

CLINICAL CASE APPLICATIONS

Therapeutic Assessment Case Study: Treatment of a Woman Diagnosed With Metastatic Cancer and Attachment Trauma

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This article presents a Therapeutic Assessment (TA) case study of a woman recovering from 4 years of intense medical treatment for stage IV cancer. The inclusion and utility of using the Adult Attachment Projective Picture System (AAP) in the TA is highlighted. The client's attachment classification as unresolved helped identify that her current experiences with dissociation and problems restructuring her life following cancer remission were related to severe childhood sexual abuse, which she had suppressed for decades. The AAP also provided information regarding the unconscious defensive processes the client employed to cope with attachment distress and her inability to find comfort and support from others. These findings were instrumental in guiding the subsequent psychotherapy. The TA process, particularly the assessor–client relationship, facilitated an experience of containing her previously unintegrated and dysregulated affect. A single-case experiment using daily measurements suggested that participation in TA coincided with symptomatic improvements in multiple domains. These improvements were maintained during 4 months of biweekly psychotherapy after the completion of the TA. This case illustrates the applicability of the TA model in health care settings, demonstrates the usefulness of the AAP in the context of TA, and provides empirical support for the effectiveness of the TA model in initiating symptom improvement.

Cancer survivors pass through the space of illness, but do not emerge back into a world which is normal in the sense that it is the same as it was before the illness. They are aware of changes.

—Little, Sayers, Paul, and Jordens (2000, p. 501)

This article discusses the ways in which conducting a Therapeutic Assessment (TA; Finn, 2007) with a woman in remission from metastatic cancer uncovered the relationship between her physical illness and current psychological profile, informed subsequent psychotherapy, and resulted in significant therapeutic benefits. TA has been shown to be a useful paradigm in the assessment of mental health concerns presenting in health care settings (Ougrin, Ng, & Low, 2008; Smith, Finn, Swain, & Handler, 2010). Recently, TA has integrated adult attachment assessment in the TA procedure. Finn (2011) discussed the value of using the Adult Attachment Projective Picture System (AAP; George & West, 2001, 2012) therapeutically during a long-term psychotherapy with a client's attachment status classified as dismissive. He also noted that the AAP is often included in TAs he conducts and supervises. One important feature of this article is the discussion of how the AAP's unique assessment of attachment classification, attachment-based defensive processes, and evidence of attachment trauma importantly informed the clinician as to the client's response to the

experience of having cancer. A second feature is our utilization of a case-based experimental design with daily measurement to track symptom improvement and statistically examine effectiveness, following previous empirical case studies of TA (Aschieri & Smith, 2012; Smith, Handler, & Nash, 2010; Smith, Nicholas, Handler, & Nash, 2011; Smith, Wolf, Handler, & Nash, 2009). This feature was especially important in demonstrating the effectiveness of the intervention, as the goal of initiating therapeutic change is largely what differentiates TA from other psychological assessment paradigms.

The article is divided into two parts. The first part presents the case of Sarah. The second part describes the single-case, time-series experiment and its results.

THE THERAPEUTIC ASSESSMENT

Session 1: Assessment Questions and Identifying Daily Measures

Sarah, a 52-year-old Caucasian female, had been in remission from stage IV melanoma for 4 months when her oncologist referred her to the Center for Integrative Medicine at the University of Colorado Hospital. The center offers a physician-managed blend of complementary and alternative therapies with conventional treatments for physical and psychological health conditions. Sarah was referred to the center predominantly for psychotherapy to address depression and anxiety related to adjustment to life following extended cancer treatment.

When Sarah arrived to her first session, she reported seeking psychological services to get “unstuck.” She stated that she felt incapable of “moving forward,” even though she had received the news that her cancer was in remission and she would no longer require chemotherapy. From the outset, Sarah was

Received May 19, 2011; Revised July 17, 2011.

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genuinely curious about her situation, particularly with regard to identifying what was getting in the way of her progress, and she seemed willing to engage in self-exploration to find answers. Sarah's presenting concerns, curiosity, and her apparent openness led the clinician (J. D. Smith) to introduce the option of participating in a TA as a precursor to psychotherapy. The clinician had extensive experience and training in using the TA model. TA is conceived as a semistructured brief intervention grounded in psychological assessment, the goal of which is to provide the client with therapeutic benefits from the assessment process itself; it is this goal that differentiates TA from traditional assessment paradigms (e.g., Finn, 2007; Finn & Tonsager, 1992, 1997). This outcome has been supported by empirical research (e.g., Aschieri & Smith, 2012; Finn, 1996; Finn & Tonsager, 1992; Newman, 2004; Newman & Greenway, 1997; Poston & Hanson, 2010; Smith, Handler, et al., 2010; Smith, Nicholas, et al., 2011; Smith et al., 2009; Tharinger et al., 2009). Hilsenroth and colleagues also demonstrated that participation in a TA, compared to a traditional assessment, resulted in a stronger therapeutic alliance with the assessor (Ackerman, Hilsenroth, Baity, & Blagys, 2000) and with the subsequent psychotherapist to which the client was referred (Hilsenroth, Peters, & Ackerman, 2004).

Sarah identified three assessment questions at the beginning of the TA:

1. Why do I feel so wimpy right now?
2. Why don't I feel like I have control over my life and my future?
3. How do I move forward after cancer?

Her assessment questions reflected the helplessness and lack of control she had been experiencing over the course of the past 4 years, during which time she had undergone multiple rounds of aggressive chemotherapy and immunotherapy. She reported that the treatments had taken a serious physical and psychological toll on her, as reflected by her statement, "The treatments, doctor's appointments, scans, and tests were my whole life. It was my job to be a cancer patient. Everything else in my life had to be put on hold."

The clinician asked Sarah in the initial TA session what it meant to feel "wimpy." She replied that she broke down in tears, often for seemingly no reason, and felt emotionally fragile and confused nearly all the time. She elaborated that this was particularly troubling to her because her current emotional volatility was in such stark contrast to the emotional sturdiness she had felt before cancer. Sarah reported that she had always viewed herself as a strong, resilient woman with tremendous fortitude. However, she had not been able in these past 4 months to change direction from being a cancer patient to being the "well-functioning member of society" she had been before her illness. It seemed to the clinician that Sarah believed she should be able to return instantly to her previous high level of functioning, but that the experience of having cancer had significantly altered something in her. When presented with this idea, Sarah was unable to think of a way in which they could be connected, except to state that having cancer "must have something to do with it." This was the extent of her understanding at this point in time.

During this session, Sarah agreed to monitor progress toward her goals each day using a daily diary-like procedure. Consis-

tent with the collaborative and client-driven approach of TA, these goals were established by asking Sarah what she hoped to accomplish as a result of the TA and the therapy that was to follow. Congruent with her assessment questions, she reported that she wanted to have better control over her tearfulness, develop a sense of self-efficacy over the direction of her life, and reduce her anxiety and fear. She also reported that she hoped to increase her level of physical activity, which had been greatly hampered by the fatiguing effect of her cancer treatment. These goals became the four indexes about which Sarah would report each day and would then be used to assess the effectiveness of the TA and subsequent therapy.

Sessions 2 and 3: Gathering of Background Information

During Sessions 2 and 3, Sarah was asked about her history, particularly as it pertained to her current concerns and reasons for seeking psychological intervention. She reported that she received the cancer diagnosis about 4 years ago while living on the East Coast. She had recently ended her marriage of 21 years. Sarah's only child, Jason, was 19 years old at the time. She described the marriage as "lifeless" and that she had "stuck with it for Jason's sake." Sarah reported that her marriage was very stressful and that she felt immense pressure to provide for the family in the face of her husband's struggle with sobriety and inability to maintain a stable career. Sarah had an associate's degree in business and had worked her way up to an assistant regional manager of a national retail clothing chain.¹ She reported that she enjoyed her job and relationships with her coworkers. With the divorce and shared custody of her son, Sarah began working more hours to "fill the void of not having [her] family around." Less than a year after the divorce, Sarah was sent to a dermatologist for a skin biopsy after her primary care physician noticed three suspected melanomas during a routine annual exam. The biopsy confirmed that the melanomas were cancerous, and a CT scan showed that the cancer had spread to her liver. The 5-year survival rate for stage IV melanoma with metastases to the liver is less than 10% (Balch et al., 2001). Initially, Sarah's oncologist projected that she likely would not live beyond 12 months.

Sarah identified her diagnosis as the turning point in her life. She took an indefinite leave from her job and began chemotherapy and immunotherapy. Her health, especially due to the increasing side effects of chemotherapy, faded after 6 months of treatment. At that point, Sarah made the very difficult decision to relocate to Colorado to be nearer her mother and receive care at the University of Colorado Cancer Treatment Center. Sarah cried openly as she described the guilt she felt about leaving her son, but she also noted how intensely isolated and unsupported she had felt. She reported that her son had not been able to support her emotionally during the cancer treatment. He refused to talk with her about her illness, which Sarah attributed to his state of denial about the severity of her prognosis. She felt that her mother was the only option she had left for support.

Sarah stated that she regretted moving to Colorado shortly after she arrived. She described feeling even more alone in

¹The client's name and nonpertinent, potentially identifying information has been changed to protect confidentiality. Additionally, the client provided permission to include details relevant to the clinical decisions and outcomes of the intervention, other than her name.

Colorado. She was disappointed that her mother did not provide the emotional support she had expected, despite the fact that they were getting along well. When asked how this compared with the relationship she and her mother had previously, Sarah replied that they had always been somewhat distant. She described her mother as a stoic “pull yourself up by your bootstraps” woman who rarely showed emotion and had great difficulty caring for those around her. Sarah also discussed how the move had distanced her from the majority of her friends. She described being puzzled and hurt that they were not willing to make the time for her, especially knowing her situation.

The cancer treatment, however, was progressing well, albeit gradually. Sarah tried numerous chemotherapy drugs with varying effectiveness over her 4 years in treatment. The longer Sarah lived beyond the initially projected 12-month time period, the more emotionally numb she reportedly became. She stated that she did not want to be too optimistic about beating cancer, so she essentially blunted her feelings and moved through life like an automaton. After a scan showed tremendous improvements from a new drug, she reported feeling cautiously optimistic. She began to realize that she might live after she had multiple clean scans. Four months prior to beginning the TA, Sarah was officially told she was in remission and would no longer require treatment, only periodic monitoring scans. This good news initiated an emotional roller coaster: Sarah recalled being flooded with emotions that ranged from joy to anxiety. She reported that she immediately wanted to return to the workforce, but was anxious regarding her physical and mental capacity to do so.

One month prior to TA, Sarah’s oncologist noticed that she was anxious and seemed depressed, and inquired about how her transition was going. Sarah cried as she reported to the oncologist that she had been almost unable to leave her home and that she nearly had a panic attack the one time she looked at job vacancies. Sarah also reported other symptoms, including anhedonia, significant difficulty falling and staying asleep, significant and rapid weight gain (since discontinuing chemotherapy), fatigue, and depressed mood evidenced by tearfulness. The oncologist suggested that Sarah might benefit from psychological intervention and referred her to the Center for Integrative Medicine.

The two sessions following the initial TA session were unstructured interview sessions without active intervention, as the purpose was to provide support and gather additional relevant information (this element was also included for the purposes of the research design, which is discussed later). The clinician was struck during these sessions by the fact that Sarah had provided a lot of information about her divorce and cancer at what seemed to be the exclusion of discussing her earlier adult life and childhood. Sarah had quickly glossed over questions about her childhood. At one point, the clinician remarked to Sarah, “I’ve noticed that you haven’t talked much about your childhood or life before cancer. What do you think that might be about?” She replied, “I don’t know. It doesn’t seem relevant to what I’m having trouble with today.” Sarah’s dismissal of her life prior to her recent life-changing experiences suggested to the clinician that earlier life events might be relevant to Sarah’s current experience. This hypothesis led the clinician to begin the TA with the Early Memories Procedure (EMP; Bruhn, 1992).

Session 4: The Early Memories Procedure

The EMP is a test of early autobiographical memories. The client is asked to recall the five earliest, specific, one-time mem-

ories or events and describe these events in as much detail as possible. Bruhn (1992) recommended using the EMP as an initial assessment procedure to gather and explore information related to early childhood experiences and family history. After describing the event, the client is asked a number of follow-up questions about the memory, such as the strongest feeling and the clearest part of the memory. The client is also asked to rate the clarity of the memory and the degree to which the memory is viewed as positive versus negative. Bruhn posited that the memory the client rates as the clearest and most negative often depicts an unresolved issue in which a major developmental need was either gratified or frustrated. Clients are also asked to rank their three most significant memories. Sarah’s first two early memories were rated as the clearest, most negative, and most significant. Her first early memory was this:

I guess I was about 4 because we were living in the brown basement apartment. I remember that we were just moving in and my dad told me to tie my shoes, but I was only 4 and I couldn’t. So, I got whacked around a little bit. I was crying and my brother finally came and tied my shoes for me.

Sarah was asked about the clearest part of the memory. She stated, “That I felt I was being punished for something I didn’t know how to do—something I wasn’t responsible for. And that my mom wouldn’t come to help me, like I would have for my child.” She was then asked about the strongest feeling in the memory. She said, “I was angry at my dad for being stupid. I’m sure I didn’t understand it then, but looking back at it now makes me angry.” The clinician also inquired about her strongest feeling in regard to her mother’s role in the memory, which is not a standard question of the EMP. Sarah replied:

It’s mixed—resentful, understanding, because she went through some rough patches around that time, and bewildered. I can’t understand her choices. I mean, what if she had just been supportive? I might have had an easier life. Even today it’s not in her capacity to just be there for someone, to just listen and not use what you say as ammunition.

Lastly, Sarah was asked what she would change if she could change the memory in any way. She replied, “I wish I could have known how to tie my shoes. That sounded silly. But [being hit by my father] never would have happened if I could have [tied my shoes].” The clinician then asked Sarah what she would change about her mother’s reaction. She said, “Oh, I gave up on getting better reactions from her.”

Sarah’s second earliest memory involved the family trying to get her drunken father to come home:

I remember driving up an old mountain road. I was in the back seat of our van and my mom was hollering out the window at my dad to get in the car. I remember he finally opened the front door and threw my younger sister into the backseat because she was crying. Dad was yelling at me to keep her quiet and not get her blood all over the car [when she was thrown into the back seat she got a bloody nose]. I felt like I had to clean up his mess. I was about 5 years old.

Sarah reported that the clearest part of the memory was her sister being thrown on top of her and being responsible for keeping her from crying and bleeding on the seats. The strongest feeling in the memory was sadness for her sister and her mom. Sarah also reported that she was terribly scared of her father. When asked if she would change anything in the memory, she paused, and said, “This was just what we thought was normal

life. Honestly though, my sister and I just wouldn't have been in the car."

The EMP provided the opening to delve into Sarah's childhood. Sarah reported that her biological father, of whom she spoke in the EMP, was arrested for aggravated assault and sent to prison for 4 years when Sarah was 8 years old. She only saw her father one more time—he stopped by the house to give his daughters presents on the day he was released from prison. Her mother remarried not long after her father's arrest. Her stepfather was physically abusive toward her mother and sexually abused Sarah and her younger sister. Sarah stated that he quit abusing her when she was 14, but he continued to abuse her sister for many more years. Sarah left home when she was 18 and moved to Florida. She reported that she wanted "to start a new life without having to look over [her] shoulder out of fear."

The EMP illuminated a number of important clinical themes and hypotheses. First, the specificity of Sarah's memories is in contrast to previous research. McNally, Litz, Prassas, Shin, and Weathers (1994) found that individuals with posttraumatic stress disorder (PTSD) retrieved less specific memories compared to healthy controls. Women with a reported history of sexual abuse also produced less specific memories than did women without a trauma history (Henderson, Hargreaves, Gregory, & Williams, 2002). Overgeneral memory retrieval has been found to be associated with reduced specificity when imagining future events as well (Williams et al., 1996). This suggests that Sarah likely possessed a certain amount of personal strength and resilience, which had allowed her to function at a relatively high level prior to the cancer. She also likely has the ability to envision a specific future, both of which are indicators of potential positive treatment outcome.

Second, the EMP revealed Sarah's experience and view of her parents. Both of the "fathers" in her life were terrifying and dangerous. Her father was mean, angry, and unpredictably violent. Her stepfather was a sexual predator and physically assaulted her mother. She felt that her mother failed to protect her from her father and stepfather, yet she was seemingly ambivalent about her.

Third, Sarah's EMP responses were also indicative of potential transference themes regarding her view of the clinician, cancer, and treatment. The view of her father and mother were hypothesized to mirror Sarah's view of cancer (i.e., aggressive, terrifying, and leaves you feeling helpless) and of treatment and health professionals (i.e., unresponsive and ineffective in providing care), respectively. The clinician was concerned that Sarah might be difficult to engage in treatment due to these expectations and that she might also experience the clinician as unresponsive and unable to help her.

Lastly, the EMP revealed Sarah's view of herself as a person who should always be capable of taking care of herself and protecting the welfare of others. However, she failed to do so and thus was responsible for what has happened to her. Illusionary control was evidenced in her sentiment that she could have avoided being hit by her father had she only behaved in a wished for way ("being hit by my father never would have happened if I could have tied my shoes"). This illusionary control was perhaps a defense against feeling completely powerless, which was normally split off from her current conscious awareness but had been brought to the forefront by the powerlessness inherent in receiving cancer treatment. These hypotheses would

be further tested out in the following session in which the AAP was administered.

Session 5: The Adult Attachment Projective Picture System

The AAP is a semistructured interview procedure that involves asking the client to tell a story to each of seven attachment picture stimuli (George & West, 2001, 2012). The stimuli are black-and-white line drawings that portray scenes associated with attachment distress, including threat of separation, loss, illness, and being alone. George and West (2001, 2012) designed these scenes so as to depict adults and children with and without perceived accessibility of attachment figures; four stimuli portray individuals alone and three stimuli portray individuals in potential attachment relationships. The stimuli are administered in a standardized order that progressively activates increasing attachment distress (Buchheim et al., 2006). The results of the AAP provide the assessor with the client's attachment status based on the four-group classification model used by developmental researchers (secure, dismissing, preoccupied, unresolved).

In addition to determining overall attachment group, George and West (2001, 2012) designed the AAP coding system to assess three features of attachment representation that describe the client's unique attachment processing patterns. The first feature is evaluating the client's representation of attachment relationships as caring and protective relationships and of the self's capacity for thoughtful reflection and personal agency.² The second feature is identifying the client's distinctive patterns of attachment defensive processes (Bowlby, 1980; George & Solomon, 2008; Solomon, George, & De Jong, 1995). Two forms of defensive processing are conceived as normative or organizing forms of defensive exclusion. Deactivation develops when attachment figures reject and ignore children's attachment needs, a caregiving context that fosters defensive deflection strategies that minimize conscious attachment distress and promote false feelings of personal strength and resiliency. Deactivation is evidenced in the AAP by story elements that demonstrate a failure to acknowledge, or shifts in attention away from, attachment distress and emphases on achievement and success.

The second organizing form of defensive exclusion, cognitive disconnection, develops when attachment figures are inconsistent, confused, and delay responding to children's attachment needs, a caregiving context that fosters defensive splintering and blurring negative affect and experience from conscious awareness. Cognitive disconnection is evidenced in the AAP by confusion, uncertainty, lack of clarity, and false positive emotion.

A third form of defensive processing, segregated systems (following Bowlby, 1980), represent the collapse of normative defenses. Segregated systems develop when attachment figures do not protect and comfort children when they are frightened or threatened, especially in the context of attachment figure loss. Segregated systems are evidenced in the AAP by material connoting fear; individuals who are not able to reorganize and contain segregated systems material in their stories are classified as unresolved.

²Attachment theory defines agency as the capacity to take action (thought or behavior) that is constructive and moves one forward (George & West, 2001, 2012).

The third feature, recently added to the coding system, is identifying attachment trauma risk (e.g., Buchheim & George, 2011). George and West (2012) defined attachment trauma as threatening and terrifying experiences associated with feeling terrorized, abandoned, helpless, or isolated. Attachment trauma is the product of attachment figures' failure to provide children with even the most minimal forms of protection in the face of terror and threat (e.g., frightening loss, abuse, rape, war). Attachment figures are sometimes (but not always) the source of terror; attachment trauma is often associated with multiple losses, abuses, or threats (see also Main & Hesse, 1990; Main & Solomon, 1990; Solomon & George, 2011). Attachment trauma is evidenced in the AAP by extreme forms of segregated systems material, including terrifying or disturbing indexes of fear, helplessness, isolation, abandonment (e.g., horrific abuse imagery), or "surreal" imagery (e.g., people without faces, floating above the bench, figures described as statues). Individuals with AAPs that contained attachment trauma indicators reported significantly higher frequencies of clinical symptoms, on such measures as the Symptom Checklist (Derogatis, 1994) and Youth Self-Report (Achenbach, 1991), than individuals whose AAPs did not have trauma indicators (George, 2008).

The AAP administration was conducted by the clinician (J. D. Smith). The AAP coding and classification was performed by C. George, a trained and reliable AAP classification and trauma coding judge, who was blind to all other information about the case. The clinician conducted the standardized administration of the AAP and then, as is customary in TA, also conducted an extended inquiry (e.g., Finn, 2007; Handler, 2008) following the administration to illuminate Sarah's responses. The purpose of the extended inquiry is to explore further the context of responses to standardized administrations of assessment instruments, augment norm-based results, and gather additional information that might be useful in answering the client's assessment questions.

We examine Sarah's AAP protocol, in particular the evidence of attachment dysregulation and trauma, and discuss the ways in which her patterns of defensive processing contributed to the case conceptualization and the treatment goals. We begin by describing in detail Sarah's response to the Window picture (see Figure 1), the first attachment stimulus in the AAP picture set. The picture depicts a young girl with pigtails standing alone with her back to the viewer looking out through a large picture window.

Sarah: "That's how I feel right now. On the inside looking out. Wanting to go out. Be back in the thick of things. Kind of still stuck behind . . . behind the glass. I know it's there and I know it's tangible. I should be able to go there. Isolated. Really isolated. But hopeful."

Clinician: "What led up to the scene?"

Sarah: "There's so many different ways. I don't know. This one hits me really, really hard."

Clinician: "What do you think might happen next?"

Sarah: "Well, steps forward. Baby steps. Got to go outside. And there's somebody . . . in the end, somebody will come in there and invite them on in."

Clinician: "What do you think the characters are thinking or feeling?"

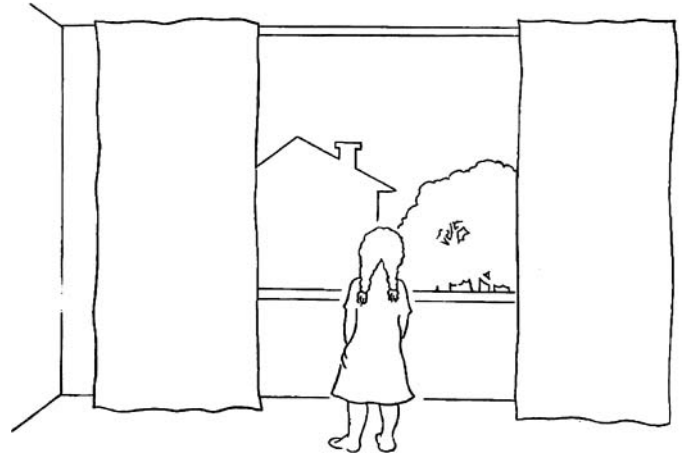


FIGURE 1.—Window.

Sarah: "Isolated and alone. Wishful. Fearful. I don't know. It's provoking."

This stimulus typically elicits nonthreatening stories about everyday themes, such as a child getting ready to go to school, looking outside to find playmates, or having to stay indoors due to illness or bad weather. Sarah's response to Window immediately revealed the intensity of her terror. Overwhelmed by the image of the girl's isolation, Sarah identified herself as the girl in the picture. She became absorbed and stuck in the moment, as the girl is stuck, unable to continue the story response until urged on by the clinician's probe. In the AAP, self and hypothetical stories are evaluated separately and provide important information about the quality of a client's parallel and unintegrated (i.e., segregated) representations of self. Sarah told two stories; both stories contained elements coded for attachment trauma risk. Sarah's personal experience story thread described the self as stuck behind glass, which is the type of surreal imagery shown to be associated with sexual abuse or terrorizing threat to one's body and frequently found in the AAP responses of patients with dissociative symptoms (Buchheim & George, 2011). Sarah ended this thread describing traumatic helplessness, an image of the isolated self that is considered a risk indicator for a history of severe sexual or physical abuse (Buchheim & George, 2011). Sarah's hypothetical story thread included variations of the same themes—traumatic isolation and fear. By contrast, however, Sarah created a hypothetical character that demonstrated the knowledge that she could find someone to take care of her ("invite 'em in") if she developed the agency to take action ("gotta go outside"). Sarah's blurry hope (a cognitive disconnection defense—"wishful") for connection to other people ("someone") permitted her to temporarily diffuse her terror. Sarah's hypothetical story described a reorganized self with the capacity to take action, albeit slowly ("baby steps"), to keep herself moving forward. This representation of the wished-for self is undermined by a representation of her real self as immobilized by attachment trauma.

Following the complete standardized administration of the AAP, the clinician began the extended inquiry by asking Sarah if any of the pictures stood out to her. Sarah quickly identified Window as that picture.

Sarah: "Oh, that one really caught me—the one with the girl looking out the window. I don't know. That one was just pretty deep stuff for me."

Clinician: "What was it about this picture that really struck you?"

Sarah: "I think that's where I am right now. It's funny, there's an advertisement that's in all the magazines right now. It's a fall picture, all the leaves are turning and it's beautiful outside. Every time I see it I get the same feeling I had to this picture. You know, 'Please let me go out there! Please let me go out there! How come I can't go out there?' It's weird . . . and uncomfortable."

Clinician: "In the story you told to this picture, you said it felt like you were stuck behind the glass."

Sarah: "Yep. That is how I feel—like there's this barrier."

Sarah's AAP protocol was judged unresolved for attachment trauma. It is important for case conceptualization and the therapeutic process to closely examine her representation of attachment figures, self, and unconscious defensive processes to understand the reasons for her referral questions and perhaps determine why she is currently failing to regulate her attachment arousal. The perceived availability of an attachment figure who can regulate attachment arousal is a defining characteristic in differentiating secure versus insecure patterns of attachment at all ages (George & West, 2011). Sarah's representation of attachment figures suggested that, although present, she expected them to withhold and abdicate care. When alone, Sarah's responses showed that she could not envision herself as appealing to anyone, except the single appeal to an unknown "someone" described in Window. Sarah demonstrated that the only people from whom she expected to receive real care and comfort were health professionals, a positive indicator for potential success in psychotherapy. She showed no capacity for thoughtful reflection and failed to demonstrate a view of self as having the agency needed to make constructive change in her life. She seemed confused about where to go for help and, although she viewed herself as slowly getting better, she could not envision how the help she received would move her forward.

Both forms of organizing defenses were evident in Sarah's responses. Deactivation was her predominant organizing defense, as evidenced by descriptions of attachment relationships as distant and rejecting. Her ability to use deactivation effectively, however, was inconsistent. Rejection, for example, could produce the distance she needed to prevent becoming dysregulated; however, she also demonstrated that the distance did not neutralize her distress and left her feeling unworthy, unimportant, and afraid. Sarah's responses showed a strong undercurrent of cognitive disconnection, evidenced by confused descriptions of characters and plot lines, frustration, and anger. Her dyadic stories suggested that these emotions were so easily aroused in the presence of attachment figures that she had to literally "disconnect" and leave these situations to dispel becoming increasingly distressed.

All of the segregated systems indicators in Sarah's responses were judged as traumatic. Five of her seven stories contained attachment trauma that repeated themes of traumatizing fear and helplessness; three responses failed to reorganize and contain dysregulated terror (i.e., three responses were unresolved). Attachment trauma was evident in both alone and dyadic stimuli, providing clear evidence of Sarah's representation of attach-

ment figures as helpless and abdicating their protective role. Sarah's AAP response to Window demonstrated her hypersensitivity when alone to interpreting even potentially benevolent or mildly stressful events as threatening (Buchheim et al., 2006; Buchheim & George, 2011). This pattern of traumatic attachment material in personal experience and hypothetical response threads was also evident in Sarah's response to the Cemetery stimulus, a scene that depicts loss. Research has demonstrated that personal experience responses with traumatic attachment dysregulation material such as Sarah's to the alone stimuli are frequently found in the AAPs of patients diagnosed with anxiety disorders (Buchheim & George, 2011).

The presence of surreal imagery in two of Sarah's responses was striking and informative. As noted earlier, surreal material in the AAP stories has been found in patients with known dissociative symptomatology, including anxiety and borderline personality disorder patients who have suffered severe physical or sexual abuse (Buchheim & George, 2011), and is considered to be an indicator of dissociation risk when evident in the AAP. This is a particularly important finding in this case, given that Sarah did not bring up problems with dissociation in previous discussions, despite the clinician's fairly explicit inquiry when discussing her childhood sexual trauma. We further discuss clients' experiences of traumatic dysregulation in the context of presenting the results to Sarah during the summary and discussion session and in the written feedback letter.

Based on the patterns of deactivation in Sarah's protocol, C. George hypothesized that deactivation had been Sarah's primary strategy for managing attachment arousal, but that something had popped her protective bubble and resulted in dysregulation. The AAP scoring was completed blind, so this hypothesis was put forward without knowledge of the client's background or the fact that the client had sought psychological intervention. During consultation between the clinician and the AAP judge, it was theorized that the experience of cancer had popped Sarah's protective bubble and left her without an effective strategy to regulate the affect associated with a reemergence of early traumatic material.

Cancer and trauma. There is a relatively large existing literature regarding the relationship between cancer and trauma (for reviews on this topic, see Kangas, Henry, & Bryant, 2002; Sumalla, Ochoa, & Blanco, 2009). Two large samples found strong links between childhood trauma and the development of serious health problems, including cancer. In the Adverse Childhood Experiences Study of more than 17,000 participants in California, researchers found that participants who experienced four or more adverse childhood events, such as physical and sexual abuse, had higher rates of many medical disorders, cancer included (Felitti et al., 1998). In a Canadian sample of 36,984 participants, those with PTSD had significantly higher rates of cancer, cardiovascular and respiratory diseases, chronic pain syndromes, and gastrointestinal illnesses (Sareen et al., 2007). Many patients experience the diagnosis and treatment of cancer as a traumatic stressor (Cordova et al., 2007), which is recognized in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text revision; American Psychiatric Association, 2000) as capable of precipitating PTSD. However, not all cancer patients who show PTSD symptoms after cancer diagnosis and treatment develop diagnosable PTSD. The presence of a prior history of trauma, such as childhood sexual abuse,

increases the likelihood of both the symptoms and a diagnosis of PTSD (e.g., Goldsmith et al., 2010). Furthermore, childhood traumas have been found to be a positive predictor of depression, symptom-related distress, and PTSD symptoms several months and several years after receiving cancer treatment (Andrykowski & Cordova, 1998; Green et al., 2000). Sarah's childhood experiences of physical and sexual abuse suggested that receiving a cancer diagnosis might have been the catalyst for dysregulating memories and emotions surrounding her earlier trauma. The evidence of employing dissociative defenses when confronted with severe isolation in the Window story provided further evidence to support this hypothesized link.

From an attachment theory perspective, until her diagnosis, Sarah was in a state of "failed mourning." Bowlby (1980) conceived of failed mourning as a form of pathological mourning that developed in response to loss when attachment figures were especially rejecting and harsh. George and West (2012) extended Bowlby's model to address mourning for all forms of attachment trauma, not just loss through death. Failure to mourn acts as a rigid form of deactivation that builds a sturdy wall that blocks conscious processing of segregated affect and memory. For Sarah, her failure to mourn abuse and what Solomon and George (2011) termed "assaults to attachment" likely enabled her to go forward successfully in at least some domains of her adult life (e.g., career). Although this wall can last a lifetime, Bowlby argued that subsequent loss would plunge an individual into full-fledged dysregulated mourning. The "loss" in Sarah's case was likely the assault to self that accompanied being diagnosed with a form of cancer associated with almost certain death. Now in remission, Sarah was not able to return to her former deactivated self and was being dysregulated by unresolved attachment trauma.

Convergence of findings between the EMP and AAP. The EMP and the AAP generated many hypotheses about Sarah. Support for a number of these hypotheses was found across the two instruments. Sarah's view of herself in the EMP as a person capable of taking care of herself was largely confirmed in the AAP, as evidenced by the agency to act when her attachment system is aroused. However, under significant attachment-related distress, Sarah's ability to act in a constructive way fell apart. Her Window story showed that being alone is terrifying and that she is unable to do anything to reorganize these feelings when they arise. Similarly, she did not view others as a source of comfort, and thus does not seek them out, nor expect them to come to her.

There is also evidence that when Sarah is terrified and feeling helpless during times of attachment arousal, she loses the ability to mentalize her experiences, which she had been able to do quite well on the EMP. The AAP is organized around telling hypothetical stories about the stimulus characters as opposed to the autobiographical EMP task. It is also important to note that the AAP was carefully designed to activate attachment distress and the EMP task is not. Thus, we would expect that Sarah's response would be less selectively monitored than her response to the EMP task that asked her to determine what she wanted to discuss. Sarah was unable to reconcile her conflicting self-views of an isolated and helpless person who is at the same time capable of taking care of herself. Sarah's perception in the AAP that attachment figures are unavailable also confirms the view of her mother as unresponsive from the EMP. However, in

contrast to the EMP, in which there was evidence to suggest that Sarah might find therapy, and the clinician, to be unable to help her, the AAP seemed to suggest that Sarah expected health care professionals would be able to provide safety from terrifying objects in her world. We believe that Sarah's recent experience of a successful treatment of her cancer had restored some degree of faith in those people fulfilling their social roles as doctors, nurses, and psychologists. The EMP and AAP were consistent, though, in suggesting that Sarah had a deep-seated belief that other people were unable to care for and protect her. This would likely be an impediment to successful long-term psychotherapy.

Session 6: Personalized Sentence Completions Test

Sarah's AAP responses generated numerous hypotheses regarding her representation of her parents, her emotional processing of trauma and cancer, and how she coped with distress. To test these hypotheses and help Sarah begin to make connections between past and current trauma and her current affective instability, the clinician prepared a set of personalized sentence stems. This session served as a low-intensity assessment intervention session (Finn, 2007), the primary goal of which was to prepare Sarah for psychotherapy and the discussion of the test results. Several themes emerged from this activity that elaborated on the results of the EMP and AAP.

- **Mother:** Sarah viewed her mother as "angry, strict, hard, and impatient," and she was afraid that her mother would hit and scream at her. Sarah wondered if her mother had ever been happy and if she knew how much she hurt her and her sister. Her predominant feeling toward her mother was indifference; yet she felt sorry that her mother did not receive the love and affection from her daughters that would have been possible had she loved and cared for them. These sentiments point to Sarah's current struggle of trying to find comfort from a mother who has never provided it. These responses were congruent with the anger and frustration expressed toward attachment figures illustrated in the AAP protocol as well.
- **Father:** Sarah described her father as "nonexistent" and that all she had were "dreams of what could have been, or what should have been, and what it hopefully is for others." She reported that even the thought of her father elicited feelings of loss and wishes that she had a father. This seems to suggest that part of Sarah's unresolved mourning was her father's absence in her life and that Sarah would need to grieve the lack of her "wished for" father, while also reconciling that her real father was angry and terrifying, as reported in her EMP.
- **Dysregulated terror:** One of the sentence completion stems read, *When I found out I had cancer*, to which Sarah reported that she was "dumbfounded." This corroborated her view of self as evidenced in the AAP as dysregulated by fear (i.e., frozen, shocked).
- **Isolated and helpless:** Sarah's responses to sentence stems designed to uncover more about how she believed she coped with difficult experiences suggested that she was unable to ask for help and felt isolated and alone. To the stem *When I'm in trouble*, she responded, "I turn inward. I cut off communication with others. Some people would feel a void, but it is what I have known, so it's kind of comforting." Her response to *When I feel helpless* was, "I pray. There's a lot of fear, though, about being helpless and not knowing what to do. And that's not how I see myself, it's very contradictory to my

core.” She responded to *I get scared when*, with, “I think about how to move forward now and when I’m not able to function the way I think I can.” To the stem *I get anxious when*, she replied, “I have a lot of things coming at me. I used to be able to juggle everything, but now things just get overwhelming and it makes me anxious and I break down. I don’t know why. It’s frustrating.” Sarah’s words mirrored her AAP responses in which she relied on and even isolated herself in response to distress. Praying, although an action that can potentially organize feelings, does not seem to reduce Sarah’s feelings of being afraid and helpless. Further, her current appraisal of self as ineffective and helpless violates her self-view, yet she cannot dispel these appraisals. She is overwhelmed by current emotional demands, which seems to feed a cycle of anxiety and dysregulation.

Session 7: Summary and Discussion Session and Written Feedback

The clinician’s goal during the summary and discussion session was to help Sarah develop a more accurate and comprehensive understanding of her current experience than the view she had prior to beginning the TA. The clinician hoped that he could help Sarah think about how her experience of cancer had unleashed unresolved attachment trauma and left her feeling very fragile, dysregulated, and powerless. At this point in the assessment, Sarah began to talk about her trauma, confirming our failed mourning hypothesis. She said that, on receiving her prognosis, she “surrendered” to the fact that cancer would kill her, at which time she began allowing herself to feel the pain of her past trauma. She reported that she previously lived her life not letting it affect her, but her terminal prognosis forced her to acknowledge the lingering pain. In accordance with the assessment results, Sarah reported that she very quickly discovered that she was not equipped to effectively manage the intensity of the feelings that arose. In the context of this discussion, the clinician proposed a metaphor to help Sarah understand her experience. He suggested that Sarah had developed a hard protective shell, which abruptly melted when she received the cancer diagnosis and prognosis, and she could no longer protect her fragile core. Sarah reported that this metaphor perfectly captured her feelings of exposure and emotional vulnerability.

An in-depth presentation of all the findings discussed during this session is beyond the scope of this article. We present here the answer to one of Sarah’s assessment questions, the root of which is her unresolved attachment classification and the evidence of dissociation found in the AAP. One of the core features of TA is to use assessment findings to address the client’s questions in a sensitive yet honest way. An attachment assessment can be difficult to understand. When a client is defended (i.e., deactivated or disconnected), attachment information might be difficult to absorb and accept. When a client is dysregulated, attachment information could potentially exacerbate feelings of vulnerability and helplessness. This is the primary reason why the clinician chose not to conduct a more intense assessment intervention session with Sarah. One approach developed by Finn (2011), in collaboration with C. George, was to include information in a client’s assessment letter that sensitively and respectfully explained the origins and meaning of a client’s AAP patterns.

We present a detailed excerpt from Sarah’s letter to demonstrate to clinicians how we explained to Sarah the meaning of her unresolved attachment. The reader will also see how the findings from the EMP and the sentence completion exercise were incorporated:

I would now like to answer the question, why do I feel so wimpy right now? In order to answer why it is that you feel wimpy, we have to go back a few years to how you felt before you received the cancer diagnosis. You will likely remember that the results of the AAP suggested that you probably had a strong capacity at an earlier time in your life to deactivate attachment-related distress. You may have been better able then than now to do things that helped cool down the intense feelings associated with your relationship with your mother, father, stepfather, son, and romantic partners. This capacity likely contributed to feeling effective and in control. You were able to insulate yourself from much of these negative and even threatening feelings by creating a safe distance from which you could regain your composure. We compared this to having a hard outer shell that protects the soft and more vulnerable core. The protective shell is effective only to the extent that it does not get too hot, in which case the core is no longer protected.

I believe your cancer diagnosis, and all the changes in your life that occurred as a result, melted that protective shell. The AAP results indicated that your attachment status is unresolved. It showed that you do not have an adequate protective shell at this time and are easily dysregulated when stressed. As a result, you are not able to close off feelings of being frightened and powerless. The AAP also showed that you are under a great deal of stress and are anxious that you do not have clear problem-solving coping strategies. On the Early Memories Procedure, you shared early childhood experiences that left you feeling frightened and terrified. Your father and stepfather were often enraged and your mother was cold and distant, and did not protect you. This experience is terrifying for a child. The AAP suggested that the failure to find protection was overwhelming and made you feel helpless, and that you cannot trust that the people who are supposed to be close to you will help you. The intersection of our current experience with our past is complicated, and a frightening experience in the present can open the floodgate of feelings and memories that may have successfully been cooled down or walled off for years. Receiving a life-threatening cancer diagnosis has likely put you back in a terrifying place where you had no way to cope with the pain and heal emotionally. You mentioned that you felt as though “the dam broke” and allowed past unresolved and unintegrated feelings to burst forth into your awareness and everyday life, and this occurred at a time in which you felt that you had insufficient internal resources to contain it. You also found little assistance from others in being able to calm these feelings. The AAP showed too that you are frustrated and angry by the uncertainty that all of this causes, although you try not to show these feelings.

As a result of the emotional flood, you now feel isolated and helpless. The AAP suggested that the only people that you think you can turn to for relief from the painful and overwhelming feelings and return you to the way you were before the diagnosis are health care professionals. Not being able to count on loved ones or even yourself is understandably terrifying and it leaves you in a state of constant hypervigilance for the possibility that your emotions will well up and you won’t be able to hold them in.

When attachment status is unresolved, thinking and actions often appear to the person and others to be disorganized. It is not unusual to become distracted or absorbed, even for a few minutes. We talked about this as the process of becoming *dissociated*, and how this absorption likely developed in childhood as an effective way of protecting yourself

from your overwhelming emotional experiences. Dissociation can help to keep you from being completely overwhelmed in times of emotional distress, but it also does not help you move forward and beyond your experiences of trauma. You described this process as “being stuck behind glass,” so I think you understand how dissociation makes reality intangible so that it cannot be confronted. This will be one of the areas that we will focus on in psychotherapy together.

The Psychotherapy

The treatment approach was not manualized and followed the basic principles of short-term psychodynamic psychotherapy, similar to those described by Sifneos (1987) and Malan (1979), among others. Specific interventions included (a) negotiating and maintaining the therapeutic alliance; (b) approaching Sarah’s current emotional symptoms as expressions of underlying conflicts related to her past relationships, trauma, and cancer; (c) attending to transference and countertransference phenomena; (d) and helping Sarah articulate split-off and heavily defended emotions and views of herself (e.g., helplessness). Additionally, elements of behavioral activation for anxiety and depression (e.g., Hopko, Robertson, & Lejuez, 2006) were integrated into the therapy to help Sarah increase her activity levels and reduce her feelings of anxiety and depression.

Following the TA, Sarah and the clinician agreed on three primary areas of focus for the subsequent psychotherapy. Given the time-limited nature of the planned psychotherapy, the goals of the therapy were prioritized. A long-term, intensive psychotherapy would likely have been necessary to achieve each of the goals identified by the assessment. Above all else, the clinician would help Sarah to build a new, more effective protective shell (e.g., not so rigidly defended by deactivation) to help her moderate the intensity of her feelings and capacity to seek connections to others. During the psychotherapy, Sarah developed some more effective strategies of coping with stress and emotional arousal, including reaching out to others (e.g., the clinician, friends). Achieving this goal occurred primarily through bringing split-off affect into Sarah’s awareness, connecting it to her past experiences, and helping her to mentalize when slightly aroused.

To a lesser extent, the therapist also helped Sarah to mourn her past trauma and loss. Predominantly, rather than denying that these experiences were affecting her today, psychotherapy helped Sarah face, think about, and integrate these experiences into her current understanding of herself and her feelings. The psychotherapy provided her with the necessary space and support to mourn her “real” father and relinquish the idealistic wish for this relationship. Finally, the clinician helped Sarah to identify signs of dissociation and to develop alternative strategies that could achieve the goal of maintaining a sense of safety without the detrimental effects she had experienced through repeated dissociative experiences. Further, the authors believed that Sarah’s struggle with contradictory and segregated representations of attachment were at the core of her dissociative defenses. The clinician and Sarah therefore also worked together to reconcile the inherent confusion of possessing split states of mind involving terror and comfort.

The psychotherapy portion of Sarah’s treatment was made up of eight roughly biweekly sessions, spanning 17 weeks. The penultimate meeting was the TA follow-up session. The clinician began the session by reexamining Sarah’s assessment

questions and the underlying reasons that had led her to seek intervention. Sarah reported that she no longer felt “wimpy” but was confident in her ability to control her emotions, which she stated were not nearly as fragile and unpredictable as before. Similarly, considerable time had also been devoted to teaching Sarah how to identify dissociation during the treatment. Sarah reported that she had not noticed a dissociative experience in more than a month. Admittedly, the goals for the psychotherapy identified during the TA were lofty and could not have been realistically addressed in full in such a time-limited treatment. However, we believe that the TA process illuminated Sarah’s problem areas and provided the clinician with a solid case conceptualization from which to conduct the treatment. The TA and the test results also helped Sarah and the clinician collaboratively and accurately prioritize the treatment goals. We believe focusing on rebuilding Sarah’s shell ultimately led to her feeling comfortable terminating the therapy.

After receiving the news that her cancer was in remission, Sarah returned to college in an effort to develop a new vocation. The clinician had addressed during psychotherapy Sarah’s intense anxiety about returning to college. She reported during the TA follow-up session that she was now comfortable in the classroom and was able to complete assignments and study for exams without feeling as though she was going to have a panic attack. Returning to college in and of itself was a major achievement for Sarah and evidenced her progress during treatment. Finally, behavioral activation interventions allowed Sarah to increase her daily activity levels. This improved her mood and also reduced the leg pain she was feeling when treatment began. Sarah was attending a weekly yoga class and walking several days a week with her neighbors; yoga had also become a vehicle for teaching and practicing mindfulness-based stress- and anxiety-reduction skills.

Although termination had only been broached briefly prior to the TA follow-up session, it became evident through discussing Sarah’s progress that she had attained the goals for which she had sought treatment. It was decided that Sarah would return in 1 month, at which time she could decide whether or not to continue psychotherapy. Ultimately, she elected to terminate based on her progress and lack of current distress. The clinician also felt that termination at this point was appropriate and clinically indicated by Sarah’s presentation and functioning.

The Transition From Assessor to Psychotherapist

Finn (2011) described the use of a TA-based AAP administration during the course of a long-term psychotherapy, demonstrating the way in which TA can aid psychotherapy. Yet, the TA literature provides only a limited discussion of the transition from assessor to psychotherapist. Two studies conducted by Hilsenroth and colleagues (Ackerman et al., 2000; Hilsenroth et al., 2004) found that a TA procedure enhanced the therapeutic alliance between the client and assessor and the client and the psychotherapist to whom the client was subsequently referred. Their findings suggest that participation in a TA would also facilitate the therapeutic alliance when the assessor’s role was transformed to psychotherapist.

To facilitate a smooth transition from TA to psychotherapy, the therapist maintained a consistent therapeutic stance between the assessment and the psychotherapy based on the core values of TA (collaboration, respect, humility, compassion, openness

and curiosity; Finn, 2009). Maintaining a therapeutic alliance was made easier by the collaboration that began during the TA, particularly having established a set of agreed-on goals, the lack of which is a noted cause of alliance ruptures (Safran, Muran, Samstag, & Stevens, 2001). The therapist was also able to directly tie each intervention strategy to the test results and related goals identified during the TA, which seemed to facilitate greater engagement and reduce resistance. The therapist's concerns regarding potentially harmful transference (i.e., Sarah experiencing the therapist as aggressive or unavailable) did not bear out. On the contrary, Sarah's recent positive experiences with health care professionals in treating her cancer seemed to buoy the relationship with the therapist. In fact, during the termination session, Sarah reported that she looked forward to the therapy sessions because she experienced them as "calming and safe."

The TA process also provided the client and therapist with a set of shared metaphors and experiences, and a common language from which to implement intervention strategies. For example, the metaphor of the "shell," which represented Sarah's ability to effectively cope with distress and negative emotions, was a consistent thread throughout the psychotherapy. Similarly, the test results were used as a foundation throughout the psychotherapy. For example, parallels were consistently drawn between the problems Sarah discussed in therapy and her responses that demonstrated similar themes. For Sarah, the experience of being "stuck behind the glass" in the Window picture was an incredibly salient image that she would use to describe her feelings of helplessness in real-world situations and her desire to have a better outcome. The first time Sarah visited the college she would later attend, she had a frightening experience that she described as a "panic attack." When discussing this event with the therapist, she remarked, "You know, just like being stuck behind the glass." This and other test responses became shorthand for particular experiences and emotions.

THE CASE-BASED EXPERIMENTAL DESIGN

As mentioned at the start, this case utilized the single-case experimental design and procedures that are very similar to previously published TA studies (for additional information, see Aschieri & Smith, 2012; Smith, Handler, & Nash, 2010; Smith, Nicholas, et al., 2011; Smith et al., 2009). Daily measurement indexes were developed collaboratively with Sarah based on her assessment questions and goals for treatment during the initial meeting. Four indexes were identified and subsequently rated each day on a 9-point Likert scale ranging from 1 (*I do not at all agree with this statement*) to 5 (*I agree with this statement*) to 9 (*I extremely agree with this statement*). The indexes included: (a) I felt in control of my tearfulness; (b) I felt a sense of self-efficacy; (c) Level of activity today; and (d) Level of fear/anxiety about my illness. Each item was rated subjectively with higher scores on the first three items indicating better control, self-efficacy, and daily activity level, and lower scores on the last item indicating fewer feelings of fear and anxiety about her illness. Sarah monitored these indexes daily from the initial meeting to the termination of the psychotherapy. Sarah never missed a reporting day and professed 100% daily recording compliance during a brief exit interview.

The research design of this case included elements that have not previously been utilized in case-based experimental studies of TA. Although the assessment questions were gathered during

the first session, the standardized test administration phase of the TA did not begin until the fourth meeting. This period between Sessions 1 and 4 served as the pretreatment baseline phase during which background information was gathered (Sessions 2 and 3). The inclusion of a "contact with therapist" element during the baseline measurement minimizes the effect of symptom remoralization and allows the researcher to more confidently attribute changes coinciding with the introduction of TA to specific elements of the intervention model, and not simply making contact with a therapist or other common factors. Symptom remoralization is the sudden improvement in symptom severity that has been found to occur early in psychotherapeutic interventions: A number of research teams studying a phase model of change found that the majority of client improvements occur between Sessions 1 and 3, suggesting that symptom remoralization should have occurred prior to beginning the TA (e.g., Fowler, Ackerman, Speanburg, Blagys, & Conklin, 2004; Howard, Kopta, Krause, & Orlinsky, 1986; Howard, Lueger, Maling, & Martinovich, 1993). The second design element of this study that differs from previous studies by Smith and colleagues is the inclusion of psychotherapy following the TA. J.D. Smith served as the psychotherapist in addition to the TA assessor.

Figure 2 illustrates the progression of the TA and the subsequent psychotherapy. The baseline period consisted of four weekly sessions spanning 28 days. The test administration and summary and discussion sessions of the TA consisted of four weekly sessions over a 28-day period. The period of psychotherapy consisted of seven sessions, scheduled biweekly, except for the final session, and spanned 112 days. Two elements of the adult TA model were conducted during the psychotherapy: The feedback letter was given to Sarah at Session 10 and a formal TA follow-up session was conducted at Session 13.

Data Analysis and Discussion of Results

We were interested in two questions related to the effectiveness of the intervention.

- Did Sarah experience improvement in her symptoms during the TA?
- Did her symptoms continue to improve during the psychotherapy?

We hypothesized that Sarah would report statistically significant improvement in her experience of symptom severity during the TA. Second, we hypothesized that reported improvement would continue during the psychotherapy in comparison to the baseline and the TA periods.

To test these hypotheses, we conducted four phase-effect analyses using Simulation Modeling Analysis (SMA; Borckardt, 2006) software. Phase-effect, or level-change, analysis in SMA calculates an effect size by comparing the mean symptom severity of two specified streams of data (e.g., baseline and treatment). This analysis accounts for autocorrelation, the nonindependence of sequential observations, by comparing the observed effect size to 5,000 simulated data streams with similar levels of autocorrelation. The resultant *p* value is the actual probability of obtaining the observed effect size with the given data series length and autocorrelation estimates. Autocorrelation is a pervasive concern in time-series designs and is known to influence effect size calculations (e.g., Allison & Gorman, 1993; Borckardt et al., 2008; Manolov & Solanas, 2008; Robey, Schultz,

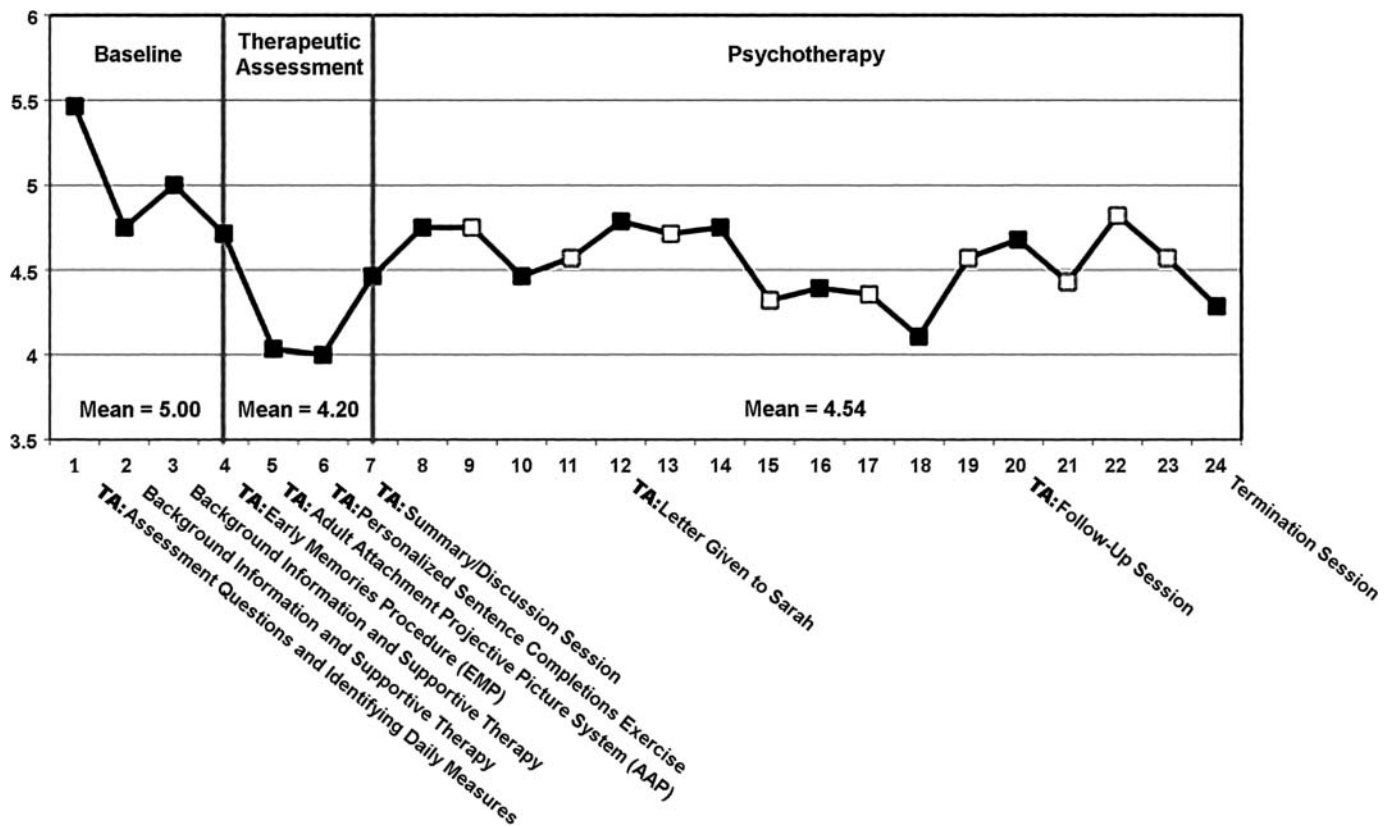


FIGURE 2.—Elements of the research design and description of the intervention. Note. Y Axis indicates symptom severity on a 1–9 Likert-type scale, focused on range from 3.5 to 6 to reveal the details of symptom change. X Axis indicates week on intervention with labels for session type and activity. Elements of the Therapeutic Assessment model are delineated by a bold TA. Black squares on data line indicate the occurrence of a meeting between Sarah and the clinician.

Crawford, & Sinner, 1999) and the ability to correctly infer an observed effect (Smith, Borckardt, & Nash, in press).

We conducted a preliminary analysis to determine the appropriateness of producing a composite variable from the four daily measure indexes. Cross-correlation analysis indicated that the four indexes were nearly all most strongly correlated on a daily basis. Given these results, we created a composite variable by producing a daily mean score of the four indexes. The four indexes were given the same valence, in which lower scores indicate improvement, prior to creating the composite score. Equal weight was given to each of the indexes when creating the composite score.

To address our first hypothesis, we compared the 28-day baseline period to the subsequent 28-day period in which the test administration and collaborative feedback session of the TA occurred. The results indicated significant overall improvement ($r = .61, p < .01$). Even after applying the highly conservative Bonferroni correction (Bonferroni, 1935), which resulted in a critical p value of $.0125$ ($\alpha = .05/4$), this effect remains significant. The mean score of the composite variable improved from 5.00 ($SD = 0.46$) during the baseline to 4.20 ($SD = 0.56$). Thus, our hypothesis that Sarah’s symptom severity would improve during the TA was supported.

Addressing our second hypothesis required multiple phase-effect analyses. We first compared the baseline to the TA and psychotherapy periods combined to determine whether or not

Sarah’s reported symptom severity improved as a result of the entire intervention. The results indicated that her symptoms had significantly improved ($r = .38, p < .01$), dropping from a 5.00 ($SD = 0.46$) mean score during baseline to a mean score of 4.49 ($SD = 0.40$) during the remainder of the intervention. To better understand when improvement might have occurred, we conducted two more analyses. The first analysis compared the baseline to the psychotherapy period: The results indicated significant improvement ($r = .40, p < .01$) with a mean severity decrease from 5.00 ($SD = 0.46$) to 4.54 ($SD = 0.42$). Finally, because a significant effect was found during the TA, we combined the baseline and TA periods and compared this data stream to the psychotherapy period to determine whether improvement continued as a result of psychotherapy, or if the improvement during the TA was accounting for the significant effects found in the previous two analyses. The results of this analysis indicated a small effect size that was nonsignificant ($r = .11, p = ns$). The mean scores of these two periods are nearly identical at 4.65 ($SD = 0.61$) and 4.54 ($SD = 0.40$), respectively.

The results of these four analyses suggest that symptom improvement coincided with the onset of the TA and was maintained during the psychotherapy period, but did not continue to improve. Thus, our second hypothesis was only partially supported. The mean symptom severity during the psychotherapy period was significantly improved compared to baseline, but it appears that Sarah’s symptom improvements occurred almost

entirely during the TA period. Psychotherapy appears to have served to maintain these gains. The progression of Sarah's reported symptoms across the entire study period is depicted in Figure 2 with weekly mean scores for better clarity. It is visually apparent that Sarah's reported symptom severity improved during the TA and then leveled off through the psychotherapy.

CONCLUSIONS

This main goal of this case study was to illustrate the use of the AAP in the context of a TA to develop a comprehensive attachment-based case conceptualization and identify specific domains for intervention, both within the TA model and in subsequent psychotherapy. This case makes a unique contribution to the literature in multiple ways, including the description of the unresolved classification and the application of TA and the AAP in the assessment of cancer-related trauma in a health care setting. We also illustrated how the additional attachment information (i.e., beyond classification group designation) assessed using the AAP can inform assessment and treatment from an attachment perspective. Although the TA procedure described in this article is somewhat less extensive than other case examples in the literature (e.g., only administering three assessment instruments), the goals of the TA were accomplished and the entire model was employed.

The case demonstrates that Sarah's self-reported symptom severity improved significantly after participation in the TA. These gains seemed to have been maintained during the psychotherapy. Although the gross magnitude of change in daily composite values is not striking, rather large effects were found after controlling for the nonindependence of the data. Clients with predominant deactivating and dismissing defenses often produce lower scores on self-report measures compared to other methods of assessment (e.g., Dozier & Lee, 1995). Finn (1996) provides suggestions from a TA perspective for how clinicians can address these discrepancies with clients. It is likely that Sarah's deactivating defenses were at least in part responsible for her relatively low scores on the daily measures, in comparison to the evidence of severe distress and dysfunction found on the AAP. Sarah's deactivating defenses might have also contributed to lower symptom severity reported during the TA period: Completing the EMP and AAP allowed Sarah to discuss and process her trauma, which is believed to be a primary mechanism of therapeutic change in numerous evidence-supported trauma interventions (Foa, Keane, & Friedman, 2000). Additionally, processing her trauma might have also further activated her deactivating defenses, resulting in lower reported symptom severity during this period.

These findings add to the growing body of evidence suggesting that TA is an effective brief intervention. We were surprised that nearly all the improvement Sarah experienced occurred during the TA and did not seem to continue during the psychotherapy. This finding might be due to the decrease in meeting frequency between the TA (weekly) and psychotherapy (biweekly), and is also likely confounded by the inclusion of TA-specific elements (i.e., the letter, follow-up session) during psychotherapy. The results suggested that reducing Sarah's affective distress to manageable levels paved the way for the interventions implemented during the psychotherapy. Future research would likely benefit from including measures that tap distress, as well as behavioral changes, much like researchers

studying the phase model of change have done (e.g., Fowler et al., 2004; Howard et al., 1986; Howard et al., 1993). The inclusion of observer-completed behavioral measures, in addition to client self-reported experiences, would also minimize the potential effect of demand characteristics or allegiance experienced by the client working with a clinician-researcher. Future research would also benefit from readministering the AAP as a follow-up subsequent to therapy. Although collection of follow-up assessment data is necessary to statistically demonstrate lasting improvement, at the time of this writing, about 4 months after termination, Sarah reported via telephone interview that she has been doing very well in college and feeling much better. She attributed her success in both of these domains to the treatment and expressed her gratitude to the clinician. The combination of the daily measures time-series experiment and Sarah's reported and observed improvements suggest that the intervention was successful and indicates the need for future studies with improved methodological rigor.

ACKNOWLEDGMENTS

We would like to thank Robert Erard and the reviewers for their helpful insights regarding the interpretation of the assessment results contained in this case study. We would also like to thank the Center for Integrative Medicine at the University of Colorado Hospital for their support of this project.

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