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Temperament-Based Intervention: Re-examining Goodness of Fit

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Abstract

The purpose of this paper is to discuss how recent advances in the temperament field have contributed to the scientific foundation of temperament-based intervention. A presentation of the historical origins of temperament-based intervention is followed by examples of recent studies that add to its empirical support. Guidelines for developing and adapting temperament-based interventions are offered. The goodness of fit model, frequently used as a basis for temperament-based intervention, is re-examined through the lens of self-regulation.

Keywords

temperament; intervention; Goodness of Fit

Beginning prenatally and continuing throughout the lifespan, humans react to their experiences with a vast array of physiological, emotional, and behavioral responses. Every year, hundreds of published manuscripts describe how individual differences relate to a myriad of outcomes. The names of the constructs describing the individual attributes vary considerably across theorists. Block (1995) referred to this phenomenon as the jingling and jangling fallacy. Jingling is when the same term has multiple meanings; jangling refers to different terms that have the same definition. The literatures on individual differences are replete with jingling and jangling. For example, the constructs of temperament and personality are viewed by some researchers as one and the same (Halverson, Havill, Deal, Baker, Victor, & Pavlopoulos et al, 2003) while others contend they are conceptually different (Kagan, 1994). In this paper, temperament and personality are used interchangeably as constructs that explain the nearly endless, yet fascinating permutations humans experience and exhibit.

Regardless of the complexities inherent in the sometimes overlapping, other times disparate, lexicon of individual differences, elegant models of intervention can be developed when individual differences—whether labeled temperament or personality—are incorporated into treatment protocols. Perceptive, responsive practitioners recognize that a powerful way to connect with a client is to recognize his or her unique qualities. Treatment strategies can then be tailored to his or her temperament. In 1998, McClowry reviewed the science and art of using temperament as the basis for intervention. She offered a classification system for conducting temperament-based intervention but concluded that such programs were still in their early development. After a brief review of its origins, this paper will discuss how findings from temperament research over the last ten years have advanced temperament-based intervention. Recent descriptive studies will be presented to illustrate how they can inform practitioners who

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are planning or conducting temperament-based interventions. Reports on the efficacy of temperament-based interventions will be followed by guidelines for developing and culturally adapting such programs. Finally, goodness of fit will be re-examined based on an emerging central construct within the temperament field: self-regulation.

Historical Origins of Temperament-Based Intervention

No discussion of temperament-based intervention would be complete without acknowledging the pioneering work of Stella Chess and Alexander Thomas. As practicing psychiatrists in the early 1950s, Chess and Thomas (1984) were struck by the amount of blame mothers received for their children's misbehavior. Contrary to behaviorist and psychoanalytic theories which dominated the psychology field at the time, Chess and Thomas observed that children, beginning in infancy, exhibited what they originally referred to as primary reaction patterns. In 1956, Chess and Thomas and their colleagues began the New York Longitudinal Study (NYLS) to explore how temperament, as they later called the construct, influenced the adjustment of the 138 infants who comprised their sample (Chess, Thomas, Rutter, & Birch, 1963). The results of the study provided a groundbreaking reinterpretation of human development. Although parenting skills were important contributors to children's later adjustment, the temperament of the child also played a significant role. Some children were temperamentally easy and adjusted quickly to the changes encountered in their daily lives. Others had temperaments that Chess and Thomas characterized as "difficult." They exhibited negative reactions to even minor events. Still other children were initially slow to warm, demonstrating unease when encountering new people or situations.

Chess and Thomas were among the first researchers to credit children as contributors to their own development—not as passive recipients of caregiving. They described how bi-directional transactions between children and their parents influenced each other's behavior. The interaction between the child's temperament and the environment was conceptualized within a "goodness of fit" framework. According to Chess and Thomas (1999, pp. 3) "goodness of fit results when the properties of the environment and its expectations and demands are in accord with the organism's own capacities, characteristics, and style of behaving." If there is a match between an individual's temperament and the environment, optimal development can be achieved. Conversely, poor fit leads to maladaptive functioning. They also asserted that when assessing goodness of fit, consideration must be given to the values and demands of an individual's culture and socioeconomic group.

The goodness of fit model continues to influence temperament-based intervention today. It provides practitioners with a framework for assessing individuals within their specific environmental context. Such an approach is both intuitively appealing and practical for developing strategies to resolve temperament/environment mismatches. Empirically demonstrating the efficacy of such interventions, however, is complicated by its highly individualized approach. Undaunted, practitioners and researchers have made progress over the last decade in demonstrating its utility and efficacy.

Recent Advances in Temperament Research: Implications for Intervention

The contemporary temperament field is an international amalgam of researchers and practitioners across many disciplines. Although most temperament researchers are not interventionists, the studies they conduct lay the scientific foundation for temperament-based interventions. While an exhaustive review of recent studies is beyond the scope of this paper, examples will be presented to illustrate how such studies can inform temperament-based intervention.

Many temperament studies identify how specific types of temperament may be a risk or a protective factor (Institute of Medicine [IOM], 1994). For example, Schwebel and Plumert (1999) found that toddlers and preschool children who were high on extraversion and low on inhibitory control overestimated their physical abilities and had more unintentional injuries in the primary grades. In another study, adolescents with conduct disorders demonstrated temperaments that were high in novelty seeking and low in harm avoidance (Schmeck & Poustka, 2001). Together, these results demonstrate that physical safety, is a clinical issue for individuals with such temperaments. The type of temperament-based intervention strategies that would be derived from the studies, however, differs. Based on the results of Schwebel and Plumert (1999), preventive intervention focusing on parental guidance would be appropriate. The findings from the latter study suggest a temperament-based treatment given the behavioral problems are at a diagnostic level. Intervention, in this situation, should engage adolescents as well as their parents.

Other studies describe temperaments that function as protective factors and are associated with positive outcomes. Consistently, children and adolescents with high task orientation have been shown to demonstrate high academic achievement and enhanced social skills (Bramlett, Scott, & Rowell, 2000; Guerin, Gottfried, Oliver, & Thomas, 1994; Keogh, 2003; Smart, Vassallo, Sanson, Richardson, Dussuyer, & McKendry, 2003). No single temperament, including one that is high in task orientation, however, is ideal in every situation (McClowry, 2003). For instance, individuals who are high in task orientation may have perfectionist tendencies that can compromise their flexibility and spontaneity. Appropriate temperament-based intervention for such individuals falls into the health promotion category and focuses on enhancing well-being (IOM, 1994). Intervention might include techniques to better manage life stressors and gaining acceptance that not everything needs to be perfect.

The direct role of temperament as a risk or protective factor is eclipsed by its transactions within the environment. One of the most impressive developments over the last 10 years is the dramatic increase in studies that elucidate temperament and environment interactions (Rothbart & Bates, 2006). Such studies illustrate how temperament moderates or mediates environmental conditions, thus shedding light on the ways in which goodness of fit operates in the real world. For example, a number of studies with diverse methodologies have demonstrated how parental hostility and child negative reactivity relate to child maladjustment. In a cross-sectional study, children high in negative reactivity were likely to demonstrate externalizing behavior problems if their mothers also were high in hostility (Morris, Silk, Steinberg, Sessa, Avenevoli, & Essex, 2002). In a longitudinal study by Lengua and Kovacs (2005), bi-directional interactions based on self-reports between children and their parents were examined during middle childhood. Child negative emotionality evoked inconsistent parent discipline. In turn, inconsistent parenting increased child negative emotionality. The same pattern of bi-directional negative transactions has also been observed in a laboratory setting (Braungart-Reiker, Garwood, & Stifter, 1997) and was shown to operate intergenerationally (Scaramella & Conger, 2003). Practitioners can use such findings to assist parents of children that are high in negative emotionality to identify their own response patterns. Temperament-based management strategies that defuse rather than escalate the transactions between the parent and child can then be taught.

During the last 10 years, many temperament-related factors and transactional processes have been subsumed under the umbrella of self-regulation—albeit with its own jingling and jangling. Relevant across the life-span, self-regulation is generally regarded as the ability to accomplish goals by moderating one's emotional, attentional, and behavioral responses to events (Posner & Rothbart, 2000). The mechanisms that influence the development of self-regulation are complex and include the child's temperament in transaction with the environment. Infants are dependent on parents and other caregivers for external regulation. By the time children are two

years old, however, most begin to exert effortful control (Kochanska & Aksan, 2006). Rather than react impulsively, they willfully delay gratification and engage in planning (Posner & Rothbart, 2000). Simultaneously, another inhibitory component, fearfulness, contributes to the development of self-regulation; however, compared to effortful control, its processes are less intentional and more reactive.

Based on the empirical literature, it would appear that self-regulation can be influenced by the environment (Kochanska & Aksan, 2006; Rothbart & Bates, 2006). Positive parental support has been shown to relate to children's self-regulation at home (Collins, Madsen, & Susman-Stillman, 2002; Kopp, 1989) and in the classroom (Eisenberg, Fabes, Guthrie, Murphy, Maszk, Holmgren, et al., 1996; Rodriguez, Ayduk, Aber, Mischel, Sethi & Shoda, 2005). In contrast, maternal punitive reactions have been linked to poor self-regulation in children (Eisenberg et al., 1999; Kochanska & Aksan, 2006).

The conclusion that self-regulation can be altered by the environment is largely derived from cross-sectional, correlational studies. Although a limited amount of longitudinal studies have attempted to examine the environmental processes that contribute to the development of self-regulation, definitive conclusions regarding causal relationships require experimental designs (Shadish, Cook, & Campbell, 2002). A major limitation of the temperament field is the dearth of experimental-studies that exist. This criticism is even more pertinent in relation to temperament-based interventions, whose very credibility and utility necessitates experimental designs.

Temperament-Based Intervention: Empirical Support

Only a few examples of such temperament-based experiments have been reported recently. The studies vary considerably in their targeted participants and intended outcomes. Franyo and Hyson (1999) tested the effectiveness of a training workshop for preschool day care providers. They randomly assigned 30 day care centers from a variety of communities in the Northeast United States to one of three conditions: a three-hour workshop on temperament concepts with activities adapted from *The Program for Infant/Toddler Caregivers* (Far West Laboratory, 1993), a wait-list condition, or a control group. The 229 caregivers were tested on their knowledge of temperament concepts and acceptance of children's feelings and behaviors prior to attending the workshop and, again, afterwards. Those who received the intervention demonstrated a significant increase in their knowledge about temperament at post-test. There were, however, no changes in their acceptance of the children's feelings and behaviors, which may be attributed to the short duration of the intervention.

In another early intervention program, parents of 146 preschool children whose temperament was high in withdrawal were randomly assigned to a parent education program or to a control group that received no treatment (Rapee, Kennedy, Ingram, Edwards, & Sweeney, 2005). The education program was conducted with groups of six sets of parents with mothers as the primary attendees. The intervention was conducted by a clinical psychologist in six 90-minute sessions. The content of sessions included the nature of anxiety, principles of parent-management techniques, cognitive restructuring, and anticipation of high-risk periods. Anxiety disorders were significantly reduced at one year follow-up in children whose mothers were in the intervention as compared to those in the control group. The children's temperamental tendency to withdraw, however, remained the same.

School-age children were the focus of another-prevention study. *INSIGHTS into Children's Temperament*, is a comprehensive intervention that teaches parents and teachers how to use temperament-based strategies to reduce the behavior problems of school-age children (McClowry, 2003). The program also assists teachers and parents in enhancing goodness of fit by replacing negative patterns of interaction with more responsive and effective child

management strategies that are matched to specific types of temperaments. The intervention consists of 10 workshop sessions for the parents and teachers as summarized in Appendix A. Puppets, representing the four temperament profiles identified by McClowry (2002), are used in classroom sessions to enhance children's empathy and problem-solving skills. For a more detailed description of the intervention, see McClowry, Snow, and Tamis-LeMonda (2005).

The efficacy of *INSIGHTS* was tested in a prevention trial with 145 inner-city primary grade children and their parents and teachers (McClowry et al., 2005). The behavior of children who participated in *INSIGHTS* was compared to a sociodemographically similar group of children who received a one-hour after-school Read Aloud program. The *INSIGHTS* intervention was more effective than the Read Aloud attention control condition in reducing children's behavior problems at home. The program showed even greater efficacy among children (none of whom were receiving medication) who were at diagnostic levels of three disruptive disorders: attention deficit with hyperactivity, oppositional, and conduct.

The efficacy of the program in enhancing classroom management also was examined (McClowry, Snow, Tamis-LeMonda, & Rodriguez, 2007). Boys who participated in *INSIGHTS* showed a significant decline in aggressive and inattentive classroom behaviors as compared to those in the Read Aloud program. In addition, as compared to teachers whose students were in the Read Aloud program, teachers in *INSIGHTS* reported significantly less difficulty dealing with boys' classroom problem behaviors, particularly in relation to oppositional, inattentive, and conduct problems. The teachers also perceived their male students as significantly more cognitively and physically competent.

Self-regulation in early adulthood has been the focus of inquiry in a series of laboratory experiments (Baumeister, Gailliot, DeWall, & Oaten, 2006) which examined college students' self-regulation in relation to physical exercise, money management, and study habits. Overall, these experiments supported that self-regulation could be enhanced through intervention and practice. However, self-regulation which relied on limited mental energy resources was vulnerable to depletion.

Temperament also has been found to moderate other types of intervention. In one study, self-directedness moderated the responses of patients who received cognitive behavior therapy for bulimia nervosa (Bulik, Sullivan, Joyce, Carter, & McIntosh, 1998). Based on their results in treating distressed couples, Barelds and Barelds-Dijkstra (2006) advised teaching dyads how to accept each others personality. The clinical applicability of temperament-related intervention has been noted by other researchers as well (Bulik et al., 1998, Lochman, 2004; Trobst, Herst, Master, & Costa, 2002).

Developing and Adapting Temperament-Based Intervention

Temperament-based intervention can be delivered in a number of creative ways. One of the first decisions a practitioner must make is in regard to the scope of practice. Some temperament practitioners focus on a specific typology, such as highly sensitive individuals (Aron, 1997) or difficult children (Tureki & Tonner, 1999). Others offer guidance across the continuum of temperaments (Carey & McDevitt, 1995). Another possibility is to begin with a particular outcome such as academic achievement and link it to temperament (Keogh, 2003).

Like all educational and treatment modalities, temperament-based interventions should be grounded in the relevant literature. As evident in this issue, multiple temperament/personality frameworks currently exist. Wading through the various conceptualizations and definitions that exist in the literature is a demanding yet important step. Some practitioners (Kristal, 2005; Kurcinka, 2006) are drawn to Chess and Thomas' conceptualization because it is grounded in clinical practice and lends itself to practical applications. An alternative approach

is to synthesize what is known across temperament perspectives. In either case, the relevant, supporting literatures should be incorporated into the empirical conceptualization of a temperament-based intervention. For example, programs designed to prevent or treat behavior problems should integrate findings that explain how disruptive disorders develop and progress (e.g., IOM, 1994; Patterson, Reid, & Dishion, 1992).

Among the possibilities for conducting temperament-based intervention is integrating strategies to enhance goodness of fit for individuals, parent/child dyads, or couples. In such instances, the practitioner can assist clients in understanding their own temperaments and that of others in their life. Building on such insights, clients can reframe their perceptions and implement strategies to change interactions or environmental circumstances.

Structured programs for groups are another possibility. Workshops are excellent vehicles for intervening with parents, teachers or other practitioners. To conduct temperament-based workshops, practitioners can develop a new program or adapt an existing intervention. In either case, multiple iterations are likely to be necessary. Great care should be taken to translate the often complex, empirically-derived concepts into terminology that is understood by consumers. In addition, the content and presentation of materials needs to be developmentally appropriate. For example, if videotaped vignettes or other media are used, the actors should be similar to the intended recipients. If the characters in the vignettes are children, they should be engaged in developmentally appropriate activities. The instructional materials should also be tested for readability so that they match the educational level of the intended audience. Fortunately, assessing readability can be easily conducted on many word processing programs.

To assess whether the content and instructional materials are appropriate for the intended population, the materials should be assessed by community stakeholders (e.g., parents, teachers, community leaders). Including representatives from the community is critically important for ascertaining the cultural appropriateness of the intervention (Dumka, Roosa, Michaels, & Suh, 1995; McClowry & Galehouse, 2002). Although the notion of temperament is widely acknowledged as universal, the degree to which certain traits are valued, expressed, and encouraged can vary considerably across cultures. Cultures differentially favor and promote particular traits and behavioral expressions of temperament. Temperament cannot, therefore, be considered without close attention to the larger sociocultural context in which an individual is embedded. Consistent with a “goodness-of-fit” model (Chess & Thomas, 1999; Lerner, Nitz, Talwar, & Lerner, 1989), some temperamental traits are “good fits” with certain cultures because they are perceived as reflective of instrumental competence.

Temperament-based intervention presupposes that certain behavioral expressions of temperament are positive, beneficial and to be encouraged, while others are negative and to be discouraged. Such assumptions, however, are rooted in culturally-laden beliefs about *which traits are which*. Culture is both descriptive and prescriptive, explicating the way things are and the way things should be. It relays the underlying assumptions about the nature of the self, agency, and the social world (Cushman, 1995; Geertz, 1973; Shweder, 2003). In any given culture, there are both unwritten and codified rules that reflect an underlying shared understanding of the world. For example, in North American and many other Western cultures, the implicit expectation is that assertiveness is of value and should be promoted. Accordingly, these cultures promote assertive behavior in a variety of ways, as demonstrated by social-skills programs that identify assertiveness as an optimal prosocial behavior (for example, see Goldstein & McGinnis, 1997; McGinnis & Goldstein, 1997). In other more collectivist cultures, such as China, inhibited or shy behavior is perceived as an expression of social competence that is encouraged by adults (Chen, Rubin, & Li, 1995, 1997; Kerr, 2001). Consequently, the curriculum of a temperament-based intervention in China would emphasize different social skills than one in North America.

Intervention planners and adaptors of existing interventions also need to think reflectively about a variety of core cultural values and beliefs, such as gender norms, the role of the family, relational orientation, time orientation, and constructions of human nature, which are referred to as “deep structures” (Resnicow, Soler, Braithwaite, Ahluwalia, & Butler, 2000; Santisteban, Muir-Malcolm, Mitrani, & Sza-pocznik, 2002). Without such consideration, an intervention is likely to lack cultural appropriateness and, consequently, lack utility as an effective means for promoting change (Dumka et al, 1995; Kumpfer, Alvarado, Smith, & Bellamy, 2002; Martinez & Eddy, 2005). When a deep structure cultural approach is used in the development or adaptation of a temperament-based intervention, several underlying questions must be addressed. First, what are the traits and behavioral expressions of temperament that are most prized (or discouraged) by the culture? In other words, which temperamental traits are a “good fit” with the culture, and which are not? Further, how is instrumental competence defined within the given culture? That is, based on the standards of the culture, what behavioral responses characterize optimal functioning? Finally, how can interventionists and researchers incorporate this “deep structure” cultural perspective into program development? In the case of program adaptation, how can cultural appropriateness be satisfied without compromising the fidelity of the original program?

The focus group methodology is a useful tool for facilitating both the development of culturally sensitive programs and the cultural adaptation of existing interventions. Through facilitated group discussions with members of the target culture, focus group discussions help bring to light the underlying “deep structure” knowledge that is shared by group members, as well as the thought processes through which participants structure their social world. Through their reliance on social interaction, focus groups provide participants with a forum to clarify their positions on a given topic and, accordingly, allow the researcher to gain a deeper and more nuanced understanding of participants’ attitudes and experiences (Hughes & DuMont, 2002).

Using an existing intervention as the starting point and stimulus for discussion, cultural stakeholders can react to program content and discuss deep structure concerns. Specifically, practitioners can draw attention to the underlying assumptions of the program by asking focus group participants to evaluate the extent to which certain aspects of the program resonate with the core values of the culture. Conversely, participants can also identify the components that they find culturally dissonant. Based on the feedback, program modifications can be made and subsequently presented to members of the community to ensure that the proposed changes accurately reflect the social realities of the cultural group.

Importantly, when adapting existing interventions for use with multicultural populations, concerns about cultural appropriateness need to be balanced with efforts to maintain program fidelity. Thus, modifications should be made with consideration to the tension that exists between ensuring program fidelity and adapting interventions so they are culturally relevant to the target population (Castro, Barrera, & Martinez, 2004). Without attention to these two critical elements, the intervention’s intended goals—and, consequently, its efficacy—may be compromised.

Once developed, formally testing the intervention is a critical next step to ascertaining its efficacy. As in all research studies and clinical assessments, measurement tools should be carefully selected. To accurately identify the temperament of participants, only instruments that have demonstrated adequate reliability and validity should be used. A number of critiques of temperament instruments exist (Shiner & Caspi, 2003; Strelau, 1998; Teglasi & Epstein, 1998).

Selecting tools that measure the outcome variable require additional consideration. Among the challenges that researchers encounter in testing the efficacy of temperament-based

interventions is differentiating temperament from behavioral outcomes. Some recent progress on this methodologically troubling dilemma has been made. Lemery, Essex, and Srnider- (2002) found that after removing confounded items on a temperament instrument and a behavior problem scale, the magnitude of the correlations were not significantly different. This suggests that reliable measures can accurately assess behavioral change resulting from temperament-based intervention.

Pilot studies conducted with representatives of the selected population also can shed light on the reliability and validity of the selected measures and the feasibility of the research protocol (McClowry & Galehouse, 2002). The clinical value of the intervention should then be tested in an efficacy trial (Shadish et al, 2002).

Current Trends and Future Directions in Temperament-Based Intervention

Recent findings on self-regulation shed new light on the concept of goodness of fit. As previously noted, in order to achieve goodness of fit, parents and other caregivers are encouraged to create or select an environment that matches the child's temperament (Chess & Thomas, 1984). Although children will attempt to modify the environment to match their own temperament, the onus of providing goodness of fit primarily rests with adult caregivers. Responsive parents know how to adjust their strategies based on their child's temperament. They also actively modify the environment to match those needs.

On a practical level, goodness of fit becomes more difficult to achieve as children get older and enter environments where parents have less direct control. Parents who have adequate personal, financial, and community resources may be better able to access child care and educational environments that match their child's temperament. For example, a small nurturing preschool with a teacher who exudes warmth is likely to be a good choice for a child whose temperament is high in withdrawal. In contrast, a stimulating, fast-paced day care center may be more suitable for an active child. Such options, however, are not always available. Although parents can advocate for their child's particular temperament-related needs, the reality is that some caregivers and environments are less responsive than others. Even when environments are supportive, progressive developmental expectations often complicate achieving goodness of fit.

When goodness of fit is re-examined through the lens of self-regulation, the emphasis changes to those inevitable situations that occur when a child's temperamental tendencies are challenged by environmental demands. If self-regulation is malleable, as the descriptive literature suggests, deliberate strategies could be implemented to enhance it. Children will indubitably encounter situations that cause them some degree of uneasiness due to their temperament. To achieve goodness of fit under such circumstances, caregivers can scaffold the child while gently implementing strategies intended to expand the child's emotional, attentional, and behavioral repertoire. For example, a child whose temperament is low in task persistence is likely to have difficulty independently completing multi-step tasks or assignments. A responsive caregiver will simultaneously relay acceptance of the child's temperament while gently assisting him or her in completing the tasks through a series of incremental steps. Positive recognition of the effort involved and acknowledgement of the various stages of accomplishment are likely to stretch the child's self-regulatory tendencies. Although the child's temperament will remain low in task persistence, after repeated episodes of caregiver intervention, he or she may learn strategies that can be generalized across similar situations. Over time, children can use cognitive strategies to deliberately override their own emotional, attentional, and behavioral tendencies. The same painstaking approach can be self-administered by an adult who experiences discomfort in situations that are not a good match with his/her temperament.

Science seldom advances by leaps and bounds. Instead, small incremental steps are usually preceded by painstaking work. When viewed retrospectively and comprehensively, temperament-based intervention has made progress in the last decade. An optimistic forward glance promises further developments in closing the gap between descriptive research and temperament-based intervention that is integrated into practice.

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Appendix A

INSIGHTS: Curriculum Outline for Parents and Teachers

Part 1: The 3 Rs of Child Management: Recognize, Reframe, and Respond

Session One: Recognizing Child Temperament—The program begins with a welcome from the facilitator and the opportunity for the participants to introduce themselves and explain why they have chosen to take part in the program. The facilitator then presents an overview of the program and discusses the need for consistent attendance and the importance of keeping session discussions confidential in order to maintain trust among the participants. The content of the session includes a discussion of the major concepts of temperament its biological basis, resistance to modification, manifestation in situations involving stress and change, and relationship to goodness of fit Vignettes demonstrating the four dimensions of school-age temperament are shown. Participants are asked to observe the children during the week for expressions of temperament

Session Two: Reframing Child Temperament—The participants are given a computer generated temperament profile of the children that is based on the information that they provided at baseline. They then discuss how the temperament profile does or does not match their intuitive impressions. Strengths and concerns regarding particular child temperaments are discussed For example, a child who is high in approach is eager to meet new people and try new activities. His/her parents and teachers, however, might be concerned about safety of such a child. The participants are asked to observe the children's behavior and their own response to a situation that occurs during the week.

Session Three: Parent and Teacher Responses—Vignettes in this session demonstrate how parent and teacher responses lead to different adult/child interactions. The participants learn to identify their responses as optimal, adequate, or counter-productive. The importance of the manner in which messages are spoken or delivered is also discussed.

Part 2: Gaining Compliance

Session Four: Gaining Control—The session focuses on how parents and teachers can gain compliance through effective child management techniques. Individual contracts for dealing with identified behavior problems are designed. Homework includes implementing the contract and reporting results in subsequent sessions.

Session Five: Giving Recognition—The importance of recognition is stressed in this session. Examples of reinforcements are discussed, demonstrated in the vignettes, and role-played in modeling exercises.

Session Six: Disciplining School-Age Children—General principles of discipline are discussed in this session. Vignettes display some of the common behavior problems that school-age children often exhibit. Guidelines for using time-out are presented Strategies for dealing with children who are high or low on the temperament dimensions are emphasized. The parents and teachers develop a discipline plan for isolated incidents which they are encouraged to implement consistently.

Session Seven: Parents and Teachers Are People, Too—Gaining compliance is still emphasized in this session, but adult needs are also discussed. Strategies to implement time-out for participants are explored.

Part 3: Giving Control—Sessions Eight Through Ten

Session Eight: Fostering Independence—The developmental need of school-age children for independence is explored in this session. Vignettes demonstrate age-appropriate activities and child management strategies to foster responsibility and life-style habits.

Session Nine: Reviewing the Three Rs—Content from session one through three is reviewed. The participants are engaged in identifying the three Rs in vignettes depicting more complex disciplinary situations.

Session Ten: Putting it All Together—The content of sessions four through seven is reinforced. Vignettes demonstrating more complex behavioral problems are shown. Parents and teachers are given the opportunity to model their responses. Completion certificates are given to the participants.

Biographies

Sandee McClowry is a Professor in Applied Psychology and Teaching & Learning at New York University. She is the developer of INSIGHTS into Children's Temperament and is the principal investigator of the studies that have tested its efficacy.

Eileen T. Rodriguez is a doctoral candidate in Applied Psychology at New York University. Her research focuses on the social and cultural contexts of children's early learning trajectories and their subsequent school readiness. She is also adapting the INSIGHTS program for Spanish-speaking Latino parents of school-age children.

Robyn Koslowitz is a doctoral candidate in Applied Psychology at New York University. Her research focuses on foregrounding culture as a lens for intervention in community and school psychology. She is currently adapting the INSIGHTS program for use with Orthodox Jewish populations. Mrs. Koslowitz is currently a predoctoral psychology intern at Trinitas Hospital.