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Intervention in Autism Spectrum Disorders A SLP'S GUIDE

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Intervention in Autism Spectrum Disorders - A SLP'S Guide

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INTRODUCTION

Autism is a brain disorder that typically affects a person's ability to communicate, form relationship with others, and respond appropriately to the environment. Some people with autism are relatively high functioning, with speech and intelligence intact. Others are mentally retarded, mute, or have serious language delays. For some autism makes them feel closed off and shut down; others seem locked into repetitive behaviors and rigid patterns of thinking.

Autism emerges in childhood; it affects about 1 or 2 people in every 1000 and is 3-4 times more common in boys than in girls (National Autistic Society, 2001). There are a number of conditions which share similarities with autism, and are now considered as sub categories under the title "Autistic Spectrum disorder" or ASD (Wing & Gould, 1979).

Autism is an 'umbrella' term and it encompasses that group of children, who present triad of impairments in,

- Reciprocal social interaction
- Verbal and nonverbal communication, and have
- Restricted range of imaginative activities

(Wing, 1988)

Hence, a number of classification systems adequately and appropriately tried to classify them depending on their characteristic features. 2 widely used systems are:

1. DSM IV classification (APA, 1994)
2. ICD 10 classification (WHO, 1987)

They have classified various disorders under autism as Autism, Asperger's syndrome, Childhood disintegrative disorder, Rett's disorder, PDD – NOS/ Atypical autism, Pervasive developmental disorder and many more.

NEED FOR A RESOURCE MANUAL

Currently there is no cure for autism, but behavior can be positively intervened and treatments exist which may reduce challenges associated with the disability. Some treatments have research studies that support their efficacy; others may not (Gilberg et al , 2000). Many professionals have agreed that individuals with ASD respond well to highly structured, specialized education programs, tailored to the individual's needs. (Mauk, 1993; Campbell et al., 1996)

There are many publications of treatment programs, management guidelines, intervention strategies available that can be seen in vast literature available on this topic. However most are geared towards western population, and quite often not directly implementable in the Indian context. More importantly, they are simply not accessible to the general professional population.

Thus there is a clear need for a management resource that can be used by the speech language pathologist, when dealing with an individual with ASD, in the Indian context. Numerous researches have proposed that the primary disability in ASD individual is their communication deficit (Parson, 1985). Hence this manual was focused to address the communication domain in ASD, especially the language deficits, and to meet the needs of SLPs.

REVIEW OF LITERATURE

SPECIFIC LANGUAGE INTERVENTION

There are various specific treatment techniques that have been utilized with ASD clients. Some of them are:

1. Auditory Integration Therapy (AIT):

It is based on the belief that autism is auditory dysfunction disorder including inattention, hypo or hyper sensitivity to sounds and central auditory processing (ASHA 1994). AIT intends to reduce some of these auditory problems. One of the most frequently reported benefits of AIT are that it causes reduction in the sound sensitivity as well as better listening and comprehension skills.

2. Visually Cued Instruction:

It has been found that the children with autism have superior ability to encode visuo- spatial information than auditory information. Thus visual aids could be used for teaching more than the auditory cues.

3. Picture Exchange Communication:

It is a training program for children with ASD to acquire functional communication skills. Here they are taught to give a picture of a desired item to the communicative partner in exchange of an item, thus initiating communicative act for a concrete outcome within a social context.

4. Augmentative and Alternative communication in ASD:

Language programs have come to include alternative means of communication such as signs, abstract shaped plastic symbols, written communication boards, and even computer consoles. Signing probably has been used most commonly as an alternative communication system. (Schuler, 1985)

AIM

The aim of this study is to develop a comprehensive treatment resource manual for language deficits in ASD clients that is intended to provide,

- ❖ A means by which the client communication deficit can be profiled.
- ❖ A resource from which the SLP can plan client- specific therapy as per the clinical profile presented by the client.

METHODOLOGY

Step: 1 The various resources of information such as journals, books, and internet websites were exhaustively reviewed with regard to language development in ASD & general language intervention and language intervention in ASDs.

Step: 2 The gathered information was compiled and organized as required for the manual.

Step: 3 Assembling of the language profile of ASD's. All the collated literature with regards to language development and language characteristics was reviewed. From this the various asset, deficit & excess behaviors in the language domain of ASD's were ascertained. The language behaviors cited as most critical were assembled.

Step:4 Treatment goals were derived based on the language profile assembled in step 3.

Step:5 General therapy guidelines and intervention strategies for the SLP with respect to the learning environment, material, stimuli, reinforcement, planning the sessions, cultural issues and general suggestions were collected and formulated.

Step:6 Specific treatment activities and intervention strategies for the treatment goals defined in step 5 were collected and formulated.

Step:7 With all the collected information, the resource manual consisting of the 4 sections was formulated.

INTRODUCTION

Section 1: Language profile

This section consists of 2 main items. The intervention assessment required for baseline profiling of the ASD child and also the language profile of an ASD child.

Section 2: Treatment goals

Contains the treatment goals derived from the language profile.

Section 3: General therapy guidelines and treatment strategies:

This section contains general therapy guidelines and intervention strategies that a SLP may find useful in prior to and during therapy. It is divided into 7 sections.

1. The learning environment
2. Materials and stimuli
3. Reinforcement
4. Planning the sessions
5. Cultural issues
6. Generalizations
7. General suggestions

Section 4: Specific therapy activities and intervention strategies:

This section contains specific therapy activities and intervention strategies that the therapist can utilize for each goal presented for each goal, excepting certain goals for which descriptive strategies are provided.

SECTION 1

Speech and language evaluation is the preparation for intervention planning (Klien et al, 1994). Thus, assessment of the child's level is of utmost importance. In addition to language level, the possible maintaining factors of the problem need to be examined. The following is the suggested format for areas of assessment for intervention planning adapted from Klein & Moses (1994).

TABLE I : Areas of Assessment for Intervention Planning (Klein & Moses, 1994)

| Necessary Information | Source | Rationale |
|------------------------|---|--|
| 1. Language | | |
| <i>A. Content-Form</i> | Linguistic Profile Test (Karanth, 1980) | To obtain most representative measure of the developmental status of content form interactions. |
| | 3-D Language Acquisition Test (Harlekar, 1986) | |
| | Kannada language Test (RRTC, 1995) | |
| <i>B. Use</i> | Test of Pragmatic Skills (Shulman, 1986) | To obtain most representative measure of developmental status of language function and influence of context. |
| <i>C. Phonology</i> | | |
| a. Phonetic | Screening and Diagnostic Articulation Test in Kannada (Bettageri et al, 1972) | To obtain an inventory of phonemes and estimate of phonetic ability in single word productions. |
| | A Test of Articulation in Tamil (Usha, 1986) | |
| b. Phonological | continuous speech sample | To obtain a measure of the developmental status of phonological process elimination in continuous speech. |
| <i>D. Fluency</i> | Language sample | To obtain a sample of fluency in continuous speech |
| <i>E. Voice</i> | Language sample | To obtain a sample of vocal parameters in continuous speech |

| | | |
|--------------------------------|--|---|
| 2. Maintaining factors | | |
| A. <i>Cognitive</i> | Developmental Screening Test (Bharathraj,1988) | To obtain a measure of the child's developmental status in the area of cognition |
| | Binnet-Kamath Test of Intelligence(1963) | |
| B. <i>Sensorimotor</i> | | |
| a. Peripheral speech mechanism | Oral Speech Mechanism Screening Examination(ST. Louis & Ruscello,1987) | To determine the structural and functional adequacy of the articulators and others points of valuing. |
| b. Body stability | Assessment by Physical therapist | To obtain a measure of the developmental and functional status of the child's sensorimotor functioning in the area of locomotion and body stability |
| C. <i>Psychosocial</i> | Case History | To determine the nature of psychosocial behavior. Observation of interactions with mother, siblings, peer group and examiners |

The information collected in the above areas will serve to form the baseline data for intervention planning. The next step is to profile the child's deficit areas. The language deficits profile presented in this section is intended to, assist the clinician explore and document the language deficits in child and plan the intervention program.

SECTION 2

The following treatment goals are intended to be guidelines for which the clinician can select the goals to be taken up for individual case. Individual variation in the children with ASD may require some changes in goals as required.

Treatment goals:

1. Establishing eye contact behavior.

2. Building of attention to speech.
3. Encourage appropriate symbolic play.
4. Developing communicative intent (Gestural and Verbal)
5. Comprehension of verbal commands
6. Increasing expressive vocabulary.
7. Controlling expressive excesses (Echolalia, Jargon, Neologisms, Perseveration)
8. Developing differential expression of 'yes' or 'no'
9. Improving personal pronoun usage.
10. Improving word, phrase or sign retrieval skills.
11. Establish rules of conversational exchange (Listening, turn taking)
12. Developing question and answering skills.
13. Facilitating conversation repair.
14. Improving interpretive skills of figurative speech.
15. Developing an alternative or augmentative system of communication.

The above goals are intended to be used as general treatment goals, that is, goals representing the 'best performance' expected from the client. There are many ways in which one can attempt to achieve these goals and section 4 is an attempt at collating some of these more feasible approaches, to give the therapist some ideas on how to go about achieving these goals.

SECTION 3

Prior to the actual commencement of therapy, there are some important factors to be considered and dealt with when taking therapy for a child with ASD. These include:

1. The learning environment

- A. *Setting up the room:* ASD children have difficulty in understanding the purpose of rooms and behavior that goes with the place. The average classroom is thus even more difficult than home as it is just one big room where very thing is done. Thus, it is very important to provide the child with some amount of predictability and that different areas in room have different functions so that the child will have a predictable environment. E.g.:

- Have separate areas for playing, reading, drawing and eating. Mark out each area with tape or chalk.
 - Stick pictures of related items like food, ball, and books in the respective areas.
- B. Access of materials: Because the autistic children are very distractible thus one should ensure that the teaching environment is free of clutter and unnecessary objects. Keep the toys in easy reach but in a hidden place like a cupboard or a closed lid box etc
- C. Lighting: As far as possible use natural lighting from window. The use of tube lights has been reported to cause a negative effect on children with ASD.

2. Materials and stimuli

It is yet another important factor while dealing with children with ASD.

- A. Visually cued instruction: As their ability to encode visual spatial information has been found to be superior to their ability to process auditory information hence therapy should involve visual supports. Visual support would facilitate organizational skills, functional routines, academic learning, communication development, social development, etc. as they make abstract things much more concrete and heighten the level of independence of the child.
- B. Material size and 'real' picture: As far as possible materials and stimuli used should be real and large pictures.

3. Reinforcement

The most commonly used approach with autistic children is *behavior modification and operant conditioning*. In order to increase the frequency and complexity of any behavior such behavior should be praised or rewarded when they occur. It is hoped that by increasing the frequency of the positive behaviors less desirable behaviors would gradually reduce and will be replaced by the appropriate ones.

If the child shows temper tantrums it should be dealt in a consistent fashion and the child will soon learn that it is not an appropriate method of getting the demands fulfilled. Also whenever possible try to ignore tantrums but always remember that it is behavior which has to be ignored not the child. Thus, one should continue to do whatever he/she was doing before the child started to engage in such negative behaviors. Always avoid getting into any type of physical struggle with the child because as he grows older and stronger it will become difficult to control and win over him and also the child should never get the message that physical domination is an appropriate way to achieve a goal.

4. Planning the session

A. Time management: The best way to incorporate time concept and management in autistic children would be to maintain a daily time table for the sessions which should be stuck on therapy room door and also on his notebook or home etc. Constructing the timetable should be done carefully and initially three dimensional real objects may be put on it. Slowly pictures or line drawings and then written words which are quiet abstract. It is also important to indicate some sort of transition indicator which can be done by giving warnings prior to the transition, use clock or timer to signify transitions, music may be used to signify task completion etc.

B. Task variation: As far as possible use fast paced task variation approach during one to one therapy sessions (i.e. providing a variety of task in sequence, some of which are relatively easy, some are tough, some are fun for him and some are familiar etc.) to help maintain the child's attention and motivation and to ensure that he experiences success frequently. Also allow the child to pick 'preferred activities', this will help the child to take initiative and also learn 'if- then' contingencies. When the child completes a significant portion of his task, it is important to provide intermittent verbal reinforcement which facilitates his self esteem.

C. Task selection: The key to effective task variation is to select an appropriate array of tasks. An effort should be made to select activities which vary according to the level of difficulty, degree of familiarity and the amount of interest they hold for the child. Generally speaking, one should select between 5 to 7 activities per session. Initially, sessions should be limited to 20-25 minutes.

D. Presentation of tasks: Activities should be presented so that the child frequently experiences success. More difficult task should be followed by ones which the child has already mastered. Similarly, activities which the child does not enjoy should be followed by ones he/she enjoys.

5. Cultural Issues

Culture can also have a direct effect on the therapy materials and activities used also. Thus, a therapist should be astute in observing the cultural background of a child and the possible influences that may have on the therapy planned. This is especially important in a multicultural society as in India. Where differences in culture have definitive affects on acceptable communicative acts, modes of communication, communicative styles etc.

6. Generalization

Language generalization has been extremely difficult to achieve in ASD children (Koegel and Rincover, 1974; Lovass, 1973). E.g. get the parents involved in the program.

Prepare the non-treatment environment to support and encourage the language behavior trained in therapy. In the real world conversation language responses vary considerably. Thus, vary the verbal antecedents to evoke the language target as they are taught. The responses should not get tied to a narrow range of verbal antecedents, such as “tell me about” or “what’s happening here.”

7. General Suggestions

There are some general language enhancement techniques that can be utilized for this, as well as in any stage of therapy. These include:

| | | |
|---------------------|--------------------|-----------------|
| Self talk | Direct teaching | Modeling |
| Prompting | Joint Book reading | Repetition |
| Parallel talk | Recasting | Expansion |
| Instructions | Questioning | Mand Modeling |
| Incidental teaching | Manual Guidance | Cloze procedure |

The following are some useful techniques, adapted from “Communication Intervention with Young Children at risk for Specific Communication Delay,” by L.Leonard, 1992.

Input strategies

- Slow speech rate.
- Speak in slow, clear manner.
- Converse face to face.
- Short length of utterances should be used.
- Use frequent repetition.
- Consistently label items familiar to the child. Once comprehension is attained, generalize the item named to various contexts.
- Use a variety of vocal intensity and intonational patterns.
- Use parallel talk. Describe the child’s ongoing activities and interest.
- Use self talk, which describes your ongoing activities.
- Use frequent modeling.
- Say words and phrases that are related/ cued to the immediate context.

- Coach the child to use a word/ phrase at the appropriate time and situation.
- Provide answers and conversation at the child's utterance level.

Responsive strategies

- Use frequent repetitions of child's utterance.
- Expand on child's utterances.
- Repeat the child's utterance, adding additional features.
- Repeat elements of child's utterance or paraphrase it. If needed, provide words to express to express the child's feelings.
- Reward and highlight words and phrase that are emerging in the child's expressive repertoire.
- Change immature utterances into more mature and recognizable ones.

Clarification Strategies

- Repeat any part of child's utterance that is understood.
- When the child's intended meaning is unclear, ask choice question to clarify the meaning.
- Be alert to topics that the child frequently talks about.
- Contextual information may increase adults listening abilities. If the child is not understood, the adult may choose to take responsibility.

SECTION 4

Once the treatment goals have been decided, the next step is to achieve these goals. There are many tasks and activities that the therapist can make use of in order to attain these goals. This section is a compilation of many ideas, materials, activities and tasks that a therapist can put to use, practically, effortlessly

Treatment goal – establishing eye contact

Any activity used to create this behavior should concentrate on getting the child to look at the therapist face, either directly or indirectly by attracting the child's attention with some other object of interest. The following are some activities the therapist can use to engage and maintain eye contact behavior in the ASD child.

Activities like – peek- a- boo, following the candle, etc can be used.

Treatment goal-Building of attention to speech

Normal development of attention follows 6 stages and hence these stages can be used as a guide line for development of the skill.

Activities like- filling the bucket, emptying the bucket, joining the pictures, picking the grapes from plate, hopscotch, lets clean up etc.

Treatment goal- Encourage appropriate symbolic play

Play is universal activity that blends cognitive, social, emotional, linguistic and motor components. During play they can learn new skill as a part of whole, meaningful activities (Patterson & Westby, 1994)

Activities like- playing symbolic plays with dolls, kitchen set, doctor's kit etc

Treatment goal- Developing communicative intent

Communicative intent is required for any individual to be able to initiate or sustain a conversational interaction with another individual. ASD children have been found to be lacking in this skill.

Activities like- Communicative temptations technique (Wetherby & Prutting, 1984) like using a food item desired by the child, any attractive- unfamiliar book to the child, a container of bubble solution, balloon, wet or sticky substance etc.

Treatment goal – comprehension of verbal commands

Here, some of the general language techniques such as modeling, imitation, and repetition are incorporated into the activities to ensure the child has comprehended the task on hand and is able to carry out instructions.

Activities like- get me the ball..., traffic lights, action cards etc

Treatment goal-Increasing expressive vocabulary

Depending on the area's in which the child is lacking, that topic can be taken up in matching tasks, in a hierarchy. Music therapy is another noted successful approach to increasing the communicative output in ASD children (Edgerton, 1994, Aldridge, Gustorfff and Neugebauer, 1995). Thus incorporating music into the therapy sessions could prove to be useful.

Activities like- My word book

Treatment Goal-Controlling Expressive Excesses

Many an ASD child presents with expressive excesses like echolalia, jargon, neologisms and perseveration. The therapist can attempt to control, manipulate or extinguish these excesses to facilitate communication.

Echolalia

The therapist must evaluate in detail the child's usage of echolalia; find out exactly what type of echolalic utterances the child is uttering. Then the next step is to find what context it is being used in, i.e. does it serve a communicative function. If echolalia is serving as a communicative function, this can be modified more readily into a meaningful utterance.

A number of techniques used effectively in controlling echolalia in ASD children have been reviewed by Fay et al. (1980). Some of these are highlighted below:

- 1) Teaching verbal imitation skills is a useful method of controlling echolalia. Children with echolalic behavior normally fail to “produce speech upon command” and in an appropriate context. Consequently, teaching speech imitation skills does not depend upon establishing novel behavior, but rather on a shift in stimulus control. Poor stimulus control is apparent when commands are repeated rather than carried out or when words or phrases cannot be deliberately initiated even though they are high frequency items within a most likely delayed even though they are high frequency speech to echolalic children can be viewed as the teaching of increasingly refers discriminations between appropriate and inappropriate speech imitation.
- 2) Another technique, the therapist could try is manual prompts i.e. the clinician actually holding the child's mouth shut.
- 3) Pausing prompts have also been reported as effective in teaching echolalic children to imitate when asked to do so, for example, in response to “say... (Pause)..... Flower”.
- 4) Cue cards with written words can be used as a visual prompt with children who demonstrated excellent written word discrimination skills, an ability that is not uncommon in autistics (Tramontana and Shivers, 1971).
- 5) Audio taped recordings of verbal prompts may be used. In this case, child learns to repeat tape-recorded phrases rather than the therapist's speech. This strategy may circumvent the need rely on irrelevant cues such as volume shifts or Manual prompts (Palyo et al. 1979).

6) The verbal prompt may be presented before questions or instructions are worded (Ausmana and Gaddy, 1974). For example, the therapist would say, “Sitting – What is the girl doing?” And reinforce as soon as the child repeats the word sitting without giving the child a chance to repeat the question.

Jargon, Neologisms & Perseveration

Here, as with echolalia, verbal prompting and manual prompting can be utilized. Examples:

- 1) ***Verbal Prompting***: When the child utters a neologism or jargon, or exhibits perseveration, the therapist gave the child a verbal cue or prompt such as “No”, which might initially be accompanied by an action gesture such as finger or head shaking, or putting the index finger over the lips. Slowly, the prompting should be faded out.
- 2) ***Manual Prompting***: When the child utters a verbal excessive behavior, the therapist immediately closes the child’s mouth.

Treatment Goal: Developing differential expression of ‘Yes’ and ‘No’

An important factor in normal acquisition of ‘yes’ is the intonational clue (upward inflection) of the terminal word of the probe (Fay, 1975). Intonation can be a powerful tool to help the child comprehend.

Again, visual aids may be used to assist in developing appropriate ‘yes’ ‘no’ responses. Whenever, a particular response is expected, the picture card can be used to prompt the child and elicit the required response. As with any prompts, this should eventually be faded out.

Activities like- Is this yours? How absurd! (Wearing socks in hands)

Treatment goal-Improving personal pronoun usage

The therapist should make it easier for the child to learn a rule of pronoun usage by repeating sentences illustrating the rule again and again in a short space of time.

Activities like- who has the ball? Pass the toy to him....etc

Treatment goal- Improving word, sign or phrase retrieval skills

The child is instructed to name as many items in a category as he can in a given time.

Activities like-“Name as many animals as you can in one minute”. If the child gets stuck, prompts may be given in the following hierarchy.

- 1) Descriptive clue
- 2) First phoneme
- 3) First syllable
- 4) A picture
- 5) The name

Activity: Concentration

The therapist and child may either stand or sit opposite each other but within hand reach. This is a clapping game that requires the repeated sequences of clapping both hands together, and then clapping one each of the child's hands. While clapping, the following chant is said by the therapist, (dots beneath the words show when the clap should occur).

‘Con-cen-tra-tion, concen-tration concen-tration, keep, the,

 rhy-thm, keep the rhythm of the beat. Na-mes, o-f, frui-ts, ap-ple

On the next clap the child must say a fruit, and so on, alternating between therapist and child, until one person misses the beat (doesn't name a fruit in time).

Activity: Name- Place- Animal- Thing game

Treatment goal- Establish rules of conversational exchange (Listening & turn taking)

There are a number of strategies that the therapist can employ while helping the child learn the rules of conversation. Weitzman, (1992) has given the following:

- Treating almost anything the child does as if it were an attempt to communicate E.g. in the case of an infant burping; the therapist will say “Oh, what a big burp! Now you feel better”, or when a child startles in response to a noise, the therapist says “What was that big noise?” Thus, the child is being given a turn in the conversation, even though he may not know it yet.
- As the child develops, you expect more from him. If the child is making sounds, hold out for those kinds of sounds when you are trying to get the child to take a turn.

Treatment goal- Developing question and answering skills

The child should be given as many opportunities as possible in which he will be required to either ask questions or answer questions or both. In the initial stages, the therapist will have to give as many models of appropriate question and answering behavior as possible to the child so that the

child will become familiar with the rules. Next, the therapist must evoke the required response from the child in different situations and contexts, giving cues and prompts when required.

Activities like- role playing, story book reading etc

Treatment goal- Facilitating conversation repair

Strategies for helping an individual acquire knowledge about communicative repair vary according to developmental and communicative level of functioning. For children at preverbal levels, communicative effectiveness may depend upon a child's ability to combine communicative means. Frequently, children who learn to use augmentative systems also learn to apply knowledge of alternative means in attempting to repair communicative breakdowns (Prizant and Wetherby, 1985).

At verbal levels children may need to learn that there are alternative ways to express intent through language. Furthermore, if breakdown occur due to lack of intelligibility or comprehension of the language of others, the use of requests for clarification (e.g. "Please say that again?" or "I don't understand", may have to be taught explicitly to enhance a child's ability to repair breakdown in communication. The ability to develop strategies for repairing communicative breakdowns is essential in assuring that what one intends to communicate results in the communicative act functioning as intended (Prizant and Wetherby, 1985).

Treatment goal-Improving interpretive skills of figurative speech

If the 'normal' meaning of words is changed, autistic children can become very confused. Ordinary children love to turn the world upside down, but for children with autism, it is terrifying. It is already difficult enough to understand the world in its literal sense.

Activities like- The therapist can utilize picturisations of idioms, similes, slang, proverbs and jokes in category card books, to visualize the literal and figurative meanings of speech for the child and explain the meaning to the child.

Treatment goal-Developing an alternate system of communication

Non-speech systems for communicating (e.g. picture boards, sign language and sight-word boards) provide individuals with limited communicative ability with more conventional and more efficient means of communicating (Prizant and Wetherby, 1985; Fay and Schuler, 1980; Peters, 1997). While these findings pertain to sign language mainly, other non-speech systems have also been used, including plastic symbols, Bliss symbols, pictorial and written word systems, microcomputers, as well as variations and combinations thereof (Schuler, 1985)

IMPLICATION

The study has implications for the assessment, treatment and further research regarding ASD's and their management by SLP's.

It should,

1. Allow for more focused and detailed intervention assessment.
2. Facilitate a more structured and organized approach to treatment
3. Provide a means for tailoring therapy for the individual
4. Create, to an extent, uniformity across clients.

CONCLUSION

There is no dearth of literature or books written about autistic spectrum disorders (ASD), or their language characteristics, or various treatment procedures and approaches, few of which have proved effective, and many of which have not.

However, for an average therapist, not only is access to this material limited, practical utility and feasibility is almost nil. Hence, there is a dire need for a resource of basic information that an average therapist can use when faced with an ASD child. So this manual was developed with the 'average therapist' in mind. As unless the therapist knows what to do, the ASD child has no hope. In no way is this manual intended to propose a hierarchical treatment protocol, nor a treatment program to habilitate the ASD child. The therapist, when faced with an ASD child, should be able to use this manual as a guide or framework from which an individualized, structured and organized therapy plan can be formed for an ASD child. That is, first carry out the intervention assessment to establish a baseline level of the child. Then evaluate the language profile that the child presents with, and choose appropriate goals to counter those deficits, and finally, choose activities that will help to achieve those goals.

The resultant manual thus consists of 4 chapters. Chapter one deals with profiling the child's language skills and to establish a general base line, and then along a specific deficit continuum for ASD. Chapter two contends with different treatment goals derived from the child's profile to plan goals. Chapter three comprises of general intervention guide lines and last chapter is collection of ideas, activities and tasks to help the clinician. All materials can be modified or altered to suit age developmental level and cultural background of the child.

Treating the ASD child is a challenge of insurmountable heights, not to be shied from. It takes zeal, effort, creativity and staunch commitment to attempt to unlock the door to their inner

sanctum. It is hoped that this manual gives the therapist a platform from which to realize the maximum potential in helping the ASD child to communicate.

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