

CLINICAL CASE APPLICATIONS

Testing the Effectiveness of Family Therapeutic Assessment: A Case Study Using a Time-Series Design

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We describe a family Therapeutic Assessment (TA) case study employing 2 assessors, 2 assessment rooms, and a video link. In the study, we employed a daily measures time-series design with a pretreatment baseline and follow-up period to examine the family TA treatment model. In addition to being an illustrative addition to a number of clinical reports suggesting the efficacy of family TA, this study is the first to apply a case-based time-series design to test whether family TA leads to clinical improvement and also illustrates when that improvement occurs. Results support the trajectory of change proposed by Finn (2007), the TA model's creator, who posits that benefits continue beyond the formal treatment itself.

Recent case examples have emerged in the literature illustrating the benefits of Therapeutic Assessment (TA) with children and parents (Hamilton et al., 2009; Handler, 2007; Smith & Handler, 2009; Smith, Nicholas, Handler, & Nash, 2009; Tharinger, Finn, Wilkinson, & Schaber, 2007). These case examples provide evidence about the potential efficacy of the TA model. However, studies with rigorous statistical examination have yet to be conducted apart from an aggregate, single group, pilot study (Tharinger et al., 2009) that found treatment acceptability with children and families using the family TA model.

In this article, we seek to fill this gap in the literature by using a time-series design to examine the TA model with a 9-year-old boy and his family. We hypothesized a reduction in the child's problem behaviors and family distress following participation in a family TA. A daily measures time-series design was used to examine the treatment protocol. Time series is especially suited for examining treatment efficacy of TA because it can provide information about the trajectory and possible mechanisms leading to change in the treatment model. We divide the presentation of this study into two parts: In Part 1, we present a family TA case study with a 9-year-old boy, his mother, and stepfather, along with a brief description of the family TA model and its component parts. In Part 2, we describe the research aspects of the case including the time-series design and procedures as well as the data analysis, results, and discussion.

PART 1: THE FAMILY TA

Treatment Model and Procedures

The TA model has only recently been formally developed and conceptualized for work with children and families. Finn and Tonsager (1992, 1997) initially described a semistructured

TA approach, which was focused primarily on adults. Hamilton et al. (2009) and Tharinger et al.'s (2007) recent articles provide case examples and techniques specific to the family TA model (Tharinger, Finn, Austin, et al., 2008; Tharinger, Finn, Hersh, et al., 2008; Tharinger, Finn, Wilkinson et al., 2008).

In this case study, we followed the comprehensive, two-assessor family TA model as described in greater detail by Finn (2007), Tharinger et al. (2007), and Hamilton et al. (2009). We used two adjacent treatment rooms. Through a closed-circuit video link, the parents and N. J. Wolf observed the assessment of their child by J. D. Smith in an adjacent room.

The family TA model begins with an initial meeting to establish assessment questions and gather background information relevant to those questions and the presenting problems. The next two to four sessions include the administration of assessment instruments to the child (and parents when appropriate) using self-report and performance-based instruments to assess issues relevant to the family's assessment questions. The family then participates in a family intervention session, hereafter referred to simply as a family session (Tharinger, Finn, Austin et al., 2008). Family sessions (a) allow the assessor to observe the child in the family context while testing out systemic hypotheses, (b) help parents develop a systemic view of the child's problems, (c) provide an opportunity to test out possible interventions and provide the family with a positive experience of family therapy, (d) foster positive family relationships (Tharinger, Finn, Austin et al., 2008), and (e) provide an opportunity for problems to be worked through in the room with the assessor (Finn, 2007). Then parents are presented with feedback in a Summary/Discussion session, according to the feedback approach described by Tharinger, Finn, Hersh et al. (2008). The child receives feedback in the form of a personalized story or fable (Tharinger, Finn, Wilkinson et al., 2008), which is more easily absorbed than direct feedback. Last, the entire family returns for a follow-up session to discuss existing issues in the family and reevaluate previous recommendations as well as formulate a new approach, if necessary (Finn, 2007).

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We describe each family TA component in greater depth as the case material is presented.

At the beginning of each session, we (J. D. Smith and N. J. Wolf) met briefly with the parents to prepare them for the upcoming session. Test materials (i.e., Rorschach cards, Exner, 2003; Sentence Completion Test for Children, Haak, 2003; etc.) that were to be administered to the child during the session were also present in the observation room for the parents and N. J. Wolf to discuss in conjunction with what was happening in the testing room. Some instruments that are typically given to the child to complete on his or her own (i.e., the Millon Pre-Adolescent Clinical Inventory [M-PACI; Millon, Tringone, Millon, & Grossman, 2005] and the Sentence Completion Test for Children) were administered orally so the parents and the assessor in the observation room could hear the child's responses.

The last 1/2 hr of each session was reserved for "miniconsultations" (Tharinger et al., 2007) between the assessors and parents. Mini-consultations are important because they (a) enhance the relationship between the assessor and the parents, (b) allow the assessor to gain valuable information about the responses that only the family can provide, (c) increase the family's curiosity about the child and his or her problems, and (d) allow the assessor to provide small amounts of feedback as the assessment unfolds. As the parents and assessors discuss the session, the child is allowed to play in the testing room.

Presenting Problem

Prior to meeting with us, the family completed an intake interview conducted by a master's level student therapist. The family moved from Cincinnati after the mother's divorce from her previous husband. The parents' original complaint was the aggressive behavior of their son Jeff¹ (age 9). Jeff's mother, Sarah, and stepfather, Dan, reported that Jeff was quickly provoked to a state of anger and became verbally and physically abusive toward his family members. These problem behaviors were reported to occur only at home. Dan was especially concerned about the behaviors in the home because he sold insurance from a home office and was the primary caretaker of the children. Jeff's behavior at school had never been an issue, and he earned very good grades. He was also well behaved during the intake. He was shy, yet polite, and cooperative. His parents reported that Jeff has an older sister who was also sometimes the target of Jeff's aggression. During this session, Sarah and Dan gave their informed consent to participate in treatment, and Jeff granted his assent for participation in the treatment. Consent and assent to participate in the research aspects of the study were obtained in the following session. Following the intake interview, the case was referred to J. D. Smith and N. J. Wolf, who contacted Jeff's mother by phone to schedule their first session. Unfortunately, Dan was unable to attend the first meeting but did participate in each of the remaining sessions.

Session 1: Initial Meeting With the Mother

The three specific goals of the first TA session are to (a) enlist the parents in a collaborative relationship with the assessors,

(b) formulate assessment questions, and (c) gather sufficient background information about the presenting problems as a way of allowing the assessors to begin to hear the parents' story about the child (Finn, 2007). At the beginning of the session, Sarah was asked whether she wanted to participate in the research aspects of this study. The family was given a reduced-fee assessment for participating in the research. The treatment model and research aspects were explained, and she granted her consent to participate.

We were able to develop a collaborative relationship with Sarah during the initial session and generate a detailed story of Jeff's problems. She initially appeared anxious, but the collaborative atmosphere seemed to help her relax eventually. Toward the end of the meeting, she was open with us, expressing a variety of strong emotions when talking about her relationship with her son (e.g., frustration, resentment, and guilt). Collaborating with the family enhances parents' curiosity about the nature of their child's problems and provides additional information about the family context, from which the findings are then interpreted (Finn, 2007; Tharinger et al., 2007).

Sarah described a family in a constant state of conflict; for her, the cause was Jeff's "hateful behavior." She described a number of violent quarrels that had recently occurred between Jeff, Dan, and her. Each fight followed a similar pattern of quick escalation, resulting in Jeff screaming at his parents, throwing things, and hitting family members. These conflicts between Jeff and a parent often ignited conflict between Sarah and Dan as well. Sarah stated that occasionally Jeff was upset, ashamed, and remorseful following these incidents, especially when the arguments generated conflict between the parents. Sarah reported feeling that her son was destroying her marriage, forcing her into a position in which she felt she had to choose between her marriage and her son. Severe conflicts involving the entire family occurred several times a month, and Sarah stated that without intervention, she feared they would continue to become more frequent and more severe. She reported that Jeff had "anger outbursts" and displays of "hateful behavior" every day, usually more than once, but that they had varying degrees of intensity and severity and did not always escalate to include the entire family.

Sarah fluctuated between trying to understand why her son frequently behaved angrily and the belief that he "had always been this way." She stated, "Jeff came out [of the womb] with a frown on his face." She expressed resentment toward what she perceived as Jeff's demand to be the center of attention, thereby consuming much of the family's emotional resources. Sarah told us that Jeff spent most of his afternoons and evenings with Dan because, as the primary financial provider, she worked long hours. Although she strongly stated that her work arrangement was necessary to support the family, she also tearfully expressed guilt about not wanting to return home after work, preferring to be away from her son. She immediately followed this by pointing out how badly her son behaved, and how much she was hurt by his words and actions. Sarah careened from anger to guilt and back again when discussing Jeff, communicating an anxious and tenuous connection with him.

Together, Sarah and J. D. Smith and N. J. Wolf worked to develop questions that would guide the assessment and would hopefully be answered at the completion of the TA: Why is Jeff so angry? Where does his anger come from? Why does his anger escalate to where it does? Why does it happen so quickly? Why does Jeff's anger seem directed at me? What is Jeff's diagnosis?

¹ All names and other potentially identifying information have been changed to sufficiently disguise the family's identity. Additionally, the family gave the authors permission to write about their experience in de-identified form.

Does he have attention deficit hyperactivity disorder? Why does he seem to forget about his anger?

Session 2: First Test Administration Session With Jeff

According to the TA framework, test administration with the child typically occurs in the next three to four sessions, depending on the presenting problems. The primary goals of the test administration sessions are to (a) administer the selected tests according to their prescribed protocol, (b) utilize additional methods of gaining information such as an extended Inquiry (Handler, 2005) and Testing of the Limits (Handler, 2005, 2008), and (c) establish a working relationship between the assessors and the family. Additional procedures, after completing the standard administration, are a way for us to better interpret the content of the test data and understand the child and his or her problems. This work also aids the parents, as they observe their child being tested with instruments with which they are unfamiliar. In addition, asking the child open-ended questions about his or her test responses and experiences engages the child and cultivates curiosity about himself or herself (Finn, 2007; Handler, 2007). Typically, the assessor attempts to maintain the standard administration procedures of each instrument so that normative inferences can be made prior to utilizing other follow-up methods. However, it is not uncommon in TA for the assessor to forego standard procedures. In this case, any derivations to the standard procedures are noted.

At the beginning of our first testing session with Jeff and his parents, we showed the family the video link setup in the two adjacent rooms. We also explained to Jeff that his mother and stepfather would be observing the testing and might even participate in later sessions. At this time, we obtained assent for the assessment and for his mother and stepfather observing over the video link. Jeff agreed and seemed delighted that his parents were going to be involved. It was evident to the assessors that Jeff relished the opportunity to be the focus of our attention. He had previously assented to assessment during the intake procedures, but the assessors felt it was necessary to do so again, now that his mother and stepfather would be observing the testing.

We began with the Wechsler Intelligence Scales for Children-Fourth Edition (WISC-IV; Wechsler, 2003). Sarah and Dan noticed that Jeff was doing well and were complimentary of his aptitude, sharing instances from their own experiences when they were impressed by his ability to retain and recall detailed information. They both reported that Jeff takes pride in “being smart” and recognized how fragile this feeling can be when he encounters problems requiring perseverance.

Sarah had mixed emotions about her son’s keen intelligence. Although she admired Jeff’s abilities, she also said Jeff often belittled her: “He treats me like I don’t know anything.” She acknowledged that she might be reinforcing this interaction by letting him talk to her this way. Sarah appeared to the assessor to be preoccupied with seeking Jeff’s approval, and this seemed to interfere with her ability to connect with his underlying struggles.

Sarah and Dan both expressed astonishment about Jeff’s concentration and ability to work cooperatively with the assessor. They attributed his prosocial behavior to the amount of attention he was receiving. With considerable disdain, they discussed Jeff’s relentless need for attention. Dan described Jeff’s yearnings for the spotlight as “The Jeff Show.” Sarah expressed

resentment about her son’s gestures for her attention, stating that she wished Jeff would be more aware of, and concerned about, how exhausted she felt most of the time.

The assessors scored the WISC-IV immediately following the session. Timely assessment scoring is essential in TA because it serves to guide subsequent sessions (Finn, 2007). In this case, the results of the WISC-IV provided the assessors with important information about Jeff. His Full Scale IQ (FSIQ), 123, places him in the Superior range of intellectual functioning. His highest subscale score was on Verbal Comprehension Index at 134, which is in the Very Superior range, followed by Processing Speed Index at 121, in the Superior range. His other subscale scores, Perceptual Reasoning Index 106 and Working Memory Index 107, were in the Average range and represented comparative deficits. This information lends itself well to Sarah and Jeff’s reports of his school performance. Each indicated that his grades were very good, especially in spelling and reading. However, despite above average grades, Jeff reported that math was his most difficult subject. Clearly Jeff is very intelligent; test data fit Sarah and Dan’s understanding and also Jeff’s intellectual pride.

Session 3: Second Test Administration Session With Jeff

We began the second test administration session with several self-report and performance-based tests with the hope of shedding light on the factors contributing to his anger problems. We began with the M-PACI (Millon et al., 2005), which was administered orally to Jeff so his parents could follow along. Results of the M-PACI (Table 1) are largely consistent with Jeff’s presenting problems and provide support for the “story” communicated by his parents.

Jeff’s high Unruly (79; base rate [BR] Score >70 = Clinical Range) and Outgoing (79) scores suggest that he has an emerging personality pattern of a mischievous boy who is able to cloak an underlying fear of criticism with friendliness and sociability. Below the surface is an angry boy prone to impulsivity, anger outbursts, poor judgment, and stubbornness, as evidenced by his scores on the Unruly (79), Disruptive Behaviors (91), Conduct Problems (68) and Unstable (67) scales. The high BR score on Disruptive Behaviors (91) indicates that Jeff has been acting out and is prone to develop severe conduct problems. The results also suggest that his current difficulties stem from family problems, as evidenced by his responses to family-related items. His family relationships are characterized by manipulation and power struggles, which trigger his anger outbursts. He reports difficulty showing affection for people he cares about.

TABLE 1.—Jeff’s Millon Pre-Adolescent Clinical Inventory at baseline.

Emerging Personality Patterns	BR Score	Current Clinical Signs	BR Score
Confident	72	Anxiety/fears	28
Outgoing	79	Attention deficits	53
Conforming	65	Obsessions/compulsions	37
Submissive	40	Conduct problems	68
Inhibited	55	Disruptive behaviors	91
Unruly	79	Depressive moods	56
Unstable	67	Reality distortions	0

Note. Base rate = BR. BR score 60 to 69 = borderline range, BR score > 70 = clinical range.

TABLE 2.—Jeff's Behavior Assessment Scales for Children, second edition, at baseline.

Reporter	Composite Score Summary T Score (Percentile Rank)			
	Jeff	Sarah	Dan	Teacher
School Problems	70 (96)	—	—	45 (34)
Externalizing Problems	—	86 (99)	76 (98)	60 (86)
Internalizing Problems	50 (56)	60 (85)	64 (91)	47 (46)
Inattention/Hyperactivity	55 (72)	—	—	—
Behavioral Symptoms Index	—	66 (93)	74 (97)	55 (74)
Emotional Symptoms Index	52 (64)	—	—	—
Personal Adjustment	42 (18)	—	—	—
Adaptive Skills	—	47 (38)	31 (3)	55 (67)

Note. T score ≥ 70 indicates clinical range, T scores from 60 to 69 indicate at risk range. For Personal Adjustment and Adaptive Skills, T Score < 30 = clinical range, 30 to 39 = at risk.

These results suggest he has a difficult time maintaining close relationships and genuine connection with others because of his anger, resentment, and fear of judgment from others.

Results of the Behavior Assessment System for Children, Second Edition (BASC-2; Reynolds & Kamphaus, 2004), as reported by Jeff, Sarah, Dan, and Jeff's teacher, are presented in Table 2. Disagreements in these scores are worth examining. Jeff reports school problems as his highest area of difficulty, despite his high FSIQ and above average grades. However, his teacher did not report externalizing problems or behavioral symptoms at school. These divergent scores may be related to Jeff's feelings about school; he reports that he dislikes school very much, often wishing to be elsewhere. Jeff believes his teacher is unfair and uncaring. Despite these feelings, he appears able to maintain appropriate behavior at school.

Jeff's score on Relations with Parents, a subscale of the Personal Adjustment composite, falls in the At-Risk range ($T = 38$) and appears to be connected with the strain he feels between himself and his family, perhaps experiencing himself as incidental to family life. When these results are integrated with the M-PACI, Jeff's view of himself becomes clearer. He attributes many of his difficulties and shortcomings to external sources, such as his school, his teacher, and his family. Jeff's low Personal Adjustment score on the BASC-2 is consistent with his M-PACI profile, which suggests that he is unable to connect to others because of his anger, resentment, and intense underlying fear of being emotionally wounded.

Sarah and Dan's reports on the BASC-2 indicate that they understand Jeff's emotional and behavioral difficulties differently. Although they agree that Jeff has high levels of Externalizing Problems (including aggression, hyperactivity, and conduct problems), Internalizing Problems (predominantly depression), and Behavioral Symptoms (such as atypicality), they have differing views of Jeff's problems areas. Sarah judged Jeff's Adaptive Skills higher than did Dan (38th percentile vs. 3rd percentile, respectively). Importantly, both these ratings of Adaptive Skills are in stark contrast to the very high score reported by his teacher (67th percentile), which supports Sarah and Dan's notion that Jeff's problems are predominantly confined to the home. In general, Sarah and Dan agree on their view that Jeff has severe behavioral and externalizing symptoms. Perhaps because Dan spends more time with Jeff, and he is Jeff's stepfather, he reports fewer adaptive skills and more behavioral problems. Both

parents also recognized Jeff's internalizing problems, which he did not report.

While Jeff worked on the assessment tasks, Sarah and Dan discussed his developmental history with N. J. Wolf. Several aspects of Sarah's account suggest that she was unable to foster a secure attachment with Jeff during infancy. During the first months of Jeff's life, Sarah suffered postpartum depression and had little support from her now ex-husband. Jeff was a colicky baby, and Sarah recalls that her mother-in-law, who was living with the family, was critical of her for not being able to soothe Jeff. Jeff's older sister was a toddler at the time, and Sarah felt that she did not have the resources to care for two small children. During this time, she was also extremely exhausted from a medical condition. When Jeff was 8 months old, her medical condition had progressed to a life-threatening stage, and she underwent several surgical procedures to correct this problem. As a result, Jeff was weaned from breast-feeding prematurely and was immediately given to his grandparents for care. Jeff did not see his mother for several months. When she returned, Sarah described herself as being "out of it" for a long time, not sure if she was going to live, which she admits affected bonding with her children.

Following this discussion, Sarah and Dan observed Jeff being administered the Early Memories Procedure (Bruhn, 1992). The child is asked to try and remember specific events they remember having actually occurred. Important themes involving Jeff's family included loss ("My dad sold our horses, it was a tragic loss."), feeling unsafe ("I was sleeping and my sister came in and hit me. I was crying and my dad came in saying, 'What's happening?'"), and hurting his older sister (e.g., "pulling my sister's hair up and down like plunging a toilet," and "getting a tiny soft bat that I used to hit my sister with"). Both parents seemed more concerned with the accuracy of the memories than their meaning. However, they were affected by a memory in which Jeff depicted his father as a big man with large hands. He stated, "I remember him tossing me up in the air and then coming back down. Then we went for a walk down to the pond, and his hands were huge, but mine were so little. He could have crushed my hand at any time." Sarah commented that Jeff's father is a petite man, and seemed surprised that Jeff saw him as powerful. One possible interpretation of large hands might be that Jeff sees adults as having too much power over him, leaving him feeling powerless or vulnerable around grown-ups.

This conversation seemed to refocus Sarah's attention from Jeff's actions to the emotional turmoil beneath the surface. The conversation about Jeff's biological father also encouraged Dan to confide that he feels "hurt" when Jeff compares him to his biological father. Dan stated that Jeff could make him feel as though he is "the worst person in the world," even though Dan tries to be involved and connected with the boy. N. J. Wolf empathized with Dan and also reminded him of the importance of his presence in Jeff's life as a constant and stable caregiver.

J. D. Smith then orally administered the Sentence Completion Test for Children (Haak, 2003) while the parents followed along in the observation room. Although many of these responses are typical of a boy Jeff's age, notable responses are presented: If I were bigger, *I would be stronger*. When I get mad, *I try to control myself but usually it doesn't work*. I can't understand why *I get mad so quickly or easily*. I want to be like *Superman, the strongest man on earth*. My hands are *free willing*. (Meaning

his hands do what they want). I feel terrible when *I hurt my mom's feelings*. Mothers don't need to be going to work.

Jeff's responses seem to illustrate his understanding of his anger problems. He also expressed the wish that he had more control over himself and his environment, as evidenced by his wish to be stronger, like Superman. He also expressed to his mother two issues that she had not previously heard or felt from Jeff. He indicated feeling terrible when he hurt her, and that he wished she were home more often. Sarah was surprised by Jeff's guilt, but she was somewhat defensive in response to Jeff's wish for her to not have to work. In the previous session, she had expressed her wish that Jeff would be more understanding of her exhaustion and sacrifice for the family, a theme that was present throughout Sarah's narrative.

Although Jeff's House-Tree-Person Test (Buck, 1966) seemed to be symbolic of his internal conflict and turmoil, initially Sarah and Dan focused on Jeff's artistic ability rather than on what the drawings could tell us about him. His house (Figure 1) is very simple, lacks perspective, and has only one window, with a ragged curtain, which we interpreted as an indication of conflict and turmoil within the family. The curtain might be interpreted as Jeff wanting to hide what happens in the home, suggesting potential shame about what occurs there. His tree (Figure 2) is also very simple and even incomplete. A long-held interpretation about trees drawn with holes is the presence of trauma (Buck, 1966). One of the themes of Jeff's story about his tree involved the mother squirrel gathering food for the baby squirrel that resided in the hole in the tree. The presence of fruit is often interpreted as a desire for nurturance (Hammer, 1958). Jeff's story about the squirrel providing food for her baby might be seen as representative of his difficulty attaining nurturance from an absent or preoccupied mother.

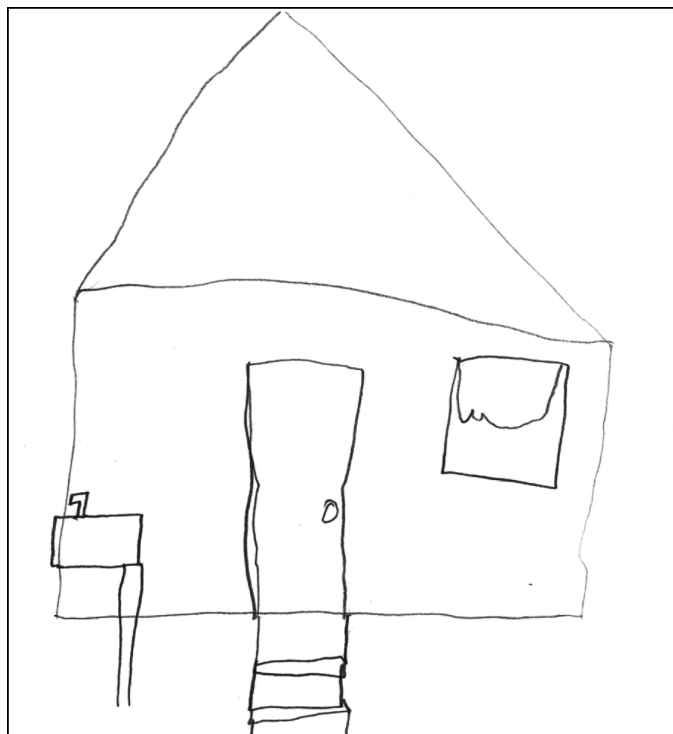


FIGURE 1.—Jeff's house drawing.

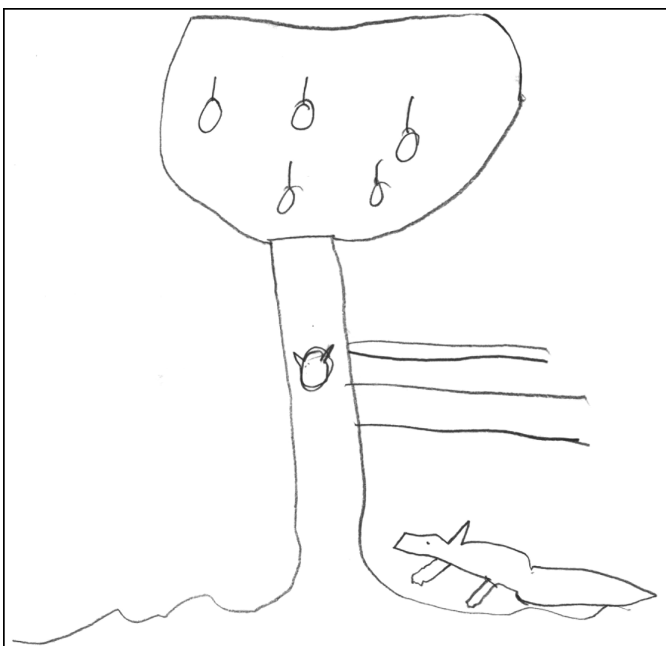
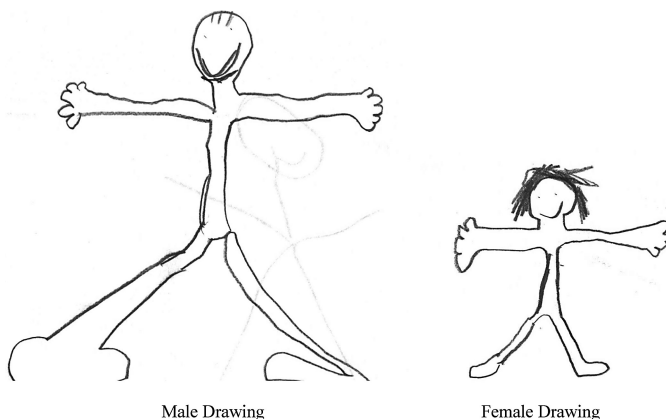


FIGURE 2.—Jeff's tree drawing.

Jeff's drawings of the male and female (Figure 3) lack clothing, proportion, and detail. They are intentionally placed together to show the difference in size of the drawings. The female figure is very small, compared to the male, probably reflecting Sarah's initial concerns about why Jeff seems to have problems with female authority figures, especially her. One striking feature of the male drawing is the large feet that run off of the page. They appear to be stationary, almost bolted to the floor. This may be an indication that Jeff feels as though he has no internal locus of control and is rather at the mercy of his environmental forces, a feeling also reported in the M-PACI. Additionally, the size difference between the male and female, as well as the largeness of the male's feet, might represent Jeff's apparent defensive grandiosity. A number of alternative interpretations could be generated from these drawings. The ones presented here are those that appear most central to the emerging story about Jeff.



Male Drawing

Female Drawing

FIGURE 3.—Jeff's draw-a-person drawings.

Session 4: Third Test Administration Session With Jeff

This session included the Rorschach Inkblot Test (Exner, 2003) and the Fantasy Animal Game (Handler & Hilsenroth, 1994). Jeff was energized by the tasks during this session, much more so than in previous meetings. This behavior provided the assessors with an illustration of Jeff's ability to remain in control of his emotions even when he seems "worked up."

We examined Jeff's Rorschach Sequence of Scores (Appendix A) and Structural Summary (Appendix B). His scores are followed in parentheses by means and standard deviations from the Meyer, Erdberg, and Schaffer (2007) international child and adolescent reference sample, a composite of 1,257 subjects from 19 samples in five different countries. Despite a general stability in their findings across age and country, scores found to be unstable across samples have been noted so they can be interpreted more cautiously. Jeff gave 21 responses (22.71, 8.09) with a Lambda of .50 (unstable reference: 3.24, 4.10). Jeff's WSum6 (Weighted Sum of Special Scores) score of 42 (7.09, 7.82) suggests his thought processes result in arbitrary and confusing conclusions about events in his life, leading to behaviors incongruent with the current situation. Jeff's 10:0 active to passive movement (a:p) ratio (3.49, 3.23:2.21, 2.16) suggests cognitive inflexibility that hinders contemplation and decision making because of a preference to hold onto long-held beliefs, making adaptation difficult (Weiner, 2003). Similarly, his EB ratio (effective use of ideation without undue emotionality) of 1:5.0 suggests a maladaptive preference to deal with events affectively rather than ideationally and a tendency to solve problems in an action-oriented style (Weiner, 2003). The test findings concerning Jeff's inflexibility, tendency to draw confusing conclusions, and action-oriented problem solving are consistent with Sarah and Dan's current beliefs about their son.

Many of Jeff's Rorschach findings suggest a deficit in interpersonal relationships. The seven Aggressive (0.27, 0.70) and four Morbid (0.72, 1.24) scores indicate that Jeff anticipates adversarial interactions from others and that he might identify with the aggressor. Weiner (2003) suggested that identification with the aggressor may be used as a defensive maneuver, protecting against self-perceptions of vulnerability and dysfunction. High Morbid scores might also suggest the presence of depressive symptoms (Weiner, 2003). The adversarial posture Jeff takes with others is also evident from the 2:10 Good Human Response:Poor Human Response ratio (2.48, 1.85:3.01, 2.59), which suggests involvement in ineffective and conflictual interactions with others (Weiner, 2003).

Not surprisingly, a number of Jeff's responses involved themes of aggression and conflict. For example, on Card III, response 2, he said, "I see two people with rocks in their hands, trying to toss it at each other and they have pet dogs doing flips in the air . . . or they just have big hands." The aggressive material is obvious, but the more subtle reference to "big hands" reminded us of Jeff's early father memory. Two other examples are Card VI, response 11, "Two ants with very large abdomens, fighting and yelling at each other with horns on their heads"; and Card X, response 21, "two little green things and a dead thing. That part is some kind of a bug that has died and they are fighting over it because whoever doesn't get it will die of starvation." In addition to the overt aggression, response 21 provides evidence about what Jeff feels in regard to conflict. He suggests that there are dire consequences at stake and feels that he has to

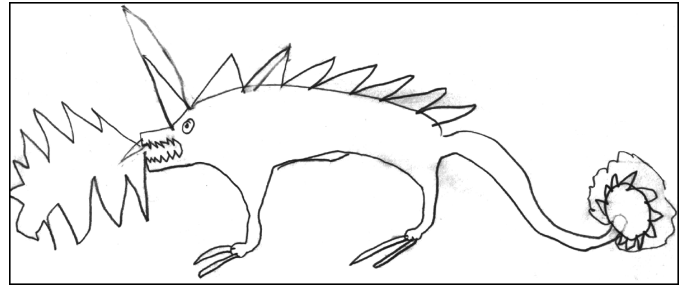


FIGURE 4.—Jeff's fantasy animal drawing: the Craneosoarus.

do what is necessary to acquire nurturance and stay alive, even eating carrion. We felt this might be why Jeff's anger escalates so quickly and his behaviors have become so dramatic.

The instructions of the Fantasy Animal Game are quite simple: Draw a make-believe animal, one that no one has ever heard of or seen before (Handler, 2007; Handler & Hilsenroth, 1994). Jeff's drawing (Figure 4) was of a large creature resembling an armor-plated dinosaur with a spiked ball at the end of its tail. His initial drawing did not contain the creature's claws, horn, fire-breathing ability or fireball tail. He called it Craneosoarus. I then asked Jeff if he could tell me a story about the Craneosoarus. J. D. Smith began the story for him, "Once upon a time, . . ." and then pointed to Jeff to take over.

"One day a little Craneosoarus boy was walking around and this pack of hungry wolves came charging after him. He ran for his life as fast as he could." At this point, Jeff had not drawn spikes on his tail and he only had a tiny little horn, to which he amended his drawing, adding these features. Jeff continued:

He ran fast, but the wolves were too fast for him. They chased him to the edge of a cliff and Craneosoarus turned to them, and with his giant claws he began to claw at the dirt, throwing it into the air all around him.

When the dirt settled, the wolves were still there, so he started to breathe flames toward them [which he added to his drawing] even though he wasn't supposed to have flames yet at this age. He burst flames out and then all the wolves were killed. Then the Craneosoarus tried to run away. He was badly hurt because the wolves had gotten a hold of his legs during the chase, so he wasn't very fast. He ran into a man who offered to help him, but when he got close, the man grabbed him. He took him to a center and healed him. Then after that, the man always tried to train him to breath fire and grow spikes like he had when he fought the wolves. But Craneosoarus couldn't because it was only when under pressure that he breathes fire. Then one day, the man got so frustrated with Craneosoarus for not breathing fire that he got another animal to attack him! When Craneosoarus was attacked, the spikes shot out of his tail, the spikes on his back grew upward, and the horn on his head got bigger. Then he rolled into a ball and breathed fire at the attacker. This didn't work, so he began to spin wildly with fire going in every direction and his spiked tail ready to hit anything in its path.

Jeff's story continued with the Craneosoarus being confronted by more and more dangerous creatures. With each encounter, he developed a more elaborate means of fending off the attacks: He would grow bigger claws, more spikes, or develop new behaviors to protect himself. As his defensive efforts intensified, they

became more and more destructive. The last creature Craneosoarus encountered was very big and strong, and his defensive behavior destroyed everything, not just his attacker. Jeff also said that Craneosoarus himself was destroyed by this behavior. His attempt at self-protection had not only resulted in the annihilation of his attacker but also in complete self-destruction. Jeff's story seemed to communicate a fear and related belief that he must be big, strong, powerful, and frightening to protect himself, even from people who care for him. It also suggests that Jeff does not possess adaptive ways of resolving conflict; he must trust no one and fight to the finish even though his need to protect himself results in total chaos and self-destruction.

As Jeff told the story about the Craneosoarus, his words became progressively louder and more rapid. He began to move around the room, waving his hands and arms, making sound effects to emphasize the struggle between the characters in his story. While watching this over the video link, Sarah, with strain in her voice, said that Jeff could be very exhausting at times. She stated, "I get tired just watching him." N. J. Wolf, watching along with her, was able to empathize with Sarah and validate her experience: It often takes a lot of energy to keep pace with both Jeff's enthusiasm and anger.

We reconvened with Sarah and Dan to discuss the story. They talked about its thematic interpretation: Jeff seems to be fearful of his vulnerability, constantly feeling under attack, and hopeless about an effective resolution. His way of defending himself is to develop more elaborate and aggressive means of dispelling this perceived threat, but this approach comes at the cost of destruction to his environment and even to himself. The assessors felt that to some degree, Jeff was aware that what he does with his emotions causes problems for him in the family. It also appeared that Jeff felt as though he lacked an alternative; he had no choice but to constantly fight back. Sarah and Dan confirmed these interpretations by saying that his behavior had become worse and more destructive in recent months. We hoped this story would convey to Sarah and Dan that Jeff's behavior related to a deeper, internal turmoil and conflict, and that he lacked the resources to effectively manage these feelings and behaviors.

Session 5: Developmental History Session With Sarah and Dan

During the following week, Sarah and Dan met with N. J. Wolf to obtain a comprehensive developmental history. Additional material relevant to Jeff's development was obtained during the other sessions as well. However, a pivotal event occurred during this session. In the week before this session, Jeff had another severe outburst. Thinking that it would be helpful for us to see Jeff's behavior, his parents videotaped the incident and brought a copy to the session. The videotape showed Jeff screaming and threatening to hit his sister and mother with a hairbrush, while Dan followed him around the house with the camera. Jeff threw pillows at the camera and screamed at Dan to leave him alone. Dan and Sarah also seemed to exacerbate Jeff's rage by taunting him and saying that they were going to show this to us so we could see how bad he was. They showed the video to N. J. Wolf, with what appeared to be a conviction that they had proven Jeff to be unmanageable.

At this time, they did not readily acknowledge their own feelings about the video, besides the satisfaction of having the

assessor understand what it is like to be living with such an unruly son. N. J. Wolf validated their experience of dealing with so much stress and tension. To us, the content, and the way in which Sarah and Dan presented the video, was evidence that a continued focus on the systemic nature of the problem was needed. We realized that the videotape, and the incident contained therein, might provide a conversation point during the later family sessions (described following).

Session 6: Family Session I

Tharinger, Finn, Austin, et al. (2008) advocated the use of family sessions in TA because they (a) allow the assessor to observe the child in the family system, (b) help the child feel less blamed for his or her problems, (c) allow hypotheses and interventions to be tested, and (d) provide the parent with a family therapy experience. Tharinger, Finn, Austin, et al. (2008) described the process of structuring family sessions to specifically address the role of the family system in the child's problems. With this family, we as the assessors chose to conduct two family sessions.

During the first family session, we wanted to incorporate the video as a therapeutic tool to help the family begin to learn how to resolve the frequent, ongoing conflicts in their home. This decision was made for several reasons. First, by bringing us the video, we felt Sarah and Dan wanted to convey the gravity of the conflict they were experiencing. In return, we wanted to recognize this and incorporate it into the treatment. Second, Jeff was aware that the assessors and his parents had viewed and discussed the video. By the report of Dan and Sarah, and from our observations, he seemed ashamed. Similarly, Sarah and Dan felt that they could have done things much better and subsequently felt embarrassed by how they had managed the situation. We wanted to address this directly and offer the family a more effective approach for dealing with the conflict, with a more positive outcome than feeling embarrassed and ashamed. Finally, in viewing a first-hand account of the conflict, it became clear to us that Sarah and Dan's actions at times perpetuated and exacerbated Jeff's frustration and anger. We wanted them to understand their role in intensifying Jeff's behaviors and then provide them the experience of being part of the solution.

The beginning of the session was disjointed because Sarah and Dan arrived very upset with each other. Things reportedly had been going very well with Jeff. However, a problem had arisen between Sarah and Dan two evenings prior to the session, resulting in a heated dispute. Sarah left their home with Jeff and his sister to stay overnight with a friend. She and the children returned the following night, but Sarah and Dan had not yet talked about what had occurred, and were still acutely angry toward each other. They admitted that they were having marital problems, which we believed might often be masked by Jeff's acting out. In the process of understanding and addressing the nature of Jeff's problems, other problems within the family system also began to emerge. We recommended marital counseling, and both parents appeared to agree with this recommendation but ultimately did not follow through. We believed that as Sarah and Dan were becoming aware of and taking ownership for the severity of the problems between the two of them, Jeff would become less of a scapegoat for the family's problems.

After we had addressed Sarah and Dan's feelings about their marriage, we reviewed what was planned for the session. We

encouraged them to talk with Jeff about the conflict captured on the videotape, and we coached them about how to interact with Jeff in a way that would allow each of them to feel connected and understood. We stressed the need to be empathic with Jeff about the feelings he experienced as he was being videotaped and also his current feelings. We encouraged them to be as open as they felt comfortable being about their own feelings. We spent a few minutes talking about how Jeff might have felt as they filmed his outburst, how he might feel now, and we modeled how to make empathic statements reflecting these feelings. When asked if they were ready to talk with Jeff, Dan, without hesitation, volunteered to go first and confidently entered the adjacent room where Jeff had been playing.

Dan sat down and addressed Jeff directly and respectfully as he explained his reasons for filming the outburst. He then asked Jeff how he felt, and patiently allowed Jeff to finish before providing an empathic response. Dan validated Jeff's feelings by expressing that he was aware of Jeff's frustration and anger. He also expressed regret about videotaping, stating that he knew this intensified Jeff's anger and prevented de-escalation. Dan also admitted to Jeff that he was embarrassed about how he had handled himself during the taping. As Sarah and the assessors watched via the video link, they remarked that Jeff seemed validated and understood by Dan. They could also tell that it was very meaningful to Jeff that Dan genuinely expressed his feelings. This was very different from the way conflict had been dealt with in the past, where Jeff often felt alone and ashamed.

After Dan returned from his talk with Jeff, we briefly discussed the positive and negative aspects of the interaction. We also praised Dan for his honesty and his genuineness. Then Sarah timidly entered the room where Jeff was playing. She initiated the conversation but assumed a more passive stance, seeking reassurance from Jeff about what she was communicating, and appearing to look to Jeff to lead the discussion. In return, Jeff appeared to distract himself by playing with the toys. On returning, Sarah expressed frustration that Jeff "blew her off" and felt that he had not heard what she said. Sarah allowed herself to be vulnerable with her son and admit that she felt some responsibility about the outcome of the recorded dispute. We recognized that this was very difficult for Sarah to do. In previous conversations with her, when she experienced guilt or responsibility, we observed her become defensive and blaming toward Jeff, as in the initial presentation of the video. We recognized that she did not do so this time and emphasized her courage. Dan was very helpful and supportive in this process by expressing to Sarah that she needed to take the lead with Jeff. She acknowledged that this was difficult for her, particularly when communicating about difficult topics.

Session 7: Family Session 2

During the second family session, we decided on a family drawing exercise to encourage positive interaction and cooperation. We began by discussing mirroring and empathic listening that we felt would help the parents interact with Jeff. We employed a version of Winnicott's (1971b) Squiggle Game, instructing Sarah and Dan to begin by making a squiggle on the paper and then passing it to Jeff for an addition. After he added something, he would then pass it back for an addition from the parent. The activity would continue in this way until the drawing was complete. Sarah volunteered to go first, despite her

reported anxiety and apprehension. We praised her willingness to begin despite these feelings. She and Jeff completed the drawing without incident. Sarah was able to mirror Jeff at times, but admitted later that it was not easy. She again expressed feeling frustrated with him. She felt that it was very hard to collaborate and connect with her son. Although we were unable to help her feel better about problems in connecting with Jeff, we were very pleased that she was able to communicate the difficulty, about which, previously, she was quite defensive, and which often led to her becoming critical and blaming of Jeff. We processed this with Sarah, and in our discussion with her emphasized how important it was for Jeff that she attempt to manage this frustration in a way that did not directly involve him such as talking with Dan. Creatively, Sarah declared that she needed a "patience lick," similar to a salt lick for deer, from which, she felt, she could attain a magical replenishment of patience. We were all able to share some laughter, and we recommended to Sarah that when she begins to feel frustrated with Jeff, she could visualize the "patience lick," to attain some distance from her immediate frustration. Dan liked the idea, and during the following session, we discovered that Sarah and Dan had begun to use this concept as a form of communication between the two of them and had developed a hand gesture to represent it.

Dan then completed the family drawing with Jeff. As they drew, there was little talking between them. Dan appeared comfortable and mirrored Jeff when necessary. This seemed to foster an unspoken connection. As Sarah watched, she commented on Dan's calmness; she was envious of his ability to be with Jeff without anxiety. When they finished the drawing, Dan returned, and we were able to communicate our observations to him. He agreed that he was not a bit anxious and enjoyed drawing with Jeff.

As we had hoped in planning the session, it appeared that both Sarah and Dan were able to have a meaningful interaction with Jeff that was free of conflict. We were also able to test out one of our key hypotheses: Jeff does not feel close to his mother or Dan most of the time, which is due in part to his behavior problems but also because Sarah and Dan have not learned ways to connect with him and make their interactions more meaningful and positive. As their metaphorical patience lick demonstrates, their new understanding of Jeff and his problematic behaviors are, in part, something to which they contribute. We took their desire to try and be patient with Jeff as a sign that their story about him was beginning to change.

Session 8: Summary/Discussion Session

In TA, assessors provide feedback to parents during a Summary/Discussion Session where they attempt to stimulate dialogue about the assessment questions that were formed during the first meeting. The session is structured in terms of how much anxiety the answer to these questions is likely to evoke in the parents. In Finn's (2007) and Tharinger, Finn, Hersh et al.'s (2008) language, feedback can be categorized in terms of "Levels of Information." Level-1 feedback is information that is consistent with the parents' currently held views. Level-1 information is readily accepted, raises little anxiety, and validates clients' external reality. Level-2 information is not wholly in disagreement with the parents' existing story, but it may require reformulation of the current view and, thus, might cause some anxiety. Information that is entirely dystonic to the parents' story is termed

Level 3. This kind of feedback has the potential to raise the parents' anxiety substantially and without the proper preparation, it might be rejected. In this case, much of the Level-3 information had already been shared with Sarah and Dan during the assessment. It was now time to present a more coherent story that they could assimilate into their existing understanding.

Finn (2007) suggested asking parents how they would answer their assessment questions now, after having seen the assessment, thereby allowing the assessors to gauge the potential impact of the finding. We began the discussion of each of their questions in this way. Sarah and Dan were able to formulate very accurate answers to the questions. We felt that by providing small amounts of feedback to the parents throughout the assessment, they had begun to view the nature of Jeff's problems more accurately and coherently.

In family TA, following this lengthy discussion of the assessment questions, the assessors typically summarize the findings in the form of a letter, written in nontechnical language that is mailed to the parents. It serves to solidify the story being formed about their child into a more cohesive, empathic, accurate, and compassionate one (Tharinger et al., 2007).

Session 9: Fable Session

Finn's (e.g., 2007) family TA model provides feedback to the child in the form of a personalized fable, written specifically for each child. Fischer (1985/1994) is largely credited with providing the first accounts of assessment feedback to children in this form. The historical roots of this approach, however, can be traced to Winnicott (1953) who described fables as transitional objects that allow the child to internalize feedback following a therapeutic experience. By doing so in the realm of fantasy, the child can test out new aspects of his or her self and is less likely to be overwhelmed by the findings, as opposed to being given direct feedback (Winnicott, 1971a). Tharinger et al. (2007) found that children who have a successful fable experience feel more understood and validated because the experience provides accurate positive mirroring.

As the session began, we asked Jeff about his experience of the assessment and whether he had felt or seen any changes since it began. He indicated that he had enjoyed the assessment and even wanted to continue with individual therapy in the future. He also reported that he did not get angry as often and that when he did, he did not think that it was as intense. Jeff's parents echoed these sentiments and also praised him for participating in the assessment and for the changes they were already seeing in him. J. D. Smith then gave Jeff and his parents the fable and read it aloud as they followed along.

AARON, THE CRANEOSOARUS: A STORY FOR JEFF

Once upon a time, there was a little Craneosoarus named Aaron. When Aaron was born, he lived with his parents and sister in a dense forest. When Aaron was still very small, his mother became ill and had to leave the forest to get help at a special Craneosoarus hospital. She was scared that she might never see Aaron and his sister ever again. Aaron was scared too, but he was very brave and stayed with the rest of the family in the forest.

Now one thing you should know is that Craneosoarus mommies usually teach their babies about emotions and to talk about how they feel and what they need, so that other people can understand and help them. Sadly, Aaron's mother wasn't able to teach him this before she

had to go to the hospital. Without his mother to teach him these things, Aaron was confused about how he felt, and he behaved in ways that he didn't understand.

There were many times when Aaron would not be getting what he needed and he didn't know what to do. Sometimes he didn't even know what he needed, which made him very confused. As time went on, Aaron began to yell more and more, and he even did things that were much worse than yelling. He often felt bad about it afterwards, but he still didn't know why he did these things. Aaron was also very sad. He felt like something very important was missing in his life, and he wanted it very badly. Mother then felt well enough to return to the forest and take care of Aaron and his sister. When she came back to the forest, Aaron's father was not very nice to her so she decided that she would raise Aaron and his sister in another part of the forest. When they got there, she met another Craneosoarus, named Dan, who had two Craneosoarus children of his own. Dan was very nice to Aaron and tried very hard to be a good caretaker to him and the rest of the family.

Aaron was very happy to have his mother back, and he liked Dan too. Aaron hadn't seen his mother in quite a long time, and it was difficult at first. Aaron didn't really know it, but he needed lots of hugs and kisses from his mother. He also needed his mother to teach him many things that he had missed out on when she was away getting better. It was hard for him to tell her what he needed and it was also hard for his mother to figure it out on her own.

Aaron was having a very hard time communicating what he felt because he had not been taught how to talk about his feelings. They would get angry at each other and Aaron would yell and throw things when he felt emotion on the inside. He was confused about what the feelings meant, but he couldn't talk about it. Dan and his mother did what they could to help him, but they, too, were angry, and very confused.

After a long time trying to help Aaron, and a lot of frustration, his parents realized they needed help and they traveled to a nearby village to talk with two wise helpers who knew a lot about Craneosoarus children. Aaron's mother and Dan didn't know what else to do about Aaron's behaviors.

The wise helpers found that Aaron's behaviors were related to how much he needed and wanted his mother. He needed his mother to teach him how to communicate about his feelings so he could feel better. The wise helpers also discovered that Aaron and his mother were both embarrassed and even ashamed of how they acted sometimes. They both realized that they could do things differently to make it better.

Aaron began to be able to talk about his feelings that he hadn't understood before. He was able to tell his mother and Dan that he was confused about his behaviors and that he needed their help to understand. Dan and his mother learned they had to be patient as Aaron learned new and better ways of handling his emotions. Aaron felt good about his parent's efforts to understand him and is trying to do things differently now.

Aaron was very happy that things were changing. Sometimes he was still confused and frustrated, but he knew how much his mother and Dan cared about him. He knew that he would have to work very hard to not go back to the way things were, and he would have to listen to his parents, because they knew a lot. Aaron and his family went home and remembered what they had learned. They tried their best to do these things. It is now time to write the rest of the story. How will it turn out?

Jeff, Sarah, and Dan were very pleased with the story. Jeff beamed with pride as he began to recognize the story was about him. J. D. Smith asked Jeff if he would like to change anything about the story. He declined, saying he liked it the way it was.

Session 10: Follow-Up Session

Finn (2007) suggested that assessors conduct a follow-up session after the completion of a TA. Finn reported that although families benefit from the experience and recommendations of a TA, many still need a “booster session” to further integrate the findings into their existing story. The assessors attempted to meet with Sarah and Dan to discuss changes they had experienced and administer posttreatment assessment instruments. Arranging this meeting proved difficult, and it eventually took place nearly 4 months after the fable session.

J. D. Smith was able to meet with Jeff, Sarah, and Dan. They reported experiencing substantial changes in the family, particularly that Jeff’s anger outbursts had decreased and he was able to regain control more quickly when they did occur. Sarah and Dan felt this change was due to their increased patience and better understanding, which they gained from the family TA. They also reported feeling closer as a family and more effective communication. To the assessor, they appeared more cohesive and less inclined to scapegoat Jeff as the “problem child.”

PART II: REPORT OF RESEARCH

Time Series in Single-Case Experimental Design

In this case study article, we sought to fill the gap in current family TA literature by employing time series, a valid, single-case methodology for studying treatment effects. Time series is an experiment because by adding treatment, the researcher has manipulated the condition, allowing comparison to the pretreatment condition. The use of a time-series design as an acceptable approach for examining treatment efficacy has been advocated for decades (Barlow & Hersen, 1984; Bergin & Strupp, 1970; Borckardt et al., 2008; Kazdin, 1992; Peterson, 2004). The use of time series in psychotherapy outcome research has a number of benefits over the large-*N* (sample size) designs that currently dominate the literature. For example, because measurements of many time-series designs are recorded on a daily basis, one can observe how change unfolds over time and potentially investigate the process and trajectory of change (Borckardt et al., 2008). Skinner (1938) commented on the advantages of single-case studies, saying they allow an experimenter to track when, how, and under what conditions behavioral changes unfold in real time. In Skinner’s view, the large-*N* paradigm in clinical research obscures the anatomy of change because of its focus on group means.

Research Design and Measures

The critical question of a time-series design is whether the client’s identified symptoms change as a result of the treatment. The simplest design for assessing change is a comparison between the pretreatment, or baseline, phase and the treatment phase.² In addition, we are interested in understanding the trajectory of change beyond the formal treatment. Time-series phase-effect analysis compares the symptom scores of two phases and determines whether the scores differ while accounting for the autocorrelation inherent in time-series data streams. Autocorrelation is the nonindependence of sequential observations. It can be said that something is auto correlated if “the value of one or

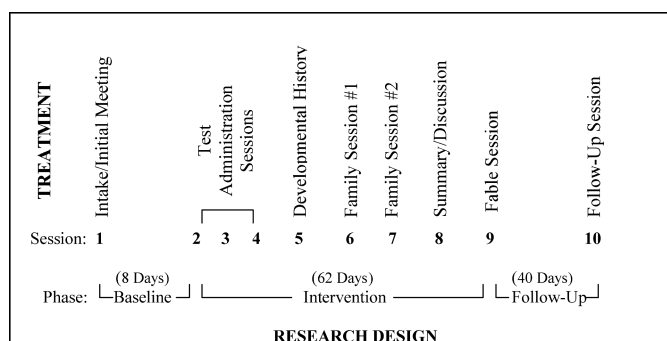


FIGURE 5.—Time line of Jeff’s family Therapeutic Assessment.

more observations depends (at least in part) on the value of one or more of the immediately preceding observations” (Borckardt et al., 2008, p. 82).

One of our aims was to implement the time-series research design without disrupting the prescribed family TA model. We closely adhered to the family TA model without adding additional sessions or much additional time. We felt this was necessary so that the family TA model could be examined as it would be applied in its usual fashion. With this aim in mind, the research design of this case study (Figure 5) was divided into three phases: Baseline, Intervention, and Follow-Up. In this particular case, the decision of how to divide these three phases was determined first by the family TA model and second as a matter of practicality. The family TA model consists of somewhat natural divisions. For example, the Baseline phase of the study is between Session 1, where only the parent(s) are present, and the beginning of the Test Administration Sessions (Session 2), where the entire family is present and active in each subsequent meeting. This session is also the first point of contact between the assessors and the child. During the initial session, a number of behaviors to be measured daily are established. In this case, daily measures were developed from the parents’ assessment questions. Identifying assessment questions is standard procedure in family TA, providing a natural segue into identifying salient, measurable dimensions of concern to the family.

We have termed the second phase of the research design the Intervention phase. This is a phase of the time-series design, which is not to be confused with the treatment being examined, which is the entire 10-session family TA model. Each of the weekly sessions lasted roughly 2 hr. However, due to unforeseen circumstances,³ some meetings occurred at longer than weekly intervals. Following session 9, which marked the end of the Intervention phase, a follow-up period was used to examine the short-term effects of the TA, which we have labeled the Follow-Up phase. The Follow-Up session (Session 10) is a component of the family TA model, but the period between Sessions 9 and 10 does not contain active treatment efforts, making this time period ideal for examining short-term effectiveness.

²The term *phase* in this article refers to divisions in the time-series data stream.

³Unforeseen circumstances resulted in two rescheduled appointments. One meeting was rescheduled due to the absence of the assessors, who were attending a professional conference, and a second appointment was rescheduled because the family could not procure child care for Jeff’s sister.

Procedures

As previously discussed, dimensions to be measured daily were identified during Session 1 based on Sarah's assessment questions. The assessors (J. D. Smith and N. J. Wolf) worked with Sarah to generate salient, measurable indexes of improvement. In this case, seven dimensions were established, measuring both subjective dimensions (i.e., 1, overall family distress; 2, degree of Jeff's "hateful behaviors"; 3, degree of Jeff's "hateful behaviors" directed at mom; and 4, intensity of Jeff's worst anger outburst) and objective dimensions (i.e., 5, number of Jeff's anger outbursts; 6, number of Jeff's anger outbursts that progressed to screaming; and 7, number of Jeff's outright lies). As these dimensions were formulated, a working definition was discussed for the parents to follow as they rated each dimension. For example, we discussed what behaviors would be classified as "hateful behaviors" so that the parents would have consistent measurement.

The parents were instructed to complete the items on recording sheets (Appendix C) each night after their son went to bed. The parents were instructed to come to a consensus rating for each dimension. Recording sheets contained each of the indexes and a weekly calendar where they would record their responses on a 1 to 9 Likert-type scale ranging from 1 (*Not at All*) to 9 (*Extremely*) for subjective dimensions, or a simple frequency count for the objective indexes. Recording sheets were provided for the parents at the end of Session 1 for the entirety of the treatment and research protocol. The parents returned completed record sheets periodically throughout the treatment, which were collected by the clinic's secretary and stored in a filing cabinet until the completion of the treatment. Because the assessors were also the researchers, it was important that they be blind to the time-series results as the treatment was ongoing.

In addition to the daily time-series measures, we included administrations of the BASC-2 at the end of each session, a measure that has been shown to have acceptable validity and reliability (Reynolds & Kamphaus, 2004). At the beginning of each meeting, the parents completed the BASC-2 Parent Rating scale for children, which assesses the child's observable behaviors in the home and the community on multiple dimensions including behavioral problems, emotional disturbances, and adaptive functioning (Reynolds & Kamphaus, 2004). This measure was not collected when the assessors did not meet with the family. Similar to the daily measures, BASC-2 reports were not scored until the completion of the research protocol with the exception of the first administration, which was presented with the case material and was necessary to assess Jeff's presenting problems.

Last, we administered the Parent Experience of Assessment Survey-I (PEAS-I; Finn, Tharinger, & Austin, 2007). This 64-item parent report assesses six factors relevant to the parents' perspective of the assessment using a 1 to 5 Likert-type scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). The six factors are

1. Positive Assessor Parent (e.g., "I felt the assessor respected me," "I trusted the assessor").
2. Positive Assessor Child Relationship (e.g., "The assessor worked well with my child," "My child and the assessor really connected well").

3. Collaboration (e.g., "I had a say in what the assessment focused on," "I felt like part of a team working to help my child").
4. Learned New Things (e.g., "Now I know more about why my child acts the way he/she does," "The assessment completely changed the way I view my child").
5. Family Involvement in Child's Problem (e.g., "I now see how our family's problems affect my child," "I now see that our family will need to change to help my child").
6. Negative Feelings About the Assessment (e.g., "I was anxious throughout the assessment," "The assessment made me feel like a bad parent").

The PEAS-I was administered at the follow-up session to obtain an overall impression of their experience.⁴

Data Analysis

Data analysis of the daily measures was conducted using Simulation Modeling Analysis (SMA) for Time-Series (Borckardt, 2006). SMA evaluates the statistical significance of between-phase changes in data streams and also accounts for the presence of autocorrelation (the nonindependence of data points in time-series data streams). A phase-effect size (Pearson's r) is produced for each phase comparison. The data stream of each phase being compared is then compared to a distribution of random data streams, resulting in an empirical estimate of the probability (p value) of the observed effect occurring by chance. SMA delivers more power than conventional statistics, such as hierarchical linear modeling and multilevel modeling, when shorter data streams (<30 data points per phase) are analyzed (Borckardt et al., 2008).

Missing data analysis resulted in only 7.2% missing data points for each of the four dependent variables. Missing values were addressed using the Expectation-Maximization Algorithm (Dempster, Laird, & Rubin, 1977), a maximum likelihood estimation technique, which was found to be superior to other missing data methods such as list-wise deletion, mean substitution, and mean of adjacent observations (Velicer & Colby, 2005). The Baseline (B) phase contains 8 days (0 missing), and the Intervention (I) phase contains 62 days of data (3 missing). The Follow-Up (F) phase was short of the targeted 60 days. However, 40 days were reported (4 missing) for a total of 110 days of daily time-series measures. Finn (2007) proposed that the follow-up session occur about 2 months after the final TA session. In this case, the treatment was completed just before the end of the academic year, meaning most of the follow-up period was during Jeff's summer vacation. Jeff went to his grandparent's home in the Northeast for a month only 40 days after Session 9, ending daily recording. It is important to note that although data collection ceased early, the follow-up meeting (Session 10) did not occur until 4 months after the Fable Session (Session 9).

To address the specific hypotheses of this study, we conducted five phase-comparison analyses for each of the dependent variables:

⁴The psychological test instruments presented in the family TA case study were not used as measures of treatment effectiveness or outcome of the research design because they are a standard component of the family TA model, with the exception of the BASC-2 baseline administration.

TABLE 3.—Means and standard deviations of daily time-series phase data.

DV	Individual Phases						Combined Phases				Total	
	B (N = 8)		I (N = 62)		F (N = 40)		B + I (N = 70)		I + F (N = 102)		B + I + F (N = 110)	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
1	2.63	2.26	2.06	1.65	1.70	1.28	2.13	1.72	1.92	1.52	1.97	1.58
2	1.50	2.14	1.87	1.53	1.62	1.18	1.94	1.61	1.77	1.40	1.82	1.47
3	2.13	1.89	1.55	1.30	1.24	0.72	1.61	1.37	1.43	1.11	1.48	1.19
4	3.00	2.98	1.85	1.50	1.65	1.22	1.98	1.74	1.77	1.40	1.86	1.57

Note. B = Baseline; I = Intervention; F = Follow-Up; DV = dependent variable; 1 = overall family distress; 2 = degree of Jeff's hateful behavior; 3 = degree of Jeff's hateful behavior directed at mom; 4 = intensity of Jeff's worst anger outburst.

1. B with I.
2. B with F.
3. I with F.
4. B with I and F combined.
5. B and I combined, compared to F.

Specifically, Finn (2007) hypothesized that benefits of TA continue to grow in the months following the treatment. This is consistent with the discourse about other short-term therapeutic approaches, that change processes may be initiated or set in motion without being completely worked through during the course of the formal therapy (Horowitz & Hoyt, 1979). Descriptive statistics, including mean, standard deviation, and number of data points, for each of the analyzed phases and combinations of phases, as well as the entire data stream (B + I + F), are presented in Table 3.

Preliminary analyses indicated that the objective, observable dimensions (i.e., "number of Jeff's anger outbursts," "number of Jeff's anger outbursts that progressed to screaming," and "number of Jeff's outright lies") did not occur with great enough frequency each day to be analyzed. Throughout the study period, these behaviors occurred nearly every day, with frequency counts as high as five, but most often fewer. Further, these behaviors decreased as the treatment progressed, resulting in many days without an occurrence. During the Baseline period, an anger outburst occurred at least once per day. Through the remainder of the treatment and follow-up, the incidence rate fell to an average of one outburst every 3 days. Although there was an observable decline in these reports, there was not a high enough incidence rate throughout the study period to apply time-series analyses. Simply put, without room for improvement, statistical change could not be detected. This

is commonly referred to as a floor effect. Due to this finding, we focus our results and discussion on the four subjective dimensions.

RESULTS

Results of the Time-Series Phase-Effect Analyses

Results of the SMA phase effect analyses for the daily ratings indicate a number of trends in targeted dimensions and one significant effect. Table 4 contains the phase-effect statistics, including the effect size for the four subjective dimensions. We also report Lag 1 autocorrelation ($r(\text{Lag } 1)$) statistics for each analysis. Results of Analysis 1 (B vs. I) indicated that only changes in the Intensity of Jeff's Worst Anger Outburst approached statistical significance ($r = .21, p = .09$). Analysis 2 (B vs. F) produced a trend in two of the four dimensions, Intensity of Jeff's Hateful Behavior Directed at Mom ($r = .32, p = .08$) and again the Intensity of Jeff's Worst Anger Outburst ($r = .30, p = .06$). The results of Analysis 3 (I vs. F) did not indicate any significant phase effects or trends. Analysis 4 (B vs. I + F) produced a trend for the Intensity of Jeff's Hateful Behavior Directed at Mom ($r = .15, p = .10$) and a significant effect for the Intensity of Jeff's Worst Anger Outburst ($r = .20, p = .04$). Results of Analysis 5 produced a trend for the Intensity of Jeff's Hateful Behavior Directed at Mom ($r = .15, p = .06$).

Results of the Parent Report on the BASC-2 for Each Session

The parents' BASC-2 reports were scored using the BASC-2 ASSIST Scoring and Reporting Software (Reynolds & Kamphaus, 2004). As hypothesized, results of the BASC-2

TABLE 4.—Results of daily time-series phase-effect analyses.

DV	Analysis 1: B vs. I		Analysis 2: B vs. F		Analysis 3: I vs. F		Analysis 4: B vs. I + F		Analysis 5: B + I vs. F	
	<i>r</i>	<i>r</i> (Lag 1)	<i>r</i>	<i>r</i> (Lag 1)	<i>r</i>	<i>r</i> (Lag 1)	<i>r</i>	<i>r</i> (Lag 1)	<i>r</i>	<i>r</i> (Lag 1)
1	.11	.09	.23	.12	.12	.03	.12	.08	.13	.08
2	.13	.09	.24	.17	.09	.05	.13	.09	.10	.09
3	.14	-.04	.32*	.25	.13	-.15	.15*	-.28	.15*	-.03
4	.21*	.05	.30*	.12	.07	-.04	.20**	.04	.10	.04

Note. B = Baseline; I = Intervention; F = Follow-Up; DV = dependent variable; *r* = Pearson's correlation; *r*(Lag 1) = autocorrelation; 1 = overall family distress; 2 = degree of Jeff's hateful behavior; 3 = degree of Jeff's hateful behavior directed at mom; 4 = intensity of Jeff's worst anger outburst.

* $p < .10$. ** $p < .05$.

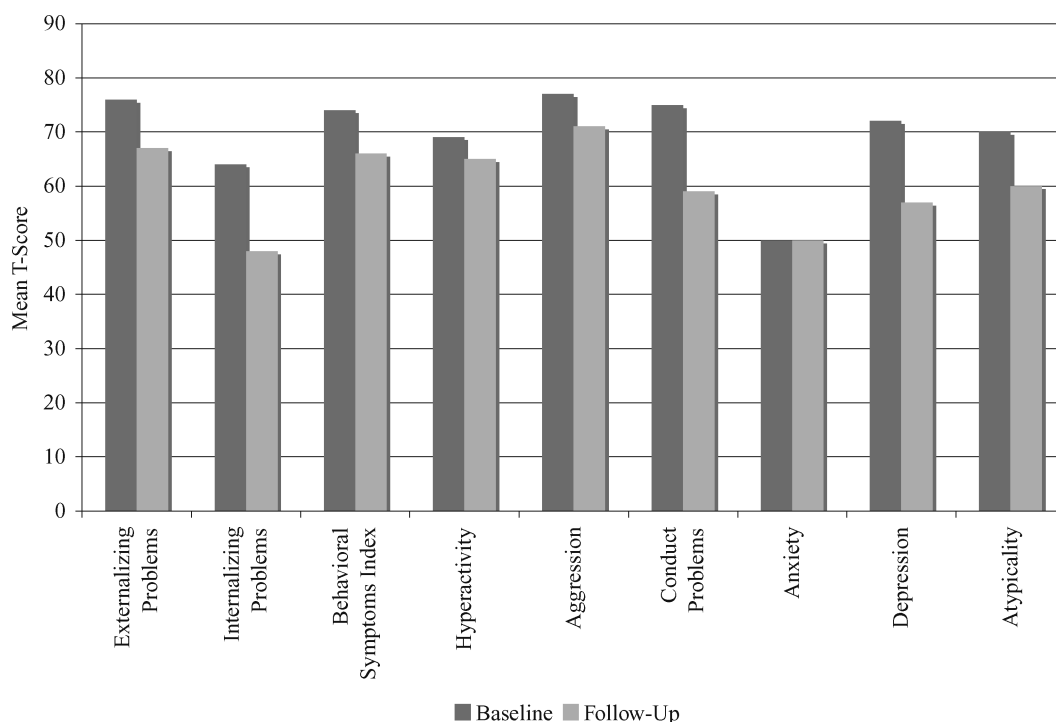


FIGURE 6.—Means of Sarah and Dan's Behavior Assessment System for Children, Second Edition summary of scaled scores: baseline and follow-up. Clinical range = T score > 70.

support the trends of the time-series analyses and Finn's (2007) proposed trajectory of change for the family TA model. Between the baseline (Session 1) and follow-up administrations (Session 10), both Dan and Sarah reported a reduction in Jeff's Externalizing Problems, Internalizing Problems, Behavioral Symptoms Index, Hyperactivity, Aggression, Conduct Problems, Depression, and Atypicality. Figure 6 presents mean scores of Sarah and Dan's BASC-2 reports for each subscale at baseline and follow-up. Importantly, at baseline, Dan rated Jeff's Externalizing Problems, Behavioral Symptoms Index, Aggression, Conduct Problems, Depression, and Atypicality in the Clinical range, whereas Sarah rated Jeff's Externalizing Problems, Hyperactivity, Aggression, Conduct Problems, and Depression in the Clinical range. At follow-up, 4 months after the TA, their report of Jeff's behavior in all these categories, with the exception of Dan's report of Aggression (71), no longer fell within the Clinical range.

Figure 7 illustrates the change over time on Sarah's BASC-2 reports for the five subscales in the Clinical range at baseline. Results from Sessions 1 through 10 are presented. Unfortunately, Dan did not complete the BASC-2 assessment at four of our weekly meetings, meaning we are only able to present comprehensive change over time using Sarah's reports.

Results of the Parent Experience of Assessment Survey

Following the TA, Sarah and Dan reported positive feelings about the TA process on the PEAS-I. They reported high mean scores on Positive Assessor Parent Relationship ($M = 4.60$ on a 5-point scale), Positive Assessor Child Relationship ($M =$

4.25), Collaboration ($M = 4.55$), Learned New Things ($M = 3.72$), and Family Involvement in Child's Problem ($M = 3.65$). Sarah and Dan reported having low Negative Feelings About the Assessment ($M = 1.80$).

DISCUSSION

In this article, we describe the process of a family TA and concurrently examine the changes in the family's symptomatology throughout the course of the treatment and a 40-day follow-up period, using case-based time-series analysis. Consistent with the assessors' observations, Sarah, Dan, and Jeff subjectively reported an improvement in the quality of their family functioning as a result of participating in the family TA. This improvement is supported by the parents' daily (time-series) and weekly (BASC-2) ratings of Jeff's behavior and their feelings about his problems. In particular, even though effect sizes were generally small to medium, and only a handful of dimensions were statistically significant or approaching significance, the time-series data suggest improvement in Jeff's ability to contain his anger and prevent the quick, intense escalations present at the beginning of the treatment. Results also suggest that Jeff's hateful behavior directed at Sarah decreased.

A closer examination of how change unfolded in this case revealed that during the early stages of the treatment (i.e., during the Intervention phase), the intensity of Jeff's anger outbursts decreased as compared to the pretreatment baseline. During the follow-up period, Sarah and Dan felt that the intensity of Jeff's anger outbursts, and the degree to which Sarah felt these were directed at her, decreased compared to baseline. Comparing the baseline to the entirety of the treatment model that involved

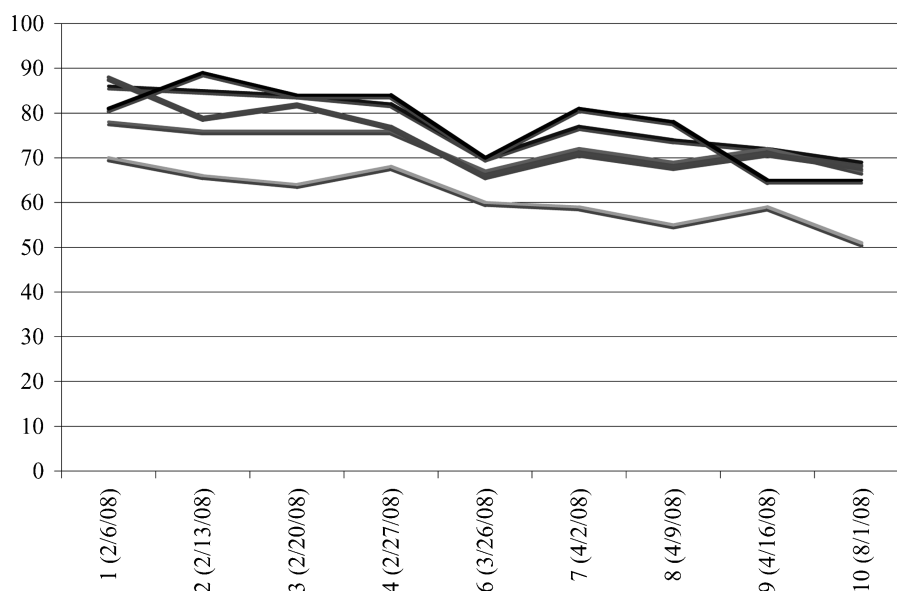


FIGURE 7.—Sarah's weekly Behavior Assessment System for Children, Second Edition (BASC-2) summary of scaled scores: subscales in clinical range at baseline administration. Clinical range = T Score > 70. Scores at Session 1 are Sarah's report only because Dan was unable to attend this meeting. BASC-2 not administered at Session 5, the Developmental History session.

Jeff (i.e., Sessions 2–10), Sarah and Dan felt that there was a significant decrease in the intensity of Jeff's anger outbursts and the degree to which Sarah felt she was the target. Results suggest some of the witnessed effects began during the active segment of the treatment (i.e., Sessions 2–9) but that, at least for the dimension measuring the degree of Jeff's anger directed at Sarah, the effects continued beyond the active treatment period until at least 40 days afterward. The BASC-2 results are more compelling in regard to the clinical improvement Sarah and Dan reported about Jeff. From the baseline administration in which a host of subscales fell in the Clinical range, 4 months after the treatment commenced none of the parents' mean scores on any scale fell in the Clinical range. This finding suggests that Jeff's behavior, as the parents' interpreted it, significantly improved as a result of the family TA treatment. In addition, Sarah and Dan communicated verbally and via self-report (PEAS-1) that they were pleased with the process and outcome of the TA.

Although the results of the phase-effect analyses as a whole only suggest a trend in the data, two important caveats need to be addressed. First, the *a priori* design of the study called for a 60-day Follow-Up phase. Unfortunately, because Jeff was away from his parents for a summer break, they were unable to complete this phase. The remaining 40-day period was used as the Follow-Up phase, but we believe that a 60-day period with similar reports of symptomatic improvement would result in significant findings due to the power of an increased number of observations. Finn (2007) advocated for a 60-day follow-up period and the results of this case study support this assertion. Secondly, measuring Overall Family Distress was no doubt confounded by other factors within the family, apart from that caused directly by Jeff. Sarah and Dan reported high amounts of distress in regard to their marriage throughout the assessment, and because this was not a direct focus of the treatment, we suspect that this area of distress remained fairly stable. Broad measures of family variables such as overall distress may be

easily confounded by factors unrelated to those addressed in the TA. Selection of more specific behaviors pertinent to the child and the presenting problem might have contributed to more significant findings.

A key question of any study of efficacy pertains to what was actually measured and reflected in the findings. This is especially true of studies in which the reporter is not blind to the hypothesis of the study and treatment results in reported improvement. Parents may want to believe the treatment is helping because they are paying for the service. Parents may also be subject to demand characteristics. For example, because they have a relationship with the assessors, they may want to please them by providing favorable ratings. Instructing both parents to come to a consensus rating of their son's behavior improves the validity of their ratings, but their ratings are still susceptible to potentially biasing factors. Nevertheless, change in subjective measures parallels one of the main tenets of the theory underlying family TA: Finn (2007) and Tharinger et al. (2007) have postulated that one specific goal of family TA is to help parents develop more cohesive, accurate, compassionate, and empathic stories about their children. We believe Sarah and Dan began to view Jeff's problem behaviors more empathically and accurately as the result of the treatment, particularly as a result of the family sessions where they were able to practice empathic interactions with Jeff. They seemed to alter the way in which they viewed and understood Jeff's problems and their own role in his anger problems. There may have been a similar shift in Sarah's perception of the intensity of Jeff's anger outbursts.

The unpredictable, yet fortuitous, videotaping of Jeff's anger outburst and the subsequent family interaction proved to be a pivotal event in the treatment. Tharinger, Finn, Austin, et al. (2008) described a number of different potential family intervention methods, many originating in the family therapy literature. However, Tharinger, Finn, Austin, et al. (2008) encouraged

TABLE 5.—Post hoc time-series phase-effect analysis for videotape intervention.

	Phase				<i>r</i>	<i>r</i> (Lag 1)
	Before (<i>N</i> = 53)		After (<i>N</i> = 57)			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
1. Overall family distress	2.88	1.79	1.79	1.31	.32**	.075
2. Jeff's hateful behavior	2.46	1.67	1.71	1.22	.24*	.091
3. Hateful behavior directed at mom	1.88	1.49	1.29	0.70	.19*	−.028
4. Intensity of worst anger outburst	2.58	1.80	1.72	1.29	.25**	.036

Note. **p* < .05. ***p* < .001.

assessors in TA to create family session scenarios and procedures that will be effective for the family, providing assessors a great deal of flexibility and freedom. Although the use of a video created by the family is not always possible, or even desirable, for Jeff and his family, the video provided a concrete, recent event that we felt could be utilized to the family's benefit during the family sessions. Similar to the use of a video link to observe the child's assessment, Jeff and his parents were able to step back from the situation by viewing the videotape. In this way, they were able to develop a "family-observing ego." In this case, the benefits afforded by the video link were magnified by the addition of the videotape, which allowed Sarah and Dan to examine their role as well, rather than being focused solely on Jeff and his problems. A post hoc phase-effect analysis, comparing prevideotaping and postvideotaping, supported our intuitive feeling that this event resulted in a turning point in the evaluation (Table 5). For this analysis, we compared two segments of the treatment, split at the session when the videotape was introduced to the assessors. Results indicate significant improvement following the videotape's introduction, suggesting that utilizing the videotape, as a therapeutic tool, was a sound decision.

Limitations and Future Directions

Both the time-series design and the family TA model presented in this case study have unique limitations. The time-series design provides rich data about the processes of change because it is measured daily. This richness of data, which is critical for effective research, places a burden on clients to complete the daily measures. Because of this, only a few dimensions are selected that appear most representative of the case at the initial meeting. Selecting appropriate dimensions to measure can be tricky, requiring good clinical conceptualization and some degree of insight from the client. As was previously noted, selection of broad areas of measurement, such as overall distress, may be affected by factors that TA does not or cannot target and may result in nonsignificant change (e.g., marital dissatisfaction, financial and vocational distress, other children with problems in the home). Last, the assessors of this case attempted to measure three specific behaviors that Sarah reported as being problematic. These behaviors (number of out-right lies, number of anger outbursts, and number of outbursts that progressed to screaming) did not reveal meaningful results, statistically speaking. This was due to the fact that these dimensions have a very low ceiling, whereby the behavior occurred ≤ 1 time per day on most days. Without some room for improve-

ment, statistical models are unable to detect significant phase effects.

The short, pretreatment baseline data collected in this study is also an area of potential limitation. Although Borckardt et al. (2008) remarked that a longer baseline period (14–30 days) is optimal, shorter baselines can also be utilized. SMA (Borckardt, 2006) was specifically designed for use with short data streams (<30), which makes the short baseline of this case study statistically testable. However, questions still remain as to whether our baseline provided a representative pretreatment sampling in just 8 days.

A second aspect of this study deserving discussion is the family TA model. Previous case studies (e.g., Hamilton et al., 2009; Tharinger et al., 2007) that have employed the two-assessor model illustrate the potential positive impact of the approach. However, this particular variation requires two assessors, two rooms, and a video link. Few service providers have the resources to accommodate such an intensive treatment model. Similarly, in most settings, it would be very costly to the consumer. J. D. Smith and L. Handler (Handler, 2007; Smith & Handler, 2009) have demonstrated the potential of a more child-focused, one-assessor model. J. D. Smith is also currently exploring a variation of Finn's (2007) model that utilizes two rooms, one assessor, a video link setup, and extended miniconsultations with the parents (Smith et al., 2009; Smith, Handler, & Nash, 2009). Although parents are not afforded the same collaboration with the assessor as they are in a two-assessor model, this variation may prove more feasible in real-world clinical practice.

Despite the limitations, in this case study, we presented the way in which a unique family treatment model, TA, can be studied using a time-series design. Results of this study are promising, suggesting the need for further study with a variety of child and family problems. Continued study of TA using a time-series design could also provide additional evidence for Finn's (2007) proposed trajectory of change, which was partially supported by this study. Time-series designs could also illuminate effects of the specific components of the family TA model, such as the family intervention session, which was demonstrated by Smith et al. (2009) using a time-series design with daily measures. As the use of TA grows in the literature and is practiced in the field, the need for empirical support becomes increasingly important.

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APPENDIX A

Rorschach Sequence of Scores

Card	Response No.	Loc and DQ	Determinant(s) and Form Quality	(2)	Content(s)	P	Z	Special Scores
I	1	WSo	Fo		A	P	3.5	INC2
	2	Wo	Fo		H		1.0	INC2, PHR
II	3	WSo	FC.FMa-		Ad		4.5	DV
	4	DSO	FY.FC-		A			
III	5	Do	FCo		Cg			
	6	W+	Ma.FMau	2	H, Ls, A, Cg	P	5.5	AG, GHR
IV	7	Do	F-		A			DV2
	8	Do	Fo		(H)	P		DV2, PHR
V	9	W+	Fu		A, Ad		2.5	FAB
	10	Wo	Fu		A		1.0	DR, INC2
VI	11	W+	F-		A, Fi, Hx		2.5	DR, INC2, DV MOR, PHR
VII	12	W+	FMa-	2	A		2.5	INC, AG, PHR
	13	Do	FY-		Hd			INC, PHR
VIII	14	D+	FMa.F-	2	A		3.0	INC2, AG, PHR
IX	15	D+	Fma.FCo	2	Fi, A		2.5	AG, MOR, DV, PHR
	16	D+	CF-	2	Ad		4.5	
X	17	DS+	F.Cu	2	A, Hx, Fi		2.5	GHR
	18	D+	FMao	2	A	P	4.5	DV
	19	D+	FMa.FC'o	2	A, Bt, Hx		4.0	AG, MOR, PHR
	20	D+	FMa.FYo	2	A		4.0	AG, PHR
	21	D+	FMa.FCu	2	A, Hx		4.0	AG, MOR, PHR

APPENDIX B

Comprehensive System (5th edition) Structural Summary

LOCATION FEATURES				DETERMINANTS				CONTENTS				APPROACH			
				BLENDS		SINGLE									
Zf = 16				FC.FM		M = 0		H = 2		I		:WS.W			
ZSum = 52.0				FY.FC		FM = 2		(H) = 1		II		:WS.DS			
ZEst = 52.5				M.FM		m = 0		Hd = 1		III		:D.W			
				FM.M		FC = 0		(Hd) = 0		IV		:D.D			
W = 8				FM.FC		CF = 1		Hx = 4		V		:W.W			
D = 13				F.C		C = 0		A = 15		VI		:W			
W+D = 21				FM.FC'		Cn = 0		(A) = 0		VII		:W.D			
Dd = 0				FM.FY		FC' = 0		Ad = 3		VIII		:D			
S = 4				FM.FC		C'F = 0		(Ad) = 0		IX		:D.D.DS			
						C' = 0		An = 0		X		:D.D.D.D			
						FT = 0		Art = 0							
						TF = 0		Ay = 0		SPECIAL SCORES					
DQ						T = 0		Bl = 0				Lv1	Lv2		
+ = 12						FV = 0		Bt = 1		DV = 4		x1	2x2		
o = 9						VF = 0		Cg = 2		INC = 2		x2	5x4		
v/+ = 0						V = 0		Cl = 0		DR = 2		x3	0x6		
v = 0						FY = 1		Ex = 0		FAB = 1		x4	0x7		
						YF = 0		Fd = 0		ALOG = 0		x5			
FORM QUALITY						Y = 0		Fi = 3		CON = 0		x7			
FQx				MQual		W+D		Fr = 0		Raw Sum6		= 16			
								Hh = 0		Wgtd Sum6		= 42			
+ = 0				= 0		= 0		Ls = 1							
o = 8				= 0		= 8		Na = 0		AB		= 0 GHR = 2			
u = 5				= 1		= 5		FD = 0		AG		= 7 PHR = 10			
- = 8				= 0		= 8		F = 7		Sc = 0		= 0 MOR = 4			
none = 0				= 0		= 0				Sx = 0		= 0 PER = 0			
						(2) = 10		Id = 0		CP		= 0 PSV = 0			
..... RATIOS, PERCENTAGES, AND DERIVATIONS															
R = 21				L = 0.50				FC:CF+C = 5:2				COP = 0		AG = 7	
								Pure C = 1				GHR:PHR = 2:10			
EB = 1:5.0				EA = 6.0				EBPer = 5.0				SmC':WSmC = 1:5.0		a:p = 10:0	
eb = 9:4				es = 13				D = -2				Afr = 0.62		Food = 0	
				Adj es = 11				Adj D = -1				S = 4		SumT = 0	
												Blends/R = 9:21		Human Cont = 4	
FM = 9				SumC' = 1				SumT = 0				CP = 0		PureH = 2	
m = 0				SumV = 0				SumY = 3						PER = 0	
														Isol Indx = 0.10	
a:p = 10:0				Sum6 = 16				XA% = 0.62				Zf = 16		3r+(2)/R = 0.48	
Ma:Mp = 1:0				Lv2 = 7				WDA% = 0.62				W:D:Dd = 8:13:0		Fr + rF = 0	
2AB+Art+Ay = 0				WSum6 = 42				X - % = 0.38				W:M = 8:1		SumV = 0	
MOR = 4				M- = 0				S- = 2				Zd = +0.5		FD = 0	
				Mnone = 0				P = 4				PSV = 0		An + Xy = 0	
								X + % = 0.38				DQ+ = 12		MOR = 4	
								Xu% = 0.24				DQv = 0		H:(H)+Hd+(Hd) = 2:2	
PTI = 3				DEPI = 3				CDI = 1				S-CON = N/A			
												HVI = No			
												OBS = No			

APPENDIX C

Parents' Daily Record

Please use the 1–9 scale below to rate questions 1–4:

Not at all

moderately

extremely

1 2 3 4 5 6 7 8 9

(1) OVERALL FAMILY DISTRESS: (this is a *general* rating of how distressed the family felt)

Sun-1/1/00	Mon-1/2/00	Tue-1/3/00	Wed-1/4/00	Thur-1/5/00	Fri-1/6/00	Sat-1/7/00

(2) DEGREE OF JEFF'S HATEFUL BEHAVIOR (9 = WORST)

Sun-1/1/00	Mon-1/2/00	Tue-1/3/00	Wed-1/4/00	Thur-1/5/00	Fri-1/6/00	Sat-1/7/00

(3) DEGREE TO WHICH HATEFUL BEHAVIOR WAS DIRECTED AT MOM (9 = WORST)

Sun-1/1/00	Mon-1/2/00	Tue-1/3/00	Wed-1/4/00	Thur-1/5/00	Fri-1/6/00	Sat-1/7/00

(4) INTENSITY OF JEFF'S WORST ANGER OUTBURST TODAY (9 = HIGHEST INTENSITY)

Sun-1/1/00	Mon-1/2/00	Tue-1/3/00	Wed-1/4/00	Thur-1/5/00	Fri-1/6/00	Sat-1/7/00

ENTER NUMBER OF INCIDENTS THAT OCCURRED EACH DAY

(5) NUMBER OF JEFF'S ANGER OUTBURSTS

Sun-1/1/00	Mon-1/2/00	Tue-1/3/00	Wed-1/4/00	Thur-1/5/00	Fri-1/6/00	Sat-1/7/00

(6) NUMBER OF JEFF'S ANGER OUTBURSTS THAT PROGRESSED TO SCREAMING

Sun-1/1/00	Mon-1/2/00	Tue-1/3/00	Wed-1/4/00	Thur-1/5/00	Fri-1/6/00	Sat-1/7/00

(7) NUMBER OF OUTRIGHT LIES BY JEFF

Sun-1/1/00	Mon-1/2/00	Tue-1/3/00	Wed-1/4/00	Thur-1/5/00	Fri-1/6/00	Sat-1/7/00

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