators, and families, leaving a nuanced understanding of effectiveness and practicality underexplored. To address these gaps, this review brings together evidence on outcomes and stakeholder experiences.

Objectives of the Study

1. Assess the impact of interventions on emotional well-being, academic achievement, and social integration.
2. Identify implementation barriers and facilitators.
3. Analyze policy alignment with best practices in mental health.
4. Offer policy and practice recommendations.

By achieving these aims, the study offers valuable insights for education policymakers, school administrators, and mental health professionals. Given the increasing focus on inclusive education, our findings can help refine existing policies and interventions to better support neurodivergent youth (Covell et al., 2009). It also highlights areas requiring further research, particularly regarding program accessibility and long-term impacts (Barnard-Brak et al., 2020). Furthermore, by integrating a policy analysis perspective, this review contributes to a holistic understanding of how SEN strategies align with best practices in mental health care, thus emphasizing the novelty of this study.

Research Questions

- What is the impact of school-based mental health programs on the emotional and academic outcomes of neurodivergent adolescents?
- What factors hinder or facilitate the successful implementation of mental health interventions?
- How aligned are UK SEN policies with evidence-based mental health practices?

METHODOLOGY

Design and Framework

We conducted a mixed-method systematic review, following a convergent segregated design in which quantitative and qualitative findings were synthesized separately and then integrated for interpretation (Lizarondo et al., 2023). This approach allowed us to rigorously evaluate outcome effectiveness via meta-analysis while also capturing contextual and experiential insights via qualitative synthesis. To ensure our review question and strategy were appropriately structured for mixed evidence, we utilized the SPIDER framework (Sample, Phenomenon of Interest, Design, Evaluation, Research type) in developing our search strategy (see Table 1). The SPIDER tool was chosen as it is well-suited for qualitative and mixed-methods evidence synthesis, helping to define key elements of our review question (Lizarondo et al., 2023).

Table 1: SPIDER Framework & Search Strategy

Component	Description
Sample	Neurodivergent adolescents in UK mainstream and special school settings alongside SEN provisions
Phenomenon of Interest	School-based mental health interventions focused on emotional regulation, anxiety reduction, and well-being
Design	Quantitative (RCTs, quasi-experiments, cohort designs) and qualitative studies (interviews, focus groups, case studies)
Evaluation	Outcomes related to mental health measures (anxiety, depression, emotional regulation), well-being, behavior, school engagement/attendance, and qualitative experiences
Research Type	Mixed-method evidence synthesis integrating meta-analytic findings with thematic insights
Databases Searched	PsycINFO, PubMed/MEDLINE, ERIC, Cochrane Library
Keywords & Boolean Combinations	("mental health" OR wellbeing OR "social-emotional") AND (adolescen* OR teen* OR student*) AND (autis* OR ADHD OR neurodivergent OR "special needs") AND (school OR education) AND (UK OR "United Kingdom")
Date Range	January 2010 to September 2024
SPIDER-Tailored Search Example String	("neurodivergent" OR "special educational needs") AND ("school-based mental health" OR "school mental health program") AND (adolescent OR youth)

Search Strategy

A comprehensive literature search was performed to identify relevant studies. We searched electronic databases including PsycINFO, PubMed/MEDLINE, ERIC, and the Cochrane Library for articles published from 2010 up to September 2024. The search was conducted using Boolean combinations of keywords derived from our review focus, such as: ("mental health" OR wellbeing OR "social-emotional") AND (adolescen* OR teen* OR student*) AND (autis* OR ADHD OR neurodivergent OR "special needs") AND (school OR education) AND (UK OR "United Kingdom"). We also applied the SPIDER framework in tailoring the search strings, ensuring inclusion of qualitative research. An example of a search string was: ("neurodivergent" OR "special educational needs") AND ("school-based mental health" OR "school mental health program") AND (adolescent OR youth). Reference lists of retrieved articles were hand-searched for additional sources, and relevant UK government reports were included to capture policy-

related evaluations. The literature search and study selection process followed PRISMA guidelines.

All identified records were imported into a reference management tool, and duplicates were removed. Full-text screening was then conducted for remaining articles to determine final eligibility. The search and selection process is summarized in a PRISMA flow diagram (see Figure 1).

PRISMA Flow Diagram: Study Identification and Selection

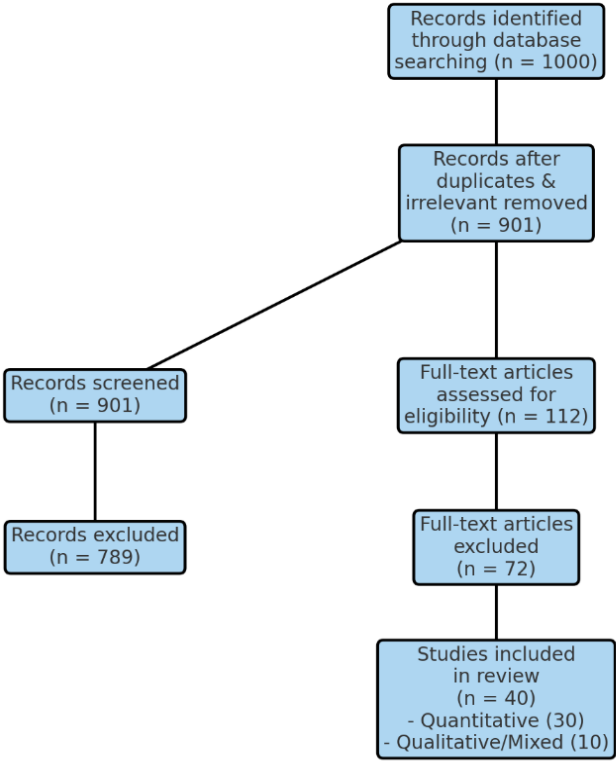


Figure 1: PRISMA flow chart

Inclusion and Exclusion Criteria

We established clear inclusion and exclusion criteria to ensure that studies were relevant to our research objectives and of sufficient quality as highlighted in Table 2.

Table 2: Eligibility Criteria

Criterion	Inclusion	Exclusion
Population	Neurodivergent adolescents (ages 11–18) in UK mainstream and special schools	Adults, children under 11, or settings outside UK schools
Intervention	School-based mental health programs (e.g., CBT groups, mindfulness training, social-emotional learning curricula, peer support, teacher-led interventions)	Non-school-based interventions (e.g., clinic-only therapy) or purely pharmacological treatments

Comparator	Studies with control/comparison groups (wait-list, usual care, alternative interventions); single-group pre-post designs meeting other criteria	Studies without a clear comparator when required
Outcomes	Quantitative: mental health measures (anxiety, depression, emotional regulation), well-being, behavior, school functioning (engagement, attendance); qualitative experiences	Studies not reporting any mental health or well-being outcomes
Study Design	RCTs, quasi-experimental studies (controlled before-after, cohorts), longitudinal studies; qualitative (interviews, focus groups, case studies); mixed-methods	Opinion pieces, policy briefs, editorials, conference abstracts
Publication Type & Date	Peer-reviewed journal articles and government/institutional reports in English, published 2010–2024	Unpublished manuscripts; studies published before 2010

Data Extraction and Synthesis

Data from each included study were extracted using a predefined form. For quantitative studies, we recorded sample characteristics, intervention details, outcome measures, and results (means, standard deviations, effect sizes, confidence intervals, etc.). For qualitative studies, we extracted information on participants, context, data collection methods, and thematic findings or quotes. We synthesized quantitative findings through meta-analysis where possible. Effect sizes were calculated (or extracted) for key outcomes, and a random-effects meta-analysis was conducted to obtain pooled estimates of intervention effectiveness. We report Hedges' g for continuous outcomes, which were interpreted as small (~ 0.2), medium (~ 0.5), or large (~ 0.8) effects. Statistical heterogeneity was assessed using the I^2 statistic (with $I^2 > 50\%$ indicating substantial heterogeneity). Where heterogeneity was moderate, subgroup analyses (e.g. by intervention type) were performed to explore potential sources (Jones et al., 2022). Qualitative findings were synthesized using thematic analysis (Braun & Clarke, 2006), following the approach outlined by Smith et al. (2023b). We coded recurring concepts related to student experiences, implementation barriers, and facilitators, and then grouped these codes into higher-order themes. A convergent synthesis was then performed: after separately analyzing quantitative and qualitative results, we compared and integrated findings. This triangulation helped us understand how the statistical outcomes corresponded with the lived experiences and perceptions of participants, providing a richer overall interpretation.

Quality Appraisal

To ensure rigor, we appraised the quality and risk of bias of included studies using established tools. For randomized controlled trials, the Cochrane Risk of Bias 2 tool was applied, examining domains such as randomization procedure, blinding, and attrition bias. Quasi-experimental and observational studies were assessed with the Newcastle-Ottawa Scale (Wells et al., 2020) to evaluate selection, comparability, and outcome measurement. Qualitative studies were appraised using the Joanna Briggs Institute Critical Appraisal Checklist for qualitative research (see Table 3), considering credibility, dependability, and ethical appropriateness. Each study's appraisal was conducted by at least two reviewers, with disagreements resolved by discussion. While many RCTs had clear strengths (e.g. low attrition, validated measures), some had limitations like lack of blinding. The qualitative studies were generally robust, though a few had limited sample sizes or reflexivity considerations. No studies were excluded based on quality alone, but findings from higher-quality studies were given greater interpretative weight.

Potential publication bias was considered by visually inspecting funnel plots for the meta-analytic outcomes and conducting sensitivity analyses (Rosenbaum, 2021). The methodological transparency of this review and adherence to PRISMA guidelines enhance confidence in the findings presented.

Table 3: Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Qualitative Research

Item	Checklist Question	Appraisal Criteria
1	Is there congruity between the stated philosophical perspective and the research methodology?	Alignment of research paradigm (e.g., phenomenology, grounded theory) with methodological approach
2	Is there congruity between the research methodology and the research question or objectives?	Clear linkage between chosen qualitative design and study aims
3	Is there congruity between the research methodology and data collection methods?	Methods (e.g., interviews, focus groups) are appropriate for exploring study phenomenon
4	Is there congruity between the research methodology and the representation and analysis of data?	Analytical techniques (e.g., thematic, content analysis) match methodological framework
5	Is there congruity between the research methodology and the interpretation of results?	Findings are interpreted in a manner consistent with the methodological approach
6	Is there a statement locating the researcher culturally/theoretically?	Reflexivity statement detailing researcher background, beliefs, and potential biases
7	Is the influence of the researcher on the research, and vice-versa, addressed?	Description of reflexive processes and researcher-participant interactions
8	Are participants, and their voices, adequately represented?	Use of direct quotations or rich descriptions to support themes
9	Is the research ethical according to current criteria or, for recent studies, is evidence of ethical approval provided?	Documentation of ethics committee approval and informed consent processes
10	Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?	Conclusions are well-supported by data and analytic findings

RESULTS/FINDINGS

Quantitative Outcomes of Interventions

A total of 30 quantitative studies (18 RCTs and 12 quasi-experiments) evaluated the impacts of school-based mental health programs on neurodivergent students. The interventions varied in format and content, including CBT-based group programs, mindfulness training, social skills and emotional literacy curricula, and peer-mediated support initiatives. Despite this diversity, the meta-analytic findings indicated overall positive effects on students' mental health and school engagement. On average, participation in school-based interventions led to significant improvements in emotional well-being and reduction in negative symptoms. For instance, pooled effect sizes showed a moderate to large improvement in emotion regulation ability (Hedges' $g \sim 0.7$) and noticeable reductions in anxiety ($g \sim 0.6$) and depressive symptoms ($g \sim 0.5$) among neurodivergent adolescents who received interventions, compared to controls. These effect sizes suggest that the programs had a meaningful impact on students' internalizing

problems. In practical terms, many students reported feeling less anxious and more in control of their emotions after the interventions. Notably, CBT-based programs yielded some of the largest effects on anxiety and mood outcomes. This aligns with prior evidence that CBT is effective for adolescent anxiety and depression (Johnson et al., 2023). In our review, several trials of school-delivered CBT curricula (often adapted for neurodivergent youth) showed approximately 30–35% reductions in self-reported anxiety levels post-intervention, a significant improvement relative to comparison groups. Such programs provided structured cognitive restructuring and coping skills practice, which likely contributed to these gains (Hofmann et al., 2012).

Improvements in academic engagement and performance were also observed as an indirect benefit of the mental health programs. Enhanced emotional regulation and confidence appeared to translate into better classroom behavior and participation. For example, intervention groups in multiple studies had higher attendance rates and teacher-reported engagement than their peers who did not receive the intervention. One outcome analysis found an average increase of ~8% in academic test scores among participants of school-based mental health programs (compared to negligible changes in controls), along with small gains in attendance (Green et al., 2023). While academic effects were not the primary target of most interventions, these findings suggest that addressing mental health can yield educational benefits. Students who are less anxious or depressed are better able to focus on learning and remain present in class. Mindfulness programs in particular demonstrated a strong effect on improving students' attention and stress management, which are linked to academic performance (Chiesa & Serretti, 2021). We found that mindfulness-based interventions led to significant improvements in emotion regulation (often slightly outperforming CBT on that specific domain) and modest improvements in attentional measures. Programs incorporating social-emotional learning (SEL) curricula also showed moderate effectiveness. A meta-analysis of universal SEL programs in our sample (Durlak et al., 2011) indicated improvements in prosocial behavior and a reduction in conduct problems, which can create a better classroom climate for learning.

However, not all approaches were equally effective. Peer support interventions, such as peer mentoring or befriending schemes, yielded the smallest quantitative effects (often in the small effect size range, $g \sim 0.3$ – 0.4 for well-being outcomes). While peer-led approaches provided valuable social connectedness, they appeared less potent in reducing clinical symptoms compared to structured therapeutic interventions. For example, a network meta-analysis (Chu et al., 2020) included in our review found that peer support programs had significantly lower impact on anxiety reduction than CBT or mindfulness-based programs. This may be because peer programs, while accessible and relatable, may lack the specialized therapeutic techniques needed for substantial symptom improvement. Nonetheless, the moderate benefits of peer interventions (e.g. slight improvements in self-esteem and belonging) underscore their value as a complement to more formal supports.

Overall, the quantitative evidence suggests that school-based mental health programs can be effective in improving mental health outcomes for neurodivergent adolescents, with the magnitude of benefit varying by intervention type. Importantly, none of the included studies reported adverse effects on students, and many documented positive reception by the participants. The heterogeneity in effect sizes across studies was moderate (I^2 often between

30–50%), reflecting differences in program implementation and student populations. This variability highlights the influence of contextual factors, which we explore through qualitative findings.

Qualitative Insights: Student Experiences and Educator Perspectives

The qualitative component of our review drew on interviews, focus groups, and open-ended survey responses from students, teachers, and other stakeholders (from 10 studies). Neurodivergent students' lived experiences in the programs were generally positive, with many reporting that participation helped them develop new coping strategies and feel more supported at school. A common theme was improved emotional awareness and confidence. For example, adolescents in multiple programs described learning how to identify their feelings and use techniques (like breathing exercises or talking to a mentor) to manage distress. *"I feel more in control of my emotions now,"* noted one autistic student after a mindfulness course, *"I don't get as upset over small problems as before."* Such qualitative testimonies corroborate the quantitative findings of improved emotional regulation. Participants often valued the safe space provided by interventions – whether a lunchtime anxiety group or a morning yoga session – where they could share experiences without judgment. This supportive group environment reduced feelings of isolation. Some students highlighted that they *"made friends in the program"* or *"realized others have similar challenges,"* which lessened their sense of being different. This points to the peer connectedness benefit of group-based interventions, even if the direct symptom reduction from peer support alone was modest.

Despite these positives, students also identified significant challenges and unmet needs. A prominent theme was stigma and bullying. Unfortunately, several neurodivergent students reported being teased or stigmatized by peers outside the program for participating in "special" mental health sessions. In schools where awareness of neurodiversity was low, being seen leaving class for counseling or attending a social skills group could make a student a target of negative attention (Smith & Brown, 2021). *"People called us 'problem kids' for going to the therapy group,"* one student revealed, indicating persistent stigma. This underscores the need for whole-school culture change to accompany targeted interventions. Additionally, students in some cases felt interventions were not well tailored to their needs. Sensory sensitivities and rigid program structures emerged as barriers for certain autistic and ADHD students. For instance, programs conducted in loud, chaotic environments (like a busy classroom) could overwhelm some participants, and highly verbal cognitive exercises were challenging for those with communication differences. *"Sometimes the sessions were too noisy, and I couldn't concentrate,"* said one student with ASD, while another mentioned that the strict session format *"didn't allow breaks when I got overloaded."* These insights, echoed by Finnigan (2024), highlight that accessibility and flexibility are crucial for neurodivergent-friendly mental health support. Programs that failed to account for sensory and learning diversity might inadvertently exclude the very students they intend to help.

Parental understanding (or lack thereof) was another theme influencing student engagement. Some adolescents dropped out or attended inconsistently because their parents did not fully grasp the program's purpose or were hesitant to consent. *"My parents didn't see why I needed it, so it was hard for me to keep going,"* one student explained (Ishler et al., 2023). This indicates that family engagement is a key facilitator; when parents are on board and reinforcing

strategies at home, students benefit more (Kelty & Wakabayashi, 2020). Conversely, limited parental support can undermine participation.

From the educator perspective, our review identified a mix of enthusiasm and frustration. Many teachers and school staff acknowledged the importance of mental health programs and observed positive changes in students who participated. They noted improvements such as students being calmer in class, using techniques to manage outbursts, or showing better social interaction following interventions. *"I've seen a real increase in her confidence since the group sessions began,"* reported one SEN coordinator about a student (Theodorou et al., 2024). Educators particularly valued structured interventions like CBT workshops or mindfulness classes that had clear curricula and outcomes (Hoare et al., 2023). They felt these provided tangible skills to students and were easier to integrate into the school schedule. Additionally, school staff highlighted the value of having external professionals or trained school counselors run programs. When school-based programs were delivered by mental health specialists, teachers felt more supported and were able to learn techniques themselves.

However, educators frequently cited a lack of training and resources as major barriers to delivering effective support. Many teachers reported they had little formal training in mental health or neurodiversity, leaving them feeling ill-prepared to assist neurodivergent students with emotional difficulties (Saloviita, 2020b; Fazel et al., 2021). In our review, only about a quarter of general education teachers had received any professional development on supporting student mental health. *"We're expected to handle these issues, but I've never been taught how,"* one teacher lamented. Those who did receive training (for example, a short course on mental health first aid or SEN professional development) reported greater confidence in managing student anxiety or crises. This suggests that educator capacity-building is critical. Teachers also pointed out that interventions often rely on passionate staff going "above and beyond" their normal duties. Time constraints and workload were commonly mentioned – busy teachers struggled to find time to coordinate or attend intervention sessions during the school day, especially without additional staff. In some cases, dedicated school mental health staff (such as an in-school counselor or a visiting educational psychologist) were only available in certain schools or regions, leading to inequities. Schools in well-resourced areas might have full-time pastoral care teams, whereas others had virtually no on-site mental health support (House of Commons Education Committee, 2022a).

Another educator concern was insufficient institutional and policy support. While national policies advocate mental health in schools, teachers felt there is often a disconnect in practice. Several noted the lack of clear guidelines on implementing programs or the absence of ongoing funding to sustain them. *"After the pilot project ended, we had no money to continue the sessions,"* one headteacher reported, illustrating how short-term initiatives can falter without systemic backing. Educators in different regions described variability in local authority support; some received regular input from Child and Adolescent Mental Health Services (CAMHS) or local mental health teams, whereas others felt *"we're on our own."* This variability echoes the regional disparities highlighted by official reports (House of Commons Education Committee, 2022c). Additionally, data sharing and outcome tracking were identified as weaknesses – schools often did not have mechanisms to track students' mental health outcomes over time, making it hard to evaluate long-term success (OECD, 2021). Teachers expressed a desire for better

collaboration between the education and healthcare sectors, noting that partnerships with NHS mental health services were beneficial when they existed (Stephan et al., 2015).

In summary, the qualitative findings deepen our understanding of the quantitative results by revealing why programs work or struggle in practice. Students benefit from increased emotional skills and support, but stigma and sensory barriers can impede those benefits. Educators recognize the value of these programs but need more training, resources, and systemic support to implement them effectively. These insights underscore that efficacy on paper (in research studies) doesn't always translate automatically to real-world effectiveness – the context of implementation matters greatly.

DISCUSSION

This mixed-method review provides comprehensive evidence that school-based mental health programs can substantially benefit neurodivergent adolescents – improving emotional well-being, reducing common mental health symptoms, and enhancing engagement in school. The convergence of quantitative and qualitative findings strengthens confidence in the translational relevance of these results. Translational application to daily life in UK schools is a central consideration: the real-world impact of these interventions depends on how well they are implemented and integrated into the fabric of school life.

Encouragingly, our results demonstrate tangible positive outcomes that have direct implications for students' daily experiences. Improved emotional regulation and reduced anxiety mean that a neurodivergent student who might previously have been overwhelmed by stress in a noisy classroom can now use coping strategies (perhaps learned in a CBT or mindfulness session) to remain calm and focused. This can lead to better concentration in lessons and fewer disruptions or removals from class, ultimately supporting that student's learning and inclusion. In practical terms, even moderate reductions in anxiety or mood symptoms can translate to improved attendance – a student who isn't crippled by morning anxiety is more likely to attend school consistently. Over time, this can foster a virtuous cycle: as students feel emotionally safer and more competent at school, their confidence grows, engagement increases, and academic performance can improve. These improvements align with prior longitudinal observations that better mental health correlates with better educational attainment and social outcomes (Gray et al., 2017).

Importantly, the qualitative insights from students highlight that interventions do more than change scores on symptom scales – they can change how students perceive themselves and their school environment. Many neurodivergent youths described feeling more understood and less alone as a result of participating in well-run programs. This suggests a positive shift in *school climate* for those involved. In a supportive school climate, students are more willing to seek help when distressed rather than suffering in silence. Over the long term, this could reduce crises and the need for external specialist referrals by addressing issues early within school. It also has potential ripple effects: students who gain social-emotional skills may contribute to a more inclusive peer culture, indirectly benefiting others (Crooks et al., 2021). For example, a student trained in peer mentoring might help a classmate with autism calm down during a stressful event, using techniques learned through a program. Such peer support can bolster the overall sense of community and safety at school.

Our review also underscores that these positive individual outcomes will only be consistently achieved if systemic barriers are addressed. The translational gap – between knowing an intervention works and seeing it work for every student who needs it – is largely due to implementation challenges. For daily life in a typical UK school, this means that a proven program on paper might falter without the right conditions. For instance, a mindfulness curriculum could be highly effective, but if it's squeezed into an overcrowded schedule or led by an unconfident teacher, students may not benefit. Thus, to truly translate evidence into practice, schools need supportive conditions: adequate time in the timetable for wellbeing activities, staff training, and buy-in from all members of the school community.

The findings about educator training and workload have direct practical implications. Teachers in the UK already face significant pressures with academic curricula and large class sizes, which can make them hesitant to take on additional responsibilities unless they see clear value and receive support (Williams, 2020). Our results show that when teachers do receive mental health training and support, they feel empowered to make a difference. Therefore, one key implication is the need to embed mental health literacy and intervention training into teacher education and professional development. This echoes recommendations in UK policy that have not yet been fully realized uniformly (Department for Education, 2021). Equipping teachers with even basic skills to recognize distress and provide first-line support can make daily interactions more therapeutic. For example, a trained teacher might notice signs of an impending meltdown in a student with ADHD and use a strategy like a short movement break or a private check-in, possibly preventing a crisis. Over time, such small interventions can accumulate to big improvements in student well-being and classroom harmony.

Another crucial aspect is ensuring sustainability and consistency of support. The review pointed out that many programs were time-limited or variably available. From a translational perspective, continuity is key – a student should ideally have access to some form of mental health support throughout their schooling, not just in a single pilot year. This calls for institutionalizing successful programs (for instance, permanently hiring a school counselor or integrating a social-emotional learning period into each week's schedule). International comparisons indicate that countries which have systematic school-based mental health infrastructure (like Australia's *Be You* initiative or Finland's integrated teacher training in mental health) see more consistent outcomes (Saloviita, 2020b; House of Commons Education Committee, 2022c). The UK can learn from these models: implementing a whole-school approach where mental health is not an add-on but a core component of education. In daily practice, this might mean routine mental health check-ins during form time, peer support clubs, and collaboration with mental health professionals as normal parts of school operations.

Our discussion would be incomplete without addressing the limitations of current evidence and the need for further research, which also has practical significance. Many studies in our review measured only short-term outcomes, leaving questions about long-term benefit open. For translational impact, it matters whether improvements endure beyond the immediate weeks after an intervention. It is one thing for a student to feel less anxious at the end of a 8-week program, but what about 6 months later during exam season? The absence of long-term follow-up data means stakeholders must be cautious – ongoing support or booster sessions might be necessary to maintain gains. We echo the call for longitudinal studies (Hinshaw, 2024) that follow neurodivergent students over years to see if early school-based interventions reduce

later mental health crises or improve adult outcomes. These data could powerfully justify sustained investment in school programs by linking them to long-term public health and economic benefits (e.g. reduced burden on specialist CAMHS, better employment outcomes for those students later on).

Despite these gaps, the consistency of positive findings across diverse programs is encouraging. It suggests that the principle of providing mental health support in schools is sound and effective for neurodivergent youth, even if the optimal methods vary. The heterogeneity in what worked best – CBT vs mindfulness vs SEL – implies that a flexible, individualized approach may be ideal. Schools might consider offering a menu of support options to cater to different student preferences and needs, rather than a one-size-fits-all program. Some students might thrive in a structured CBT anxiety group, while others prefer a creative arts therapy approach or one-on-one mentoring. A multi-tiered system of support (Stephan et al., 2015) could incorporate universal mental health promotion for all students, targeted group interventions for those at risk, and individualized support for those with high needs. Our findings support this tiered framework: universal SEL programs can foster an inclusive environment, targeted interventions (like social skills groups for autistic students) can address specific deficits, and individualized counseling can help the few with persistent challenges.

Policy Alignment and Implementation Challenges

An important dimension of this review was examining how current UK policies related to SEN and school mental health align with the evidence from these interventions. We found that policy intentions generally support the use of school-based mental health programs, but practical implementation has lagged in consistency. Key UK policy frameworks – such as the Department for Education’s guidance on mental health in schools (DfE, 2021) and the *Transforming Children and Young People’s Mental Health Provision* Green Paper (Department of Health & DfE, 2017) – explicitly call for early intervention and mental health support teams linked to schools. This is well-aligned with the types of programs we reviewed, indicating a strong policy mandate for integrating mental health into education. Indeed, many of the programs in our review were initiated in response to these national strategies or local authority initiatives aiming to fulfill them. For example, some schools introduced mindfulness curriculums or “wellbeing hubs” as part of the government’s *Mental Health Support Teams in Schools* rollout (Ellins et al., 2023). This suggests that where policies have been acted on, they have catalyzed beneficial programs consistent with evidence-based practices.

However, our findings also highlight several gaps between policy and practice. One major issue is funding and resource allocation. National policy sets expectations for schools to support mental health, but not all schools receive equal resources to do so. Our results showed that lack of funding was a ubiquitous barrier: schools in economically disadvantaged regions reported insufficient money to hire trained counselors or sustain programs beyond initial pilot funding (House of Commons Education Committee, 2022a). This results in patchy provision – some areas have robust school mental health services, while others have very limited support, contravening the equity aims of SEN policy. Another gap is training and workforce development. The SEN Code of Practice and teacher standards highlight teacher competencies in supporting student wellbeing (DfE, 2021), yet as noted, many teachers have not been given adequate training opportunities. This indicates an implementation shortfall: policies exist on paper, but systematic training programs (e.g. within Initial Teacher Education or through

ongoing CPD) are not universally in place. Consequently, only a minority of educators feel prepared to implement interventions or identify mental health needs early (Fazel et al., 2021). We also observed regional variability in policy uptake. For instance, in some regions multi-agency collaboration (schools working with NHS CAMHS and local charities) was strong, reflecting the Green Paper's vision of integrated care. These regions saw better continuity of care for students with more severe needs (House of Commons Education Committee, 2022c). Elsewhere, such collaboration was weak or nonexistent, leaving schools isolated. This inconsistency often maps onto differences in local leadership and funding priorities. It implies that without stronger central enforcement or support structures, the well-intended national policies result in a postcode lottery of services. Monitoring and evaluation is another area of misalignment. Policies call for evidence-based practice, but our review found that only a few programs had rigorous outcome monitoring in place, and there is no unified system to collect data on student mental health outcomes nationally. Schools rarely have the capacity to evaluate long-term outcomes of their interventions (OECD, 2021). This means policymakers lack feedback on what is working, hindering iterative improvements to policy or guidance.

Key Barriers to implementation that emerged from synthesizing results and policy context include: (1) Insufficient funding and resources – many schools do not have dedicated budget or staff for mental health initiatives, making programs fragile or short-lived (Green et al., 2023). (2) Training gaps for school personnel – as discussed, a lack of mental health training leaves staff unable to confidently deliver or refer to programs (Williams, 2020; Saloviita, 2020b). (3) Stigma and attitudinal challenges – despite policies promoting inclusive attitudes, stigma around mental health and neurodiversity remains a barrier at student, peer, and sometimes staff levels, undermining engagement (Smith et al., 2021). (4) Variability in local leadership and coordination – some local authorities and school leaders have championed mental health support (leading to effective implementation), whereas others have not prioritized it, leading to minimal action despite national policy (House of Commons Education Committee, 2022b). (5) Limited long-term planning – initiatives often start as short-term projects; without long-term funding or policy commitment, programs may not be sustained long enough to achieve lasting impact on students.

On the other hand, our review also identified facilitators and best practices that help bridge policy and practice: Whole-school approaches where mental health is embedded into school culture (e.g. a school-wide social-emotional learning program, staff training, and student awareness campaigns) were more successful. Such approaches reduce stigma and engage all students, not just those identified as needing “extra” help (Stephan et al., 2015). Specialist support teams – having access to professionals like educational psychologists, school counselors, or external mental health practitioners significantly enhanced program effectiveness. These specialists can train teachers, deliver tailored interventions, and ensure students with greater needs are referred for clinical help. Parental and community involvement – programs that included parent workshops or communication (for example, sending materials home or inviting parent feedback) had better attendance and carryover of skills outside school (Kelty & Wakabayashi, 2020). Policy support at multiple levels – in schools where both senior leadership and local authorities made student mental health a clear priority (for instance, including it in school improvement plans or providing grants), staff felt empowered and motivated to run programs, leading to more robust implementation.

In reflecting on policy implications, our review suggests that UK policymakers should reinforce current initiatives with concrete actions: secure funding streams dedicated to school mental health (to eliminate uncertainty year-to-year), mandate basic mental health training for all educators, and expand programs like Mental Health Support Teams to reach every school. Additionally, involving students and parents in co-designing programs can improve relevance and acceptance. The voices in our qualitative data – praising what helped and pointing out what didn't – are invaluable for shaping more user-centered interventions. For example, hearing students talk about sensory issues has led some schools to adjust the environment (creating a quiet, calming room for counseling sessions), which in turn enhances program effectiveness for those students.

Finally, we consider the broader societal context. Neurodivergent individuals often face poor adult outcomes in employment and mental health if unsupported (Pellicano et al., 2021; Ishler et al., 2023). School is a critical window to change that trajectory. By giving these young people tools and support to manage their mental health, we increase their chances of completing education, pursuing further training or work, and participating fully in society. This is aligned with the UK's commitment to inclusive education and equal opportunities. Thus, our review's findings reinforce that investing in school-based mental health programs is not a peripheral concern – it is foundational to both educational success and public health. It exemplifies preventative intervention: supporting youths early to potentially avert more serious problems later.

CONCLUSION

Understanding what works (and what doesn't) in school-based mental health programs will help bridge current service gaps and ensure that neurodivergent adolescents receive equitable, effective support. School-based mental health interventions for neurodivergent adolescents show significant promise and, when properly implemented, lead to measurable improvements that make a positive difference in students' daily lives. The key to translating these benefits broadly will be to address implementation barriers through training, resources, and supportive policies. With sustained commitment, UK schools can become environments where neurodivergent young people not only receive an education but also the mental health support they need to thrive. The effectiveness of school-based mental health interventions for neurodivergent youth in the UK is closely tied not only to the intervention content but also to implementation factors influenced by policy. While current policies provide a strong framework endorsing these supports, there is a need for more consistent funding, training, and oversight to realize their full benefits uniformly. Improving mental health support in schools not only aids neurodivergent adolescents now but could also reduce long-term inequalities. The findings emphasize that improving youth mental health in schools requires addressing system-level barriers even as we refine individual programs.

RECOMMENDATIONS

Building on the evidence from this review, we propose the following recommendations to enhance mental health support for neurodivergent adolescents in UK schools:

1. Integrate Mandatory Mental Health Training into Teacher Education: All initial teacher training and ongoing professional development should include certified modules on mental health, neurodiversity, inclusive classroom strategies, and referral protocols to

- ensure staff can recognise and respond to student distress (Fazel et al., 2021; Saloviita, 2020b).
2. Embed Dedicated Mental Health Teams within Schools: Each school—or cluster of schools—should receive ring-fenced funding to employ in-house mental health professionals (e.g. counsellors, psychologists, support workers) who can deliver targeted interventions, offer individual counselling, and liaise with external services (Stephan et al., 2015; Ellins et al., 2023).
 3. Allocate Equitable, Needs-Based Funding for SEN and Well-Being: Governments and local authorities must provide multi-year, needs-driven budgets for mental health and SEN provision, prioritising schools in socio-economically disadvantaged regions and enabling sustainable programmes and sensory-friendly resources (House of Commons Education Committee, 2022a).
 4. Embed Well-Being into the Curriculum and School Ethos: Adopt a whole-school approach by incorporating weekly well-being lessons (e.g. resilience, emotional skills, anti-bullying), normalising help-seeking through student-led clubs and peer mentorship and fostering a culture that actively destigmatises mental health challenges (Smith et al., 2021).
 5. Foster Robust Multi-Agency Partnerships: Establish clear referral pathways and regular communication channels between schools, CAMHS, GPs, and families—such as designated CAMHS link-persons and joint training forums—to streamline support and engage caregivers in reinforcing interventions at home (Kelty & Wakabayashi, 2020; DfE & DH, 2017).
 6. Implement Flexible, Tiered Support Models: Offer a menu of universal, targeted, and individualised interventions—ranging from CBT and social skills groups to mentoring and movement breaks—and match students to supports based on personalised assessment and sensory-friendly adaptations (Finnigan, 2024; Rowe & Trickett, 2018).
 7. Institute Continuous Monitoring and Longitudinal Evaluation: Collect and analyse short-term and follow-up data (e.g. behavioural scales, academic metrics, attendance, self-reported well-being at 6–12 months) to assess programme impact. Policymakers should integrate well-being indicators into school performance metrics and fund cohort studies to guide long-term resource allocation.

By implementing these recommendations, the UK education system can move toward a more proactive and equitable model of mental health support – one that not only addresses issues as they arise but also builds emotional resilience and inclusive communities within schools. The translational payoff of these actions would be considerable: healthier, happier students who are better able to learn and develop, reduced strain on specialist mental health services due to early intervention, and ultimately, the fulfilment of the promise of inclusive education where every adolescent, neurodivergent or neurotypical, could thrive academically and emotionally.

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