

From Labels to Learning: Music Education as a Developmental Solution to ADHD Overdiagnosis in Early Childhood

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Abstract

This paper examines the overdiagnosis of Attention Deficit Hyperactivity Disorder (ADHD) in early childhood and how education policy contributes to the issue. While ADHD is a legitimate condition, research shows many diagnoses among children ages three to eight stem from developmentally inappropriate academic demands rather than clinical need (Kazda et al., 2021; Layton et al., 2018). Federal and state mandates have created classrooms that prioritize performance over play and creativity, resulting in increased behavioral referrals, particularly for boys, low-income students, and children of color (Morgan et al., 2013; Brosco et al., 2016).

Cuts to music and arts programs have removed one of the most effective, research-supported tools for building attention, self-regulation, and executive function (Habibi et al., 2018; Schellenberg, 2005). This paper argues that music education should be treated as a core developmental intervention.

Puerto Rico's Escuelas Libre de Música, created by Law No. 365 (1946) and expanded by Law No. 133 (1968), show how music can be integrated into public education. The San Juan school combines academics with intensive music training, while other schools provide community music instruction (APAOSS, 2023).

Policy recommendations call for restoring music as a core subject and requiring non-medical supports like music and play before ADHD referrals to protect childhood and promote healthy development.

Keywords: ADHD Overdiagnosis, Early Childhood Education, Music Education, Developmental Policy, Puerto Rico

Executive Summary

The overdiagnosis of Attention Deficit Hyperactivity Disorder, or ADHD, among young children in the United States and abroad has become a widespread concern with profound implications for both education policy and child development. While ADHD is a legitimate neurodevelopmental condition, current research shows that many diagnoses, especially in children aged 3 to 8, may be the result of environmental and policy-driven factors rather than from true clinical disorders. Nowadays, children are being labeled as disordered not because of neurological dysfunction, but because schools have become environments that do not align with how young children naturally grow and learn (Kazda et al., 2021).

Academic expectations have intensified in early education. Standards increasingly demand extended focus, quiet behavior, and early academic achievement at ages when children still rely on movement, creativity, and emotional expression as primary exploration tools for learning. These expectations often exceed the developmental norm. As a result, children who are naturally more active or less mature, especially those who are the youngest in their class cohort, are more likely to be diagnosed with ADHD (Layton et al., 2018).

A growing body of research confirms this trend. A recent systematic review in *European Child and Adolescent Psychiatry* found that the "relative age effect" is observed across multiple countries and educational systems, suggesting that immaturity is frequently misinterpreted as pathology (Frisira et al., 2024). As academic pressure increases, so do behavioral referrals, particularly in environments that lack access to supportive and developmentally appropriate learning experiences (Brosco et al., 2016).

This pattern represents a failure of education policy. When creative and expressive subjects are removed to make room for test preparation and seatwork, children miss out on essential opportunities to regulate their emotions, develop executive function, and build social awareness. One of the most effective ways to support these developmental needs is through music education.

Music is one of the most cognitively challenging domains of human experience. Research shows that performing and even perceiving music engages multiple brain systems simultaneously, requiring the precise coordination of auditory and motor processes, attention, memory, timing, and emotional regulation (Zatorre, Chen, & Penhune, 2007). Music provides structure and discipline while creating space for imagination and movement. In early childhood, these qualities are not optional; they are essential because they form the foundation for healthy development and learning.

Music is not a luxury or a reward; it is a necessity. It is a research-based method for promoting focus, self-regulation, and cognitive growth. When children participate in regular music instruction, they engage brain systems that are essential for academic success and mental health. Music gives them tools to express themselves, relate to others, and develop confidence. These benefits are significant for children who struggle in conventional classroom settings or who have been labeled as inattentive or disruptive.

Despite this, music education has been systematically removed from many early education programs, especially in under-resourced schools. The children most likely to benefit from music are often the least likely to have access to it. Without music, a key protective factor disappears, and the risk of overdiagnosis increases. Too often, children are referred for evaluation before schools have provided meaningful alternatives such as music-based instruction, movement breaks, or flexible classroom routines.

To address this crisis, federal and state education policy must change course. Early education standards must return to practices that honor childhood development. Music education should be

reinstated as a core subject, starting in preschool. Teacher preparation must include training on how music supports attention and behavior. And before any child under the age of nine is referred for ADHD screening, schools should be required to document that they have implemented classroom-based supports that include music and other arts-centered approaches.

The overdiagnosis of ADHD in young children is not only a medical issue. It is a policy failure. If we continue to structure schools in ways that ignore how children learn best, we will continue to mislabel them. The solution is not to quieten children through medication. The solution is to build learning environments that allow them to thrive. Music education is one of the most powerful and proven ways to do that. The time to act is now.

The Scope of the Problem

Attention Deficit Hyperactivity Disorder, or ADHD, is a neurodevelopmental condition defined by persistent patterns of inattention, hyperactivity, and impulsivity that interfere with a child's development or daily functioning. The American Psychiatric Association formally recognized ADHD in the 1980 edition of the Diagnostic and Statistical Manual of Mental Disorders. However, similar behaviors had been observed and documented as early as the beginning of the twentieth century. Over time, the diagnostic criteria were expanded, and with the publication of the DSM-5 in 2013, ADHD became one of the most frequently diagnosed disorders of childhood in the United States (American Psychiatric Association, 2013; Rafalovich, 2001). Although the intention behind diagnosis is to support children with genuine developmental challenges, the sharp rise in identification has outpaced any documented increase in the disorder's actual prevalence.

Recent national data show that about 7.1 million U.S. children (11.4%) between the ages of 3 and 17 have been diagnosed with ADHD based on 2022 parent-reported survey data. This number includes many children under the age of six, a group traditionally considered too young for reliable psychiatric diagnoses (Danielson et al., 2022). A previous CDC report covering data from 2003 through 2019 found that the percentage of U.S. children ages 3 to 17 who had ever been diagnosed with ADHD rose from just under eight percent to nearly ten percent, representing about 6.1 million children (Danielson et al., 2022). Much of this increase is concentrated among children ages three to eight. A growing body of research suggests that this rise cannot be explained by brain development alone. Instead, researchers point to outside factors such as school policies, academic pressure, and gaps in teacher training as major contributors (Brosco et al., 2016; Kazda et al., 2021).

Misdiagnosis has emerged as a serious concern. Boys are nearly three times more likely than girls to receive an ADHD diagnosis. While this partly reflects differences in how behaviors are expressed across genders, it also reveals the presence of bias in how teachers and evaluators interpret activity levels and impulse control (Bruchmüller, Margraf, and Schneider, 2012). Children from low-income households and communities of color are also more likely to be diagnosed, often without access to thorough assessments or evaluations that take cultural and developmental context into account (Morgan et al., 2013). One of the most consistently documented risk factors is a child's relative age within a classroom cohort. Children who are younger than their peers by only a few months are much more likely to be diagnosed, showing that normal immaturity is often mistaken for disorder (Layton et al., 2018).

These trends have serious long-term effects. Children who are diagnosed at an early age are at increased risk of being labeled as difficult or academically behind. This often leads to reduced expectations from teachers, fewer learning opportunities, and social exclusion by peers, all of which can weaken motivation and diminish self-esteem (Pescosolido et al., 2008). Many of these children

are placed on stimulant medications such as methylphenidate or amphetamines before non-medical or classroom-based interventions are even attempted. Although such medications can be helpful in some cases, they often carry side effects, including sleep disruption, appetite suppression, and emotional instability. The long-term consequences of beginning pharmacological treatment in early childhood are still not fully understood (Hinshaw and Scheffler, 2014). Using medication as a first response to behavior that may be developmentally typical raises serious ethical and policy questions.

The internal impact on children can be equally damaging. Those who receive a psychiatric label early in life may come to see themselves as broken or incapable. This can shape how they view their abilities, relationships, and futures. Research has shown that children who are diagnosed in early childhood, particularly when the evaluation is incomplete or driven by external pressures, experience higher rates of anxiety, depression, and academic withdrawal as they move into adolescence (Mikami et al., 2010).

In short, while ADHD is a real condition that warrants support, the rate and pattern of diagnosis in early childhood point to a systemic failure in the education system. The data show that ADHD has increasingly become a default label for children who are simply developing at their own pace. This is especially true in classrooms where play, creativity, and movement have been replaced by compliance and academic pressure. Federal education policy must acknowledge that misdiagnosis is not only a clinical issue, but also a broader societal concern. It is a policy problem rooted in educational environments that do not reflect what research clearly shows about how young children grow and learn. The solution must begin with developmentally appropriate practices that honor the full range of childhood behavior before reaching for medical explanations.

Literature Context

Research shows that ADHD diagnoses are influenced not only by clinical symptoms but also by educational systems, cultural norms, and policy structures. Conrad (1975) first described this as the “medicalization of deviance,” explaining how behaviors once viewed as developmental variation increasingly became labeled as medical disorders. Since ADHD was formally introduced in the DSM-III in 1980, its diagnostic boundaries have expanded, and by the DSM-5 in 2013, ADHD had become one of the most frequently diagnosed childhood conditions (American Psychiatric Association, 2013; Rafalovich, 2001).

In the United States, the prevalence rate among children aged 3 to 17 reached approximately 11 to 12 percent by 2022 (Danielson et al., 2022). In contrast, global prevalence is lower, with meta-analyses estimating a worldwide rate of approximately 5 to 8 percent (Faraone et al., 2021). Canadian data show that ADHD prevalence among children and youth ranges between 7.5 and 8.6 percent depending on the province, with Ontario reporting approximately 7.48 percent (Park et al., 2023). In the United Kingdom, estimates suggest that 3 to 4 percent of children meet ADHD diagnostic criteria, though official diagnosis rates in medical records are significantly lower, between 1 and 2 percent (NHS England, 2024). These comparisons highlight that diagnosis patterns vary widely, shaped as much by cultural framing, teacher referral practices, and educational policy as by biological prevalence.

Another consistent theme across the research is the relative age effect. In the United States, children who are younger than most of their classmates are significantly more likely to be diagnosed with ADHD (Layton et al., 2018). This pattern is replicated in Canada, Iceland, and Finland, with multiple studies showing that children born just before school cutoff dates are up to twice as likely to be labeled with ADHD compared to their slightly older peers (Frisira et al., 2024).

Cultural framing also plays a major role in ADHD diagnosis. Timimi and Taylor (2004) found that educators and clinicians in the United States are more likely to label active behavior as pathological, while countries like France take a more contextual and developmental view, leading to fewer diagnoses. Similarly, in Finland, delayed academic expectations and a strong emphasis on play and arts-based learning correspond to lower diagnosis rates and fewer behavioral referrals (Anttila, 2010).

In the U.S., researchers link accountability policies to the increase in ADHD identification. Brosco and Bona (2016) argue that the high-stakes testing culture introduced by the No Child Left Behind Act shifted kindergarten and early grade classrooms toward rigid academic structures, removing play-based and exploratory learning. Miller and Almon (2009) further documented that the decline in recess and creative subjects contributed to increased behavioral referrals, particularly in schools serving low-income children. When foundational experiences like music, art, and movement are removed, children lose essential supports for regulation and expression, and referrals for ADHD evaluation increase (Catterall, Dumais, & Hampden-Thompson, 2012).

Disparities in diagnosis also reveal systemic inequities. Boys are nearly three times more likely to be diagnosed than girls, partly due to differences in behavior expression but also because of implicit gender bias in teacher referrals (Bruchmüller et al., 2012). Children from low-income families and communities of color are disproportionately diagnosed, often with limited access to culturally responsive assessments (Morgan et al., 2013). Gilliam et al. (2016) showed that implicit racial and gender bias among early childhood educators influences expectations of behavior and the likelihood of recommending evaluation, further fueling disparities.

International models demonstrate that alternatives are possible. Finland delays formal reading instruction until age seven and integrates music and arts into daily lessons, aligning education with developmental research rather than test-driven timelines (Anttila, 2010). Puerto Rico's Escuelas Libres de Música, established by Law No. 365 in 1946 and expanded by Law No. 133 in 1968, offer a striking example of how music can be embedded into public education as infrastructure rather than enrichment (Puerto Rico Legislature, 1946, 1968). These schools provide daily music instruction to thousands of students, offering both community access and rigorous academic-music integration at the San Juan campus.

Collectively, these findings illustrate that ADHD is a legitimate neurodevelopmental condition, but its diagnosis rates and patterns are deeply shaped by policy, culture, and educational design. The evidence points to a need for a paradigm shift: music and arts should not be treated as optional extras but as developmental infrastructure essential to supporting focus, self-regulation, and healthy growth in early childhood.

Root Causes: How Education Policy Has Contributed to the ADHD Crisis in Early Childhood

The rising rate of ADHD diagnoses among young children in the United States is not only a medical concern but also a reflection of flawed education policy. Federal and state mandates have imposed academic expectations that do not align with the developmental needs of children in preschool through third grade. As a result, classrooms have been restructured to prioritize academic performance over foundational elements such as play, movement, and emotional development. This shift has created environments where normal behavior is increasingly interpreted as disorder.

The passage of the No Child Left Behind Act in 2001 marked a turning point in early education. By requiring standardized testing in reading and mathematics beginning in third grade, the law placed intense pressure on schools to accelerate academic instruction. In response, many schools

have implemented structured literacy and numeracy programs in kindergarten and even pre-kindergarten. These early learning spaces, once centered on curiosity and social interaction, became preparatory stages for high-stakes assessments (Meisels, 2007).

Although the Every Student Succeeds Act replaced No Child Left Behind in 2015, the emphasis on early academic benchmarks has continued. Most states have retained standards that reflect the structure and pacing of the Common Core State Standards. These standards often require children to demonstrate proficiency in reading and mathematics at ages when cognitive and emotional development still varies widely among peers. Rather than building on developmental readiness, schools now demand early mastery, leaving little room for variation in learning styles or behavioral expression. Children who do not conform to these expectations are frequently identified as struggling or disruptive (Miller and Almon, 2009).

A lack of adequate teacher preparation compounds this problem. Many early childhood education programs do not require sufficient coursework in developmental psychology, behavioral variability, or inclusive teaching practices. As a result, educators may be unprepared to distinguish between children with genuine developmental delays and those who are reacting to overly rigid classroom structures (Hyson, Tomlinson, and Morris, 2009). Without this knowledge, teachers may misinterpret signs of normal growth as clinical concerns. Children who are active, emotionally expressive, or slower to adjust to academic demands are often referred for evaluation rather than supported through classroom-based strategies.

These policy and training failures disproportionately affect specific groups of children. Boys, children of color, and students from low-income communities are more likely to be referred for ADHD evaluations. Many of these children are also the youngest in their grade cohort, further increasing the likelihood that their immature behavior will be viewed as abnormal rather than developmentally appropriate (Layton et al., 2018). Once referred, these children often begin a cycle of labeling, medication, and diminished expectations that can follow them for years.

Although public education was never intended to harm children, the structure of current early learning environments often produces that result. By placing performance outcomes above child development, schools have created systems that emphasize control, conformity, and compliance. Children who do not fit within this framework are too often disciplined, pathologized, or medicated instead of being supported. This is not a reflection of the child's failure. It is a failure of policy and professional practice. To protect the well-being of all young learners, these systemic issues must be addressed at the federal level through reforms that prioritize developmentally appropriate education.

The Loss of Childhood: Play, Movement, and Music Removed

In recent decades, American early childhood education has moved away from what decades of developmental research have shown young children need most: play, movement, and creative expression. Instead of being allowed to explore, imagine, and move freely, many children in preschool through third grade now spend most of their day sitting, listening, and preparing for academic tasks that are often beyond their developmental stage. As a result, childhood itself is being compressed into a rigid schedule that leaves little room for natural growth.

One of the most evident signs of this shift is the nationwide reduction in unstructured play and recess time. According to the Centers for Disease Control and Prevention, recess not only improves attention and classroom behavior but also helps children develop social and emotional skills (CDC, 2010). Despite this, many schools have shortened or eliminated recess, particularly in lower grades, to accommodate academic instruction. A national study by Ramstetter, Murray, and Garner

(2010) found that schools serving high-poverty communities were the least likely to offer regular recess, despite the fact that these students often need it the most to manage stress, develop self-regulation, and stay engaged in learning.

Along with play, music, and the arts have also been pushed to the margins. Budget cuts, standardized testing, and narrow accountability measures have made music, art, and physical education seem optional rather than essential. In many public schools, particularly those in low-income areas, music and art programs have been eliminated or reduced to a few minutes each week. According to the National Endowment for the Arts (2011), participation in arts education has declined most sharply among African American and Hispanic children, as well as those from families with lower income and education levels. This loss is not just a cultural issue, but a developmental one.

Research in child development and neuroscience makes it clear that rhythm, movement, and creative play are not distractions from learning; instead, they are essential components of the learning process. They are core building blocks of early brain development. Studies show that music engagement activates areas of the brain responsible for attention, memory, and emotion regulation (Habibi et al., 2018). Movement-based learning supports sensory integration, motor planning, and self-control, all of which are foundational for school readiness (Panksepp, 2007). When children engage in pretend play, draw freely, or participate in music activities, they are learning how to express themselves, solve problems, and connect with others. These skills are not easily measured on a standardized test, but they are critical for long-term academic success and emotional well-being.

By removing these elements from the school day, we are taking away the very supports that help children grow into thoughtful, focused, and socially aware learners. The impact of these cuts is not felt equally across all schools. Children in underfunded public schools are significantly less likely to have access to the rich, developmentally appropriate learning experiences that are more common in more affluent districts. This creates a profound inequity, because children from low-income families and communities of color are more likely to attend schools that emphasize test preparation and behavioral control, and less likely to benefit from music, the arts, or free play (Catterall, Hetland, & Winner, 2012).

In short, the loss of childhood in American schools is not accidental but a result of policy choices that prioritize academic performance over human development. If we continue to remove experiences that help children thrive, such as recess, music, art, and movement, we will likely see rising rates of behavioral referrals and early diagnoses. The problem is not the children; it is that the school environment no longer supports who they are and how they grow.

The Neuroscience and Role of Music in Early Childhood Development

Music education is not a supplemental activity but a central driver of early childhood development. Neuroscience research shows that music activates nearly every part of the brain, engaging regions responsible for attention, memory, language, motor coordination, and emotional processing (Zatorre, Chen, and Penhune, 2007). This whole brain activation strengthens the cognitive and social skills children need for school readiness. Studies confirm these effects. Schellenberg (2005) found that children who took music lessons experienced measurable increases in IQ and verbal memory, while Habibi and colleagues (2018) demonstrated that consistent music training thins the corpus callosum, the nerve bundle connecting the two hemispheres of the brain. This structural growth supports coordination between thought and emotion, enhancing executive function and self-regulation.

These findings translate directly into classrooms. Music instruction requires focus and repetition while still allowing for movement and creativity. That balance helps children practice attention and impulse control without the pressure of constant correction. Group music making also builds cooperation and social awareness as children learn to listen, share responsibility, and work toward a common goal (Register, 2004). For children who are active, sensory seeking, or emotionally expressive, music classrooms offer multiple entry points, such as singing, drumming, movement, or listening, that allow them to participate and succeed.

Despite these well-documented benefits, music is often the first subject cut when school budgets shrink. Research indicates that these cuts are most prevalent in underfunded districts, resulting in many students from low-income families lacking consistent access to music education (Catterall, Dumais, and Hampden-Thompson, 2012). The children who lose these opportunities are often those most likely to be mislabeled with ADHD. Without music, they lose a proven way to build focus, confidence, and self-expression in a supportive setting.

Restoring music education is not just a cultural priority. It is a developmental necessity. Music provides structure and creativity in equal measure, building the very skills that reduce behavioral referrals and misdiagnosis. When music is fully integrated into early childhood education, it strengthens attention, supports emotional health, and creates classrooms where children can thrive.

These findings make clear that music education is not just an artistic pursuit but a scientifically supported developmental tool. By strengthening executive function, building self-regulation, and supporting emotional growth, music prepares children for the demands of school and life. But understanding music's benefits is only the first step. The real challenge is translating this knowledge into effective policy and practice.

International Comparison

Early childhood education models in Finland, Norway, and Japan demonstrate how music and arts can be integrated as foundational elements in daily learning. These systems contrast sharply with the U.S. model, where creative subjects are often marginalized, particularly in underfunded schools, contributing to rising behavioral referrals and ADHD diagnoses among young children.

In Finland, formal reading instruction does not begin until age seven. Until then, education focuses on play, outdoor activity, and arts-rich experiences. Music is woven into daily routines from preschool onwards. Anttila (2010) describes Finnish education as using music for rhythm development, early literacy, attention training, and peer collaboration. These practices align with neuroscience, showing that music supports executive function, emotional regulation, and attentional control.

In Norway, nearly all children aged one to six attend public “barnehage” (kindergarten) programs. The national framework mandates daily integration of music, movement, visual arts, and free play not as enrichment, but as central components of the curriculum. A qualitative study by Dunmoye et al. (2024) reveals that educators frequently incorporate singing, creative movement, and music play into their everyday routines. This integration supports children's emotional expression, regulation, and cooperative social interaction skills, which are often lacking in early U.S. classrooms.

In Japan, preschools regularly incorporate structured group music-making activities, including coordinated singing, rhythm games, and ensemble drumming (kumi-daiko). These activities require children to synchronize their movements, regulate their impulses, and collaborate (Kokosabe et al., 2025). Music is viewed as an educational tool for building focus, patience, and social responsibility, not merely as a cultural tradition.

Each of these international models shares a clear principle: music and creative expression are integrated systematically into early education. In these environments, children develop skills such as working memory, inhibitory control, and flexibility through embodied, expressive activities. These experiences reduce the behaviors that are too often diagnosed as ADHD in U.S. schools, which lack creative outlets.

By comparison, the U.S. context has gradually defunded the arts, particularly in low-income districts. When children cannot meet academic or behavioral expectations in rigid early grade settings, they are more likely to be referred for behavioral evaluations instead of participating in creative, developmentally appropriate programs. This contributes directly to higher rates of ADHD labeling and to racial and socioeconomic disparities in diagnosis.

International models suggest an alternative path. Finland, Norway, and Japan demonstrate that strong academic outcomes and children's behavioral well-being are enhanced, not hindered, by consistent integration of music and the arts. For the United States to counter ADHD overdiagnosis and reduce inequities, it must look beyond standard reforms and reposition music as developmental infrastructure for all learners, not as optional enrichment.

The Solution: Music Education as Core Developmental Infrastructure

The solution lies in making music an integral part of the foundation of public education, rather than treating it as an enrichment activity. Music offers a balance of structure and creativity, and its benefits can reach all children if they are integrated into the school day. Puerto Rico's Escuelas Libres de Música show exactly how this can be done at scale. Reducing the overdiagnosis of ADHD in early childhood requires more than minor adjustments to diagnostic criteria. It requires reshaping how schools are designed for children in their earliest years. Rather than labeling children who struggle in rigid classrooms, we must create environments that match how young learners actually develop. Music education is one of the most effective ways to do that, not as an extra, but as part of the foundation of public education.

Music offers a balance of structure and creativity. While earlier sections of this paper outlined the neuroscience behind music's benefits, its practical effects are equally clear: music classrooms help children practice focus, develop discipline, and learn to regulate their emotions, all while allowing room for movement and expression. These qualities make music especially valuable for children who might otherwise be referred for ADHD evaluations because they do not fit into traditional academic routines.

Puerto Rico's Escuelas Libres de Música system demonstrates what happens when music is treated as core infrastructure rather than an optional add-on. Created by Law No. 365 of 1946 and expanded under Law No. 133 of 1968, this network of public music schools now serves thousands of children across San Juan, Ponce, Mayagüez, Humacao, Caguas, and Arecibo (Puerto Rico Legislature, 1946, 1968). The San Juan school combines full academic coursework with intensive music training and selective admissions, while the others focus entirely on community music instruction and welcome all students. Together, they form a system that embeds music into daily learning for every enrolled child.

This model provides lessons for education policymakers across the United States. The Escuelas Libres de Música show that music can be scaled into a public system and sustained for decades. They demonstrate that music is not a luxury for a few students, but a shared resource that promotes focus, self-regulation, and engagement for all. Importantly, these schools reach children

from every background, including those in communities that might otherwise lack access to arts education.

While these schools were not specifically designed with ADHD in mind, they provide a ready framework for research and policy innovation. A longitudinal study tracking children diagnosed with ADHD who attend the Escuelas Libres de Música, compared to their peers in conventional classrooms, could provide critical data on music's potential to reduce symptoms and improve behavior without medication. Such research would give policymakers powerful evidence to support music as a preventive intervention.

Embedding music in early childhood policy nationwide could mirror what Puerto Rico achieved decades ago. Doing so would help shift schools away from a model that identifies children by what they cannot do and toward one that builds on what they can. If the goal is to stop mislabeling normal childhood behaviors as disorders, music cannot remain on the margins. It must become an integral part of the education infrastructure itself.

Policy Recommendations

Addressing the overdiagnosis of ADHD in early childhood requires more than changes to diagnostic guidelines. It demands a shift in how schools serve children in their earliest years. Federal and state policies must move from a compliance-driven approach toward one grounded in developmental science. The following recommendations offer clear, actionable steps.

Federal policy should require all pre-kindergarten through third-grade programs to adopt developmentally appropriate practices. Long stretches of seatwork should be reduced, movement and unstructured play must be restored, and academic benchmarks should reflect what children are actually capable of learning. State standards should align with research findings on how children grow and learn.

Music education should be reinstated as a core subject in every public school. Congress and the U.S. Department of Education should ensure that certified music educators provide regular instruction beginning in preschool. Music should be included in Title I funding formulas with oversight to ensure that low-income districts have equal access. Puerto Rico's Escuelas Libres de Música provide a living example of how music can be treated as part of public education infrastructure rather than an optional enrichment.

Teacher preparation programs also need stronger requirements in developmental science. Federal funding and accreditation standards should prioritize training in child development, trauma-informed practices, and behavioral diversity. Professional development must address implicit bias in how children are labeled, especially boys, multilingual students, and children of color.

Clear safeguards are necessary before any child under the age of nine is referred for an ADHD evaluation. Schools should be required to document that they have implemented developmentally appropriate supports, including music instruction, play-based activities, and movement breaks, before considering a clinical referral. This will help teachers distinguish between normal developmental differences and genuine clinical needs.

Recess and free play must also be protected. Federal and state codes should guarantee daily recess for all young children, regardless of a school's performance rating. Decades of research confirm that play improves focus, behavior, and learning outcomes. Cutting play to make room for test preparation undermines both development and equity.

Ultimately, Congress should establish a national task force to address early childhood mental health and education policy. This task force should bring together developmental scientists,

educators, and policymakers to create national guidelines that prevent misdiagnosis and promote healthy learning environments. It should also explore how music and arts integration, modeled by systems like the Escuelas Libres de Música, can be scaled to reduce behavioral referrals and support children more effectively.

These recommendations are not experimental. They are grounded in decades of research and proven practice. When music, play, and developmentally appropriate methods are treated as essential infrastructure, schools will stop labeling children for being themselves and start creating the conditions for them to thrive.

Conclusion

The overdiagnosis of ADHD in early childhood reflects a deeper issue in how education policy defines and structures learning for young children. Classrooms have become more rigid, more academic, and less aligned with how children develop. This shift has created environments where normal curiosity, energy, and immaturity are too often pathologized. Children are being labeled, medicated, and stigmatized when what they truly need are classrooms that reflect research on childhood development.

Music education stands out as one of the most powerful and proven ways to bridge that gap. It engages nearly every part of the brain, builds executive function, and supports self-regulation and emotional growth. It creates learning spaces where movement, discipline, and creativity coexist. When music is removed from schools, children lose a protective factor that not only supports learning but also helps reduce the behaviors that lead to unnecessary referrals for ADHD evaluation.

The Escuelas Libre de Música in Puerto Rico shows that music can be woven into public education as core infrastructure rather than an optional activity. Their decades-long success demonstrates how music can support children of all backgrounds, offering structure, expression, and opportunity. Yet, no formal studies have been conducted to examine whether students diagnosed with ADHD experience measurable changes in attention, behavior, or school engagement as a result of enrolling in these schools. Future research should address this directly. A longitudinal study tracking diagnosed students who enter the Escuelas Libre de Música compared to peers in conventional schools could provide critical data for policymakers, confirming music's potential as a non-medical intervention.

This paper argues that reducing ADHD overdiagnosis is not just about changing medical practices. It is about rethinking how we design education for young children. By reinstating music, protecting play, and requiring that schools provide developmentally appropriate supports before referring children for evaluation, we can shift from labeling children to helping them thrive. Music is not a luxury. It is an essential part of how children learn and grow. The time for change is now, and the next step must be bold research and bold policy that place childhood, creativity, and development back at the center of early education.

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