CHILDREN ON THE AUTISM SPECTRUM: WHAT TRAINING AND UNDERSTANDING IS OF MOST USE TO STAFF?

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Abstract: This article addresses the knowledge and understanding needed by teachers working with children on the autism spectrum. Effective practice depends largely on understanding of autism and of the individual child rather than on specialist skills. This understanding should include the triad of impairments, sensory perceptual issues, and cognitive differences. It will explain how and why children with autism develop, learn and behave in certain ways. Along with knowledge of the specific child(ren) staff are working with, it can help teachers adapt lessons and school environments. Staff will be most successful through changing their own communication style, teaching practices and materials, and the spaces they work in to fit autism, rather than attempting to address inborn, pervasive differences in the children themselves.

Key words: Autism, autistic, education, teaching, special educational needs, disability, developmental disorder, communication

The question that educators and school administrators who are faced with taking on the important task of educating children with autism ask most often is: What training and understanding is of most use to staff? It is a crucial topic indeed: whilst many biomedical treatments have recently been suggested as ways to improve the lives of people with autism, the only approaches known to be effective in improving life outcomes are good special education and therapies targeted to the specific needs of the child, such as speech therapy and targeted work to improve social understanding and communication (Wittemeyer et al., 2011).

In the view of this practitioner, understanding the individual child with autism is far more important than having specialist training. After all, one can attend a training course or complete a degree in working with children on the autism spectrum, but without that essential understanding of the uniqueness of each child we work with, the skills learned will only be applied in a rote way and are not likely to be very effective.

Developing a deep understanding of the children one works with, however, will always improve one's effectiveness as a teacher. For example, the late Sybil Elgar started a school for children with autism in 1964, long before any books or courses existed to help her learn how to work with them. Although her previous training in the Montessori Method no doubt helped her come up with hands-on, visual methods for teaching, it was Elgar's calm manner and ability to connect with and understand the children in her care that made the greatest difference to her success as an educator (Wing, 2007).

Understanding begins with basic knowledge about the features of autism, which helps one to

proceed to deeper understanding of individuals. In autism, core concepts include the triad of impairments (Wing, 1981) and how the challenges autistic children face in the areas of social and emotional understanding, social communication, and flexibility of thought impact on their learning and behaviour. Differences in these areas are pervasive and will exert a major effect on multiple areas: the table reproduced below provides an overview of these key areas, as well as sensory issues.

Table 1 What does autism look like and how might it affect learning and behaviour in the classroom?

Behavioural characteristics of autism[1]	Possible impacts upon learning and behaviour
Qualitative difficulties in social interaction shown by:	
• the limited use of non-verbal behaviours such as eye gaze and body posture to regulate social interaction • problems developing peer relationships • limited spontaneous showing and sharing of interests • limited social emotional reciprocity	• difficulties in forming reciprocal peer relationships and friendships • difficulties in picking up on non-verbal or emotional cues • taking what is said to them literally • difficulties in picking up on social cues, particularly in group activities • unpredictable emotional responses (e.g., anxiety, outbursts) for no apparent reason
Qualitative difficulties in social communication shown by:	
• delayed language development without non-verbal compensation • problems starting/sustaining conversations • repetitive and stereotyped language • limited imaginative and imitative play	• problems understanding spoken language/verbal instructions • not responding when spoken to • poor comprehension of written text even if reading decoding is good • solo or parallel play in place of group play
Restricted repertoire of interests, behaviours and activities shown by:	
• over-focus on particular topics • rigid adherence to routines/rituals • repetitive, stereotyped motor mannerisms • preoccupation with object parts rather than whole	• preference for only one or a few activities • difficulty with transitions, changes in routine and unexpected events • difficulties maintaining attention without external structure/support • difficulties moving from one activity to another • less likely to pick up on the 'gist' of a situation or activity
Hyper- or hypo-reactivity to sensory input or unusual interest in sensory aspects of the environment:	
• aversive responses to particular environmental stimuli (e.g., lights, colours, sounds, patterns, smells, touch) • sensory seeking behaviour	• shuts eyes or blocks ears • removes self from the source by leaving a room or people • needs one person/thing at a time • fascination with (looking, smelling, licking) objects or people

Reproduced from Charman, et al (2011): p. 10.

For example, when faced with a challenging behaviour such as head-banging or biting, all of

these areas of difference need to be considered by the teacher as he or she devises a programme to address it. Head banging could be a reaction to anxiety caused by changes to routines, it could be a sensory seeking behaviour, or it could be something else entirely—unless a child has the self-understanding and verbal ability to tell you himself, only observing and getting to know the child you are working with will tell you which is most likely.

In addition to these, understanding the cognitive differences seen in people with autism is extremely helpful. One of these is monotropism: finding it difficult or even impossible to attend to information coming in from more than one sense at a time (Murray, Lesser and Lawson, 2005). Another is tending to see details rather than the overall picture, which can be both a strength and a difficulty, depending on what demands are placed on the student. Understanding how children on the autism spectrum perceive their environment, the people in it, and the materials we present to them can help teachers construct their lessons in ways that work with the abilities of their pupils.

Another key area of understanding is sensory perceptual issues (Bogdashina, 2003). These are areas of unusual sensory perception that can impact greatly on whether students are able to tolerate school, lessons, interactions with others, and their overall environment. There is little we can do to change the way that the brains of children with autism are made, although we can sometimes use sensory integration techniques to help them cope a bit better. It is far easier to change the environments we teach in and the way that we teach, than to try to change children themselves.

For example, the TEACCH (Training and Education of Autistic and communication Handicapped Children) approach suggests a number of relatively simple and low-cost adaptations to the learning environment that can reduce anxiety, ensure that students with autism know what is expected of them, and build on their areas of strength. These include breaking tasks down into a series of steps, working from left to right on manual tasks such as ordering or assembling items, labelling and colour-coding items, and screening out unneeded sensory stimuli (Mesibov, Shea and Schopler, 2004). The basic bits of equipment needed can be made by teachers, parents or people in the community; the rest is just about being organised and thinking through what the point of each lesson is and what factors might be preventing autistic students from understanding and completing it.

Even in the wealthiest areas of developed countries, there is a shortage of teaching staff with training on how to work well with children on the autism spectrum. Research has indicated that it's an important factor in success, however (Charman et al, 2001). All staff who come into contact with children on the autism spectrum need to have a basic awareness of sensory issues and the triad of impairments, so that they can understand that these children are not being naughty or trying to wind them up on purpose. This kind of knowledge should be shared as broadly as possible, using simple language and examples from children known to staff, from those who serve lunch or clean classrooms right up to the school Head. If it can be shared with others ion the community, such as staff at shops near the school and bus drivers who may bring children to school, that is also extremely helpful.

For staff who actually work directly with children, a greater depth of understanding is needed, to include specifics of how to use this knowledge to adapt coursework, classrooms, and everyday

activities. Teachers who work in mainstream schools or general special schools will also want to work with the children's' peers, as increased understanding of autism by these other children will make kindness and the development of friendships more likely, and reduce the likelihood of damaging teasing and bullying.

If training in specific methods is a possibility—for example, if funding is made available and schools wonder how they should spend it—the TEACCH approach is probably the most useful for children on the spectrum, regardless of their ability level or school resources. However, there is no single method or intervention that works for all children on the autism spectrum (Jones, 2006). For this reason, staff need to be wary of anyone who suggests that their method is "best" and should be used to the exclusion of all other approaches. Good-quality schools use a mix of methods, including some that have been developed with autism in mind and others that come from mainstream education or special education more broadly.

It is also crucial to pay close attention to the development of communication, both for those children who are non-verbal and those who develop verbal speech but struggle to use it effectively. The Picture Exchange Communication System (PECS) has proved to be a very effective tool for some (Howlin, 2007), and other visual communication systems are also likely to be helpful (for example, Makaton and other forms of sign language). Staff and families should know that using alternative communication systems or devices is likely to solve the immediate problem of ensuring that children can communicate effectively, and also increase the likelihood that children who learn to use them will develop spoken language. Communication devices are also increasingly available. These can include specialised hardware, but increasingly far less expensive (or even free) software can be used that runs on regular computers, laptops or smart phones. As these options become less expensive and more portable, they are definitely worth a look.

Children will also need help learning to use their communication skills socially. Even those individuals who develop very good verbal speech, such as children who may have a diagnosis of Asperger Syndrome, can struggle to use it in conversation with peers or adults. They will need practice in skills like knowing how to start and end a conversation, asking questions, and paying attention to responses. These skills will be important in the classroom, but even more so in their adult lives: recent research has indicated that most adults on the autism spectrum are socially isolated and struggle to find employment, with difficulties in social understanding and communication part of the reason for this (Wittemeyer, 2011).

Finally, working in partnership with families extends learning from the classroom into the home and community, and helps to ease transitions between school and home. For obvious reasons, parents are often over-stressed and unsure about how to help their children. If teachers can share what works at school with parents—and vice versa—children will experience consistency of approach and be happier and more settled in both environments. For this reason, if school staff are receiving training it's a good idea to see if parents are also able to attend sessions. Alternatively, staff may want to ask parents to observe what they do at school and make home visits, or run training sessions on particular techniques just for families to attend. For example, simple tools like visual timetables, PECS or signs can really make a difference in both settings if we share our knowledge.

Parents are always the experts on their particular child, and have so much knowledge of how to manage their behaviour, what motivates them to try new things, and how they learn. Teachers and support staff can learn a great deal from them, and when they are consulted they are more likely to feel like a trusted member of the "team" around their child and consult staff in turn about concerns they may have.

To conclude, every child on the autism spectrum is a unique individual. Many will have additional challenges, such as learning difficulties or epilepsy, to content with. Each has his or her own family background, life experiences, personality, and pattern of weaknesses and strengths. There is no "one size fits all" approach for teaching these children: only a positive, individualised approach that takes what we know about autism into account will be effective.

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