Modern Management Approa

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Autism is a developmental disorder characterised by a triad of impairments, namely communication, social interaction and imagination. It was first described by Leo Kanner and Hans Asperger almost simultaneously in the 1940s, and since then has continued to gain momentum in the clinical, educational and lay world. In fact, prevalence estimates have escalated in recent years, going from 0.4% in 1978 to 1% in 2006, making autism the third most common childhood disorder after intellectual disability and language impairment.[1]

Just as autism may be described as a spectrum of disorders, ranging from severe to high-functioning, so its treatments may also be seen as falling along a 'rainbow' of management options. This variety results, in part, from the fact that no single causation has as yet been attributed to autism.[2] Yet, it may be said that all interventions have the same goal i.e. "to promote normal development and acquisition of skills, and to reduce or eliminate maladaptive behaviours"[3], enabling children to function in their everyday lives and be included in all aspects of their community.

However, treatment may have a different focus depending on whether individuals fall at the severe or high-functioning ends of the autistic continuum, and this focus may change again across an individual's lifespan as behavioural symptoms change.[4] Apart from that, programmes may be founded on different schools of thought, namely the traditional behaviourist school (e.g. the Lovaas method[5]), the more recently advocated semantic-pragmatic model (e.g. Developmental, individual-difference, relationship based [DIR][6]), or a school of thought that falls somewhere in between, into what are known as contemporary behavioural models (e.g. Pivotal Response Therapy[7]). They may target autism as a whole i.e. comprehensive approaches such as the Treatment and Education of Autistic and Related Communication Handicapped Children [TEACCH][8]; or be more specific, such as speech therapy or play therapy[9], and may be based in the home, centre or school environments. Some approaches are more physical, such as Daily Life Therapy[10], which emphasises physical exercise, whereas others could be described as more psychological (e.g. EarlyBird counselling[11]).

Treatment options may also be classified as educational versus medical. The former includes schooling and any program where the child is taught skills that will enable him/her to function in everyday life. The recent trend towards inclusion has resulted in a shift in the type of schooling methods advocated for children with autism, from segregation in special schools to integration into mainstream ones[12]. Full inclusion in school, however may not be the best solution for all children with autism, or, indeed, for one individual at different points in time, and thus, alternative educational opportunities must be made available[13].

Medical management involves the use of medication, special diets or vitamin supplements to reduce behavioural symptoms such as obsessions, hyperactivity and aggressiveness. In this way, individuals with autism are more able to engage in study, play and social interactions; although medications should never be used as a substitute for psychological, social and educational interventions[14]. Rather, they should serve to increase the individual's ability to benefit from them. It should be noted, however, that most medication available to children with autism has not been tested on children, or specifically on children with autism, and must thus be used with caution[13,15].

Lastly, it is important to distinguish between therapies which are substantiated by research from those where the evidence is at best anecdotal (e.g. Options/Son-Rise[16], aromatherapy)[17]. This is crucial because subjecting a child to a treatment program which is unlikely to work will be detrimental in that it might diminish the exposure of that child to a more beneficial therapy option, as well as taxing the parents financial reserves unnecessarily.

Of course, just as the colours of a rainbow merge together at their borders, it must be noted that there is also a lot of overlap between types of management strategies for autism, and it is often the case that a variety of treatment approaches are used in tandem[9].

Two of the most widely researched and substantiated programmes for autism are Early Intensive Behavioural Intervention (EIBI) and TEACCH. EIBI is based on the behaviourist school of thought, and on applied behavioural analysis (ABA) specifically. Behavioural approaches have followed the principles of learning to teach appropriate behaviours and eliminate inappropriate ones in people with autism[18]. An ABA program works on the premise that when reinforcing consequences follow a child's response, the child is likely to give that response again, so learning can be shaped by reinforcement[9]. Eventually, the aim is that the child will give the response even without the reward. Each skill is practised repeatedly in a series of drills, starting from the smallest learnable part, and building up to the whole skill until it is mastered[13]. These methods have been criticised as being unnaturally "stiff" and artificial, but their proponents hold that for autistic children, who find it hard to learn in 'normal' environments due to their specific learning and attentional deficits, these very repetitive, predictable interactions with the therapist are *reassuring*[19], as well as compatible with their unique way of processing information[2].

These concerns fuelled the development of more functional approaches, such as the contemporary behavioural techniques and semantic pragmatic–developmental (SP-D) approaches, which emphasise the importance of learning functional skills in natural environments and in natural ways[19]. Perhaps one of the best known and most widely used SP-D approaches is TEACCH[20]. This is a highly structured teaching approach, focusing on the visual, rather than auditory/verbal, pathway to the presentation of information, thus playing on the strengths of individuals with autism[21]. The learning environment is structured in such a way as to make clear demarcations of different areas by using screens or differently coloured carpets so that individuals are clear about what activity occurs there. TEACCH can be used by individuals of all ages and degrees of severity of autism[14]; and its principles can, and should, be applied to different settings. TEACCH strategies give predictability to the individual, thus reducing anxiety

ches for Children with Autism

and resulting challenging behaviour. By helping the individual understand the environment, TEACCH fosters independence by decreasing dependence on other people, which is one of the problems encountered in many behaviourist approaches.

TEACCH is not without its criticisms, however. Unlike most behavioural approaches, which try to help people with autism adapt to their environment, TEACCH's philosophy is one of acceptance of the condition, and therefore, instead of putting strategies in place to eliminate or cope with problem behaviours, TEACCH aims to prevent them from happening. This philosophy has been criticised as being too accommodating, since it may not always be possible to modify each and every environment or situation an individual may encounter.

Although autism is a developmental disorder for which there is as yet no known cure, this does not mean that improvements cannot be made. Problems with sleeping, eating and temper tantrums can diminish over time[22], and many management approaches are available to ameliorate the symptoms of the condition. What is clear, though, is that there is no one treatment option for autism, as evidenced from the great variability in intervention outcomes[23]. Thus, an individualised approach should be encouraged, because different therapies work for different people[22]. In fact, recent research is beginning to focus on trying to match individuals with autism with efficacious treatments[23]. It is important that 'individualised' is not only taken to mean how one person's plan differs from another's, but how that plan will be revised and updated according to how that person responds to intervention and to how his/her developmental profile changes with age.

Another point to remember is that such children benefit from a multidisciplinary approach, since they typically require services from a number of different professionals. These include neurologists, general practitioners, speech -language pathologists, occupational therapists and psychologists, to name but a few. Parents must also be considered as members of these teams, because it is they who spend most time with the child, and will thus be more aware of his/her specific needs. An important role of every professional in contact with individuals with autism is to keep up to date with recent literature about possible treatment approaches in order to be able to guide parents with their choice of management strategies.

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