Web-Based Radio Show

Structure and Behavioral Goals of the DIR®/Floortime™ Program

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Welcome to our Web-based Radio Show. The title of today's show is, "The Structure and Behavioral Goals of the DIR®/Floortime™ Program." As many of you know, the DIR® Floortime™ Program is an evidenced-based, comprehensive, structured program with clear behavioral goals. The behavioral goals of the DIR® Floortime™ Program are to overcome or improve functioning in the areas considered to be core deficits for autistic spectrum disorders and other special needs conditions. Interestingly and importantly, these same areas of functioning also when occurring in a healthy manner constitute the foundations for healthy social, emotional, and intellectual functioning. They include such basics as the ability for engagement and reciprocal back-and-forth interaction and the meaningful or pragmatic use of ideas in language.

We have divided these goals into six clear and measurable behavioral foci or, to use the word again, goals. They have to do with self regulation and attention which we call regulation, engagement – the ability to form relationships, two-way reciprocal back-and-forth interaction which we call two-way communication, the ability for shared social problem solving which is the ability to use reciprocal interaction in an ongoing and continuous manner – just solve social problems with another person. This can also be thought of as joint attention and using multiple frames of joint attention in a row. They include the use of ideas in creative and meaningful ways such as we see in imaginative play or in a child expressing his or her needs, "I love you Mommy" or "Mommy, I want my juice now" and so forth, and they include the ability to connect ideas together logically and causally – "Why do you want to go outside, Johnny?" "Because I want to play, Mommy" or "Why are you happy (or sad)?" "Because so-and-so did this (or that)." They also include, then, the higher levels of thinking that build on this causal thinking – including multi-causal thinking, gray area thinking, and reflective thinking where a child can actually reflect on their own feelings and ideas.

Now then these are the clear behavioral goals of the DIR® Floortime™ Program. But to reach these goals, we have the second element of the DIR® Floortime™ Program,

which is the "I" part – the "Individual Differences." It is well know, and we have documented this many times over now, that children with autism and other special needs conditions, as well as children, actually, without severe special needs limitations, differ in the way in which they process information – they have different auditory processing and language use, they have different capacities for motor planning and sequencing, and different ways of responding and reacting to sensations such as touch and sound. For example, some children with special needs and autism are over reactive to touch or sound and others are under reactive – others crave touch and sound. Some are strong at making sense out of what they see and others are stronger at memorizing the use of words but less strong with what they see, even though both children, if they have autism, often have difficulty with them making sense out of what they hear or see.

Now we have systematized these individual differences into a number of areas: Auditory processing and language, visual spatial processing or visual spatial thinking, motor planning and sequencing – in other words, carrying out complex actions, and the capacity to react to or modulate sensations without being over reactive or under reactive and make sense out of the sensory world, including feedback from one's own body and one's own movement patterns.

The goals of the DIR® Floortime™ Program include improving the child's ability to process information in each of these areas just outlined because improving processing in these areas increases the likelihood of reaching the clear behavioral goals outlined earlier, ranging from engagment to reciprocal interaction to the meaningful use of ideas.

Now there is a third part to the DIR® Floortime™ Program, which is the "R" part, standing for "Relationships." These stand for learning relationships at home, at school, on the playground where peers are available and adults can facilitate interaction or through play dates or through opportunities at school. The third element of the DIR® Floortime™ Program involves having these learning relationships pervade all aspects of the child's life – relationships with mother and father as well as educators and therapists, as well as peers.

So there are three components, then, to the overall structure of the program. The "D" part which has to do with these developmental goals I just outlined, from engagement to the meaningful use of ideas; the "I" part which has to do with the way the child processes information; and the "R" part – learning relationships which should pervade all aspects of the child's life.

The DIR® Floortime™ Program is comprehensive in that it involves a team approach. The team approach involves the elements just outlined. Typically the team will include the caregivers – mother and father or helpers who come out and help at home

in a home program; also includes therapists – speech pathologists to work on the auditory processing and language; occupational therapists to work on sensory modulation and sensory processing and motor planning and sequencing; sometimes visual spatial specialists to work on helping the child make sense out of what they see or visual spatial processing and thinking; and may involve and usually does involve educators in a school program or sometimes in a home school program to help the child achieve their cognitive and intellectual goals which build on these same fundamental milestones.

The overall structure of the DIR® Floortime™ Program also includes biomedical evaluation and appropriate approaches where indicated based on a comprehensive biomedical evaluation including evaluation of genetic contributions, metabolic contributions, and physical illnesses that may play a role such as GI – gastro intestinal difficulties.

As a comprehensive program carried out by the team approach, the DIR® Floortime™ Program emphasizes a number of elements, and these should be highlighted. A critical component is the home program. In the home program, particularly for the preschool or the younger child – it could be an infant, toddler, or preschooler – the home program will emphasize interactive relationships to work on the clear behavioral goals outlined earlier. This will often occur anywhere from 4-8 times a day for 20 minutes or more. It will also include a very clear and focused language program outlined in the Affect Based Language Curriculum, the ABLC, where language goals are worked on but using incidental learning or spontaneous interactions so the child learns to use language in an appropriate manner. This is often orchestrated by the speech pathologist who will monitor the home program and make additional suggestions based on their 1 or 2 or 3 individual speech sessions with the child.

It also includes work on motor and sensory functioning and this would be orchestrated by the occupational therapist as well as including a series of exercises having to do with running, jumping, spinning, balance, throwing, catching, and other such activities. These are basically motor skills the child needs to master and also skills the child needs to master in order to modulate sensations. Again, these will be orchestrated and overseen by the occupational therapist involved in the team in addition to the individual occupational therapy sessions which will occur 1-3 times a week or more for some children.

Just as the interactive relationship component (Floortime) will occur 4-8 times a day for 20 minutes or more or where there are opportunities for more even additional sessions, they should be carried out by both parents as well as helpers who come into the home. The language component should be carried out for at least 2-3 20 minute sessions

a day and the motor and sensory work should be carried out at least 2-4 times a day for 20 minutes or more depending on the child.

What is critical in the comprehensive DIR® Floortime™ Program is that the child receives opportunities to practice their skills and reach their goals every single day for many, many hours a day as opposed to simply half hour or hour sessions 2 or 3 or even 4 times a week. It is what occurs on a daily basis we have found that provides the ingredients for the maximum amount of mastery.

Now the DIR® Floortime™ Program can be monitored overall by looking at how well the child is mastering each of their core behavioral goals. As indicated earlier, these involve the core deficits found in autism but are also the elements that constitute healthy functioning. So on the one hand, the team goals are to overcome the core deficits of autism or at least make improvements in those areas, but on the other hand, build healthy foundations for healthy development. It is for this reason that the program is an excellent program for infants and young children as well as preschoolers and older children and adolescents and adults because simultaneously you are overcoming core deficits and working on the foundations of healthy development.

In summary, the structure of the DIR® Floortime™ Program includes clear behavioral goals ranging from attention and engagement always up to high levels of reflective thinking. It involves improving the ability for the child to process information through all of their senses with a team approach, and involves learning relationships in all facets of the child's life. As indicated, typically this involves the team approach which includes caregivers and parents, occupational therapists, speech pathologists, educators, and physicians to rule out and implement appropriate biomedical programs. It also includes opportunities for peer interaction and peer play.

Now one further note – we have not gone into detail about what is included in each component of the program such as what is included in the caregiver's work with the child or the educator's work with the child on interactive relationships that help the child master the core deficits and build healthy foundations for development at the same time, i.e., learn to engage, interact, communicate, and think. These are well described in other documents. There is a manual available from our ICDL website, www.icdl.com, on the clinical practice guidelines. There are also two books that describe this program comprehensively; one called *The Child with Special Needs* and one called, *Engaging Autism*.

Now I would like to turn our attention to the evidence for the DIR® Floortime™ Program. The evidence should be considered in a number of ways. First, in terms of introduction, in 2001, the National Academy of Sciences issued a report on educating

children with autism. In that report, they listed approximately 10-12 programs that they felt were evidence-based or had some evidence behind them. They included the DIR® Floortime™ Program as one of the programs cited. These were part of a group of programs considered to be developmental, relationship-based programs. They also included ABA, Discrete Trial behavioral programs considered to be a part of the group of programs that were part of the applied behavioral programs. They pointed out two things that are especially important I think we need to underline and emphasize. The first was there was no definitive evidence behind any program and no comparative studies of the different programs, and at present, the best was to adapt the program that best suited the child. In other words, each child had a different profile and the professional team working with the child should figure out how to best work with that child. So the best clinical practice was to sometimes take either elements from different approaches or a comprehensive approach and pull in different elements with different points of emphasis. The DIR® Floortime™ Program is a comprehensive approach that enables families and professionals to do just this. You can add elements to the elements I just outlined above as needed for the individual child. Its goal is to tailor the approach to the child and it does have a strong family and family support element to it.

I should also add that often mental health professionals are involved in the DIR® Floortime™ Program for family support and family work and also for coaching on the interactive relationships that facilitate the goals of healthy functioning as well as the goal of overcoming the core deficits in autistic spectrum disorders.

A second point of introduction worth mentioning is that in looking at evidence in evidence-based programs, there is often an error made in looking at the number of studies done on a program rather that what the studies show. There are a huge number of studies on Discrete Trial and ABA type programs. However, the studies show a number of important facts. The most definitive study with a randomly selected assignments in terms of a control group and the most comprehensive study done was done by Tristan Smith recently, and he was a colleague of Ivar Lovas' who did the original studies of 18-20 children. Smith found only modest educational gains and little or no emotional gains in the children receiving Discrete Trial approaches for autistic spectrum disorders – very different from the original claims, although Tristan Smith himself was disappointed and views himself as an advocate of ABA approaches, it is important to note that. Also, a comprehensive review by V. Shea that was published recently, showed that when you show all the behavioral programs, it is consistent with the Tristan Smith finding of only modest educational gains and less gains in emotional and social areas of functioning than was hoped for by the community.

At the same time, there is mounting evidence that developmental and relationship-based approaches are showing enormous potential and mounting evidence for the efficacy of these approaches. The support for these approaches will be listed in a number of studies and I won't go through them right now, but there are a number of studies that are building and mounting.

In addition, if we look at each element in the comprehensive structured DIR® Floortime™ Program such as the efforts of working on speech and language and working on motor and sensory functioning, working on relationship building and peer relationships, there is considerable evidence for the efficacy of working on each of these elements in terms of improving that element of functioning. These will be listed also, although I am not going to go through them at present.

It is also important to consider that the DIR® Floortime™ Program and other developmentally based relationship programs focus on the core deficits of autism and autistic spectrum disorders and reversing these or overcoming these or at least improving functioning in these areas, and at the same time building foundations for healthy development. The most systematic of these is the DIR® Floortime™ Program. Other programs tend to focus on particular behavioral targets such as reducing perseverative behavior or reducing self-stimulatory behavior, but don't emphasize as much building foundations for healthy development or don't focus as much on the core deficits found in autism. This is an important difference. This creates another source of evidence for developmental and relationship-based approaches, such as the DIR® Floortime™ Program, which is that it works on the areas of functioning that are part of the problem and brings and employs the best, state-of-the-art knowledge available to these challenges. Programs that work only on specific behaviors may have a role in such a comprehensive program and can be incorporated into a comprehensive program, but in of themselves from a broad clinical perspective, do not have the focused goals consistent with the nature of the problem being addressed. So there is a self-evident quality to employing the best strategies available to work on the challenges that have to do with the nature of the disorder itself as opposed to specific behaviors that may emanate from the disorder. I'll use the example of a child with pneumonia who has a fever. Yes, it may be helpful to use aspirin to get the fever down, but ultimately you want to use antibiotics to deal with the source of the pneumonia. Here too, you want to work for children with autistic spectrum disorders on the core deficits, not simply on the behaviors that may emanate from the core deficits such as perseveration or self-stimulation. Clinically it has been found over and over again that when the core deficits are worked on and we have improvement in those areas, we get improvements in all the derivative behaviors that have to do with those core deficits.

As we have been considering the evidence for the DIR® Floortime™ Program and its goals, it is also important to point out that it is possible to measure the degree to which the program is achieving these clear, defined goals of regulation, attention, engagement, two-way reciprocal interaction, shared social problem solving or joint attention, the meaningful and pragmatic use of ideas, logical thinking, and the higher levels of thinking. These can be measured using the Social Emotional questionnaire, which is part of the Social Emotional Growth Chart, and this questionnaire which can be filled out by parents, has been standardized on a large, normative population and is available through Psychological Corporation of America, which is part of Harcourt Assessment, Incorporated.

The important point to emphasize here too is that this questionnaire can be used for early identification purposes or identification purposes at any age up to age 3 or 4 and has been shown to have a high degree of specificity and selectivity both over 90% for autistic spectrum disorders. In addition, the goals of the DIR® Floortime™ Program can be measured using the Functional Emotional Assessment Scale which is based on direct clinical observation or analysis of videotapes. This is referenced in our book on the Functional Emotional Assessment Scale. There are also a number of other questionnaires such as the Social Emotional Questionnaire for school aged children and adults so they can be utilized as a systematic clinical instrument for looking at how well a child is achieving their goals.

So there are a number of very structured approaches that can be used through observation of the child, and/or asking parents and educators who know the child well to fill out a questionnaire. The Functional Emotional Assessment Scale itself, when applied through videotape analysis or direct clinical observation has been shown to be reliable and valid, as has the Social Emotional Growth Chart.

In addition for documentation for improvements in each of the areas of processing information – auditory processing and language, motor planning and sequencing, and the other areas of processing – each of the professionals working with the child has at their disposal a number of structured instruments that can be used to assess progress. Therefore, the program, in summary, is a comprehensive structured program with clear behavior goals, the goal's most positive feature is that it has to do with the core deficits of autism and the related conditions and reversing these or overcoming these or at least improving functioning in these as well as building the foundations for healthy development. This is what makes development and relationship-based approaches unique. There is considerable evidence mounting for these approaches and they must be considered as part of the options parents have available for their children.

It is also important to note that in the DIR® Floortime™ Program the approach is tailored to the child and has a large family component. It has also been shown through The Play Project of Michigan that it can be implemented at relatively low cost. Furthermore, elements that work on particular behaviors including elements from discrete trial approaches can be incorporated into the program as part of the comprehensive approach, but it is part of a larger approach that works on, as I mentioned before, overcoming the core deficits.

Now some of you may be wondering why we are having a show focusing on this particular topic right now when we have been talking about the DIR® Floortime™ Program for some time now in prior radio shows and also when we have written a number of manuals and books on the approach. The reason for bringing this together in this particular program is that a number of states are now beginning to support programs for children with autistic spectrum disorders in particular, and I'm hoping that we see a movement towards supporting programs for all children with special needs with greater and greater breadth and scope, as well as supporting programs for all children to facilitate healthy development because all parents can use guidance. None of us are perfectly knowledgeable. The greater support we are seeing in many states now is based on, and appropriately so, on the state's desire to have very organized, clearly defined programs available that can assist children. Therefore it is important to demonstrate that the DIR® Floortime™ Program is a comprehensive structured program with clear and measurable goals, it has evidence behind it and it is an evidence-based approach, it can be used on children from infancy up through the preschool years or up through the grade school years and into adolescence and even be used for adults. Obviously, the elements are adapted to the age of the individual and their interests. The details of the program on how to implement each element of the program are gone into in great depth in the publications listed earlier.

Thank you for joining us today and for being part of listening to this important discussion.