

<https://youtu.be/M3ahgPWYhGo>

TECHNIQUES OF AUTISM INTERVENTION-A REVIEW

GARGI, JUNE, 25

MOST WIDELY USED APPROACHES

Psychoeducational/behavioural approaches

<https://youtu.be/2zrtHt3bBmQ>

The Treatment and Education of Autistic and Related Commu-nication

Handicapped Children (TEACCH) is a comprehen-sive model of intervention from early childhood through toadulthood, founded in 1966 by Dr Eric Schopler of the Dep-artment of Psychiatry, University of North Carolina School of Medicine, USA.

TEACCH FOCUSES ON CULTURE OF AUTISM',

i.e. the differences in the ways in which the people with ASD think, learn, and experience the world, arguing that these cognitive differences underpin autistic symptoms and explain the behavioural problems exhibited.

The main goal of the approach is to obtain maximum autonomy for the person at all levels of functioning, depending on their abilities.

TEACCH intervention activities include diagnosis, parent training, education, social and leisure skill development, communication, vocational training, and supported employment placements

HTTPS://YOUTU.BE/S0GX3PNKWQW

After a detailed assessment using, among other instruments, the PsychoEducational Profile – Revised (PEP-R),⁷ the emerging skills of the individual are identified, providing the basis for their personal educational programme.

Teaching skills are carried out in multiple, functional, clearly organized, and structured contexts with an emphasis on visual learning modalities and the use of natural reinforcements.

Structure and predictability (through visual cues and symbol timetables) are used to promote spontaneous functional communication and generalization.

The communication curriculum uses conditions and consequences of behaviour through shaping, and incorporating alternative forms of communication, such as sign language or picture systems

HOW TO USE THIS IN YOUR CENTRE

- <https://youtu.be/NYciuct0Xy8>

BEHAVIOURAL TECHNIQUES

Behavioural components are incorporated in many other educational approaches in autism, such as TEACCH.

Thus, with the term 'behavioural treatments' we refer to those interventions where the Skinnerian-based techniques form the predominant feature of the approach. Although behavioural methodology has been evolving and new techniques have been introduced, applied behaviour analysis and discrete trial learning still remain the core feature of behavioural intervention in autism

DISCRETE TRIAL

- <https://youtu.be/7pN6ydLE4EQ>

Skills in receptive/expressive language, attending to social stimuli, imitation, pre-academics (e.g. rote counting, knowledge of spatial relationships, etc.), and self-help that are deficient, are broken into discrete components.

They are taught on a one-to-one basis, in school and/or at home, using rewards for the successful completion of each step.

Behavioural techniques of:

1. reinforcement (mainly positive),
2. backward chaining (i.e. the process of teaching each component of a behaviour starting with the last step needed to complete the sequence),
3. shaping, and prompt and prompt fading are used.

Physical aversives are no longer employed. Initially, food and favourite objects are used as reinforcers, and are later replaced by more social ones, such as praise.

Learned responses are repeated until firmly embedded.

After the initial assessment, the children follow a comprehensive curriculum, tailored to their individual needs for approximately 40 hours per week with their trainers. Parents are also encouraged to contribute to the programme in order to achieve generalization of the skills learned.

Criticism of the Lovaas/ABA approach lies in the loose relation between their rationale and prevailing cognitive theories of the underlying basis of autism (i.e. difficulties in executive functioning, theory of mind, and information processing).

As Lovaas himself has pointed out, his approach 'focuses on specific behaviours rather than on the diagnostic entity of autism'.¹²

Other difficulties include: the narrow and outdated approach to language acquisition; the possible lack of spontaneity in the trainee's behaviour and the creation of absolute dependency from prompting in reactions; the possible overstressing of the child and their family; and the high cost of the programme

SHIFT FROM TRADITIONAL TO MODERN-ABA

- Early behavioral interventions in the 1970s that aimed to increase social communication and reduce clinically significant maladaptive behaviors heavily relied on the use of **operant conditioning principles**,⁴ the most influential model being applied behavioral analysis (ABA).⁵
- Traditional ABA aimed to elicit behavioral modifications through highly intensive and structured trials, where adult-chosen stimuli are repeatedly presented to induce target behaviors in individuals with ASD, with correct responses reinforced

PRT

- <https://youtu.be/rpMRrOjVKN0>

- Pivotal response treatment (PRT) is an evidence-based behavioral intervention based on applied behavior analysis principles aimed to improve social communication skills in individuals with autism spectrum disorder (ASD).
- PRT adopts a more naturalistic approach and focuses on using a number of strategies to help increase children's motivation during intervention.

PRT-PIVOTAL RESPONSE TREATMENT

- <https://youtu.be/pSGVb60-BSw>
- NOTE DOWN THE PROCESS

- Similar to ABA, the structure of PRT involves the presentation of repeated behavioral trials consisting of antecedent, behavior, and consequence,^{15,23} where the antecedent presents clear opportunities prompting the child for a desired behavior. In contrast to traditional ABA, PRT reinforces both correct behavioral responses and any valid attempts made by the child en route to skill acquisition, thus increasing frequency of exposure to response-reinforcement contingency, in order to help maintain and increase child's motivation throughout the intervention.^{20,24}

PRT

- Pivotal response treatment (PRT) is a behavioral intervention aimed to improve social communication skills in individuals with ASD,^{10,11,16,17} which has accumulated a large evidence base with positive findings being replicated using a wide range of experimental designs across multiple settings
- Based on ABA principles, PRT adopts a more naturalistic approach that focuses on targeting skills that are pivotal to development across social, communication, and behavior.^{11,18}

- “Pivotal” refers to a set of targeted skills which, when successfully acquired, can elicit more widespread positive clinical gains in the child’s other domains of functioning.¹⁸ Some pivotal areas identified include motivation, self-initiation, and self-management, which have been shown to be critical in eliciting broader improvements across multiple developmental domains, thus maximizing treatment gains.^{11,18,19}

- PRT focuses on using a number of strategies to help increase children's motivation during intervention, such as using a variety of child-chosen activities that are intrinsically motivating to each child,^{12,20}
- interspersing maintenance and acquisition tasks to strengthen children's exposure to well-established response-reinforcer contingency.^{21,22}

- PRT has received much empirical support for eliciting therapeutic gains for promoting greater use of functional social communication skills in individuals with ASD, ranging from increased self-initiated social responses^{25,26}
- to advancing collateral language acquisition following increased question-asking behavior
- To reduced disruptive behavior,²⁹ and restrictive and repetitive behaviors.

- increasing social motivation and initiation of appropriate social responses may indeed be pivotal in securing changes in other behavioral domains that are less explicitly addressed during PRT intervention.^{17,30}
- For example, the use of child-preferred activities that carry high intrinsic motivational salience to children with ASD may be especially beneficial for providing opportunities to elicit joint attention,³¹
- as well as teaching children to engage in symbolic play.³²
- Joint attention and pretend play are both crucial social skills underlying the emergence of higher-order social cognition, such as perspective taking and theory of mind development,³³⁻³⁷
- and pivotal for securing children's competence at navigating social situations.

PRT-BEFORE AND AFTER

- <https://youtu.be/9w5nTegfToQ>

MUSIC THERAPY AND AUTISM

- <https://youtu.be/PVctNNS-Jig>

ALTERNATIVE/AUGMENTATIVE COMMUNICATION

As interest turned away from enhancing speech to enhancing communication, alternative and augmentative communication approaches emerged.

These methods are used in conjunction with other interventions (ABA, TEACCH, etc.), acting as a complement to the communication domain.

Children with ASD have difficulty in understanding the ways in which social communication functions, and in getting pleasure from it.

That means that they not only fail to communicate but are also not motivated to do so.

Thus, they could be non-verbal or exhibit deficiencies in a wide range of communication skills, such as comprehension, non-verbal communication, language form, semantics (content), and pragmatics (use).

Furthermore, communication disruption puts them at risk for developing problem behaviours: challenging behaviours are more likely to emerge in the absence of suitable means of communication

AAC-A GLIMPSE

- <https://youtu.be/zmsdLzQW5G0>

As the vast majority of persons with autism are visual thinkers and learners, visual support can help them to make sense of the process of communication, regardless of their level of speech. Visual techniques capitalize on an area of relative strength for these children and can be used to assist learning, augment spoken language, enhance understanding, and be an alternative way of expressing needs, desires, and feelings.

Such visual support can be offered through signs (e.g. MAKATON) and/or real objects, photographs, picture symbols, and written words, according to the developmental stage of the child.

MAKATON

- https://youtu.be/U_69whh0erM

After having acknowledged what the visual cue represents (through labelling), the child can use it away from the actual object or situation either to express themselves or to understand other peoples' expectations of them. Literature shows that the incorporation of signs and symbols in communication training results in quicker and more complete learning of vocabulary and enhances both non-verbal and verbal communication skills, with the latter depending mainly on verbal imitation abilities and IQ.

PECS

- https://youtu.be/RLgt57JhC_U

Special attention should be paid to the Picture Exchange Communication System (PECS).

This was developed by Andrew Bondy and Lori Frost, as an augmentative alternative training package, based on Skinnerian rationale, for teaching functional communication to children and adults with autism and other communication deficits.

PECS begins by teaching the person to give a picture of a desired item to a trainer, who immediately honours the request.

In the initial phase, a second trainer behind the child uses physical prompts, which gradually fade out.

No verbal prompts are used, in order to avoid prompt dependency.

In the subsequent phases of PECS the person is taught to discriminate between several symbols, to actively find the desired symbol from a portable communication book, and then to put them together in simple 'sentences'.

Children are also taught to comment and to answer direct questions

SOCIAL SKILLS TEACHING

Another interesting area of intervention, especially for high-er functioning people with autism (and those with Aspergersyndrome), is that of teaching social skills. There are vari-ous packages and more are evolving as the diagnosis of ASDhas been expanded to comprise more able individuals. Carol Gray's Social Stories is a noteworthy complemen-tary intervention aimed at improving the social under-standing of people with ASD. The stories are produced inresponse to a troubling situation, to explain the how andwhy of its social context, and for praising the positive achieve-ments of the child. After gathering relevant information aboutthe topic and discussing it with the person, so that it can be tai-lored to their perspective, a short script is customized to theirneeds, interests, and abilities, and the specific guidelines ofthe technique

‘Social Stories include factual information regarding the social situation, possible reactions of others in that social situation, and directive statements of appropriate or desired social responses’. It is then taught to the person with a relevant title comprising the core information of the Social Story and using descriptive, perspective, directive, and control sentences in a specific ratio.²⁵ The incorporation of visual cues in Social Stories adds to their effectiveness. Social skills teaching techniques are widely accepted on the premise of their feasibility with the current perception of the deficits characterizing ASD (‘theory of mind’ and ‘weak central coherence’). Nevertheless, the lack of peer-reviewed empirical work evaluating their efficacy represents a challenge to the professionals who support the above interventions.

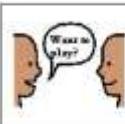
Rules for School

	I listen to my teacher.
	I put up my hand and wait when I want to talk.
	I use a quiet voice inside the school.
	I line up when I'm walking with my class.
	I keep my hands and feet to myself.
	I do my work.
	I put my things away when it's time to clean up.

Playing



Sometimes I like to play with other kids.



I can ask them, "Do you want to play with me?"



If they say "yes", I can play with them. I will have fun.

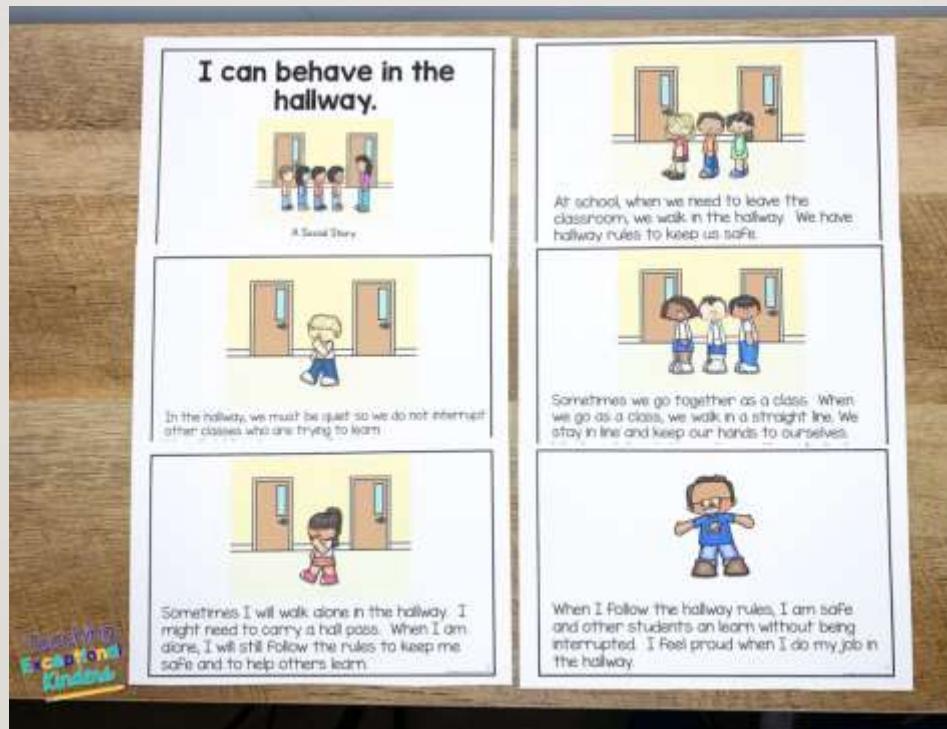


If they say "no", it's ok.



I can ask someone else or play by myself.

Tracey Breyf, 2009





HOW TO WRITE A SOCIAL STORY

- <https://www.theottoolbox.com/how-to-write-a-social-story/>

- https://youtu.be/ZhVOlS08M_Q

REFERENCES

- <https://PMC5488784/>
- https://www.researchgate.net/publication/7752003_Autism_interventions_A_critical_update