Scientific Research Publishing

Open Journal of Social Sciences, 2025, 13(9), 217-235
https://www.scirp.org/journal/jss
ISSN Online: 2327-5960
ISSN Print: 2327-5952

Beyond the Magic Pill: Reassessing the Role of Pharmacology in Autism Care through Restorative Perspectives

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How to cite this paper: Johnson, G. A. (2025). Beyond the Magic Pill: Reassessing the Role of Pharmacology in Autism Care through Restorative Perspectives. *Open Journal of Social Sciences, 13,* 217-235.
https://doi.org/10.4236/jss.2025.139014

Received: August 6, 2025
Accepted: September 19, 2025
Published: September 22, 2025

Abstract

This article examines dominant pharmacological treatment approaches in autism care. By analyzing existing clinical practices, it critiques medicalized frameworks for autism intervention and introduces restorative justice principles as a neurodiversity-affirming model to reimagine relational, community-centered care. These frameworks emphasize the inclusion of the autism community, parents, and primary caregivers in treatment decision-making, particularly regarding the selection and testing of medications. Such care must be balanced with individualized supports and evidence-based behavioral frameworks. Through narrative analysis and targeted pharmacological comparisons, the article highlights systemic barriers, ethical tensions, and the underrepresented voices of autistic individuals and caregivers in clinical settings. The findings advocate for transparent and inclusive models of care that position autistic individuals as co-creators of their health and well-being.

Keywords

Autism, Clinical Trials, Ethics, Inclusion, Medications, Neurodiversity, Pharmacology

1. Introduction

In 2022, the Centers for Disease Control and Prevention (CDC) estimated that approximately 1 in 31 youth, aged 8, were diagnosed as having Autism Spectrum Disorder ASD (CDC, 2025). ASD encompasses a diverse array of neurodevelopmental presentations that challenge conventional, one-size-fits-all solutions. To date, the U.S. Food and Drug Administration (FDA) has not approved medical treatments for the etiological factors and core symptoms of ASD, which typically

involve challenges in social dynamics, communication, restricted or repetitive behaviors, and sensory sensitivity (Center for Drug Evaluation and Research (CDER) & FDA, 2018; Li et al., 2024). Nevertheless, the pharmaceutical industry remains actively engaged in the development and promotion of medical interventions aimed at addressing the needs of neurodiverse populations (Ghosh et al., 2013; Hirota & King, 2023). This article uses a conceptual approach and narrative analysis to examine neurodevelopmental presentations, primary caregivers and community engagement, the alignment between pharmaceutical growth and marketing autism medications, and ethical concerns. Recommendations advocate for transparent and inclusive models of care that position autistic individuals as co-creators of their health and well-being.

2. Methods

A conceptual approach to examining pharmaceutical literature and the underrepresentation of individuals on the autism spectrum disorder (ASD) in clinical trials largely provided the framework for this article. Drawing from peer-reviewed literature, clinical guidelines, pharmacological practices, and advocacy perspectives published between 2000 and 2025, data presentations map key processes and tensions in efficacy, ethics, and the inclusion of community members and key stakeholders. To operationalize this conceptual inquiry, the study combined narrative analysis with a targeted pharmacological literature review. Narrative sources included publicly available case studies and clinical/legal reports, government actors, and other authoritative sources involving pharmacological clinical trials and interventions. Themes were identified through purposive reading of literature in pharmacology and neurodiverse medical journals and studies. Emphasis was placed on works discussing efficacy, approvals, ethics, impacts, and underlying assumptions of both treatment approaches as well as potential barriers to including the autism community as active voices in these processes. The aim is not to exhaustively catalog studies but to present conceptual processes, tensions, and propose an integrative framework for future inquiry and practice.

A literature review was conducted using PubMed, PsycINFO, EMBASE, and Google Scholar with search terms such as “autism,” “neurodiverse,” “clinical trials,” “medications,” and “pharmacological interventions.” Inclusion criteria prioritized peer-reviewed studies published between 2000 and 2025. Articles were screened for methodological rigor and relevance to neurodiversity-affirming practices. Findings were synthesized to highlight gaps in clinical processes and implications for neurodiversity-affirming pharmacological reforms.

3. Literature

Pharmacological Management of Autism Spectrum Disorder estimates that 45 percent of children and 75 percent of adults with ASD are treated with psychotropic medications (i.e., drugs that affect mood, thought, or perception) (Kerns et al., 2020; Tomiyama et al., 2025). However, this source emphasizes that pharma-

cological interventions are most effective when integrated with behavioral and environmental supports (Ermer, 2018).

The literature highlights the increasing prevalence of autism spectrum disorder (ASD) and underscores the complexity of its neurodevelopmental presentations. Despite a lack of FDA-approved treatments for core symptoms, the pharmaceutical industry's continued investment in ASD-targeted interventions prompts examination. This section will explore current understandings of neurodevelopmental presentations, the role of primary caregivers and community engagement, the efficacy of existing treatment approaches, and oversight by the FDA, including associated ethical concerns.

3.1. Neurodevelopmental Presentations

Historically, individuals with ASD were misunderstood and often misdiagnosed. As recently as the mid-twentieth century, autism was believed to be associated with schizophrenia and other mental health disorders (Evans, 2023). People with autism were frequently confined to institutions, where treatments such as insulin shock and early psychotropic drug regimens failed to address the specific traits and behaviors associated with autism spectrum disorder (Havercamp et al., 2021). However, with advances in neurodevelopmental research, the understanding of autism symptomology as well as its prevalence has broadened.

According to the International Classification of Diseases, 11th Revision (ICD-11), diagnostic criteria for ASD social impairments may include inappropriate reactions to verbal or nonverbal communication, compromised speech comprehension, reduced social awareness, impaired sharing of mutual interests, and difficulties establishing peer relationships (Roy & Strate, 2023). Restricted or repetitive behaviors might include an inability to adapt to new encounters or situations, rigorous rule-oriented behaviors, preoccupation with objects, stimuli, or special interests (Roy & Strate, 2023: p. 88). These symptoms are generally identified during early childhood (Roy & Strate, 2023).

Parents are generally the first to identify autism symptoms in children. Autism is more prevalent in boys than in girls (CDC, 2017). However, diagnosis is often delayed, as there is no absolute test for diagnosis (CDER & FDA, 2018). Autism is complex and may manifest as a wide array or spectrum of behaviors and developmental impacts. The associated behaviors may include camouflaging, stimming, and self-stimulation (National Autistic Society, n.d.). Camouflaging is a means of masking symptoms of autism (Tubío-Fungueiriño et al., 2020). It appears that females are more adept at masking their symptoms than males (Roy & Strate, 2023). Masking and camouflaging have been associated with comorbidities such as depression and stress (Cook et al., 2021). Notably, there are no assessment tools to detect masking. However, recently, researchers have begun to develop questionnaires (National Autistic Society, n.d.). Camouflaging can also reduce the appearance of symptoms such as repetitive movements. Stimming or repetitive movements might include rocking, hand flapping, skipping/jumping, repetitive blink-

ing or eye movements, or averted gaze (Cook et al., 2024). This cadre of symptoms could also include repeatedly listening to the same music or videos, touching textures and fabrics, or smelling or chewing objects (National Autistic Society, n.d.). Self-stimulatory behaviors are sometimes aligned with hyper-sensitivities, where success in symptom reduction has been achieved through functional communication training (Ali et al., 2025).

3.2. Primary Caregivers and Community Engagement

The role of the primary caregiver is essential during the intervention and treatment process. Studies have shown that parents who are engaged and trained in treatment expectations exhibit a greater sense of self-efficacy and stress reduction (Kurzrok et al., 2021). Training might include providing caregivers with an understanding of clinical trials for autism symptom relief, as well as the risks and benefits of interventions, clinical research, and symptom management (Kurzrok et al., 2021).

Primary caregivers, along with their support teams (clinicians, pediatricians, speech therapists, etc.), play a vital role in shaping treatment planning and delivery of care for individuals with autism (Bieleninik & Gold, 2021). Given the individual nature of autism symptomology and the absence of a definitive cure, navigating treatment options, evaluating medication efficacy, and engaging with emerging research processes present nuanced and often complex challenges.

Scholars are also of the philosophy that primary caregivers and patient communities should be engaged in the design and implementation of clinical trials and research for autism (Russell et al., 2017). However, this is not always the case. There have been some instances where stakeholder input was excluded from the process even though researchers sought input during the design phase (Elberse et al., 2011). According to Al-Mazidi and Al-Ayadhi (2021), parents may also grapple with understanding the healthcare therapies and variations of interventions available. Caregivers may also lack knowledge about viable treatment plans and service providers to treat core neurological presentations.

The plethora of information regarding autism interventions may overwhelm caregivers. For example, material regarding autism treatments is disseminated through various channels (e.g., internet, medical pamphlets, video, and digital media), which can complicate caregivers' ability to assess the most effective medication, application, and determine symptom management (Grant et al., 2016). Importantly, confusion may lie in understanding how some medications only address peripheral symptoms versus the core symptoms, making caregivers vulnerable to the plethora of pharmaceutical marketing strategies (e.g., sensory inputs, related to sound, light, and textures).

Additionally, these parents tend to face three primary challenges: pediatrician knowledge gaps related to autism, communication challenges regarding treatment options, and understanding treatment alternatives (Al-Mazidi & Al-Ayadhi, 2021). As such, at the outset, clear goals should be prioritized as a collaborative

process between the treatment provider and primary caregivers (Roy & Strate, 2023). Additionally, caregivers would benefit from understanding the limitations of pharmaceutical-sponsored medications (Bradshaw et al., 2022).

3.3. Pharmaceutical Growth and Marketing Autism Medications

The evolving understanding of autism and its projected prevalence have significantly shaped pharmaceutical market strategies and raised persistent ethical concerns. In recent decades, the projected increase in autism designations in the United States may have influenced the rapid expansion of pharmaceutical industry investments (Fortune Business Insights, 2025). Therapeutic market investments in autism research and development are expected to grow from an estimated $1.93 billion in 2022 to $3.42 billion by 2030 (Fortune Business Insights, 2025). Industry sponsorship ranges from major pharmaceutical companies such as Janssen, Bristol Myers, and Lilly (Cortesi et al., 2012; Hollander et al., 2012; Subramanian et al., 2020) to academic and emerging biopharmaceutical firms, each with varying ethical standards and research agendas (Kirino, 2014).

In addition to pharmaceutical growth strategies, their marketing efforts are often extensive, promoting claims about the efficacy of certain medications. However, some medications may have undisclosed side effects and are considered toxic (Autism Research Institute, n.d.). For instance, both risperidone and aripiprazole have received FDA approval for treating the irritability and aggression associated with ASD, but not its core symptoms. The exaggeration of efficacy is further evidenced by the legal case against Johnson & Johnson, which faced a $2 billion criminal and civil liability suit for improper marketing and misbranding of the antipsychotic drug risperidone. The case highlighted the company's overstatements regarding the efficacy and intended uses of these medications (United States Attorney's Office, Eastern District of Pennsylvania, 2013).

There are a growing number of medications and drugs under consideration for FDA approval, yet there remain unresolved ethical concerns around sponsorship and conflicts of interest. Despite growing research efforts, ethical challenges persist, particularly in research involving children with disabilities (Nisarga et al., 2022). Specifically, psychotropic drugs are still being administered, sometimes without a co-occurring professional diagnosis (Havercamp et al., 2021). Moreover, some FDA-approved drugs and medications are associated with consequential side effects on appetite and marked behavioral changes in children (LeClerc & Easley, 2015; McCracken et al., 2002).

Multiple studies affirm co-occurring conditions in most individuals with autism. For example, Kerns et al., (2020) found that 78 percent of children with autism had at least one mental health condition, and almost 50 percent had two or more. Conditions cited were ADHD (48 percent), anxiety (roughly 40 percent), and depression (roughly 16 percent) (Tomiyama, 2025).

Table 1, autism pharmacology: ethical concerns, lists drugs currently receiving research interest and review, including risperidone, aripiprazole (Abilify), fluox-

etine (Prozac), melatonin, methylphenidate (Ritalin), leucovorin, cannabidiol (CBD, cannabis), and oxytocin.

As illustrated in Table 1, risperidone is sponsored by Janssen, approved in 2006. This medication is designed to address targeted symptoms such as mood swings, aggression, and self-injury. However, this medication has limited information on its long-term effects on autistic patients. In some cases, this medication has been dubbed in the pharmaceutical industry as a quick fix or *magic pill*, yet it offers modest relief from the complexities that fuel distress in the lives of those with Intellectual/Developmental Disabilities (ID/DD) and ASD (Davico et al., 2023).

Aripiprazole (Table 1), also known as Abilify, was approved in 2009 as a medication to address mood swings, aggression, and self-injury as well. The randomized clinical trials extended 8 weeks with a sample of youth (Kane et al., 2009). However, there was no autistic advisory committee input from parents, primary caregivers, or stakeholders, with a noted financial conflict of interest. The sponsor was Bristol-Myers and Squibb.

Table 1. Autism pharmacology: ethical considerations.

Medication	FDA Status	Sponsor	Targeted Symptoms	Trial Summary	Ethical Concerns
Risperidon	Approved (2006)	Jassen	Mood Swings Aggression Self-Injury	McCracken et al. (2002); short-term RCT (approx. 8 weeks); ages 5 - 17	Industry-sponsored; limited long-term data; exclusion of ID/DD
Aripiprazole (Abilify)	Approved (2009)	Bristol-Meyers; Squibb	Mood Swings Aggression, Self-Injury	Kane et al. (2009); RCT (approx. 8 weeks); youth sample	No autistic advisory input; financial conflict of interest
Fluoxetine (Prozac)	Off-label	Prozac, Lilly, generics	Repetitive behaviors, obsessive compulsive, panic	Prozac, Lilly, and generics; Hollander et al. (2012)	Limited sample; industry funding
Melatonin	Not regulated	Academic	Sleep Disorders	Cortesi et al. (2012): 4-week sleep study	None reported
Methylphenidate (Ritalin)	Off-label	Novartis, Concerta	Attention regulation disorders with autism comorbidity	Children's Hospital PA ADHD Generics	ADHD-centered metrics are possibly misapplied to atism traits.
Leucovorin	Experimental	Academic consortium	Folate metabolism, behavioral regulation	Frye et al., 2024; (approx. 12 weeks) pilot study	Small sample; generalizability
Cannabidiol (CBD Cannabis)	Phase 2 pending	Charlotte's Web, Ajna Bio	Behavioral symptoms, e.g., seizures	DeFloria; (approx. 12 weeks) teens and young adults	Co-sponsorship by British and American tobacco; limited peer review
Oxytocin	Phase 3 pending	Mass General Hospital; UNC (Chapel Hill); Par Sterile	Various behavioral therapies; social functioning; emotional recognition; gaze duration	6 - 8-week protocols	Mixed results; COI in formulation development; limited autistic community input

Note: Off-label: FDA-approved but prescribed off-label for autism.

As illustrated in **Table 1**, fluoxetine (Prozac) is an off-label medication sponsored by Lilly and other generic brands. This medication is designed to reduce symptoms related to repetitive behaviors and obsessive-compulsive presentations (Hollander et al., 2012; LeClerc & Easley, 2015). Its weaknesses include limited sample size, and it has industry funding, suggesting a potential conflict of interest.

Melatonin (**Table 1**) is an unregulated supplement used to address sleep disorders. Limited research exists. However, Cortesi et al. (2012) conducted a randomized, placebo-controlled study. There were 160 children aged 4 to 10 with autism. Treatment was administered at controlled times each day. The outcomes showed significant insomnia reduction.

Methylphenidate (Ritalin), as shown in **Table 1**, is considered an off-label drug produced by Novartis and Concerta. This medication targets attention regulation disorders and autism comorbidities. Clinical trials were conducted in a children's hospital in Pennsylvania (LeClerc & Easley, 2015). The ethical concerns include the medications that were designed to address Attention Deficit Hyperactivity Disorder (ADHD). However, methylphenidate was possibly misapplied to address autism traits (LeClerc & Easley, 2015).

As illustrated in **Table 1**, leucovorin trials and research have been associated with autism treatment for speech and communication (Frye et al., 2018). This off-label (a medication being used in a manner not officially approved by the FDA) drug has been administered to increase the folate brain level in autistic children. Some participants had cerebral folate deficiencies. Folate autoantibody tests can generally identify children most likely to respond to leucovorin (Rossignol et. al., 2014; Frye et al., 2024). The side effects of this therapy were considered mild, but some hyperactivity was experienced. Optimal mitochondrial levels may be needed for this treatment approach (Hill et al., 2025).

Cannabidiol (CBD), as shown in Table l., has received attention from both parent/caregiver experimental use and clinical trials. DeFloria, a partnership between Charlotte's Web and Anja BioSciences, has progressed to a phase-2 clinical trial for a cannabis-based botanical drug to treat hyperactivity in the ASD community (Stevens, 2025). Caregivers have reported favorable results using CBD oils to reduce stress, aggression, and other behaviors (Hobbs, 2025). These substances contain little Tetrahydrocannabinol (THC) and are not considered psychoactive. However, potential side effects include nausea, drowsiness, and depression (Stevens, 2025).

As illustrated in **Table 1**, oxytocin is also related to social functioning and augmented or enhanced brain functioning (LeClerc & Easley, 2015). Researchers found favorable results with emotional regulation variables and eye contact parameters. The nasal spray also had numerous early and mid-stage trials in the U.S. (LeClerc & Easley, 2015); however, clinical trials did not report the inclusion of autism-related participation.

3.4. Treatment Efficacy

Treatment efficacy related to the two FDA-approved medications aripiprazole

and risperidone has shown mixed results. In a placebo-controlled study using a fixed dose of aripiprazole for children and adolescents with ASD and irritability and restricted and repetitive behavior (RRB) symptoms, Marcus et al. (2009) sought to understand the efficacy and short-term relief of symptoms, tolerability, as well as the safe use of aripiprazole. The study duration was 8 weeks. Caregivers completed the Aberrant Behavior Checklist Irritability subscale. The findings showed that aripiprazole was tolerated by affected children's irritability, with a common side effect of sedation (Marcus et al., 2009).

A 2024 systematic review found that risperidone (Hedges' g effect size = 0.857; 95% Confidence Interval: −1.263 to 0.451) and aripiprazole (Hedges' g effect size = −0.559; 95% Confidence Interval: −0.767 to −0.351) outperformed placebos in reducing irritability, aggression, and self-injurious behaviors in autistic youth with high certainties (Choi et al., 2024). These findings suggest that these two pharmaceutical agents may offer meaningful relief for select individuals (Choi et al., 2024). However, such benefits must be assessed against metabolic side effects and long-term treatment, particularly in contexts where medication may be substituted for trauma-informed care and behavioral supports (Choi et al., 2024).

In a meta-analysis examining the efficacy of pharmacological treatments to address symptoms of restricted and repetitive behaviors (RRB), Zhou et al. (2021) critiqued 64 studies (3,499 participants) that used randomized, placebo, clinical trials. The findings showed a small effect size for the efficacy of antipsychotics in improving RRB symptoms. While smaller studies were found to have a larger effect size, the other pharmaceutical treatments did not have a significant effect on reducing RRB symptoms as compared to placebo. For example, oxytocin: SMD = 0.23, 95% CI = −0.01 to 0.47, z = 1.85, p = 0.06 (Zhou et al., 2021). This meta-analysis is significant, being the first comprehensive analysis covering RRB in the literature.

As shown in **Table 1**, most of the pharmaceutical compounds discussed fail to progress beyond pre-trial stages, underscoring the significant scientific hurdles and financial risks that can deter further investments. Nevertheless, more treatment data could be gained if greater numbers of clinical trial results were properly reported to the FDA and ClinicalTrials.gov (Interagency Autism Coordinating Committee, 2022).

Additionally, some scholars have raised concerns that the limited commercial incentive associated with inexpensive and widely available medications, such as leucovorin, may reduce pharmaceutical interest in further research or development (Frye et al., 2018; Grounder, 2025). To provide better service and treatment options for the autism community, clinical trials need to be inclusive of the spectrum of people affected. The industry should also conduct research for both short- and long-term results, provide clear, best-use guidelines, and cite known risks (Frye et al., 2024). In the interim, the pharmaceutical industry may be marketing metaphoric *magic pills*, fueled by unchallenged claims.

4. FDA Oversight and Concerns

Under FDAAA 801 and related regulations, the Food and Drug Administration (FDA) requires that certain applicable clinical trials submit registration information, enrollment data, and results to government databases, such as ClinicalTrials.gov, typically within 12 months of the trial's primary completion date or within 30 days of FDA licensure for developmental products (Stergiopoulos et al., 2019; Wong & Williams, 2012). However, some sponsors fail to comply with these requirements, and additional limitations exist: According to the Interagency Autism Coordinating Committee Summary of Advances, 2022, registration compliance is critically low, with only a twenty percent (20%) compliance rate, which highlights a persistent challenge in clinical transparency (Interagency Autism Coordinating Committee, 2022).

In response, the FDA has issued notices of noncompliance for failure to post clinical trial results, with proposed penalties that can exceed $12,000 per day (Woodcock, 2021). The Government Accountability Office found ethical oversights in autism research including a lack of documented procedures to prevent duplication of methodologies and research efforts; inadequate metrics of progress toward strategic goals; and limited stakeholder engagement, including inclusion of the ASD community (Dicken, 2024). These oversights reflect a systemic disregard for clinical transparency. Such findings also undermine progress in ASD social inclusion in all aspects of their respective communities.

5. Recommendations

To advocate for transparent and inclusive neurodiversity-affirming models of care that position autistic individuals as co-creators of their health and well-being, the following recommendations are offered.

5.1. Engaging Patient Communities Using Restorative Justice Frameworks

In light of systemic barriers, restorative frameworks center on the lived experiences of those impacted by overt and unintentional acts (e.g., neurodivergent individuals), fostering inclusive engagement as a pathway to healing those affected (Suzuki, 2023). Flasch (2020) offers that recovery from harm should be viewed as an ongoing endeavor whereby autistic individuals evolve from trauma and exclusionary practices. The utilization of internal and external support can assist in repairing and rebuilding lives post-victimization (Smith, 2003).

Traditional interventions often rely on pharmaceuticals for behavioral control and achievement of ableism goals. However, medicalization may be only temporary fixes that obscure perceived wrongs (Barbot, 2022). Restorative justice challenges these paradigms through 1) Reframing harm not solely as a violation of law, but as a rupture in individual and community trust requiring repair; 2) Centering interventions on the neurodivergent community, which is underrepresented in clinical processes and decision-making; and 3) Ethical matters, which

should affirm the autism community in solution participation, who should collaboratively affirm efforts concerning their own health and well-being (Velez & Gavrielides, 2022; Roche, 2003; Goldman, 2023).

5.2. Pharmacological Clinical Considerations

The pharmaceutical industry allocates billions of dollars each year to advertise and conduct research related to autism (Ramachandran et al., 2021). Pharmacological interventions, when carefully prescribed and monitored, can offer relief from co-occurring conditions that exacerbate distress or impair functioning. However, critics argue that pharmaceutical companies prioritize profits over the well-being of patients who often depend on medications (Baletti, 2023). For instance, aggressive marketing campaigns promote prescription drugs for autistic individuals. Statista, a German-founded statistical powerhouse, estimates that the pharmaceutical industry spent $378.5 million on lobbying efforts, demonstrating its influence in U.S. lobbying efforts (Baletti, 2023).

Meanwhile, reforms can be developed to address ethical violations and promote inclusion and community involvement, which are much needed and long overdue (Castillo & Braslow, 2021). The tools for advocacy and change include greater transparency, participatory educational and scientific research, and comprehensive care. A further consideration in unreported clinical processes and results is the absence of participants who align with representation or the needs of the diverse neurodiverse population (Doyle et al., 2022).

Pharmacies and drug stores provide several over-the-counter and prescription-based medication options for the relief of many ailments (Arta et al., 2025). For example, using pharmaceutical interventions, the FDA has approved risperidone and aripiprazole for the treatment of irritability associated with autism spectrum disorder (ASD), primarily in children and adolescents (LeClerc & Easley, 2015; Davico et al., 2023). However, as Kirino (2014) and others have noted, no pharmacological intervention has demonstrated efficacy in treating the core features of autism. These medications may alleviate associated behavioral symptoms, but they do not offer curative outcomes. Despite limitations, pharmaceutical trials contribute meaningfully to the field by providing standardized outcome measures, rigorous safety evaluations, and insights into neurohormonal mechanisms (Manter et al., 2025).

The landscape of medications receiving FDA and off-label scrutiny often fails to reveal clinical results or address the complex, multifaceted conditions involved in neurodiversity care (Durant et al., 2025). For example, other co-occurring conditions such as depression, trauma, and chronic pain can also present stemming and social challenges.

6. Implications

A 2022 meta-analysis by Lord et al. (2018) found that risperidone can assist with irritability in autistic youth; but side effects, such as weight gain and sedation, may

ensue. In this context, analysis of medication efficacy and outcomes must be enhanced.

Accessibility for the neurodiverse community must be elevated from "nice-to-have" status to being a civil rights imperative. Advocate demands for physical, cognitive, and sensory accessibility and accommodations are legal and ethical obligations mandated in the American Disabilities Act (1990). Children and adults on the autism spectrum must have a stronger voice in the policies and practices that affect their daily lives and existence. This includes greater awareness and informed consent from the autism community concerning the medications introduced to augment their care and quality of life; issues of increased significance in neurodiverse healthcare (see ASAN, 2014; HHS, 2009, 45 CFR §46).

Behavioral interventions remain among the most evidence-based and validated approaches to support challenges associated with autism communication, social interactions, and adaptive functioning (Hume et al., 2021). Applied Behavioral Analysis and functional communication training have demonstrated positive results in autistic individuals' behaviors and skills acquisition (Neville et al., 2021). These interventions disclose the importance of context-specific behavioral approaches in neurodiverse treatment options.

Restorative principles have received limited consideration within the scope of relational repair and counseling psychology frameworks (Taylor & Bailey, 2022). However, their applications extend well beyond the 21st century and criminal justice offerings (Lodi et al., 2021). Systemic barriers, such as the exclusion of marginalized populations from clinical studies, coercive pursuits for pharmacological interventions, and the pharmaceutical industry's frequent omission of data outcomes, represent ethical violations that demand redress. Restorative justice calls not only for acknowledgment of harm and lapses, intentional or otherwise caused, but also for active community engagement in repair, accountability, and inclusive participation of the autism community in all aspects healthcare.

However, rather than developing treatment plans that tailor holistic enhancements for autistic people, the pharmaceutical industry seems incentivized to market medications for behavioral symptoms without addressing or exploring root causes or environmental factors (Aishworiya et al., 2022). These measures often proceed in lieu of counseling and behavioral therapies that have evidence-based outcomes (Aishworiya et al., 2022). More importantly, the focus on medication and pharmaceutical treatments reinforces beliefs that autism is a disorder that can be fixed, rather than a neurodevelopmental condition that requires multifaceted considerations (McLean, 2022). McLean advocates for a shift away from deficit-based pharmaceutical models toward neurodivergent-interdisciplinary treatment models and support. In a broader context, ableism macro-level strategies have excluded autistic individuals from educational and workforce opportunities (Bronfenbrenner, 1994) and contributed to perceptions of autism being problematic. This is a condition that requires culturally responsive care, service delivery equity, and awareness of systemic barriers that adversely impact neurodiverse and mar-

ginalized communities (Pearson & Meadan, 2021).

If pharmaceutical interventions have offered mythical "magic pills" in response to autism care, restorative justice can provide the means for scaffolding sustainable inclusive care. Holistic care, via restorative justice, considers unhealed wounds and unresolved matters caused by failed exclusive practices and policies. These approaches fracture community relationships and maintain detrimental exclusive practices that harm the autism community (Lodi et al., 2021). In this context, the third component of restorative justice (i.e., community engagement) must be front and center. The community has an obligation to honor its most vulnerable members and protect them from wrongs and harms. As needed, those responsible for harm perpetrated against ASD members should be penalized and forced to create paradigms for integration and transformation (Lodi et al., 2021). Stakeholders should be prepared to confront the structural barriers and impediments that continue to disenfranchise and inflict harm on ASD marginalized community members (Taylor & Bailey, 2022).

7. Conclusion

In the context of this analysis, the *Beyond the Magic Pill* critique argues that there has been an overreliance on pharmaceutical solutions for the complex needs of the ASD community. Simpson et al. (2005) and Reichow et al. (2025) assert that the pharmaceutical industry has dominated the landscape of autism treatment, while other approaches such as behavioral therapies and developmental supports have been sidelined. These conditions may have inadvertently created barriers to other healthcare options for individuals with autism. Furthermore, the insurance industry often adheres to medication-centered approaches (Simpson et al., 2005; Reichow et al., 2025).

If proverbial magic pills can be marketed as a swift solution to obtain neurotypical status, restorative justice invites individuals and communities to move beyond conformity toward relationships rooted in empathy and accountability. In this paradigm, healing does not exclude or discount differences but rather embraces ASD as a resource. Stemming and sensory challenges are traits to be understood. In this context, neurodiversity is not a deficit to be corrected but a spectrum of human experience that demands acceptance, inclusion, and dignity.

To remedy harm and injustices and rethink neurodiversity care in pharmaceutical treatment for autism, resources must be redirected towards a more extensive understanding of the vast neurodevelopmental needs of individuals on the autism spectrum. Research should prioritize both immediate and long-term health necessities, as well as co-occurring conditions such as schizophrenia, anxiety, depression, and ADHD processing issues (Harrison et al., 2019). Regarding medications, a synthesis of institutional priorities by the World Health Organization identified several priorities in psychosocial and mental health research, including stakeholder involvement in understanding the impacts of research processes and outcomes (Nasser et al., 2022).

8. Limitations

This article presents a narrative and critical synthesis of pharmacological practices through a neurodiverse-affirming posture. While grounded in clinical data, case studies, and oversight findings, the messaging is interpretive and should not be considered prescriptive. Additionally, restorative justice practices often rely on verbal articulation of harm; however, these skills may be absent or expressed in non-traditional manners by members of the autism community. Without proper application and scrutiny, misapplication of restorative justice principles could replicate exclusionary practices rather than foster inclusion.

Future research should prioritize longitudinal and autistic-centered needs, which ensure transparency in clinical processes and results. The author found a significant gap in peer-reviewed literature addressing the intersection of race and neurodiverse traits and conditions, which underscores the need for both broader-scoped and intentionally focused research. Additionally, participatory approaches involving the full spectrum of the autism community, as well as family members and community support, may foster more culturally and environmentally relevant pharmacological responses.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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