

Adolescents and Adults with Special Needs: The Developmental, Individual Differences, Relationship-Based (DIR) Approach to Intervention

Stanley I. Greenspan, M.D., and Henry Mann, M.D.

When working therapeutically with developmentally disabled adolescents and adults, there are many challenging issues. The biggest and most significant challenge is to move our thinking beyond the stereotype that children reach a plateau beyond which improvement can only be minimal.

In treating severely compromised older children, adolescents, and adults, many therapists give up trying to promote meaningful developmental progress. They teach only superficial skills and routines instead of trying to support and strengthen the patient's functional developmental and processing capacities. This limited treatment approach is based on myth and false belief—there are no data to support the idea that individuals at age 14 or 16 or 25 cannot make significant developmental progress. During this time, the nervous system is still developing. The brain continues to myelinate into the fifth and sixth decades. The frontal cortex areas of the brain that regulate sequencing, as well as parts of the brain that influence abstract thinking and concept building, keep myelinating into what we consider middle to old age. Judgment and wisdom improve during these years. While motor and memory skills degrade with age, our abstract thinking ability, our ability to see

the big picture, to reflect, and to have insight improves with age.

In addition, there is the factor of exercise of a function. The popular saying, “Use it or lose it,” describes this process. There has been a popularly held idea that certain math and memory abilities reach their peak in our late 20s and early 30s, but these notions were only based on examining limited or splinter skills and are not representative of later development as a whole.

There is another area in which we are being misled into limiting our expectations and our hopes for our patients. As many individuals grow and progress through school, they may have the sort of problems that lead them to be identified as mentally retarded. In part this happens because school systems use standardized testing protocols that may not be appropriate for a particular child's learning profile. Reliance on standardized testing at a point in time (rather than looking at change over time) can lead to an assumption that the child has a permanent and severe mental limitation that is not amenable to change. The label of “mental retardation” implies a permanent and severe developmental limitation. We believe that the diagnosis of mental retardation should be made only after a child

has participated in an optimal program for at least 3 years and has not made intellectual and/or developmental progress. An optimal program for these children would include a strong emphasis on identifying and strengthening the individual's processing profile. Prematurely identifying a child as retarded carries with it a resignation to the status quo rather than fostering an approach that works with a child and family to see if it is possible to improve his processing capacities, including auditory, visual-spatial, motor planning, and affective.

It is often assumed that if a child has deficits across the spectrum of cognitive abilities tested this shows that the problems are more likely a part of a global cognitive deficit than specific processing differences. Sometimes however, children may have underlying processing problems, such as deficient motor planning and sequencing, which can affect functioning across the board. Severe motor planning dysfunctions can derail the development of other skills, such as verbal and visual-spatial, as well as compromise a child's capacity to participate in a test. In such cases, individuals who have an underlying condition that could improve with proper remediation are misdiagnosed as having an untreatable, chronic developmental limitation.

In addition, rather than a global cognitive deficit, many children have multiple processing deficits which can be worked with. If the child has processing problems in two or three pathways, we try to remediate those pathways. If a child has physical problems in different systems of the body, such as concurrent renal, pulmonary, and cardiac problems, we attempt to treat all the problem areas. Similarly, in our patients, the visual-spatial, auditory, and the motor-planning systems often all need to be treated. Each one of these areas may have many components to it, and there may be strengths or weaknesses within

the different components. This approach is more demanding of us as diagnosticians and therapists, but it also allows us to bring hope for developmental progress to a population that has been previously designated as too chronically and permanently developmentally impaired to be helped to a significant degree. We lose sight of the fact that helping an adult go from aimless, nonverbal, self-injurious behavior to having the capacity to purposefully interact with others, take pleasure in relating, engage in problem-solving interactions (e.g., signaling to get food or a game), and even learn some signs or words is a huge gain. Even though the individual still has enormous limitations, the quality, meaning, and competency of his life have grown significantly.

Another problem that we have in working with older children, adolescents, and adults is their size. At an unconscious level, older and larger patients often do not generate in us the same sort of nurturing and protective feelings that affect and motivate us when we work with younger children. Our response to an angry and agitated adolescent is generally quite different than our response to a 3-year-old who is clearly anxious in a new situation and is acting in an angry manner. If we have a 3-year-old child who wants to go out into the snow with her shoes off, we attempt to educate and support the child and firmly help her make the correct decision. If we are dealing with a 17-year-old adolescent boy who angrily demands to go out into the snow with his shoes off, we have quite a different response. This sort of unconscious fear inevitably affects the staff of educational institutions, rehabilitation centers, and other institutions. Because of this mindset, the administration and staff may focus on limit setting, containment, and restraints rather than on fully engaging with their clients and bringing them to a higher developmental level.

EVALUATING AND TREATING ADOLESCENTS AND ADULTS WITH DEVELOPMENTAL DISABILITIES

In order to work effectively with older children and adults, we need to extend our Developmental, Individual Differences, Relationship-based (DIR) model into the adolescent and adult years and then tease out the principles of intervention that are especially pertinent. If not already familiar with the DIR model, the reader should review Chapters 3, 4, and 12 this volume, as well as *Infancy and Early Childhood: The Practice of Clinical Assessment and Intervention with Emotional and Developmental Challenges* (Greenspan, 1992), *The Child with Special Needs: Intellectual and Emotional Growth* (Greenspan & Wieder, 1998), and *The Growth of the Mind and the Endangered Origins of Intelligence* (Greenspan, 1997). Basic principles of applying the DIR model to adolescents and adults are delineated and described here within the context of a clinical case.

Jim: An Adult with Developmental Disabilities

A mother recently related to us her concerns about her 30-year-old son, Jim. The questions she asked about her adult son illustrate some of the issues and principles involved in evaluating and treating adolescents and adults with developmental disabilities. The mother was conversant with the functional developmental approach (i.e., the DIR model) She reported that when she began working with Jim about 10 years ago on the process of engagement, she found his abilities in the area of two-way communication to be quite minimal. He was mostly self-absorbed and had no spoken language. She said that when her son became frustrated or worried he would often scream. Initially, she

had interpreted his screaming as a communication to her that something was wrong and that he needed help from her. Later, she found out that he was having tremendous difficulty with word retrieval and had become overwhelmed with frustration. At a later point in his development, he was able to type “the words would not come, and all I could do was scream.” Mother noted that she had started working with a typing program as part of increased engagements and gesturing when Jim was 20 years old and had pursued it actively during the following 10 years.

Mother reported that she could not get verbal responses. At the same time she was working with Jim on the typing program, she also worked with him on more gesturing and simple imitations of sounds and later words. Eventually, he learned to use some words (e.g., “No car” or “Buy cookie” or “Go sleep”). He had developed this new ability to verbalize very recently.

This young man’s progression to simple verbal expressions illustrates that appropriate interventions can be initiated at any age and may lead to unexpected progress if they are pursued consistently. In this case, the young man had been actively working with his mother for 10 years, from age 20 to 30, before he began to use spoken words to communicate.

Mother described what it was like teaching him first to type and gradually to use some meaningful language. She attended a symposium related to the topic of using typing to teach language and began using it with her son. In order to help her son, who had low muscle tone, she needed to hold his forearm. Jim learned slowly and laboriously, but gradually he could type out one word at a time. She found that sometimes one word would appear within a large group of other letters. This gave her hope, and she continued to pursue her quest. Mother is currently working with facilitating Jim’s transition to verbal expression by

saying to him, “Now let’s try and say it in words.” The typing program may have provided mother with a goal and structure around which engaging and gesturing could occur.

Jim’s mother described how she was dealing with his other developmental challenges. She was trying to help him learn to engage in pretend play, but found this difficult for several reasons. She, herself, was not comfortable with pretend play, but she was concerned that if she did not set the stage for pretend play her son would not initiate it. Her son’s low muscle tone also interfered with his development of skills in pretend play. In addition, she reported that her son’s ability to engage in pretend play was compromised by his difficulty with two-way communication. However, her son, who was almost completely self-absorbed, is now seeking out other people and says, “Come sit with me.” When he played with his father recently, he began to engage in spontaneous pretend play on a very limited basis. He had not been able to do this prior to his recent usage of simple words to communicate.

Jim’s mother reported that he loves music and listens to records and tapes. He would look through tapes and select his own music. She believes that he read labels as part of the selection process. Recently he was able to read some simple books to her. She has asked him many times how he learned to read. He says “myself.”

Jim’s mother has ongoing concerns about how to soothe her son. She had tried using a brushing technique recommended by sensory integration therapists and also found that he responded to the music on some of his favorite videos. Her most frequent problem continues to be dealing with his frustration about not being able to get out the words he is reaching for (at which point he often starts to scream). They are working on soothing and regulating interactions rather than on agitating ones.

At this point, it should be clear that this young man struggles with many of the same

issues as does a 3- or 4-year-old child who is just becoming verbal and beginning to piece together several words, is still working on gestural communication, is still working on engagement, and has some splinter skills in the area of reading and word recognition. As he is learning to type and talk however, he is raising the possibility that he may have been perceiving more than he could communicate. This is not an unusual picture. The lesson to be drawn here is that we can use interventions with a 30-year-old man that would be comparable to what we might use with a 3- to 5-year-old child.

BASIC PRINCIPLES OF INTERVENTION

The first principle of intervention is to work with the basic building blocks in the context of the person’s interests. Working with Jim would be somewhat different than working with a 3- to 5-year-old child because Jim has some adult interests. He likes different kinds of music; he is a little more set in his ways. He is not going to be as easily drawn in as would a young child. Nonetheless, we still need to work on the same building blocks, but with different, more age-appropriate interests and possibly more understanding and awareness than is obvious.

For example, if we were trying to work on pretend play with a teenager or a young adult who was embarrassed by getting down on the floor and pretending because he was aware that this is something that only little kids do, we would be faced with a dilemma. The patient needs the benefits of pretend play but, because of issues of pride and shame, is unwilling to participate. The solution to this dilemma might be to set up an improvisational theater setting, such as a home-based drama program. We might even encourage the teenager to participate in a class of other

teenagers or adults with developmental challenges to do improvisational work. The very act of playing different role parts in acting allows us to learn to improvise and therefore to pretend and imagine. Integrating developmental therapy into an activity that would be considered age-appropriate rather than childish will allow such an individual to obtain the benefits of the treatment without having to feel shame and humiliation.

In working with Jim, we would recommend building on his interest in music as a way of beginning and stimulating imaginative play. One of his parents might listen to music with him and then begin to dramatize the music to see what the music brings to mind. Then, perhaps, they could create imagery with the music. If Jim were to select the music, he would select it to fit his mood. Therefore, his choice would be quite revealing. If he selected a vigorous marching piece or a soft and soothing piece, we would have some clue about his feelings at the moment. We might dramatize the music and the story with the use of dolls or cars or pictures.

The use of pictures might be particularly helpful here because they allow quick recognition and interaction and also support symbol formation. Because the expressive auditory channel is critically challenging for Jim, we want to give it as much usage as possible even while he is learning to use words. If Jim could sequence pictures that were imaginative, he would also strengthen the same process in his verbal sphere. He should be given the opportunity to select pictures related to his favorite interests by looking through books or magazines in which he already has an interest. Then the pictures could be cut out, and he could use them to tell a story. Another possibility would be to use a digital camera to take pictures of people, pets, and other things that are part of his everyday life. If he combined these pictures

with cutouts from magazines, then he would have a wide range of images from which to draw. Pictures might also be helpful to him if they were kept available for times when he was agitated and upset so that he could point to them quickly to indicate his concerns. The picture system would serve as an intermediary and part of the next step to verbalization. We might anticipate that Jim's visual skills are stronger than his oral language skills. The key is to use pictures not just to help him meet basic needs but also as part of a continuous flow of two-way communication in both pretend and reality-based situations.

The second principle in working with developmentally challenged individuals is that it is crucial to keep moving sequentially through the functional developmental capacities. Unfortunately, with many older children, adolescents, and young adults, we often stop working with them when they have reached the level of having a partially developed language system. However, much more is needed when the older child or adolescent still is unable to appreciate experiences and to make gradations of thought and feeling. The concrete child might say, "I like this, I don't like that, I want this, I don't want that." However, this is insufficient to help a child use language to learn to master complex feeling states and interactions. Children at this level are vulnerable to being impulsive or to having tantrums because they cannot understand relativity (i.e., shades of gray), time concepts, or quantity concepts, such as a little bit of this or a lot of that. These children think concretely and then do not learn to anticipate the future well enough to move into the stage in which they are capable of hypothetical reasoning, a characteristic of adolescence.

Techniques for introducing relativistic thinking might include the following. When the individual is feeling angry or upset, we might ask, "How upset? A little bit? A lot? A

whole lot?” And then we might spread our hands to demonstrate the extent of the feeling. If we wanted to present a stronger visual image, we might blow up a balloon and ask him to show whether the feelings state relative to the size of the balloon is small, medium, or large.

If we were dealing with a person who was able to operate at a relativistic, gray-area thinking level but not able to anticipate the future very well, we could begin with questions such as, “If we do this now, what will this mean for the future?” In order to work at this level, we would need to make use of circumstances in the person’s life and use a subject that she finds emotionally interesting. For example, if we wanted to discuss an event that is going to occur in the near future, we might ask someone to make choices between goods that they really want, such as, “Do you want a chocolate cookie or vanilla ice cream? One we can get in 5 minutes, and the other one we can get tomorrow.” An exercise like this one allows us to teach the person to project into the future with two highly cherished emotional items, as well as teaching the person to think in terms of the future.

Then we might want to move to hypothetical thinking about possibilities, which is more difficult. An example of the questions might be used here are: “Do we take one cookie now or do we gamble and take a chance on maybe getting two ice creams later?” We can set up little games of chance around prized things that include the notion of probabilities as well as projections into the future. It must be clear that at this level of interaction we are teaching the person a way of thinking that is crucial to social and emotional self-regulation.

At this juncture, we need to ask a general question. Why is it that most adults who remain in special-needs programs rarely function above the 10- to 12-year-old age level in their general functional intellectual

capabilities? We believe that the answer to this question has to do with the limitations of our general educational approach to these individuals. Many of them have the yet undeveloped capacity to progress far beyond the 10- to 12-year-old level of concrete thinking. Yet this capacity is not challenged because of the inadequacies in our understanding and our curriculums. We often end up working on very concrete solutions that reinforce concrete thinking rather than moving forward through the developmental levels in our treatment approach.

To review our approach to individuals such as Jim, we would encourage more of the work that his mother initiated in approaching him through the auditory receptive system and through facilitated writing, eventually progressing to the use of oral language. Pictures also should be introduced as part of the intervention. Once an individual is quite verbal or can communicate with written words or other symbols, there should be efforts at “gray area thinking” and learning to make gradations about feelings. In order to strengthen earlier developmental building blocks of engagement and gestural language, we would recommend looking for opportunities to engage in 20- to 30-minute floor time sessions focused on the individual’s interests. For a person like Jim, who is interested in music, we would recommend to his mother that she take him to music stores and help him look at different choices of music and make selections. She should try to get him to negotiate around the selections, meaning that he should have to make choices between one CD and another.

There may be times when the individual wants absolutely to be alone, and there will be other times when he will gradually begin to accept his parent’s offer to listen to music with him. The listening together may start simply with sitting quietly in the room with

him. We would start strengthening basic shared attention and engagement by entering into his rhythm of life. This way, he will learn to share quiet time, relaxed time, and listening time, but through this, he will also begin to learn to interact more and to become more engaged.

Concurrently, we would take him out into the community, working with him on making choices, talking about his feelings, and interacting with others. The overall goal is to build gray area thinking as well as an ability to interact with others. Throughout this process, we need to remember that the work we are doing takes time and patience. It took Jim's mother approximately 10 years of patient work before Jim was ready to use oral language as well as written language.

The third general principle in working with older children and adults is the importance of creating emotionally meaningful learning contexts. For example, consider a typical situation of a child who has learned some speech and is able to answer "why" questions. The child also has some small ability in math and reading but is not able to master abstract concepts. Therefore, he has a very limited understanding of the world, which then persists into adolescence and adulthood. We now find ourselves dealing with a person who thinks concretely and does not understand issues such as justice, fairness, and unfairness, does not understand what taxes are, and cannot grasp other complex issues. We see this situation in children who come to us with autistic spectrum diagnoses, Asperger's syndrome, cognitive delays, or mental retardation. We see it in some individuals who simply have severe learning disabilities and processing problems. A common underlying factor in all these children is the presence of processing problems. We have found that one way to make progress is to create more emotionally meaningful learning contexts.

Consider the case of a young girl who was unable to understand the meaning of taxation. Her mother was certain that she would never learn to understand the concept. As a way of teaching her about taxation, we involved her in a role-play during which she was required to trade pieces of pizza for things that she needed, such as protection from her aggressive and intrusive brother. She was asked how much would she pay a policeman to protect her from her brother. She decided to pay two pieces of pizza to protect the remaining eight pieces. The two pieces became "the taxes" she was willing to pay the police, who would then protect her from pizza thieves. This role-play took about 15 minutes. After completing it, she was able to give other examples of the meaning of taxes. She understood that she would need to pay for cleaning the streets and for taking out books from the library, as well as to pay in advance for the services of the fire department. This girl was beginning to understand a difficult abstract concept. She was able to grasp this concept by using it in multiple emotionally significant contexts.

How does a child learn about justice? Justice is a vague and abstract notion. We are continually refining our sense of justice through being in situations that are fair and unfair. If we want to give a definition of justice to a child, we could give a dictionary definition, but this approach would not get us very far with most children. But if we create make-believe situations such as one in which all the family's cookies are going to a brother or sister and not to the individual we are working with, the child will quickly say, "That's unfair." "That's unjust." Through this scenario, the child begins to understand that when he gets to share, that is called justice. This is only one example, but an *emotionally meaningful one* that helps him grasp an abstract concept. Then the child can refine his understanding of the

concept through other experiences. In order for this to happen, however, we need to have emotionally significant experiences that build on the word and concept. Every word and concept begins with its simple definition. More complicated and gradually acquired meanings unfold over time through more and more emotional experiences.

For example, concepts such as love or caring acquire more meaning throughout life. As we get older, we change our notion of these concepts. To a young child, love means caring, hugs, and kisses; to an adult, love means devotion, hugs, kisses, warmth, compassion, and empathy. To understand the complex concepts of life, we have to acquire more and more experience with them.

The concept of size, which has both physical and mathematical dimensions, expands and becomes more complex as we grow older. When we are very young, there is “big,” and there is “little.” As we have experience in play, we note that some things are very big, super big, or super little. The more experience we have, the more the continuum of big vs. little stretches out. We find that the more severe the processing problems, the stronger the emotional meaning of the learning experience has to be to try to break through. Unfortunately, we are geared to certain standard ways of teaching, and frequently we are not working with the individual in this kind of dynamic way. It is essential that we continually remind ourselves that the worse the processing deficits, the more important it is to work in an emotionally meaningful context.

The importance of finding an emotionally meaningful context for learning increases when we are attempting to deal with helping individuals establish gray area thinking and then hypothetical probabilistic thinking. The reason for this is that the concrete level of thinking comes much more easily and more

naturally. Simple “why” questions are relatively easy to answer compared to the challenges faced by an individual entering the gray, or hypothetical, thinking area. Here, without the strong motivation provided by an emotionally meaningful context, progress might be impossible. It is a crucial point in an individual’s development to be able to think in these realms. Without this capacity, we cannot understand other people’s motives, and we can only understand a very limited amount of academically important materials. An individual who has only learned memory-based reading and memory-based mathematics will have quite limited academic capacities because the ability to think has not been mastered.

In addition, we cannot work effectively with individuals with developmental problems—whether they are 5, 20, or 30 years old—without knowing which functional developmental capacities are missing. With each patient, we need a functional developmental road map. For example, if we are working on conceptual thinking, we need to know which concepts present a challenge for the individual, and then we need to develop emotionally meaningful ways to teach these concepts.

ADULTS WITH SEVERE DEVELOPMENTAL CHALLENGES

So far, we have been discussing some of the issues related to individuals with moderate to severe disabilities. We should consider another group, those individuals who cannot relate at all and whose behavior appears to be aimless, aggressive, and disorganized. These individuals often lack the capacity to put together a sequence of three or four gestures. If we can help such a person move from aimless activity to engagement and then on to some simple purposeful and reciprocal sequencing, we are producing a tremendous change in the quality of life, meaning, and

competency for that individual. Our next step should be to help that same individual reach a level where she can problem solve and participate in five or six interactive sequences so that, for example, she might be able to take us to the refrigerator and show us what she wants. Then we try to move that individual to function at the early symbolic level of development so that she can use a few pictures as words to communicate.

With individuals who have profound developmental problems, we may give up because of our own reaction to the person's developmental limitations. In such individuals, there is often no purposeful reciprocity. Because of that, they often display a great deal of aggression toward others and toward themselves, as well as much diffuse and aimless behavior. At this point, the caretakers of such a person have to either resort to physical restraint or the heavy use of medication. Unfortunately, although large doses of tranquilizers may help with behavior management, medication may also reduce an individual's cognitive capacities and his chance of making developmental progress.

Henry Mann's recent work with the functional developmental approach in an institutional setting with several individuals who have profound developmental delays and range in age from their mid 30s to late 50s shows promise. Two case studies follow that illustrate how this approach is being applied to chronically institutionalized individuals with severe developmental deficits.

Peter: A Mentally Retarded Adult

Peter is a 34-year-old profoundly retarded man who was institutionalized in the Connecticut division of the mental retardation system when he was 5 years old. Peter was the product of a normal pregnancy and delivery. He was identified as retarded because of his failure to develop language or any non-

verbal communication skills. At the time he entered residential care, he had frequent uncontrollable rages and required full time one-on-one care. As Peter grew, so did his capacity for dangerous and aggressive attacks on other clients and staff. Over the course of many years, he was given large amounts of psychotropic and mood stabilizing medications, including Thorazine, Mellaril, Haldol, Prolixin, Lithium carbonate, and many others. Despite extremely high doses of medication, he did not seem to respond well. He needed a very high level of care until the introduction of Risperdol to his medical treatment. At that point, he was able to handle frustrating situations and changes in schedule without explosive reactions.

Peter was never able to function beyond the very earliest developmental stages. He could focus on various objects that might be of interest to him, such as cans of soda, pieces of paper, and pens, which would inevitably end up in his mouth. With the Risperdol, he was better able to regulate his mood to the extent that his decreasing intensity and frequency of rage reactions were indicative of such a change. There was no noticeable engagement with staff or others throughout his time in residential care. He also showed little or no evidence of purposeful, two-way communication. His day-to-day life consisted of being cared for and passively accepting directions. In addition, he also did not seem to understand higher-level problem-solving gestures or words.

When the DIR approach was initiated with Peter, he rapidly began to focus his attention on the interviewer. The technique used to engage his attention was simple imitation or mirroring of all his movements and sounds. This technique is one that mothers naturally use to engage their babies' attention in the first months of life. It was appropriate for Peter because the first therapeutic task

was to engage his attention and then build on this to develop relating and finally some sort of purposeful interaction between him and the therapist.

In order to explore what might be helpful for Peter, he was seen for 20- to 30-minute sessions twice monthly. The infrequent sessions were because of the limitation of the therapist's schedule: it would have been helpful to see Peter more regularly. The goal was to learn how to engage him and to create opportunities for two-way communication and then to use these insights to work with the staff so that they could work with Peter on a daily basis. During this time, the task was engagement of attention and then creation of conditions that allowed for emotional engagement. Peter responded very quickly during the first floor time session and even reached a point where he leaned toward the therapist and almost touched heads with him. In the second session, he showed what was probably a reaction to the first meeting by coming into the interview room and turning his back to the therapist for nearly 10 minutes. Eventually, the staff persuaded him to come to the other side of the table and to sit next to the therapist. Peter looked away and during that time almost never allowed the therapist to engage his attention. Whenever it was clear to him that the therapist was attending to him, he dropped his gaze or turned his body.

The third floor time session showed almost the reverse. Peter came into the meeting making loud guttural sounds. The therapist responded with a similar sound and a friendly tone. For about 10 minutes, they sat next to each other making these sounds. There was no synchronicity on Peter's part, meaning that he did not build on the therapist's sounds, although his persistence and occasional look of real interest in this activity was a clear indication of fleeting involvement and engagement.

Over a series of sessions, Peter began to increase his repertoire of sounds to include short combinations of consonants and vowels in a somewhat rhythmic pattern, which the therapist imitated. He appeared to be extremely engaged and to be aware that the therapist was picking up on whatever he produced. During some sessions, he was openly interested in the therapist. He showed this by taking the therapist's eyeglasses or pens and putting them in his mouth and by moving close to the therapist.

During this time, a 2- or 3-minute period of intimacy was usually followed by withdrawal for an equivalent amount of time or longer. A "good session," in which there was a great deal of intimacy, was usually followed by a session in which there was some withdrawal and disconnection. However, over time, the periods of intimacy became longer, growing from about 20 seconds to 3 or 4 minutes. In one dramatic recent session, Peter included other staff in the floor time interaction and responded equally well to two staff members during the session. He exchanged looks, had some fleeting smiles, and exchanged objects.

During this time, it was noted that Peter was very sensitive to light touch and sound and could use visual-spatial problem solving (find things) much more effectively than verbal strategies (he never followed directions).

Currently, Peter has entered a treatment phase in which other staff members have begun daily floor time sessions with him, under supervision by the psychiatrist/therapist. Staff are careful not to intrude on his sensitive tactile or auditory systems and to use lots of gestural animation to appeal to his stronger visual problem-solving skills. They begin with some simple imitation of Peter's behavior to get interactions going. The staff has attended an in-service training program; they will make videotapes of their floor time

sessions with Peter to be reviewed by the consulting psychiatrist. The staff now seem to be enthusiastic and fully engaged in learning about floor time whereas initially they were quite skeptical about this new way of communicating with their client. In a recent treatment session with one of the staff, Peter demonstrated his new ability for engagement by maintaining his attention on the staff person for the full length of a 20-minute period. Peter also has increased the complexity of his use of sounds. The typical floor time session with Peter now consists of the purposeful exchange of a wide range of sounds and variations in volume and some motor gestures such as giving or taking objects. The hope is that within several years Peter will extend his use of gestures and sounds to the beginnings of some words or symbolic gestures to communicate with others.

Peter's mood also has improved during the treatment period. Prior to treatment, Peter would have one to two months of extreme agitation each spring, during which he would become assaultive and aggressive, sleepless, and irritable. Since the beginning of the program and engagement, his seasonal problems appear to have abated. He still demonstrated a considerably increased amount of energy during the spring, but he did not have periods of agitation and depression. His overall mood has been happier, and he has shown more signs of engagement with others.

Alice: An Autistic, Mentally Retarded Adult

Our next case is Alice, a 59-year-old profoundly retarded woman who was placed in a large residential center when she was a child. Alice is a spastic quadriplegic who also has kyphoscoliosis. She has been withdrawn and avoidant of contact with others and has carried a diagnosis of autism since childhood.

During her time in various residential programs, she has never engaged with others. She has been nonverbal, gaze avoidant, and has shown a complete indifference to her surroundings, to staff, and to other clients. She has had frequent episodes of crying and whining that have appeared unrelated to any external circumstances.

Kim, a nurse's aide, showed an interest in learning the DIR approach as a way to communicate with autistic clients and asked to work with Alice about 1 year ago. She agreed to come with Alice to the semiweekly psychiatric clinics for training. During a 20-minute period at each clinic, Kim was supervised in how to initiate contact with Alice and how to engage her attention. The initial approach was simply to mirror all of Alice's gestures and sounds, which Kim learned fairly quickly. Within several clinics, she was able to very competently engage Alice's attention. As Kim worked in Alice's residential home, she was able, with her supervisor's support, to set aside three 30-minute periods per week for individual floor time with Alice.

Alice responded to these meetings by beginning to reach out for Kim and to make eye contact with her. After several months, Alice started to become attached to Kim. She showed signs of pleasure when Kim entered her room. She would reach out for Kim's hand and bring it close to her head to rub the side of her face. Alice, who had not been observed to smile or show signs of pleasure for many years, began to smile spontaneously. She reduced the frequency of her episodes of crying and whining. After several more months of regular floor time work, Alice started to reach out for other staff and to show signs of recognition of others. She also made eye contact with other staff.

With severely challenged adults, the key is to pay attention to the early functional developmental capacities of attention, en-

gagement, and two-way purposeful interaction. Gains in these basic foundations can make an enormous difference to an individual's adaptation, including basic emotional, social, and cognitive capacities (e.g., to be purposeful rather than aimless). Of interest is that initially many of the residential staff that worked with Alice were quite skeptical and unsupportive of this approach. However, within 6 months they became more supportive and began to use some of the floor time techniques to engage Alice themselves. Other staff members have now asked to attend in-service training sessions, and several will be starting to work with other clients within the next few months.

The impact on the staff was quite significant. Prior to their experiencing the effect of a functional developmental approach on their retarded or autistic clients, they were unaware of any opportunities to improve their autistic clients' quality of life other than trying to make sure that their day-to-day lives were conflict-free and somewhat interesting. There were, however, many hours of aimless activity coupled with attempts at control. Once the staff saw that they could help their clients relate and be purposeful, and as they paid attention to the subtle signs of interaction, they worked more with their clients. Kim has experienced a large change in her self-confidence both in dealing with clients and other staff. One would expect that as further learning and practice of the developmental approach occurs, the staff's overall morale and level of engagement with all their clients may grow.

FACILITATING PEER RELATIONSHIPS

Another basic principle in working with developmentally challenged adolescents and young adults is that we need to pay very close attention to the quality and extent of their

ability to relate to their peers. Many of us have had the experience of helping children with the diagnosis of Asperger's syndrome who are verbal and academically skillful enough to be in a regular class but cannot interact appropriately with the other children. Therefore, they feel isolated and alienated. As a result, the child often becomes very sad and depressed. The child is aware enough to know that he wants to have friends and be part of a social group, but he is also keenly aware of his deficits and his lack of acceptance by others. Teenagers and adults with these developmental disabilities experience this same phenomenon. Ordinarily, if we were working with a child at a young age, we would start to encourage developing peer relationships as soon as the child had mastered gestural communication. The children who learn complex, preverbal, problem-solving gesturing and who strengthen this through ongoing social interactions become quite socially competent. Even if they have strong deficits in other areas, they have learned to engage other children and can play with them in a manner that is enjoyable both to themselves and to the other children. Children who cannot develop this capacity are viewed by themselves and by others as being "different." There is no substitute in this process for lots of practice with peer interaction.

A 15-year-old boy, Donald, was seen for therapy because of severe depression and withdrawal following the death of his grandfather. He had previously been seen in therapy by another therapist who had diagnosed him as having Asperger's syndrome and had treated him with a combination of antipsychotic and stimulant medication. The boy had been seen in a supportive therapy, but according to the therapist, was very difficult to engage and generally interacted with the therapist with very little emotion. Donald had adequate use of language and could learn his coursework with the support of special educa-

tion classes and an individual tutor. Although he had auditory and tactile hypersensitivities in addition to low motor tone and problems with fine and gross motor coordination, the family had not been able to obtain adequate occupational and physical therapy services for him. Dr. Mann soon discovered that Donald's greatest concerns were the loss of his grandfather and his lack of peer relationships. Apparently, for several years prior to his grandfather's death, Donald had daily telephone conversations with his grandfather that lasted up to an hour and a half. His grandfather had, in fact, been attempting to fill in for the social contact that was otherwise completely lacking in Donald's life.

As part of the treatment plan, Dr. Mann saw Donald weekly or semiweekly for psychotherapy sessions and talked with him on the telephone 7 days a week for 5 to 10 minutes. As part of the regular weekly therapy sessions and the telephone conversations, the therapist offered Donald an opportunity to engage in role-playing. Donald welcomed this chance to do some "grown up" pretend and to participate in a more dynamic interactive learning experience than he had experienced in prior treatment programs. With Donald's guidance, one element that was especially helpful was when the therapist transformed himself into a personification of a somewhat aggressive, highly verbal, obnoxious, and playful adolescent. The content of the discussions was generally meaningless and irrelevant to the treatment. The substance of the conversations was to engage Donald and to educate him in the nonverbal ways of teenage boys both face-to-face and on the phone. After 4 months of this approach, Donald's initial extraordinarily flat and depressed affect changed. The pace, rhythm, and range of affect in his speech improved and began to approximate that of other adolescents his age. Within the next 5 months, he began, for the

first time in his life, to have some limited friendships, to have a girlfriend, and to start work in a volunteer position at a local hospital. The therapeutic relationship was encouraging these relationships and lots of "practice" with real peers on a daily basis.

In some communities, there are special programs designed to foster and develop social interactions. In Bethesda, Maryland, the Bethesda Academy for the Performing Arts has special groups for children with developmental challenges. In one troop, there are a number of children with Down syndrome and a number with nonspecific developmental delays. Some of them are on the autistic spectrum, and others have Asperger's syndrome. What they have in common is that they are all at least partially verbal. In some of the acting groups, they are integrated with other children who have no developmental challenges, and they work together to do their own productions. They usually write their own scripts and perform plays several times a year. While writing and performing their plays, they create a strong social network that is supportive and positive.

The acting is quite good because it is performance- and movement-based, with heavy use of visual imagery. Different people, depending on their ability level, play different roles. Some have very limited parts, and others are leaders; everyone seems to enjoy participating to the degree that they are able. It should be noted that drama is a particularly fruitful activity because it draws upon many functional developmental capacities (engaging, gesturing, pretending) and different kinds and levels of abilities, especially because a play requires that all of the participants, both onstage and off, have a close working relationship with each other.

Although some adults require medication, not infrequently medication is used as a substitute for the basic developmental building

blocks of engagement: shared attention, reciprocity, and using ideas. Medication can be helpful as an adjunct to developmental work if the patient is overwhelmed by anxiety, depression, or fragmented thinking. It should be noted that medication could be uniquely helpful in assisting the child in beginning to regulate himself so that he can participate in therapy and even get through the day. Unfortunately, as we noted earlier in this chapter, adolescents and young adults who become easily frustrated, aggressive, or in any way threatening to their caretakers usually end up in a medication-based treatment in which the fundamentals of a developmentally based approach are left far behind, along with the individual.

THE STAGES OF LATER CHILDHOOD, ADOLESCENCE, AND ADULTHOOD

In considering the treatment of adolescents and adults, we need to think about the functional developmental stages that come after the basic first six stages. Many adults will have relative mastery of the early stages and have limitations in the more advanced ones. The first six are shared attention, engagement, simple purposeful movement and gestures, complex problem solving, continuous flow of reciprocal gestural interactions, and using ideas creatively and logically by building bridges between them. At the seventh level, which typically begins between the ages of 4 and 7, the child begins to get very expansive in his thinking and to go from simple logical thinking to triangular logical thinking. An example of triangular logical thinking is when a young boy figures out that if he wants to be friends with Johnny, the way to do that might be to become friends with either Sarah or Billy, who are already friends with Johnny. He decides to take this tack because

Johnny has already rebuffed him several times. In other words, he has learned that not all roads to Rome are linear or direct and that he can go a roundabout way and still get there.

At this stage in development, children begin to see three variables in interactions with each other as opposed to just two variables. The child dealing with two variables can answer the “why” questions, “Why do we feel happy or sad” with the answers, “Because we didn’t do this” or “Because I did not think about that.” The three-person system is much more sophisticated and one that is requisite for successful functioning in a family system, social group, or work setting. Without adequate understanding of the three-person system, the child cannot truly understand higher-level mathematics or life itself. Children who reach this level take a greatly expanded view of life and show an interest in all facets of their world. They become curious about their bodies, sex, anger, death, where their parents came from, and about anything else that even remotely touches their lives.

Along with an expanded interest in their world, children at this level also show more fears and anxieties at this stage, coinciding normally with the Oedipal phase of development that is associated both with anxieties and grandiosity. Working with adolescents and adults who begin to engage in triangular thinking for the first time may create some anxiety for therapists because now we are dealing with individuals who are showing an interest in their bodies and in sex and who suddenly become more manipulative. As individuals become more adept at navigating three-person relationships, we should expect—and even welcome—a certain amount of manipulativeness. Our role as parents or therapists is to support these individuals throughout this period and help them both to learn good judgment and to reduce their anxiety about their newfound assertiveness. We also need to help them keep

their grandiosity and expansive thinking at a realistic and manageable level.

We call the eighth developmental level “playground politics,” or proper, or “gray area” thinking. At this level, the child goes from simple triangular thinking to being able to see shades of gray. We can ask a child, “Gee, what’s happening at school? What do you do well? What do other kids do well in?” The child will tell us, “Well, I’m the best at this, Johnny is the best at that, and Sally is the best at that. I’m number 4 at this and number 6 at that.” The child is developing a relative sense of her place in the social hierarchy. At this time, she can also tell us whether she is a little angry or very angry or super angry or furious or very loving or super loving. She can now see things in shades of gray, which helps her see the world in relativistic terms.

Mastering this developmental level is obviously important, not only for the child’s social and emotional world but also for her intellectual world. We cannot understand math or physics or interpret stories or understand history without understanding things in their relative contexts. This developmental milestone occurs as the child is also learning to understand the nature of peer relationships better. She is learning to reduce a tendency toward catastrophic thinking and reactions. For example, if she is not chosen to play on a team one day, instead of feeling totally rejected, she can say to herself, “Well, they are not nice to me today but maybe they will be a little nicer to me tomorrow,” or, “I can be friends with Susan and that may change the way Samantha and her group feel about me.” Reaching this level of relativistic thinking, which is essential to problem solving, typically occurs between the ages of 7 and 10, but many of the children whom we are concerned with may not arrive at this stage until their mid-teens or even later.

The next stage is one that we call “the two worlds inside me,” during which the child

goes from relativistic thinking to being able to hold onto an internal reality of a self-image with beliefs and values. He can then compare his peer-based relativistic world to those standards he is trying to create. A 7- or 8-year-old defines himself by his relationship with the peer group; that is, “I am good or bad by whether I was chosen for this or that game.” In the middle latency years, a child’s self-definition is very much a social and group-related one.

By 10 to 12 years of age, the child begins saying, “I’m a good person because I was nice to my brother and sister and because I did my homework. And, yeah, Sally was mean to me today at school, but I’m still a good person and she was just having a bad day.” The 10- to 12-year-old can begin comparing these daily experiences against an internal standard, which the 7- or 8-year-old cannot do. We call that “the world inside me,” or the ability to create two worlds. Obviously, this ability is crucial for internalizing values, having a conscience, and being able to regulate behavior. During this developmental period, we see what we call the “ego ideal,” or conscience, becoming consolidated to some degree. Obviously, this is an important emotional, social, and intellectual stage of development because a person cannot really reflect to any significant degree unless he has an internal standard available for comparison.

Children then enter into the adolescent years. At this age, we see a flowering of all kinds of abilities and interests. Focus on the larger community and even television characters is increasing, friendship patterns are broadening, and awareness of conflicting values between “my” generation and others becomes an issue. But the biggest change, by far, is that the body is changing, and children are entering the area of sexuality in a more formal way. There is sexual interest; there is sexual acting out, masturbation, and interest in sexual relationships. Aggression is more

dangerous at this time because the body is getting bigger, muscles are developing, and hormones are changing. Particularly in boys, there is much more testosterone, which affects the quality of their aggression.

Around this time, identities are forming. Adolescents ask, “What am I? Who am I going to be?” There is a lot of concern about humiliation around body image issues; the changing body can be very scary and frightening. We cannot describe all the aspects of adolescence, but from this discussion we should understand that adolescence is hard enough for a child who has no processing difficulties and who has mastered all the prior functional capacities. What about a child who is very, very concrete and just has the bare minimum of some verbal concepts, who can answer “why” questions but can not do gray area and triangular thinking? What about a child who cannot even answer “why” questions yet, but who can elaborate some simple phrases? What happens when these changes in the body, sexual interests, and level of aggression happen in children whose processing and functional capacities are weaker? If a person does not have strong visual-spatial processing, he or she cannot establish a body image very well. How does the adolescent cope with that? This is where the adults involved begin to have many concerns about the level of the person’s propensity toward aggression or sexual acting out.

An overriding principle is that the experience of mastery of new stages and new skills is a very important source of self-esteem throughout these different developmental stages. This experience is one of the largest sources of self-esteem available to any of us. We are always trying to master new things. If we stop challenging children and do not provide them opportunities for new mastery, they feel worse about themselves. Children generally do not feel too inadequate if they

are making progress and mastering new things, even if they are far behind other kids. They may not feel wonderful, but they can feel pretty good about the fact that they are making progress. It is very, very important for us to create that experience for our children, ourselves, and for our patients. Consider the previous case of Jim, who has a strong interest in music. By putting together experiences in the area of music that increased Jim’s knowledge and confidence, we could go a long way toward increasing his sense of self-esteem. Whether it is helping a child to learn to do magic, develop his sense of humor, or develop his artistic abilities, we are helping him develop strong sources of pleasure and identity.

The development of sexual interest and acting out is an extremely challenging situation for parents and therapists. A child may have adolescent urges but still function developmentally as a 5-, 6-, 7-, or even a 3-year-old. We need to deal with his sexual urges in the context of his functional developmental capacity. We may tell a simple “birds and bees” story to one child, whereas we may need to emphasize to another that, while individuals like to touch their bodies in different places, it is a private activity and there is a place and time to do it. We can work with a teenager with a few words to help him understand that we know that he likes doing this but also that this is something that goes on in the bathroom or the bedroom. For the child who is at the 7- or 8-year-old level but is physically a 15-year-old, we could use one of the books that have pictures and explanations about how the body works as a basis for some discussion, as we would ordinarily do with a 9- or 10-year-old. In addition, the notion of how to protect oneself from being exploited sexually or getting diseases is no different than any other discussion about self-protection. It should be addressed to the functional thinking level of the individual.

The key thing—and the hardest thing to do during the adolescent years—is to maintain a nurturing relationship with the adolescent or young adult, because he is larger physically and is moving on with his own different interests. Adolescents and adults are not as cuddly and warm as younger children. So we often find that parents, therapists, and other caregivers hold back nurturing, warmth, and intimacy. When this happens, the adolescent or adult does not have his dependency needs met by his parents and family. He then seeks to have his basic security and dependency needs met in other settings. When this occurs, we are more likely to see the creation of negative identities, such as involvement in substance abuse and other risk-taking activities, because the child is searching out an identity that brings him closeness with someone. With adolescents and adults who are functionally and developmentally compromised, there are ways other than cuddling to meet their dependency needs. These ways may be as simple as the phone calls made to Donald or listening to music with Jim. In other words, spending time with adolescents and adults and focusing with them on their interests will help meet their needs for warmth and intimacy.

Obviously, new challenges come up as developmentally compromised individuals move into adulthood. Whether a person lives at home or begins living independently, there is often some relative separation from parents, with other relationships taking over the parental function. Ordinarily, these relationships would be friendships or sexual relationships in which a young person looks to someone else to supply not only a new relationship but also what the parents were providing. However, these transitional relationships can be quite chaotic and often full of conflict because the adolescent is expecting so much from the other person. Unrealistically high

expectations are why late adolescent and early adult relationships are often so difficult.

Children with developmental problems who have progressed to the adolescent years in a functional developmental sense will be ready for relationships, but they may not have all the tools they need. They may have processing problems, or they may easily regress into concrete modes of thinking or fragmented thinking. They are going to need more support. They may get more depressed, anxious, and fragmented than children without these problems, but they are clearly struggling with some important issues. We have to be aware of those issues in order to provide more support, either in therapy or through the family to help them have the “glue” they need to hold together during those times.

The issues of adulthood—having a family, middle age, the challenge of coming to grips with the past and the future, and the aging process—are especially relevant for individuals with milder developmental problems and those who have made good progress. These struggles need to be recognized because these individuals may need support, whether it is from the nuclear family or counseling. The better we are able to help the developmentally compromised child and young adult move into higher functional capacities, the more they will be able to experience new and meaningful challenges.

CONCLUSION

In this chapter, we have tried to emphasize that working with adolescents and adults involves the same principles as working with younger children. This work, however, involves meeting the adolescent or adult in the context of his unique interests and developmental profile and embarking on a continuing developmental journey. ■

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