



Reframing Aggression in Autism Spectrum Disorder: Position Paper on Uncontrolled Restlessness, Receptivity and the Role of Medication

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Abstract

Actions commonly referred to as autonomic aggression in children with Autism Spectrum Disorder (ASD) such as screaming, hitting, biting, and objects-focused force are typically misunderstood as a deliberate or oppositional action. In this paper, it is suggested that this reframing of such behaviors should be done as expressions of what might be called uncontrolled restlessness, as a progressive process of neurobehavioral dysregulation. We present a clinically actionable framework that places emphasis on early detection, progressive intervention, and the principle of receptivity, which is the ability of the child to accept and process the perception of information, especially the auditory and visual perception. The article also supports the idea that in instances where these behaviors are present even after some structured behavioral interventions, pharmacological treatment specific to restore neurophysiological homeostasis, and thus, makes the child therapy-able. The model is an integrated approach

to bridging behavioral and biological strategies to ASD care.

Keywords: Autonomic Dysregulation, Auditory input, Autism Spectrum Disorder, Homeostasis

Introduction

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder marked by enduring lack of social communication, as well as limited and repetitive behavioral and interests ¹. Besides these central diagnostic traits, a significant number of individuals with ASD show up with significant behavioral problems, which can greatly interfere with normal functioning and therapeutic participation, as well as caregiver well-being. Behaviors that are usually described as aggressive, such as hitting, biting, screaming, pushing objects, etc., are frequently viewed as some of the most disruptive and alarming both in clinical and home settings. The behaviors are most common and often linked to an escalation of caregiver stress and clinical intervention ^{2,3}.

Nonetheless, a growing literature is indicating that these practices are often mis-packaged in terms of their interpretation through a strictly intentional or oppositional ideology. These expressions of behavior are no longer considered expressions of willful misconduct but are, rather, non-volitional outputs due to underlying neurobiological dysregulation^{2,4}. A change in neural mechanisms that regulate emotional regulation, sensory processing, and inhibition of impulsiveness, such as abnormal performance in fronto-limbic and cortico-striatal networks, can also be a source of increased reactivity and an impaired ability to control. As a result, what, in the eyes of the outside world, can be seen as agitation, can actually be an internal condition of excessive physiological and perceptual imbalance.

Although there is an increased attention to this, even the conventional behavioral frameworks are frequently restricted in the ability to explain the dynamic and progressing nature of these behavioral episodes. An intervention based on observable behavior per se can ignore the antecedent internal conditions that lead to escalation, and thus limits the scope of understanding and efficacy. Clinical and translation research implicates suggest that aggression in ASD tends to occur in the wake of increasing physiological arousal and sensory dysregulation, indicating a process and stage-based explanation of the expression of behavior^{3,4}. More conceptual models are still required to go beyond the use of static labels, and instead reflect the dynamic development and processes of dysregulated behaviour in ASD.

To this gap, the current paper presents a conceptual reframing: a change in the term, instead of aggression, uncontrolled restlessness. This re-conceptualisation pays more attention to behavior as a process rather than a

category, prefiguring interactions between sensory, motor, and emotional dysregulation. This framework, by giving precedence to mechanism as opposed to judgment, is out to aid in a more accurate clinical observation, early intervention and less attribution of intentionality where it is unwarranted. Such a change can, in the end, improve clinical practice and caregiver knowledge, as well as bring intervention strategies to be more consistent with the neurodevelopmental realities of ASD.

Conceptual Framework: Uncontrolled Restlessness

Uncontrolled restlessness as a conceptualized state in the present paper is a multidimensional state of dysregulation consisting of motor, sensory-perceptual, and emotional systems, with increasingly disorganized behavioral output. This construct is a dynamic interplay between neurophysiological arousal, differences in sensory processing and diminished inhibitory control, instead of discrete and independent behaviors. Neurodevelopmental models, in which the imbalance of excitation and inhibition are considered the key factors behind behavioral dysregulation in Autism Spectrum Disorder (ASD), can be used to support such a point of view^{6,7}.

This model places uncontrolled restlessness as a span and not as categorical situation where observable behaviors change and develop in magnitude and shape as control ability is gradually impaired. Notably, the progression is not random but occurs in a recognizable pattern that provides clinically meaningful staging which can be used to inform the prompt identification and treatment. Staged models like these have been implicitly outlined in the literature on emotional dysregulation and sensory overload in ASD, but commonly not operationalized to make them applicable clinically^{4,5}.

Stages of Restlessness beyond Control

1. The initial Stage (Perceptive Disturbance).

The initial stage is marked with minor yet noticeable modifications in sensory and motor activity. Repetitive vocalizations, tapping, and object manipulation are some of the behaviors that tend to develop at this stage. These activities can have a regulatory role, usually termed as self-stimulatory behaviors (stimming), that aid in regulating the sensory input and internal balance (6). Increased movement and less immobility can be an indication of early dysregulation in the sensory and attentional systems. At this level, the child maintains a half-presence in the environment, and early intervention can help avoid the further development.

2. Escalation Phase

The more severe dysregulation is, the more striking and less adaptive the behaviors are. There is increased loudness, more motor restlessness and the development of pushing or intrusive behaviors is also quite typical. At the same time, there is a tendency to significantly decrease the meaningful engagement with the environment, and the attention that is paid to it is more internally oriented. This phase can also be associated with the presence of greater autonomic arousal and lesser cognitive flexibility, which restricts the processing of external signals or responding to regulatory signals by the child (4,6). The reduction in attentional focus as well as reduction in responsiveness is reflective of loss of regulatory control.

3. Meltdown Phase

The last stage is characterised by blatant behavioural lack of organization such as screaming, hitting, biting and pinching. At this stage, the person demonstrates almost complete lack of control over their behavior and the behavior is to a great extent triggered by acute

physiological arousal. This stage is in line with a fight-or-flight reaction that is mediated by an increase in the activation of the sympathetic nervous system and a decrease in top-down cortical control ⁷. There is a gross impairment of the cognitive processing and the person is usually incapable of replying to external interventions meaningfully. The actions at this stage have been best interpreted as involuntary manifestation of excessive dysregulation but not necessarily actions on purpose.

On the whole, the suggested staging of uncontrolled restlessness can serve as a clinically available framework to comprehend the time course of dysregulated behavior in ASD. This model can promote early warning signs of disturbances and the middle stage of escalation processes to enable proactive intervention and decrease the dependence on reactive strategies. Moreover, it is consistent with the available data on the sensory processing abnormalities, autonomic dysregulation, and abnormality of neural excitation-inhibition balance, which makes the construct grounded in the systems of neurobiological explanations ^{4,6,7}.

The Central Role of Receptivity

One of the main contributions of this position paper is the development of receptivity as a key therapeutic outcome to behavioral dysregulation in Autism Spectrum Disorder (ASD). This framework focuses not on the decrease of externally noticeable actions but on recovering an inner state that would allow a meaningful interaction with the surrounding. Such a change is indicative of the more general trends in neurodevelopmental studies which emphasize the significance of predisposing regulatory capacity as a necessary condition of learning and functional adaptation ^{6,8}.

The receptivity refers to the ability of the child to be physiologically and attentively stable and at the same time taking in and interpreting the input of the senses.

This involves being able to:

- Maintain bodily steadiness
- Sustain mental focus
- Perceive and interpret signals generated by the sensory (perceptive) organs, especially:
 - Auditory input (ear)
 - Visual input (eye)

Neurodevelopmentally, receptivity could be conceptualized as the condition whereby the sensory systems, the networks of attention and the regulatory systems are well integrated enough to enable adaptive engagement with the environment. Notably, the construct goes beyond passive registration of sensory input to the active synthesis of multimodal inputs as well as the ability to provide a response in a way that is relevant to the context. Emerging data points to unusual sensory assimilation and attentional control disruptions as fundamental characteristics of ASD, which tend to limit the capacity of an individual to attend to therapeutic provisions^{6,7}.

Neurodevelopmental Basis

In ASD, learning and adaptive behavior is dependent on an effective sequence:

Input → Processing → Response

The interruptions of any point of this chain may cause disturbances in the level of functionality greatly. The sense input can be warped, weakened or overpowering in the state of uncontrolled restlessness and therefore a disjointed or ineffective processing may occur.

As a result, behavioral output can be disorganized or maladaptive that represent a dysregulation process

within the system rather than intent or motivation deficits.

This model is supported by neurobiological studies, which suggest that, in most patients with ASD, sensory responsivity is atypical, i.e. hyper- and hypo-reactive, as well as cortical excitability and connectivity are different^{6,7}. The research also shows that there are impaired integration within distributed neural networks, such as those systems that handle attention, salience detection, and executive control, as evidenced by functional neuroimaging studies. Such distinctions can also lead to challenges in selective, prioritization and responsiveness in relation to incoming sensory processes, and, as a result, attenuated general responsiveness to environmental and therapeutic stimuli.

In addition, autonomic dysregulation, which is the increased sympathetic activation and decreased parasympathetic modulation, has been also attributed to poor regulatory capacity in ASD. These physiological conditions can have a direct impact on the attentional engagement and perception processing, supporting the idea of receptivity being a state-contingent phenomenon⁴.

Therapeutic Implications

Behavioral Interventions

The first-line management of Autism Spectrum Disorder (ASD) is based on behavioral and environmental interventions, especially regarding the response to earlier manifestations of dysregulation. They are based on the principles of the learning theory and developmental psychology, and they strive to change the environmental contingencies and to develop adaptive skills and assist in the development of self-regulatory capacities. Implementation of structured routines, sensory modulation techniques, parent-mediated interventions

are core strategies that are designed to decrease the presence of unpredictability in the environment and to minimize triggers related to the escalation of behavior^{8,13}.

Formalized routines are very important in enhancing predictability and minimizing anxiety, hence contributing to cognitive and emotional stability. Familiar surroundings will allow persons with ASD to know about the changes and requirements in advance, which eventually decreases the risk of dysregulation. Sensory modulation strategies, such as modulation of the sensory input and the delivery of suitable sensory experiences, are also critical as sensory processing differences are also very impressive in this population⁶. The result of these interventions is to either reduce the overwhelming stimuli or give some regulatory input and hence allow more adaptive interaction with the environment.

Interventions by parent-mediated, caregiver-delivered also expand the influence of behavioral intervention strategies outside of the clinical setting. These methods focus on the caregiver as co-regulator whereby the skills they are given to respond contingently and supportively to the behavioral cues of the child are emphasized. Naturalistic Developmental Behavioral Interventions (NDBIs) evidence shows that by incorporating therapeutic interventions in natural settings, it is possible to improve generalization and sustained developmental benefits⁸.

Notably, such behavioral interventions depend on the ability of a person to be receptive. Such methods are based on the capacity to listen, process and react to the environment. They are therefore best applied when they are enforced when there is relative regulatory stability within states. In the case of receptivity impairment, the

effectiveness of behavioral tactics can be reduced, which is why it is essential to carefully examine the regulatory condition of an individual before acting.

Limitations of Behavioral-Only Approach.

Although behavioral and environmental-activities are considered the well-known enablers of the first line of interventions to be used in the Autism Spectrum Disorder (ASD) management, there are also significant weaknesses to these paradigms when the situation of inappropriate or intensive dysregulation is involved. Extending clinical and empirical data suggest that some people with ASD are stuck in prolonged hyper-aroused states, during which behavioral interventions are considerably ineffective^{9,10}.

Models of behavior are generally based on the learning theory principles, such as reinforcing, modifying antecedents, and acquisition of skills. Even though these strategies are most effective in situations of relative regulatory stability, they assume the existence of some minimum amount of attentional involvement and cognitive access. This fundamental ability is, in fact, impaired in states of uncontrolled restlessness. High levels of physiological arousal, overloading of the senses, and inability to respond by the person to inhibit behavior through negative control are all possible factors that can reduce the individual capability to focus on, attend to, and respond to behavioral contingencies^{6,9}. Therefore, interventions based on the use of external reinforcement only or structured prompting alone might not yield any significant or lasting change.

Experimental evidence also indicates that extreme irritability and aggression in ASD are often correlated with neurobiological mechanisms, such as malfunctioning of neurotransmitter systems and abnormal neuronal connections^{7,10}. Behavioral

expression in this instance, can be more conceptualized as the downstream consequences of physiological imbalance, than as the primary intervention target. This is a very important distinction, since it brings out onto focus the limitations of techniques that fail to simultaneously treat the underlying neurobiological condition.

Also, behavioral strategies used exclusively in the setting of unending dysregulation can unwittingly lead to frustration of the individual and those around them. The lack of expected behavioral responses even with the regular application of evidence based methods causes a danger of misattributing the absence of responsiveness to non-compliance or non-effort. It may result in increasing the demands or severity of interventions which may further worsen dysregulation instead of improving it⁴.

Clinically, these restrictions highlight the fact that there is a need to distinguish between the lack of skills and state-related impediments to engagement. Behavioral interventions are very necessary in the teaching of adaptive skills and functional behavior moulding, but their effectiveness depends on the receptivity ability of the individual. Without the adequate stability in the regulation, the enactment of the behavioral strategies could be untimely or inefficient.

All of these considerations collectively underlie the rationale of a more integrated treatment model that incorporates behavioral strategies, as well as interventions that address neurophysiological processes underlying them. This approach will enable stabilizing the inner situation of an individual, thus increasing receptivity and establishing the conditions required to learn the behavior and engage in a therapeutic process.

Role of Pharmacological Intervention

Pharmacological intervention plays a pivotal, but narrowly scoped, role in a comprehensive model of Autism Spectrum Disorder (ASD) care, especially when there is long-lasting and severe dysregulation. Although behavioral and environmental interventions continue to be the baseline, there is growing evidence that a group of people with ASD consistently experience high-arousal states that cannot be adequately addressed by behavioral interventions alone^{9,10}. Pharmacological treatment can be considered as a critical supplement in such situations to achieve neurophysiological stability and allow the involvement in therapeutic interventions.

Both extent and duration of symptoms and functional effect should be used to inform the choice of whether pharmacological support should be commenced. Clinical signs usually involve persistent characterization of behavioral disregard even with formal treatment, actions leading to a danger of self-hurt or harm to others, and a significant deficiency in the capability to engage productively in treatment or educational undertakings. Notably, the pharmacological intervention is not theorized as a primary approach to change the behavior per se but instead as a tool of moderating the underlying neurobiological condition limiting receptivity and engagement^{10,11}.

This view is consistent with modern treatment principles, which advocate the use of a step-care strategy whereby psychosocial interventions fail, and medication is considered a viable treatment option. In this context, the pharmacological agents act to mitigate the severity of the dysregulation thus providing the circumstances under which the behavior and developmental interventions are better implemented.

Mechanism of Action

The mechanisms of action of most pharmacological agents used in the treatment of ASD, especially atypical antipsychotics and alpha-2 adrenergic agonists, involve their regulation of the major neurochemical systems involved in arousal, emotional regulation, and behavioral control. Atypical antipsychotics including risperidone and aripiprazole mainly attain their actions via dopaminergic and serotonergic mechanisms, which play a role in the improvement of irritability, impulsivity and aggression^{10,11}. Such agents are believed to restore the disturbed excitation-inhibition interactions in neural circuits, especially in fronto-limbic circuits of emotion regulation and behavioral control^{7,12}.

Simultaneously or concurrently, alpha-2 adrenergic agonists (e.g., guanfacine, clonidine) have effects on noradrenergic systems, where they promote prefrontal cortical activity and suppress hyperactivity of the sympathetic nervous system. This leads to better attentional control, less hyperarousal and more behavioral control. These medications assist in a more controlled state of the internal environment, where cognitive processing occurs and engagement with the environment happens because of the activation of different, but complementary, neurobiological pathways¹².

It should be mentioned that these pharmacologic actions are not curative but modulatory, with an objective of optimizing neural functioning in the presence of neurodevelopmental differences. In this regard, medication can be considered as part of multimodal approach to treatment.

Clinical Outcome: Agitation to Receptivity

One of the major assumptions of this paper is to re-conceptualize pharmacological intervention as a process

of changing the state of the individual, but not his or her identity or essential features. In that regard, avoiding behavior in isolation is not part of the clinical goal, but a facilitation of a shift between dysregulated and regulated functioning. The move can be theorized as a sliding scale; agitation to calm, disorganization to organization and most importantly non-receptivity to receptivity.

The effectiveness of agents like risperidone and aripiprazole as agents that decrease irritability and aggression in children with ASD is supported by empirical evidence found in randomized controlled trials^{10,11}. These gains are often supported with more participation in therapeutic procedures, higher adherence to structured activities and better functioning. These results imply the possibility of pharmacological stabilization as a door to further productive involvement in behavioral and developmental interventions.

Clinically speaking, receptivity restoration is a landmark result because it allows the individual to open up to and utilize the learning opportunities that are otherwise non-existent. This supports the idea of the conceptualization of medication as being not a final thing, but a step to more comprehensive processes in therapeutic interventions.

However, pharmacological agents should be used with great caution, considering potential side effects, individual differences in response and the necessity to perform continuous monitoring of the risk-benefit balance. Best practice advises that the use of medication must be personalized, periodically examined, and combined with non-pharmacological interventions to guarantee the best and long-term effect.

Integration: Coordinated Model of Care

Behavioral dysregulation management in Autism Spectrum Disorder (ASD) requires a

stage-sensitive model of care, which has to be integrated to align intervention strategies with the control capacity of the individual at the moment. The paradigm suggested in the present paper is that an intervention is a dynamic process rather than a set of protocols, with behavioral, environmental, and pharmacological interventions utilized in a complementary and sequential way. This method concurs with stepped-care models that are popular in neurodevelopmental and psychiatric practice^{8,9}.

At the initial stages of uncontrolled restlessness, the measures are mostly behavioral and environmental and are aimed at organizing routines, sensory regulation, and control mechanisms provided by the caregiver. These strategies are intended to reduce proving, increase predictability, and promote new self-regulatory skills. Naturalistic Developmental Behavioral Interventions (NDBIs) evidence has highlighted the efficiency of such strategies in cases where a person is receptive enough to interact with the environment⁸.

With increasing dysregulation, the escalation phase, more intensive regulation strategies might be needed. These could involve greater environmental structuring, proactive co-regulation by the caregivers or therapists and specific sensory interventions to decrease arousal and renew partial involvement. Constant evaluation is paramount at this stage so as to establish whether the individual is receptive enough to be inputted and influenced to change or not or whether additional escalation is imminent.

When uncontrolled restlessness remains and is marked by a high level of arousal, severe functional dysfunction, or danger, pharmacological intervention can be added to the treatment as an additional approach. In this paradigm, medication is not put in a discrete position of

intervention but a normalization of the neurobiological substrate at the basis of regulatory ability. Pharmacological support could also contribute to receptivity and make the successful execution of behavioral interventions possible by decreasing hyperarousal and promoting attentional engagement^{10,11}. More importantly, this combined model is focused on continuous monitoring and adaptability; so, any changes in the state of the individual would lead to a change in the intensity and modality of the intervention implemented by clinicians. It is a complicated and evolving phenomenon that attributes to such approach, which helps to provide individualized and responsive care.

Discussion

This position paper proposes three main changes in the conceptualization and management of behavioral dysregulation in ASD; a shift in terminology, whereby behavioral perspectives would be altered to uncontrolled restlessness, a shift in treatment, whereby the perspective would be changed to receptivity enhancement, and a shift in model, whereby behavior-only models would be supplanted by a neurobehavioral model.

The offered shift of the terminology cannot be only semantic, but it is the restructuring of the approach to the interpretation and comprehension of behaviors. The model minimizes the blame on the individual or career by framing these behaviors as expressions of dysregulation as opposed to deliberate actions. That is in line with the current neurodevelopmental views that underlie neural and physiological processes in shaping behavior^{6,7}.

This reconceptualization is also further reinforced by the focus of receptivity as a leading therapeutic outcome by establishing an endpoint that is clinically meaningful that

links neurobiological state and behavioral functioning. Receptivity does not directly measure change as seen in a traditional outcome measure but the willingness of the individual to take part and to take advantage of intervention. This agrees with the emerging data on the critical role of regulatory capacity and attention involvement in influencing treatment responsiveness⁸.

Combination of pharmacological intervention in this framework is a realistic recognition of the weaknesses of behavioral-only interventions in particular clinical settings. Although the fear of over-dependence on drugs is justified, the discriminatory and prudent application of pharmacological families especially in instances of extreme and chronic dysregulation can be critical in the recovery of functional functioning. Randomized controlled trials have repeatedly shown the effectiveness of risperidone and aripiprazole agents to alleviate irritability and aggressiveness in ASD, thus bolstering their use in a multifaceted treatment plan^{10,11}.

Simultaneously, it is crucial to underline the fact that the pharmacological intervention must not be separated in relation to behavioral and developmental therapies. Instead, its importance is in the fact that it can help to engage in these interventions by controlling the underlying neurobiological condition. Such combination of views can help to avoid the threat of reductionist treatment and give a more comprehensive view of treatment.

Although research directions in the future involve operationalization and measurement of receptivity as a clinical construct and the development of standardized protocols of stage-based intervention. Research Through longitudinal research on the relationship between neurobiological stabilization and behavioral outcomes

would provide an additional empirical basis of this model.

Conclusion

Things often referred to as being aggression in Autism Spectrum Disorder (ASD) are more appropriately viewed as the end result of a process, which involves uncontrolled restlessness, with the resultant dysregulation intensifying over time, in the three areas, sensory, motor, and emotional. By re-conceptualizing these behaviors within the process-oriented and neurobiologically informed framework, it will become possible to approach them more carefully and compassionately, in terms of assessment and intervention.

The core notion within this framework is the element of receptivity which is the ability of the individual to accept, process and react to environmental input. Receptivity restoration is a crucial therapeutic goal, as it is the foundation of individual capacity to get involved in behavioral and developmental interventions and take advantage of them.

Although behavioral methods are still considered the building blocks, in the case of dysregulation that cannot be eliminated even with the presence of dysregulative strategies, the paper identifies the weakness of employing behavioral methods as a standalone intervention. Pharmacological intervention can be required in these situations to stabilize the underlying neurobiological condition timely and closely monitored. Medication assists in enabling the process of agitation to receptivity instead of being a specific goal of the treatment.

The combined model of care suggested below demonstrates the significance of adapting intervention approach to regulatory condition of the individual to

improve the clinical effectiveness and patient-centered care. Finally, this method facilitates a transition to more complex, sensitive, and biologically sensitive practices in the treatment of ASD.

References

1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (DSM-5). 5th ed. Washington DC: American Psychiatric Publishing; 2013.
2. Siegel M, Beaulieu AA. Aggression in autism spectrum disorder: presentation and treatment options. *Neuropsychiatr Dis Treat*. 2012; 8:1525–38.
3. Kanne SM, Mazurek MO. Aggression in children and adolescents with autism spectrum disorder. *Res Autism Spectr Disord*. 2011;5(3):1268–77.
4. Mazurek MO, Vasa RA, Kalb LG, et al. Anxiety, sensory over-responsivity, and problem behaviors in children with autism spectrum disorder. *J Abnorm Child Psychol*. 2013;41(1):165–76.
5. Lecavalier L. Behavioral and emotional problems in young people with pervasive developmental disorders. *J Autism Dev Disord*. 2006;36(8):1101–14.
6. Marco EJ, Hinkley LB, Hill SS, Nagarajan SS. Sensory processing in autism: a review of neurophysiologic findings. *Pediatr Res*. 2011;69(5 Pt 2):48R–54R.
7. Rubenstein JL, Merzenich MM. Model of autism: increased ratio of excitation/inhibition in key neural systems. *Genes Brain Behav*. 2003;2(5):255–67.
8. Schreibman L, Dawson G, Stahmer AC, et al. Naturalistic developmental behavioral interventions: empirically validated treatments for autism spectrum disorder. *J Autism Dev Disord*. 2015;45(8):2411–28.
9. Aman MG, Farmer CA, Hollway JA, Arnold LE. Treatment of behavioral symptoms in autism spectrum disorders. *J Clin Psychiatry*. 2008;69 Suppl 2:38–45.
10. McCracken JT, McGough J, Shah B, et al. Risperidone in children with autism and serious behavioral problems. *N Engl J Med*. 2002; 347 (5):314–21.
11. Owen R, Sikich L, Marcus RN, et al. Aripiprazole in the treatment of irritability in children and adolescents with autistic disorder. *Pediatrics*. 2009; 124(6):1533–40.
12. Scahill L, McCracken JT, King BH, et al. Extended-release guanfacine for hyperactivity in children with autism spectrum disorder. *Am J Psychiatry*. 2015; 172(12):1197–206.
13. Odom SL, Collet-Klingenberg L, Rogers SJ, Hatton DD. Evidence-based practices in interventions for children and youth with autism spectrum disorders. *Prev Sch Fail*. 2010;54(4):275–82.