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An Integrated Intervention Approach to Treating Infants and Young Children with Regulatory, Sensory Processing, and Interactional Problems[1]

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A variety of developmental therapies that therapists typically use to address constitutional and maturational problems in infants and young children are associated with regulatory difficulties involving sleep and eating problems, sensory reactivity, poor motor planning, and high irritability. These developmental therapies include (1) sensory integration therapy (Ayres 1972, 1979) to address the infant's sensory processing problems; (2) developmental therapy that emphasizes skills in communication, play, cognition, and movement; and (3) parent guidance approaches that integrate behavioral and developmental techniques to address sleep, mood regulation, eating, and attentional problems (DeGangi, Craft, & Castellan, 1991; DeGangi, 2000).

Many infants and children with regulatory and developmental problems also have problems with social interactions, which are observed first in how the child interacts with family members and, later, with peers (Greenspan, 1992, 1997). When the problem is considered severe enough, a mental health professional provides services. Regulatory and regulatory-related relational problems may be addressed through (1) infant psychotherapy approaches that focus on dyadic parent-child interactions (Fraiberg, 1980; Greenspan, 1992, 1997; Greenspan & Salmon, 1995; Greenspan & Wieder, 1998); (2) directive interactional guidance such as that developed by MacDonough (1989); or (3) supportive counseling. The way in which these approaches are used vary greatly depending upon the presenting concerns, the population being treated, and the theoretical framework adopted by the treating therapists.

In this chapter, an integrated model of treatment is advocated to address both the child's constitutional problems and how these problems impact the family and the parent-child dyad. This expanded model of treatment includes:

- *Parent guidance* that focuses on management of sleep, feeding, and behaviors in the home environment.
- *Child-centered interactions* (i.e, "floor time," [Greenspan & Wieder, 1998])

[1] This chapter focuses on circumscribed self-regulation, sensory procesing, and motor-planning challenges. For many children with significant problems in relating, communicating, and thinking, these strategies will need to be considered in the context of a comprehensive program, as described in Chapter 4.

activity that fosters healthy parent-child interactions within the context of play.

- *Sensory integration therapy* techniques that promote organized attention, adaptive behaviors, and normalized responses to sensory experiences.

The parent guidance, child-centered activity, and sensory integration therapy techniques are blended together in treatment, with primary emphasis on meeting the immediate needs of both the parent and child.

This chapter describes this family-centered approach. It presents the elements of parent guidance, using examples of typical problems. Child-centered activity—or floor time—and sensory integration therapy techniques are discussed in their application to infants and children with sensory, emotional, and attentional deficits. Research examining the effectiveness of the child-centered activity approach is presented. Lastly, the chapter includes a detailed case example that incorporates the various elements of the treatment approach and modifications that may be needed depending upon the presenting problems.

THE FAMILY-CENTERED APPROACH: ADDRESSING THE CONCERNS OF PARENTS

Legislation and current research on family involvement in a child's therapy program point to the value of a family-centered approach to intervention. In this approach, play is increasingly recognized by professionals as an important medium through which parents can address the special needs of their child. Play is viewed as the arena in which children learn and practice new skills with the people most important to them (Schaaf & Mulrooney, 1989). Research suggests that when parents realize a sense of empowerment in making decisions, their stress and depression may be reduced and their sense of competence increased (Friedrich, Cohen, & Wilturner, 1988). Clinicians become consultants to the parents in this collaborative model of helping, and the parents' abilities are met with respect and confidence (Dunst, Trivett, Davis, & Cornwell, 1988).

Children who are fussy, irritable, and demanding are extremely challenging for parents. Oftentimes, parents cope by developing interaction patterns of under- or overstimulation. For example, parents who must often soothe and regulate their distressed child may find that they tend to retreat or "shrink from interaction" when their child is happy and content so as not to "rock the boat." In the case of the highly distractible child who appears to seek constant novelty, the parents may exacerbate the problem by presenting many activities or toys to their child to try to keep the child happy.

The family-centered approach recognizes the stress that coping with a difficult child places on the family. The parents often experience sleep deprivation and, as a result, they have little reserve for coping with an irritable child. Many times, parents report that babysitters cannot cope with the child's difficult behaviors, which compounds feelings of entrapment. Marital tension may be heightened as the parents feel overwhelmed by the problems of the fussy and difficult child or make accommodations that interfere with their own relationship (i.e., infant sleeping in parents' bed). In some cases, the father becomes peripheral to the family, working long hours to avoid a hectic home life and a constantly screaming infant. The danger of child abuse is very real.

An adequate support system is necessary to help a family cope with a difficult situation. More and more parents have no extended family in their geographic area. As a result, they have no one to help them or to

provide respite. Parent-baby groups have become an alternative support system for many families; however, many fussy babies cannot tolerate being in a playgroup situation, thus removing this option for the parent. Additionally, many parents take their children to baby gym or swim classes; however, these activities are often too stimulating for the regulatory-disordered child. As a result, many parents feel even more isolated and removed from the typical activities in which parents engage with their children. Sometimes, parents who try such options feel stigmatized by other parents because their child appears so out of control.

Depression is frequently a side effect of coping with the demands of parenting the fussy baby. Many mothers report feelings of inadequacy when normal parenting skills do not seem to work with their child. First-time parents often confuse their child's constitutional difficulties with their own parental inexperience, which exacerbates depression or feelings of helplessness. These feelings are compounded when the infant rejects being held and cuddled because of hypersensitivities to touch. Sometimes the parents learn to avoid sensorimotor activities that provoke their child's hypersensitive responses. For example, if the child dislikes swings and playground equipment because of extreme fearfulness of movement in space, a protective mother may guide her child away from movement activities. In some cases the parents may experience similar hypersensitivities, which compounds their responses to their infant who has similar constitutional difficulties.

In summary, a family-centered approach focuses on parental concerns, family stresses in coping with the difficult child, adaptive and maladaptive parent-child interaction patterns, and parental depression or marital conflicts that may be secondary to the child's constitutional difficulties. These issues may be addressed directly through parent guidance and the child-centered activity.

Parent Guidance

Approaches for infants and children with the range of developmental disorders involve a blend of behavioral management, supportive counseling, practical management techniques, sensorimotor activities, and developmental therapy to address specific constitutional problems (DeGangi et al., 1991). Parent guidance is an important component of the therapy process. It provides parents with emotional support in coping with their difficult child and is useful in developing effective strategies to set limits, manage the child's sleep, teach self-calming, and handle feeding problems. Although parent guidance is individualized, a variety of self-help books is often used to help parents in managing specific problems such as sleep or dietary problems (Carey & McDevitt, 1995; Daws, 1989; Greenspan, 1999; Greenspan & Salmon, 1995; Sears, 1985; Rapp, 1986; Turecki & Tonner, 1985). Although the relationship between food allergies and behaviors is controversial, the possibility of food allergies should be explored for those children who do not respond to behavioral management techniques. For example, it was recently reported that a significant number of infants who did not respond to behavioral techniques for sleeplessness did respond to a hypoallergenic diet that eliminated all milk products (Kahn, Mozin, Rebuffat, Sottiaux, & Muller, 1989).

Sleep problems are addressed by a combination of methods, including developing appropriate sleep-wake routines (Ferber, 1984). Since sleep problems are often accompanied by separation anxiety, separation games are practiced (e.g., chase games, peek-a-boo). Techniques to console the irritable child include addressing the child's sensory

hypersensitivities, developing the child's own capacity to self-calm, and reducing parental anxieties when crying occurs. Techniques for managing temper tantrums and helping the child to accept limits focus not only on the child's difficulties in expressing frustration and negative affect, but on helping parents develop a consistent plan in approaching the child's behaviors. Management of feeding problems focuses on inhibiting tactile hypersensitivities of the face and mouth, expanding the child's repertoire of foods, and addressing behavioral feeding problems such as refusal to eat and food throwing. Attentional problems are addressed by structuring the environment, reducing the child's hyper-arousal through sensory inhibition, and facilitating sustained attention by helping the child to elaborate on play. In addition, problems with communication and play are addressed through structured intervention by explicitly teaching parents how to promote face-to-face engagement, reciprocal interactions, two-way communication, and gestural or vocal signaling.

When therapy is initiated, the clinician seeks to help the parents understand their child's behaviors and how they as parents respond when the behaviors occur. The clinician discusses what techniques the parents have already tried to determine which ones may or may not have worked. Sometimes it becomes apparent that parental inexperience or mismanagement of behaviors exacerbates the child's regulatory difficulties. When this appears to be the case, it is important for the therapist to be supportive and nonjudgmental. It is also important for the therapist to determine if discrepancies exist between the ways in which the father and the mother manage their child's difficult behaviors.

Parent guidance takes the form of a working dialogue with the parents to develop the best match between the parents' concerns, the family lifestyle, and management techniques. Major emphasis is placed on developing problem-solving strategies from which the parents often develop insights about their child and themselves. For example, some parents may realize that they are over-controlling and cannot tolerate their child's overly active and loud behaviors. It is important to help such parents understand what underlies their child's difficulties and to help them develop strategies to help their child organize his behaviors before they become uncontrollable, yet at the same time provide him with opportunities for normal active exploration. Parent guidance blends the principles of behavioral management, supportive therapy, practical management techniques, brief psychodynamic therapy, family therapy principles, and sensory integration treatment.

Sensory Integration Therapy Approach

The family-centered approach addresses the constitutional problems of the children by incorporating the principles of sensory integration therapy (Ayres, 1972, 1979; Fisher, Murray, & Bundy, 1991). Concepts from sensory-integration therapy are integrated into functional activities, modifications of the environment, and play interactions with others. Sensory integration treatment techniques often involve desensitizing hyperreactivities; increasing the underreactive child's sensory awareness; organizing sustained attention; facilitating organized, purposeful activity; and promoting self-calming and modulation of arousal states through specific sensory inputs. The major principle underlying sensory integration therapy is the improvement of the child's ability to organize and process sensory input during self-directed, purposeful activities. The child's interest and motivation guide how the various sensory integration tasks are provided.

Sensory integration therapy provides a foundation for children experiencing sensory processing and attentional deficits. This therapy is provided within the contexts of the child-centered activity and parent guidance. Specific treatment techniques for desensitizing the hyperreactive child, organizing sustained attention and purposeful activity, and promoting self-calming and modulation of arousal states are derived from the sensory integration treatment approach. The next section describes the basic tenants of this philosophical approach.

The underlying premise of sensory integration theory is that the ability of the central nervous system to take in, sort out, and interrelate information received from the environment is necessary for purposeful, goal-directed responses. The major principle underlying sensory integration treatment is the improvement of an individual's ability to organize and process sensory input provided during meaningful events, thus allowing for an adaptive response to the environment. A child's ability to actively experience sensations while simultaneously engaging in self-directed, purposeful motor activity is essential to intervention. Sensory integration therapy facilitates an individual's ability to make adaptive responses to environmental stimuli, and these responses facilitate organization in the central nervous system by providing sensory feedback about a goal-directed event.

Self-directed and self-initiated actions differentially enhance central nervous system function and maturation (Kandel & Schwartz, 1985). In essence, approaches such as the child-centered activity allow a child to develop automatic functions of better self-organization and control. The child learns to develop appropriate motor responses to different sensory events based upon neural feedback and central nervous system organization (Clark, Mailloux, & Parham, 1985).

When children experience sensory integration dysfunction, they frequently benefit from occupational therapy input. The therapist works with the child and family to integrate sensory integration principles into the child's everyday living and play experiences. This is done by modifying daily routines, functional activities, play materials, and the manner in which important persons in the child's life interact with the child. It often includes making changes in the way in which the home environment is structured (e.g., reducing noise stimulation, providing small, enclosed spaces). The therapist often provides individualized sensory input to address specific atypical sensory responses. For example, the therapist may brush the child's skin with a surgical brush in specific ways to desensitize the child's tactile hypersensitivities, or she may introduce certain types of movement on suspended equipment (e.g., spinning) to normalize the child's responses to vestibular stimulation. These directed sensory integration techniques are very helpful in normalizing the child's sensory responses, but should be provided by a trained occupational therapist.

The sensory integration therapy approach advocated for use in the integrated therapy approach described in this chapter focuses on how principles from sensory integration therapy can be used to address the child's constitutional difficulties. This is done within the context of everyday activities and interactions with others. For example, when tactile hypersensitivities are present, activities are used that involve firm deep-pressure (e.g., mother and child wrapping up together in a big comforter), proprioception (e.g., embracing the child with firm contact with primary input on the child's back), and providing textured objects that will help organize the child's exploration. If a child is fearful of leaving the ground because of gravitational

insecurity, low-to-ground equipment such as an inner tube filled with interesting toys is introduced. Motor-planning activities are encouraged by focusing on how movement can be sequenced in play and through transitions in activities. The case study presented at the end of this chapter more fully depicts how the sensory integration approach is integrated into the child's treatment program.

Child-Centered Activity: Floor Time

Description of the Floor Time Approach

Addressing the emotional and interactional aspects of the parent-child difficulties that exist between the child and the parents is central for treatment. Floor time was developed by Greenspan (1979, 1989, 1992, 1997, 1999; Greenspan & Lourie, 1981; Greenspan & Salmon, 1995; Greenspan & Wieder, 1998), to foster growth in the context of integrating the different realms of the child's experiences (i.e., physical, emotional, and interactive/family). This approach focuses on using the inner resources of the child and parent. Using an experiential model, floor time is a form of infant psychotherapy that is adapted to the sensorimotor phase of development (DeGangi, 2000). The theoretical approach underlying floor time therapy is based on ego psychology as described by Greenspan (1979) and an object-relations theoretical framework (Winnicott, 1960). In this child-centered approach, infant psychotherapy focuses on the dynamics of the parent-infant interaction and parent insights concerning their relationship with their child or issues from their past, as well as the emotional needs of parent and child during interactions (Lieberman & Pawl, 1993).

Others have also applied principles of infant psychotherapy to the sensorimotor phase of development (Mahrer, Levinson, & Fine, 1976; Ostrov, Dowling, Wesner, & Johnson, 1982.) Wesner, Dowling, and Johnson (1982) described an approach which they term "Watch, Wait, and Wonder (WWW)" that is similar to Greenspan's floor time. In the WWW approach, the infant initiates all interactions and the parents seek to discover what it is that their infant is seeking and needing from them and the environment. In this process, the parents may become attuned to the child's constitutional and emotional needs, how the child wishes to communicate and interact, and the quality of their parent-child relationship. Helping parents recognize their projective identifications with their child is considered an important aspect of the treatment process. The WWW approach has been used successfully with mentally retarded and developmentally delayed children (Mahoney, 1988; Mahoney & Powell, 1988). It also has been used as a method to focus on unresolved relational conflicts of the mother involving the mother's projective identification with her infant (Muir, 1992).

Floor time focuses on improving the developmental capacities of the child within the context of the parent-child relationship. Relevant stages of emotional development outlined by Greenspan (1989, 1992) are used to help guide this process. These stages include engagement and disengagement with objects and persons; organized, intentional signaling and communication on verbal and gestural levels; representational elaboration of shared meanings; and symbolic differentiation of affective-thematic experiences. In this child-centered approach, constitutional problems of the child such as irritability, sensory hypersensitivities, inattention, and other problems of self-regulation are addressed through the medium of play with the parent. Insights gained by parents about their relationship with their child or issues from their

own past are addressed as they pertain to parenting and fostering the child's healthy emotional development and regulatory capacities.

In floor time, the parent is taught to provide daily sessions of focused, nonjudgmental attention. The frequency and duration of the intervention will vary depending upon the child's and the family's needs. During this time, the child is the initiator of all play and the parent is the interested observer and facilitator, elaborating and expanding upon the child's own activity in whatever way the child seeks or needs from the parent (e.g., to imitate, admire, or facilitate). The parent is nonintrusive and nondirective in his or her interactions with the child. In this approach, the parent is instructed to "watch, wait, and wonder" what the child is seeking and needing both from the parent and the environment, then respond accordingly (Wesner, Dowling, & Johnson, 1982).

The child's attention span and activity level dictate the direction that the play takes rather than an imposed structure or specific task demand presented by the parent. In this way, the child needs to refine his ability to attend and give affective signals while the parent learns to become a more sensitive responder. If the child's gestural or vocal signals are nondifferentiated, the parent may reflect their nonspecificity by imitating, then waiting until the child can again signal what he wants. The environment is organized to make available toys and materials that promote sensorimotor development and emotional themes in a safe area where there are no prohibitions or interruptions. For example, if a child has tactile hypersensitivities, textured toys and heavy objects are placed in the room together with other play materials. If the child has feeding problems, dolls and feeding utensils and mediums such as corn, dried beans, or water are set out. In general, the toys are childproof and developmentally appropriate. For example, for a 6- to 12-month-old, the play materials may be tableware, blocks, dolls, and tactile materials such as Koosh balls, whereas toys for a toddler may be toy telephones, a cradle with a doll, toy trains and cars, and blocks and balls. Extrinsic reinforcement, such as praise, is deemphasized. Instead, the parent reflects on the child's expressiveness by expanding on facial gestures, affect, or language cues. The parent is given permission to be an observer of the child and to respond to the child's cues. The medium of play offers parents space to ponder the nature of their relationship with their child and minimizes the need to do to, or for, their child.

During the time that the parent and child engage, the therapist acts as an attentive observer, modeling how to be a nonjudgmental observer of the parent-child relationship. In essence, the therapist provides for the parent what the parent provides for the child. Throughout the process, the therapist tries to convey a sense of respect for the caregiver's parenting ability. In challenging cases, the therapist may need to be more directive in helping the parent to follow the floor time structure. This issue is discussed more fully in a later section.

During therapy sessions, floor time is practiced for 20 minutes followed by a discussion between therapist and parent about the process. For some parents, 20 minutes is too long for them to tolerate this type of play with their child, in which case floor time is attempted for as long as the parent is able. The parents may be asked what they observed about their child. In addition, they may be asked questions about what it was like for them to play with their infant in this special way and how they felt during the playtime. The therapist's role is supportive, while seeking to help clarify and reflect on the parent's responses to the child and what the child's

behaviors might serve for the child. This process is important in order to address how the parents have adapted to the child's regulatory problems and to help parents become more aware of how the child might perceive their cues. Parental stress, depression, feelings of incompetence or displeasure with parenting, connections with the past (e.g., how parented), feelings elicited by the child's behavior, and family dynamics (including the impact of the child on marital relations) may be topics that emerge. If a parent is resistant to exploring personal issues and prefers to focus solely on the child, the therapist is respectful of this wish. The therapist may gently raise concerns about how the child's behaviors affect the parents and family.

Unlike more structured therapy approaches, floor time is a *process-oriented* model rather than a technique to be mastered. Some parents need considerable help in allowing their child to take the lead. They may have difficulty resisting the temptation to teach their child new skills, particularly when they are worried about lags in development. The therapist seeks to help the parents gain insights about their child's regulatory problems through what is expressed in the play context.

The underpinnings of this approach lie in the view that play— rather than direct instruction and skills training—is the medium by which a child learns, and that children learn best when actively engaged in the presence of a loving parent. As the child becomes the initiator of an interaction, intrinsic motivation and active participation in interactions and explorations are enhanced. The child experiences the parents' encouragement to act on her interests, which enhances the child's feelings of success, competence, and control. As a result, the child learns to develop internal control, and to engage in explorations with her environment and in interactions with others.

Through the medium of child-centered activity, parents become more sensitized to their child's behavioral style, developmental needs, and interests. For a child with significant sensory disturbances, this learning has far-reaching implications. For example, the infant with tactile hypersensitivities may avoid handling textured objects, reject new food textures, and experience physical discomfort when touched by others. Because of the underlying tactile hypersensitivities, the infant may exhibit difficulties in manipulating small objects in feeding and in playing with peers. During treatment, the mother may set out several types of textured toys (e.g., a large bin of styrofoam chips with many interesting toy figures buried inside the bin) during the time designated for child-centered activity. She waits and watches the child as he approaches the materials, facilitating exploration by taking turns. In this way, the child learns to explore the materials on his own terms, taking in only as much tactile information as his nervous system can handle. Aggressive behaviors may be channeled appropriately by providing the child with toys such as heavy push carts that he can lift and move or large Nerf balls and bats that he can throw and hit. These types of activities also serve to desensitize the child's overly sensitive tactile system.

The child-centered activity approach, or floor time, has been applied by individuals in several disciplines to accomplish different goals. Speech and language therapists have used this approach to achieve balanced interactions between an adult and child through turn-taking. For example, a child initiates an action, and the adult imitates the action or vocalization or responds by continuing the child's topic. This turn-taking exchange may continue for a number of turns with variations in responses with each turn. It not only serves

to facilitate communication, but also increases a child's attention to tasks.

Because the focus of the approach is on mastery for both parent and child, it is a highly positive and reinforcing experience for both parent and child. Preconceived notions that a child must be taught in order to learn are challenged, particularly for the parents who perceives that their child is less competent than her peers. The parents' difficulties are not considered detrimental to the treatment process; however, they must be addressed. Some parents may not be able to embrace this approach. Parents with obsessive or rigid parenting styles may find the more reflective and responsive style of child-centered activity difficult. If these parents can master floor time techniques, it may help them develop less rigid patterns of interaction and allow them to expand their repertoire of parent behaviors that will later enhance mental health. The child-centered activity is a natural foundation for developing listening skills.

Goals of Floor Time

Floor time has different goals for the parent and the child.

The ultimate goals of floor time for a child are to:

- Provide the child with focused, nonjudgmental attention from the parent.
- Facilitate self-initiation and problem-solving by the child.
- Develop intentionality, motivation, curiosity, and exploration.
- Promote sustained and focused attention.
- Refine the child's signal giving.
- Enhance mastery of sensorimotor developmental challenges through the context of play.
- Broaden the repertoire of parent-infant interactions.
- Develop a secure and joyful attachment between parent and child.
- Enhance flexibility and range in interactive capacities.

The goals of floor time for a parent are to:

- Develop better signal reading of their child's cues and needs.
- Become more responsive or attuned to their child, allowing the child to take the lead in the interaction.
- Develop a sense of parental competence as a facilitator rather than as a director of their child's activity.
- Take pleasure in their child in a totally nonprohibitive setting.
- Appreciate their child's intrinsic drive for mastery and the various ways in which it is manifested.
- Change their internal image of each other to that of a competent parent and a competent child.

Through the child-centered therapy process, parents who have felt overwhelmed by their child's difficulties may begin to acquire new ways of interacting and enjoying their child at home. By working through the parent-child relationship, the child's emotional and developmental competence is enhanced.

Instructions On How to Teach Floor Time

Instructions that a therapist may use in guiding a parent to learn floor time follow.

Instructions for Floor Time

1. *Set aside 20 minutes/day when there are no interruptions.* Be sure to do the play during a time when you and your child are well rested and you don't have other things to worry about, such as something cooking on the stove or the doorbell ring-

ing. Take the telephone off the hook or put the answering machine on. Be sure that your child's physical needs such as toileting, and feeding are met so that you won't need to stop the play to take care of these needs. Put things out of reach that you don't want your child to play with (e.g., business papers or fragile objects). Use an area that is childproof and where there are no prohibitions or limits that you might have to set.

2. *If you can, put out two sets of toys so that you can join in play with your child* (i.e., two toy telephones, several trucks and blocks). Select toys that allow your child to explore and try new things, and that are more open-ended in nature. Avoid toys that require teaching or that are highly structured, such as board games, puzzles, or coloring. Your therapist will help you in picking out the best toys for playtime.
3. *Let your child know that he or she is getting "special time" with you.* Get on the floor with your child unless you are uncomfortable getting down to, or up from, the floor. Try to stay close to your child so that she can see your face and you can see what she is doing.
4. *Let your child take the lead and initiate what happens.* Anything that your child does is acceptable, except for hurting himself or you or destroying toys and materials. If your child wants to throw toys, put out soft things that are okay to throw, like foam balls or bean bags. Play with your child however he wants to play. Discover what he wants from you during this time. Does he want you to admire him? To imitate him? Try out what you think he wants from you and watch his reaction. See if your child starts to notice you and begin to interact more. Respond to what your child is doing, but don't take over the play.
5. *Watch, wait, and wonder about what your child is doing*. Think about what your child is getting out of doing a particular activity. Enter her world and reflect on what her experience of it and you might be. Observing your child is the first step to providing a foundation of good listening.
6. *Watch what your child seeks in play with you and try to pick materials each play time that allow for those kinds of interactions.* For example, if your child likes to bang and push toys, pick things that may be banged and pushed.
7. *Avoid cleaning up toys that your child seems to be finished with until special time is over.* Your child may return to those toys to play some more. Only clean up if your therapist suggests that your child is becoming overstimulated by a variety of materials and needs less stimulation.
8. *Interact with, and/or talk with your child about what she's doing without leading the play or guiding what should happen next.* For example, you may copy or describe what she did ("What a big bounce you made with that ball!" "Look how you like to run!"). With older, verbal children, you may ask questions about what is happening (i.e., "Why is the baby doll crying?" "What is the monster thinking of doing now?"). It's useful to help your child bridge play ideas, particularly if your child begins an activity, then moves onto the next play topic, leaving a play idea hanging (i.e., "What happened to the dinosaur? I thought he wanted some food to eat.").
9. *Have fun! This is very important!* Try to enjoy playing with your child during special time. If you find it boring, find the

balance that will make the play fun and interesting for both of you.

10. *Remember that special time is not a teaching time.* Try to avoid praising your child or setting limits while you play. You want the motivation and pleasure of doing things together and exploring the world to come from within the child rather than because you are encouraging these through praise or reinforcement. There is no right or wrong way to play with toys.
11. *Sometimes, special time elicits uncomfortable feelings or strong reactions in parents: reflect on what the play is eliciting in yourself.* These reactions are useful to talk about with your therapist, so that you may understand what they mean for you and your relationship with your child. Should you feel overwhelmed by feelings, try to be less involved and play the role of the interested observer. You may even want to take notes on what you notice about your child and shorten the play time to 5 to 10 minutes if that is all you feel you can do. The important thing is that you are giving your child focused, nonjudgmental attention and the joy of interacting with you.
12. *When special time is over, make it clear to your child that it is time to end*. If your child shows frustration because it is difficult to end special time, empathize with him and help him express his frustration (e.g., a gentle hand on his back or a statement, "Wouldn't it be wonderful if we could do this all day long! I wish we could, but now it's time to stop and do something else."). If your child should become tired during the playtime, end it earlier. Clean up the toys and transition to some other activity, such as having a snack or reading a book.
13. *Try to do special time every day.* This is particularly important during times when there are other stressors in the child's or family's life.
14. *If there are other siblings, try to set aside time for focused interaction with them as well.*
15. *Take at least 20 minutes a day for yourself to rest, relax, and do something just for you.* Taking time to catch up on household chores, food shopping, or other work activities doesn't count as time for you. This is your time to restore yourself.

Role of Therapist in Floor Time

The role of the therapist is to be a facilitator of the parent-child relationship. Although the therapist's role varies depending upon what each dyad or family brings to the process, the therapist should try to avoid too much direct teaching or directing of the process. More direction may be necessary for children with more significant developmental challenges (e.g., autism or pervasive developmental disorder). There are instances when the therapist needs to coach or reassure the parent, or modify the approach to be most effective. For example, when parents have difficulty allowing their child to take the lead or they are overstimulating the child (e.g., too verbal, too active, or anticontingent to infant's response), the therapist may need to help the parents tune into the child's cues. In such cases, the therapist may cue the parent by making comments such as, "Let's see what she's doing here" or "It looks like she's changed the play topic to something else. Let's watch and see what she wants to do now." The therapist may also offer more direction when the child's developmental needs are especially challenging.

Therapeutic Challenges in the Application of Floor Time

There are a number of challenges that arise in doing floor time. Lieberman and Pawl

(1993) describe some common therapeutic mistakes in working through the parent-child relationship. Some of the challenges they describe include the therapist who may become so involved in the parents' experience that the baby's contribution is overlooked, or the therapist who colludes with the parent in maltreating the child, or the therapist who over-identifies with the child's experience and finds it difficult to become empathically attuned to the parents' experience.

Another challenges to the therapeutic process is that some parents cannot see the value of doing this type of therapy, particularly when their child is demanding and won't respond to limits. They may make comments such as, "Won't this make him even more demanding of me if we give him more time?" It is useful to explain that during floor time, the child learns how to exert control in a healthy, adaptive way while getting her emotional needs for attention met, thus making it easier for the child to accept limits at other times of the day. When accepting limits is an issue, it is useful to practice limit setting after doing floor time by cleaning up the toys and then embarking on an activity that may evoke conflict, such as having the child sit at the table for a meal or walk to the car without running into the street. All the while, the therapist should work with the parent and child on how to balance limits and share control.

Debriefing Parents About the Process

In the first few sessions, it is often useful to question parents about the experience of playing with their child. Some questions that may be useful are: "What have you noticed this week about your child?" "What do you think was happening when your child did x (or wanted you to do x)?" "How did you feel when you and your child were doing x together?" or "How easy or difficult was it for you to do this play with your child?" As the caregivers become more comfortable with the process and in talking with the therapist about their reactions, the therapist can further explore their feelings and projections from the past. The therapist may ask things such as, "How did you play as a child with your parents?" "Does playing with your child remind you in any way of your experiences with your own parents?" It is not necessary that the parents make connections with their own past or feelings and reactions to their child in order for floor time to be successful, although insights are useful to the process. As the therapy process unfolds, the parents may talk more about the observations they made about their child while they were engaged in playtime at home. They may also discuss how they might have been surprised when their child responded quite differently than they had expected.

It is important for the therapist to avoid intellectualizing the play experience by focusing too much on questions about why the child did something or asking the parent too many questions about what happened. Some parents may express emotions such as feeling rejected by their child if the child turns his back to them. The therapist may normalize those feelings by expressing that many parents feel the same way when similar things happen to them. Empathizing with their position in a nonjudgmental way is very important. Some parents become preoccupied with their reactions to their child, or need to talk at length about themselves and their own past. When this occurs, the therapist may wish to refocus the attention on what happened that day between the parent and the child. It is often useful for a parent to receive individual counseling concerning his or her personal needs, rather than drawing attention away from the parent-child relationship during these sessions.

Sometimes the parents expresses feelings of being resentful or angry towards their child, or feeling depleted when they give their child full attention during play. It is important for the therapist to acknowledge these feelings, nurturing the parents so that they feel less depleted. It is often useful to spend the first few sessions attending to the parents' needs, listening to them, and acknowledging how they feel in a nonjudgmental way. As the parents feel more "filled up" by the therapist's focused attention, it may then be possible to try floor time in small doses. In some cases, a parent may need to play with the toys himself because he did not get to play as a child. The therapist should set out two sets of toys, one for the parent and one for the child. In addition to allowing a parent time to play, the therapist may nurture him further by providing a snack to "feed" both parent and child.

As the therapist and the parents process the experience of what happened in the session, it is useful for them to focus on positive interchanges. Parents with regulatory disordered children often need help in seeing the positive aspects of their relationship with their child. For example, the therapist might comment, "You looked like you were really enjoying each other when you were playing together in the pup tent." The therapist should be careful when sharing observations, so as not to interject her own interpretations or projections about the process. Such interjections create a dynamic between the therapist and a parent whereby the therapist is the "wise therapist" who expresses opinions about the parent and child. It is better for the therapist to validate the parents' own discoveries and learning process by eliciting the parents own interpretations and by helping to bridge the parents' feelings and reactions with what is actually happening in the relationship. Comments made by the therapist may be, "I wonder what you were experiencing when x wanted you to hide?" or "Did you notice that x seemed to watch you more when you did x?"

The next section describes research investigating the effectiveness of child-centered activity, followed by a case example.

RESEARCH EXAMINING THE EFFECTIVENESS OF TREATMENT APPROACHES

There is a paucity of research investigating the outcome of therapy approaches for infants and toddlers with regulatory disorders. Because valid diagnostic criteria for young children are lacking, few systematic studies have been conducted. When infants are used as subjects, normal maturation often confounds the effects of therapy over time. In addition, outcome measures are often based on therapist ratings rather than on objective and valid observations. These methodological problems have confounded or negatively affected the results of many studies (Weisz & Weiss, 1993).

There also are few studies examining the benefits of interventions suitable for children with regulatory disorders, or the effectiveness of floor time and other child-centered therapies. This section describes research that analyzed variations of child-centered therapy. They include mother-infant psychotherapy, infant-led intervention, and the "Watch, Wait, and Wonder (WWW)" technique. These approaches emphasize the importance of the parent-infant relationship and its organizing effects in fostering the child's emotional development. The differences in these approaches are described earlier in this chapter.

Cramer and his collages (1990) compared the Fraiberg (1980) method of mother-infant psychotherapy with noninterpretive interactional guidance (MacDonough, 1989) with

infants under 30 months of age showing behavioral disturbances. They found no differences in the two approaches; however, short-term gains were reported in symptom relief or removal and there were more harmonious mother-child interactions and better projective identification in as few as 10 treatment sessions provided once weekly.

Using a methodology that focused on the quality of attachment, Lieberman, Weston, and Pawl (1991) found that anxiously attached dyads receiving infant-parent psychotherapy improved in maternal empathy, the security of the infant's attachment, and the mother-child partnership. They found that the mother's emotional connection with the therapist significantly correlated with the mother's empathy towards her infant. Mothers who were more able to use the parent-infant psychotherapy to explore their own feelings towards themselves and their children were more empathic and more engaged with their toddlers at outcome than those who did not develop insights. In addition, their children showed more secure attachment, more reciprocity, and less anger and avoidance towards their mothers.

The infant-led psychotherapy (e.g., WWW) and traditional psychotherapy were compared in a study with 67 clinically referred infants and their mothers (Cohen et al., 1999). Treatment was provided once a week for 5 months. Dyads receiving the WWW approach showed more organized or secure attachment relationships and greater gains in cognitive development and emotion regulation than did infants in the psychotherapy group. Mothers in the WWW group also reported greater parent satisfaction and competence and a decrease in depression compared to mothers in the psychotherapy group. Both methods of treatment helped in reducing the infant's presenting problems, decreasing parent stress, and reducing maternal intrusiveness.

DeGangi and Greenspan (1997) conducted a study that compared the relative benefits of a child-centered (i.e., floor time) infant psychotherapy approach and a structured, developmental parent-guidance approach in the treatment of irritability and inattention. The intent of contrasting these two interventions was to examine the contributions and roles of the parent and the child in addressing the child's self-regulatory needs. In particular, the study examined how the child's locus of control (internally initiated versus externally directed) would impact regulatory capacities and function. Subjects consisted of 24 infants between the ages of 14 and 30 months who had disorders of regulation, including high irritability, sensory hypersensitivities, and a short attention span. There were three groups of eight subjects, matched for age and symptoms. Twenty-four subjects had irritability and 21 had attentional problems. Subjects receiving treatment were given a pretest, six one-hour per week sessions of either intervention A or B, and a retest 4 months after intervention. Subjects in the no-treatment group were retested between 4 and 6 months after initial testing. Formalized assessment procedures of development, attention, and self-regulation were used to systemize the change that might occur over time.

The results showed that child-centered therapy was more effective than structured therapy or no treatment in treating inattention and irritability. Seventy-five percent of subjects receiving child-centered therapy resolved in their attentional problems, in contrast to 37.5% of subjects receiving structured therapy and 0% of subjects receiving no treatment. For irritability, 57% of subjects resolved in their irritability after child-centered therapy, 28% after structured therapy, and 0% after no treatment. An important finding of this study was that

children with regulatory problems could make progress in resolving problems related to inattention and irritability in 6 weeks of intervention using a child-centered therapy approach. Since these basic skills of self-regulation (e.g., organizing attention and regulating mood) were responsive to short-term intervention using child-centered therapy, it suggests that therapies focusing on the relationship between parent and child are more useful than interventions that stress concrete developmental skills.

A second prospective study involved 39 infants with regulatory disorders (e.g., high irritability and sensory processing problems during infancy), who were retested at 3 years of age. Subjects were not randomly selected for the treatment or no-treatment group nor were they matched for type of problem or developmental capacities. Subjects who had received parent-child psychotherapy showed less behavioral and emotional problems than did the untreated group. This finding is especially interesting in light of the fact that the treated group evidenced more severe and continuing motor and sensory problems and, therefore, may have been more challenging than untreated subjects at 3 years of age (DeGangi, Sickel, Wiener, & Kaplan, 1996). Parents of infants with motor and sensory problems are more likely to seek treatment than will parents whose children only evidence emotional challenges at an early age. In a study examining the effects of infant temperamental traits and early home-based intervention on psychiatric symptoms in adolescence, it was found that early intervention focusing on the parent-child relationship helped to protect subjects from developing psychiatric symptoms in adolescence (Teerikangas, Aronen, Martin, & Huttunen, 1998). These studies point to the importance of improving the parent-child relationship in preventing long-term emotional and behavioral problems in children at risk.

CASE EXAMPLE: Julie, a Toddler With Chronic Irritability

This last section presents a case example that exemplifies the treatment approach described in this chapter; that is, an approach that works with a child's motor and sensory challenges in the context of an integrated model of intervention.

Julie was a 26-month-old child who was referred by her early intervention program because of her constant irritability. Although she had attended the program three mornings a week for a year, her inability to separate from her mother was interfering with her ability to partake in various educational and therapeutic activities. Her mother—Mrs. T.—was interviewed at her school program because she was reluctant to go to a professional whom she did not know and because she felt more comfortable in the school setting. Her husband did not participate in this interview because of his heavy work schedule.

Presenting Concern

Mrs. T. described Julie as being an unhappy child since birth. She wanted to be held most of the time and demanded adult company constantly, seldom playing by herself. Once upset, Julie was difficult to console. She had no favorite toy and seemed to need consoling from an adult. Being held and rocked, riding in the car, and being offered the pacifier were the only things that calmed Julie. When not inconsolable, Julie would constantly tug at her mother's hand or whine for attention. It was very difficult for her mother to know what Julie wanted

because her daughter had no spoken words and very limited gestures. Julie could point, but only in a general direction rather than to a specific object or person. Mrs. T. expressed concerns about spoiling her and not knowing when or when not to give in to Julie's demands.

Mrs. T. found Julie's whining and crying very difficult to handle, especially as she has two other children, a 7-year-old and a 7-month-old, who both need her attention as well. She felt frustrated that nothing she did seemed to work for very long. She described a typical scenario when she would first talk nicely to Julie, then sternly, and then scream and shout at her, followed by spanking. The mother stated that she never physically abused Julie beyond the spanking. The early intervention program staff had not observed any bruises or injuries; however, they had observed Mrs. T. yell and spank Julie at school and were concerned.

Pregnancy History

Julie was born full-term and there were no problems during the pregnancy or any neonatal complications. The parents had been trying to have a baby for many years. After the first child, the mother had a miscarriage and was then treated with fertility drugs to help her conceive again. After delivering Julie, the mother experienced a postpartum depression that lasted for about 3 months. She described it as feeling like the "third world war." She did not see a doctor or take medication for it because seeking medical help for depression was incompatible with her family's background. Both parents had looked forward to this child but, instead, felt very disappointed.

Developmental History

Julie was developmentally delayed in all areas of development, functioning approximately one year behind in all areas. She walked at 16 months and had motor difficulties. Her greatest problem was communication, with her expressive language skills falling at the 9-month-old level. She spoke no words, and used only gestures to indicate needs. Initially, there were feeding difficulties with choking and vomiting, but these had resolved. A complete neurological work-up revealed no cause for the developmental delay. There was no history of learning, behavioral, or other developmental problems in the family.

Family History

In addition to the parents and three children, Mrs. T.'s mother lived in their house. Mrs. T. felt that she had a great deal of stress in her life. Both she and her husband worked very hard and had little time alone together or for themselves. She was worried about Julie's future, and was eager to obtain some guidance on ways to help Julie become a happier child.

Diagnostic Impressions

On the Test of Attention in Infants, Julie showed poor attention for visual, auditory, and tactile events. She had little understanding of cause and effect, and tended to watch the toys for long periods of time without understanding how to play with them. On the Test of Sensory Functions in Infants, Julie was hypersensitive to touch. She was able to explore textured toys, but she had difficulty planning and organizing motor actions such as removing a furry mitt placed on her foot. In addition, Julie was sensitive to movement when rough-housed gently.

Observations of mother-child interactions revealed that Julie had difficulty initiating reciprocal interactions with her mother. She would fill and dump toys, but not stay with any one toy long enough to show a preference. There was no symbolic play.

Overall, Julie was a child with multiple developmental delays and chronic irritability. Her predominant problems included poor communication, hypersensitivities to movement and touch, poor sustained attention, delayed play skills, and an inability to separate from her mother, on whom she relied for any soothing. At the time of the assessment, it was difficult to determine what was underlying the irritability. Was she overstimulated because of her sensory hypersensitivities? Was she frustrated because she could not communicate what she wanted? Was it an inability to self-soothe? Or, was it a problem in organizing herself for purposeful activity?

Regardless of the cause of Julie's irritability, a negative dynamic was occurring between mother and child. Mrs. T. reacted in a very negative way to Julie's constant need for her attention and the child's whining. This mother was overworked and felt unduly burdened by Julie's overwhelming needs. Although Mrs. T. stated that she suffered postpartum depression only temporarily after Julie was born, she appeared to be depressed when interviewed and during the assessment process. Although Mrs. T.'s mother was helpful in cooking for the household, Mrs. T. bore all of the responsibilities for child-rearing. Mr. T. worked long hours and was not involved in Julie's early intervention program. There was a lack of support from Mrs. T.'s family in terms of understanding her feelings and worries about Julie. Therefore, it was important that the intervention program provide support to Mrs. T. so that she would be able to help Julie. She needed to feel that she had an important role in helping Julie, while not feeling as if she was having more demands and pressures placed upon her.

The Treatment Plan for Selected Concerns

The treatment plan developed for Julie follows.

1. **Irritability and self-regulation**
   a. Develop strategies that Julie could use to help herself self-soothe when distressed, other than demanding attention from her mother.
   b. Help mother to redirect Julie when the child is distressed or irritable, supporting Julie's capacity to self-organize in a positive way.
   c. Help Julie develop the capacity to read and give signals when attempting to communicate her desires and needs.

2. **Sensory processing and attention**
   a. Desensitize Julie's responses to touch and movement.
   b. Find sensory activities that Julie could use to help her focus attention and self-soothe.
   c. Develop strategies for managing the environment that help Julie to focus attention.

3. **Parent-child interactions**
   a. Facilitate Julie's ability to self-initiate play schemes.
   b. Foster Julie's motivation to explore the environment.
   c. Help Julie to engage in reciprocal interactions with her mother, using simple sensorimotor activities.
   d. Encourage the mother to provide focused, nonjudgmental attention on Julie for short periods of time.

e. Through play experiences, provide the mother with opportunities to observe Julie's skills and abilities rather than only having an experience of Julie as a demanding and irritable child with many needs.

4. **Parent support**
   a. Provide support to mother in a non-judgmental way, allowing her to express feelings about herself, her relationship with Julie, and Julie's demanding behavior and developmental problems.
   b. Help the mother find ways to restore her energy by doing things for herself as well as for her children and other family members so that she may feel more available to meet their many demands.

The Treatment Program

Julie and her mother were part of the research project (described earlier in this chapter) that provided only a limited intervention program: 12 weeks of intervention on a once-a-week basis. Nonetheless, her response to the intervention was instructive. (See chapter 3 for a description of a comprehensive intervention program.) Julie's treatment began with six weeks of structured intervention, followed by child-centered activity for another six weeks. The therapists in this case were two clinical developmental psychologists, one with a background in special education and the other with expertise as an occupational therapist. Mrs. T. attended all sessions. The father was not involved in the therapeutic program due to his long work hours.

As treatment began, the therapists had to confront several challenges that affected the treatment process. Mother had an unrealistic view of Julie's problems, thinking that her daughter would be fully normal if only she would talk and get better balance. Mother was also very intrusive with Julie, constantly trying to teach her new skills because she felt that Julie "had a lot of catching up to do." Her style was often frantic, so that Julie could not respond or self-initiate any responses. Mother was also feeling overwhelmed and depressed. It was very important that the therapists address the mother's needs in a way that she would find supportive and nurturing.

Session One

During the first session, Julie had difficulty transitioning from the waiting room to the play room. She was extremely fussy, and would not explore the room on her own. She spent the session in her mother's lap or by her mother's side. Mrs. T. talked about how stressed she felt that Julie needed her constant attention. Mother began talking about her many concerns for Julie: her poor attention to tasks and people, feeding problems, night wakings, immature play skills with mouthing and banging toys, no verbal and little gestural communication, and no ability to self-soothe.

The therapists tried several activities during this session to help Julie and mother engage in reciprocal interactions. The goals were to help Julie focus her attention on the task or her mother, to initiate exploration with the activity, and then to respond to her mother's cues in a reciprocal manner. Linear vestibular movement (e.g., rocking in a rocking chair) while providing firm deep pressure (holding Julie securely in mother's lap) were used to help soothe and calm both mother and child. The following list describes the activities tried during the initial clinical session, which the therapists wrote down and encouraged the mother to repeat at home.

Recommended Home Activities

1. Find a quiet time to sit with Julie. Put out only a few toys. You may want to put on quiet, rhythmic music in the background. Start out soothed and calm. Slowly rock Julie on your lap.
2. Have Julie sitt on your lap while you rock. Have a blanket, dried beans, corn, or uncooked macaroni in a bowl. Play with the materials first to capture Julie's attention.
3. Next, try letting Julie take the first step. Imitate her, then let her take another turn. It should be like a circle—Julie does, you do, Julie plays more—all in the same activity.
4. Make up a game with your body, such as stamping your feet to the music or playing peek-a-boo. Have some fun.

During these activities, the therapists noted that there was little pleasure in the interaction between the mother and child. Mrs. T. was highly intrusive. She would not allow Julie to take a turn or wait for Julie's responses to occur. Mrs. T. seemed adverse to having Julie sit on her lap, but this became more palatable if there was a pillow between her and Julie. The therapists were very soothing and calm, praising Mrs. T. for trying the suggested activities. They focused the session on discussing Mrs. T.'s concerns, and on working with the dyad to establish attention and engagement through gentle rocking, tactile stimulation with textured objects, and soft rhythmic music. The therapists tried to think of activities that calmed both mother and child because they both seemed to need this. Suggestions were made to the mother to modify her verbal input to Julie, relying less on words and more on gesture and intonation. Finally, the therapists worked with the mother on following Julie's lead, and opening and closing circles of communication. They found the mother to be a very likeable, highly motivated, and energetic woman who easily engaged with them. She appeared enthusiastic about the treatment.

Session Two

Mrs. T.'s concerns were similar to those she expressed the first week, although she felt Julie was using more gestures. During the second session, the therapists continued to help Julie acclimate and focus as she sat next to her mother or was rocked and held as they listened to music on the tape player. The therapists encouraged Mrs. T. to be more passive in her interactions while Julie took more initiative during sensory play with tactile materials (i.e., Koosh balls, corn, furry rug). They talked with Mrs. T. about allowing herself to be a secure home base while Julie explored a little on her own. The therapists discussed how this approach was different than teaching Julie specific skills. The take-home suggestions from this session follow.

Recommended Home Activities

1. Put a pillow on your lap, then encourage Julie to sit with you, giving her "pillow-hugs" while you watch a video together.
2. Play with water, using brushes. Paint her feet and hands with the water and brush. You might put a doll in the bathtub so that Julie might paint the doll with the brush too.
3. Continue playing with the corn and the dried beans.
4. Always let Julie take the lead. Make a circle of communication: Julie starts, Mom joins in, Julie takes another turn, then Mom joins again. Always let Julie end the turn so that she can close off the circle of communication.
5. Try music and rocking for soothing.

During these activities, the therapists noticed that the mother's need to play with the toys was as strong as the child's. The therapists speculated to themselves that Mrs. T.

might have had a deprived childhood and needed to revisit the experience of play for herself. They were very aware that they were re-parenting Mrs. T., providing her with aspects of nurturance that she may not have had early in life.

At the end of the session, Mrs. T. confided that she felt burnt-out, and that she had difficulty getting any time for herself to refuel physically and emotionally. The therapists encouraged her to spend some time alone each day, just for herself. Mrs. T. was able to say that she felt anxious about taking time for herself. Because there was so much to do at home, she felt guilty whenever she tried to take time to relax. The therapists again emphasized the importance of her needing to refuel so that she would be more available for her family.

Session Three

Mrs. T. reported some positive changes. She was faithfully doing “quiet play” with Julie, 20 minutes a day. She talked of her concerns about Julie’s stubbornness, short attention span, and inability to play independently. She wondered how Julie would adjust to a Kindergarten routine in a few years. In this session, Julie was more organized and focused. The mediums used included water play and vestibular stimulation on a large bolster (e.g., rocking and bouncing). Julie also engaged in very nice reciprocal play with her mother using a tunnel to play peek-a-boo.

Session Four

During this week, the therapists noticed that Julie was able to organize several sequences of behavior with one toy, thus showing the beginnings of more elaborated play. She tolerated the swing nicely and engaged with her mother around music and movement. The therapists worked with the mother on reading Julie’s nonverbal cues and on reducing her own verbal barrage, being very careful to be nurturing towards the mother as they gave her feedback.

Mrs. T. opened up about her own exhaustion and depression. She felt that she must maintain a facade, a “happy face” on the outside in order to get through the day. Additionally, she felt conflicted by the competing demands of her three children, taking little time for herself. The therapists strongly encouraged her to take time out for herself, as they had before.

Session Five

Julie’s mother entered this session feeling very positive about her daughter’s progress. She felt that Julie was more organized, was communicating more purposefully, and was better able to sustain some independent play. During “quiet play” at home, Julie was focusing on some fine-motor tasks, using keys which her mother had encouraged her to use. The therapists strongly reinforced the good work both were doing, and stressed how important mother was to Julie’s growth. The work in this session focused on oral-motor and feeding skills—using yogurt and crunchy granola, and on vestibular activity on the swing and inner tube. Julie initiated play and Mrs. T. was able to engage her in a reciprocal game around bouncing on the inner tube. Julie seemed to focus her attention better when deep proprioceptive input was provided (e.g., pressing on her hips while bouncing on the ball). The therapists counseled Mrs. T. to try this and other movement activities at home. She appeared very motivated to follow their recommendations. The activities that she was to try included the following:

Recommended Home Activities

1. Try rocking and singing with Julie on your lap. Use a little pillow to put on Julie’s stomach or back if she likes this.

2. Put out dried beans and macaroni in a box for Julie to explore. Let her take her shoes off to put her feet in the box. Also try playdoh.
3. Pull Julie in a wagon. At the playground, encourage her to swing.
4. After movement activities such as swinging, encourage Julie to sit down and do fine-motor activities.
5. After her bath, pat Julie with the towel. Use lotion on her body, applying with firm pressure. Watch how she acts. If she pulls away, it means that she is not processing the touch in a positive way.

Session Six

Mrs. T. brought the maternal grandmother and the 12-month-old brother to the session. Julie was very unfocused with the overload of stimulation and was unable to play in the bath of plastic balls. Her play was very fleeting. Eventually, she organized herself to sit in a nest of pillows and listen to rhythmic, rocking music.

Despite feeling more positive about Julie's progress following the earlier sessions, Mrs. T came into this session expressing a good deal of frustration with Julie's slow progress. She continued to have an unrealistic picture of Julie's abilities, expressing relief in her belief that Julie was not mentally retarded or emotionally disturbed. Again, Mrs. T. felt depleted and the therapists encouraged her to take refueling breaks for herself.

Child-Centered Play Intervention

The child-centered play therapy was introduced after the first six sessions of the structured program. When the child-centered therapy began, Mrs. T. was suspicious about whether this type of intervention would work. She felt that Julie must be taught different skills, and she did not think that giving Julie the initiative in the play would work, although the therapists had been teaching the mother this strategy all along. However, because Mrs. T. had developed a strong therapeutic alliance with her therapists, she was willing to try this therapy.

Session Seven

During the first session of child-centered therapy, Julie initiated a lot of proprioceptive stimulation, stamping her feet, butting mother with her head, and bouncing while sitting on the inner tube in a fairly well-organized sequence. Her play was immature, but focused. Julie appeared to need to be grounded by the tactile play with her mother to help her focus her attention. Despite mother's worries that were expressed prior to the play, there was positive affect between mother and daughter. Mrs. T. seemed fairly relaxed with the child-centered play, although she needed to restrain herself from structuring turns and making verbal demands. Written notes provided to the mother about child-centered therapy included the following:

Child-Centered Therapy Activities

1. Find toys that make noise or music, such as a tape recorder or the pop-up tunes toy.
2. Use toys that Julie can pound, hit, or bang, such as a pounding bench with hammer or a chair to push.
3. Give her places where she can sit inside, such as a nest of pillows.
4. Let Julie take the lead, but stay next to her.
5. Give her all your attention for a concentrated time—up to 15 minutes if you can.
6. Julie likes seeing what she can make you do—sit down, now run with her, now jump. Go with it.
7. Let Julie do most of the work to show you what she wants.

Mrs. T. appeared to be dealing more with the reality of Julie's delays. The early intervention program staff had been discussing a Fall placement for Julie at a school for children with significant communication disorders and cognitive delays. Mrs. T. was concerned about Julie's diagnosis and what the future would hold for her. At a personal level, Mrs. T. discussed how isolated she felt from her peers, how different her experience of mothering was from that of her friends, and how her friends were unable to empathize with her. In addition, Julie had been ill with a skin irritation and a fever. Mrs. T. had been feeling very tired. The therapists suggested that she set a schedule that included special time for herself, free of distractions. The therapists delayed the child-centered therapy with mother and child until after Mrs. T. had time to discuss her many concerns.

Later during processing, and after mother practiced the child-centered therapy, Mrs. T. discussed tensions in her role and relationship with own mother, who was very critical of her. There was a very strong work ethic in the family that placed very high demands on the mother to meet all the needs of her children and husband. Mrs. T. stated that even if she had time for herself, she would feel guilty about it. In addition, she felt that her mother was critical of the way in which she parented her children.

Session Eight

During the eighth session, Julie appeared regressed in her play, unable to engage with objects or sequenced activities. The therapists mainly focused on trying to engage the mother in the therapeutic process and on helping her understand that Julie needed to be the initiator of the play. With this guidance, Mrs. T. was able to respond appropriately to Julie without being overly intrusive, and the affective engagement in the dyad was very positive.

Mrs. T. expressed doubts about the child-centered therapy. Julie seemed to be going "backwards" in her view since she was not teaching her daughter specific skills during therapy. Mrs. T. reported that special time at home consisted of her putting out toys that were good for Julie's cognitive level, but that Julie showed little interest in them. At the same time, Mrs. T. was feeling exhausted. She did take one hour for herself, but admitted that she felt guilty asking for relief from her husband since this was frowned upon by her mother. The therapists reinforced the need for her to get respite and to have some pleasure in her own life.

Session Nine

The play was consistent with the play of previous weeks in that Julie craved tactile grounding in order to focus. Julie spent time flitting from the inner tube to the big box enclosure to rocking activities. Julie was especially interested in pulling her mother's hand and tugging her mother along as she moved about her environment. Her mother responded by trying to fend off Julie's demands, stating, "What do you want?" The therapists' presence in the room at this point was somewhat counterproductive in that Mrs. T. wanted to talk about her concerns, which took her away from Julie. The therapists suggested the possibility that Mrs. T. finding someone to talk with privately as a future option. During the actual treatment session, the therapists found that it was better to allow Mrs. T. to practice the child-centered therapy while they went into the observation booth for about 15 minutes.

Mrs. T. was able to respond to the therapists' suggestions that she learn to separate her needs from Julie's. She acknowledged that she was loosening up on her usual involvement with the oldest child's schoolwork and in doing things constantly for Julie. There was a birthday party for the young

baby, in whom mother took great pleasure. She talked about how she and her husband were enjoying the time they had begun take for themselves after their long work day. All of these changes were occurring under the critical eye of her mother, who referred to Mrs. T. as being selfish. At the same time, Mrs. T. was worrying about not setting enough limits on Julie, particularly her high need for constant attention.

Session Ten

Mrs. T. came in looking very attractive and upbeat. She reported that Julie seemed better able to play by herself and able to separate more easily from her. The therapists continued to reinforce the idea that a big dose of child-centered play with mother could go a long way towards Julie's independence in other contexts. The therapists again contrasted the difference between structured teaching and child-initiated activity. In Julie's case, she had an essential need for both types of interventions due to the seriousness of her delays. Julie continued with her sensory play while attempting to control her mother's involvement with her activities, pulling and tugging her mother to come along with her. The dyadic play was positive and well modulated; mother was responsive and nonintrusive.

Interestingly, the early intervention staff from Julie's center had called during the week to discuss Julie's wonderful progress. They no longer found Julie to be irritable and demanding, and found that she could join into circle time, snack, and other activities without any difficulty. She was showing increased gestures, intentional communication, fewer problems with hypersensitivities to touch and movement activities, and better focused attention. They asked what techniques the therapists were using that were working so well.

Session Eleven

By session eleven, the therapists noticed that Julie's mood regulation was better, with less whining and more autonomy. After some reminders about letting Julie take the lead, the dyadic play went well. Mother needed repeated reminders to allow the play to be child-initiated: this was not something that came naturally to her. Julie engaged in the same tactile-proprioceptive activities of previous weeks, but had better organized sequences of play. There was very positive affect between mother and child.

Mrs. T. reported major changes in the family's sleeping arrangements. Julie was now sleeping in the older sister's bedroom and the baby was in a separate room. Although this had not been shared with the therapists before, Julie had been sleeping in the parent's bed. Mrs. T. stated that she and her husband now slept alone together ("I'm back with my husband and now we're having special time!"). At home, Julie was apparently observing and imitating her 1-year-old brother and experimenting more on her own. Mother described herself as standing by while Julie did things for herself.

Session Twelve

During the last session, Julie engaged in considerable tactile-proprioceptive play, laughing and smiling as her mother followed along with her. During this play, Julie gestured with signs while vocalizing with a few new words that she had just attained (i.e., "up" and "more"). Her sequences of play were intentional and organized. It was clear what Julie was wanting to do in her play. In addition, she was able to use the sensory play to help organize her attention for a focused fine-motor task. Julie indicated that she wanted to sit in a chair with a table in front of her. She pointed to the puzzle, signed "more," and clapped as her mother placed the puzzle

on the table for her. She then proceeded to work at this task for at least 10 minutes.

The therapists reinforced Mrs. T.'s observation that Julie was happier when mother could give her a dose of full attention, even if only briefly. Julie was now able to play independently for 10 minutes at a time. Mother was in the throes of planning for Julie's Fall school placement, getting financial support, negotiating with her husband on the best plans for Julie, and accepting the fact that Julie was a "special needs" child. The therapists discussed termination of their work together. They also emphasized again that Mrs. T. needed to find support for herself when Julie moved into another setting. The therapists reviewed with Mrs. T. the activities that Julie liked and needed. In addition, they stressed the important role that she played in facilitating the changes that could be observed in Julie's behavior. Her playing with Julie, giving focused attention while Julie took the lead, and letting Julie show the mother what she wanted were important to the progress that Julie had made.

Conclusion of Treatment

By the conclusion of the therapy program, many of Julie's problems had resolved. Sleep and feeding problems were no longer a concern. Chronic irritability had diminished significantly. This second improvement appeared related to Julie's capacity to refine her gestures and vocalizations to communicate her needs, her ability to play by herself for short periods of time, and her mother's changed perception of Julie as a child who *could* master new skills. Julie's difficulties with separating from mother had improved when Mrs. T. had set aside playtime with Julie to fulfill her needs for focused, one-to-one attention. Julie was more animated and happier and was more able to play by herself at home. Her mother found her to be far less clingy and needy, although Julie remained fairly demanding, requiring help to play with objects for any sustained period of time. Julie showed more organization and range in her variety of play skills. She was beginning to develop autonomy and had her own opinions about toy and activity preferences. Attentional skills had improved dramatically, particularly when tactile-proprioceptive or movement activities had been used prior to tasks that required focused cognitive, language, or perceptual thinking.

The success of the therapy program appeared strongly related to the mother's strong therapeutic alliance with the therapists. She became very comfortable with them, sharing her thoughts and feelings. The therapists emphasized the importance of mother's role in facilitating Julie's development through her interactions with Julie. Mrs. T. put a great deal of effort into practicing the various activities at home with Julie. Even when she was suspicious that the child-centered therapy was not going to help her with Julie, she gave it a try with the therapists' encouragement. After a few weeks, she began to see many changes in Julie and in her family life. The mother's depression improved and she was more able to meet her own personal needs, as well as those of her family.

It was fortuitous that structured therapy was first in the sequence in the research project for this child because, in hindsight, this mother needed explicit directions about how to interact with Julie. Once the dyad was on course and "cooking together," it became possible to help guide the mother in finding ways to help Julie through the interactions using a child-centered therapy approach. Mrs. T. began to understand the process of reading Julie's cues and responding in ways that Julie needed. It was important for the parent to learn how to internalize this process

of reading the child's cues and finding what would help both of them.

Although Julie was a child with ongoing developmental needs who would probably require long-term educational and therapeutic services, this short-term therapy program helped to get this mother and child on a positive developmental trajectory. It was important for Julie and her mother to connect as a dyad so that they could engage with one another in a pleasurable exchange. As the mother gave Julie more focused attention, Julie could switch her efforts from demanding her mother's attention to expanding her gestures to communicate her intents. Through the interactions with her mother, Julie was able to develop the core processes of sensory processing, basic communication, attention, and emotional regulation that underlie many skills that she needed to develop.

CONCLUSION

This chapter presented an integrated therapeutic model designed for infants and children with constitutional and related relational problems and their parents. Within this child- and family-centered intervention approach, a combination of parent guidance, child-centered activity, and sensory integration therapy techniques address the complex needs of the child with sensory and motor problems. Parent guidance techniques provide parents with specific management techniques to handle their child's sleep and feeding problems and irritability. Child-centered activity (i.e., floor time—a form of infant psychotherapy) is applied to enhance parent-child interactions and facilitate self-initiation, sustained attention, purposeful behavior, and communication in the child. Sensory integration therapy techniques are integrated within the context of parent guidance and child-centered activity to normalize the child's responses to sensory stimulation, modulate arousal and state control, and promote organized, adaptive responses during play and everyday activities. Preliminary research suggests that these approaches are useful in addressing the problems of infants with regulatory disorders. Further research is needed to examine the effectiveness of the specific treatment approaches and the value of an integrated treatment model for children with developmental needs. ■

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