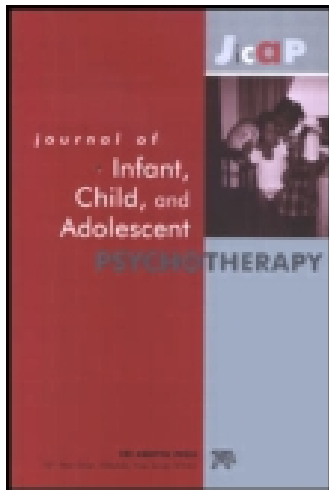


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Distress Screening in Childhood Cancer Patients: A Focused Case Study Examination Involving Projective Drawings

D. Scott Herrmann

Due to advances in detection and treatment, many more children survive childhood cancer in the 21st century compared with previous generations. How to best meet the needs of these survivors is a goal shared by many health care professionals. One area of complexity, however, involves the affective/emotional functioning of children who have experienced a cancer diagnosis. Although counterintuitive, a robust psychological literature has documented that the depression rate in childhood cancer patients tends to be equivalent or lower than the rate found in healthy peers. While various theoretical models have been offered that attempt to explain this phenomena, inadequate measurement remains one possible explanation for this anomaly. That is, mainstream self-report measures may not be sensitive enough to pick up on affective/emotional disturbance that truly exists. The present article is a focused case study examination of the assessment and treatment of affective/emotional disturbance in one childhood cancer patient. Of significance, actuarial projective assessment and parent report data indicated the presence of emotional disturbance, while self-report data did not. The mental health profession's overreliance on self-report data is theoretically discussed, and both assessment and treatment recommendations are offered to mental health professionals who work with this growing segment of the population.

In children, cancer tends to cluster around 15 specific categories, each with unique features, courses, and prognosis. Incidence rates for all cancers combined are highest in infants, decline until the age of 9, and then rise again with increasing age (American Cancer Society, 2000; Keene, 1999; Ross & Davies, 2001). Cancer is currently the fourth leading cause of death in children and adolescents, following unintentional injuries, homicides, and suicide (Centers for Disease Control and Prevention, 2007). However, the survival rates for all types of childhood cancer have increased dramatically over the last several decades, with the combined five-year survival rate being reported at 79.6 percent between 1996 to 2003 (Ries et al., 2007). Moreover, the American Cancer Society recently reported that mortality rates for all childhood cancers have declined by 68 percent over the past four decades (American Cancer Society, 2013). Meeting

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both the immediate and long-term needs of childhood cancer patients are important objectives shared by many professionals across different health care and educational settings.

DEPRESSION IN CHILDHOOD CANCER PATIENTS

Research has shown that there are numerous immediate and long-term effects of childhood cancer. For example, three decades of research on CNS-related childhood malignancies has revealed the most common neuropsychological deficits typically involve attention/concentration problems, slowed processing speed, nondominant hemisphere functioning, visual spatial deficits, and working memory deficits (Butler et al., 2008; Schatz et al., 2004). Not surprisingly, such cognitive deficits may also contribute to academic and social deficits among some childhood cancer survivors (Newby et al., 2000). However, with regard to depression and affective distress, the literature is not at all clear. Although some evidence indicates an increased level of affective distress in childhood cancer patients (e.g., Cavusoglu, 2001; Zebrack et al., 2002), the majority of evidence points to either equivalent or lower levels of affective distress in comparison to normative groups or healthy peers (Allen, Newman, & Souhami, 1997; Bragado et al., 2008; Canning, Canning, & Boyce, 1992; Chao et al., 2003; Dejong & Fombonne, 2006; Kaplan et al., 1987; Kersun et al., 2009; Matziou et al., 2008; Noll et al., 1999; Phipps & Srivastava, 1997; Radcliffe et al., 1996; Tebbi, Bromberg, & Mallon, 1988; Worchel et al., 1988). This literature stands in sharp contrast to the rational expectation that children with cancer would have higher levels of depression. It also stands in sharp contrast to the meta-analytic data on depression rates in adult cancer patients who have been found to have increased levels of depression and affective distress compared to normative groups and/or healthy peers (Van't Spijker, Trijsburg, & Duivenvoorden, 1997).

Adequately assessing the degree of affective/emotional distress in any cancer patient is of prime importance if comprehensive care needs are to be met. Further, in 2012 the American College of Surgeons (ACoS) Commission on Cancer (Commission on Cancer, 2012) *required* psychological distress screening for every cancer patient treated in ACoS accredited facilities. However, given the mixed and confounded nature of the literature with regard to depression in childhood cancer patients, many uncertainties exist regarding the best assessment methods and instruments to employ.

CHILDHOOD DEPRESSION

According to Kamphaus and Frick (1996), internalizing disorders (which include depression) are among the most difficult to diagnose because of the nature of the symptomatology. According to Reynolds (1990), "internalizing disorders as a function of their insidious nature, do not readily come to the attention of psychologists. Because of this, professionals need to be vigilant to the potential existence of internalizing disorders in children and adolescents" (p. 137). According to the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V; American Psychiatric Association, 2013)*, in order to meet the diagnostic criteria for Major Depressive Disorder, at least five of nine symptoms must have been present over a two-week period. These symptoms include depressed mood (or irritability in children), diminished interest in pleasurable

activities, weight loss or weight gain (or increased/decreased appetite), insomnia or hypersomnia, psychomotor agitation or retardation, fatigue or loss of energy, feelings of worthlessness or guilt, diminished ability to think or concentrate (or indecisiveness), or recurrent thoughts of death. As noted by Dejong and Fombonne (2006), many of the diagnostic criteria associated with Major Depressive Disorder are known to occur with much greater frequency in children with cancer:

Fatigue and lethargy are common in children with cancer, and this together with pain and discomfort caused by the illness and its treatment can lead to a loss of interest in normal activities. Chemotherapy with accompanying nausea often causes a loss of appetite and weight loss, which may be exacerbated by the disease process itself. Many factors including disrupted nights in a hospital setting contribute to insomnia. Loss of concentration may also be due to chemotherapy. (p. 559)

Because the core symptoms of depression can occur more frequently in cancer patients, the newly published *DSM-V* specifically clarified by stating:

The evaluation of symptoms of a major depressive episode is especially difficult when they occur in an individual who also has a general medical condition (e.g., cancer, stroke, myocardial infarction, diabetes, pregnancy). Some of the criterion signs and symptoms of major depressive episode are identical to those of general medical conditions (e.g., weight loss with untreated diabetes, fatigue with cancer, hypersomnia early in pregnancy, insomnia later in pregnancy or postpartum). Such symptoms count towards a major depressive episode except when they are clearly and fully attributable to a general medical condition. (American Psychiatric Association, 2013, p. 164)

Thus, not only has the *DSM-V* formally clarified that many of the core diagnostic symptoms of major depression occur more frequently in medically ill individuals, but it also has clarified that such symptoms *should* be counted towards meeting diagnostic criteria for a major depressive disorder unless such symptoms are solely attributable to the underlying medical condition. Given that we know core depressive symptoms occur more frequently in individuals diagnosed with cancer, it is all the more remarkable that a sizeable body of literature has documented that children with cancer tend to report equivalent or less depressive symptoms than their healthy peers.

COMMON ASSESSMENT MODALITIES

When assessing for depressive symptoms, clinicians have long recognized that depression in children can manifest differently or more subtly than in adults, with the *DSM-V* diagnostic criteria being altered accordingly to account for such differences. Moreover, children who do not meet the full criteria specified for a major depressive disorder in the *DSM-V* may still manifest clinically significant depressive symptoms that warrant clinical intervention, with such symptoms being accounted for under alternate diagnostic labels such as unspecified depressive disorder, adjustment disorder with depressed mood, persistent depressive disorder (dysthymia), or the newly articulated disruptive mood dysregulation disorder. These multiple diagnostic possibilities underscore the point that problems related to affective/emotional distress often do not fit neatly into preordained diagnostic classification schemas.

Assessing depression and emotional disturbance in children is clearly not an easy task. As noted by Kamphaus and Frick (1996), internalizing disorders are among the most difficult to diagnose because of the nature of the symptomatology. There are also many different

approaches to assessing depression in children, including parent rating scales, teacher rating scales, self-report instruments, peer-referenced assessment, semi-structured interviews, and projective/actuarial assessment. Among the different methods, parent/teacher ratings have historically been favored over self-report because it was commonly believed that children do not possess the reading comprehension skills or the insight necessary to accurately report on their own feelings, perceptions, and behaviors. For example, an empirical investigation by Norwood (2007) found that while junior school aged children (7–11 years) may be able to report accurately on their own symptomatology, younger children (4–7 years) were not able to self-report consistently or accurately on their own emotions and behavior.

One of the most commonly used instruments for assessing depression in children is the self-report Children's Depression Inventory (CDI; Kovacs, 2003). However, there is much conflicting data regarding whether the CDI can accurately and reliably differentiate between depressed and nondepressed children in clinical settings (Hodges, 1990). An alternate and seemingly underutilized assessment methodology for tapping emotional and mood disturbance that largely avoids dependence on language and self-report is projective/actuarial drawing techniques. Koppitz (1983) noted that "drawing is a natural mode of expression for boys and girls. It is a nonverbal language and form of communication; like any other language, it can be analyzed for structure, quality and content" (p. 426). Koppitz further states:

When used with caution and understanding, drawings are invaluable as part of screening or assessment batteries for elementary and secondary students. However, drawings should only be used in combination with other diagnostic instruments, observations of the student, and with developmental and background information to diagnose specific emotional problems present in children and adolescents. (p. 426)

While there are strengths and weaknesses associated with different types of assessment techniques for gauging depression and emotional disturbance in children, projective/actuarial techniques have been identified by some as holding special appeal (Naglieri, McNeish, & Bardos, 1991). Nevertheless, projective techniques seem to have fallen into disfavor in recent years compared with the ease of use and automated scoring involved with self-report and behavioral rating questionnaires. No matter which type of assessment modality is favored by a clinician, avoiding overly narrow definitions of what constitutes depression and casting a relatively "wide net" by utilizing several different types of validated assessment techniques makes the most sense in an effort to prevent truly depressed children from "falling through the cracks" by failing to be identified.

CASE DESCRIPTION AND HISTORY

The patient is a Caucasian female (Lilly) diagnosed with acute lymphoblastic leukemia (ALL). ALL is a cancer of the white blood cells characterized by excessive lymphoblasts. Malignant white blood cells are overproduced in the bone marrow, which ultimately spread (infiltrate) other organs and crowd out normal cells. Lilly was initially diagnosed at approximately 5 years old and received comprehensive medical care at a large metropolitan hospital for approximately three years. Part of her medical treatment protocol included intrathecally administered chemotherapy (methotrexate) without cranial radiation. As a result of her ALL treatment, Lilly did experience

some neuropsychological sequelae involving confusion, headaches, and automatisms (periodic behavior disturbances often found in psychomotor epilepsy). Subsequent findings from a neuroimaging study also revealed alterations in the white matter of her brain due to calcifications originating from her chemotherapeutic regimen. Concurrent to her medical treatment, Lilly also received comprehensive psychological services through the Child Psychology Clinic at the same hospital where she was receiving medical treatment. Prior to her cancer diagnosis, Lilly was described as being well-adjusted, academically bright, and socially well-integrated. She lived with her biological mother (homemaker), biological father (senior military officer), and two younger siblings. Medical and psychological history prior to her cancer diagnosis was unremarkable, and she was described by her parents as being a bright, happy, and well-adjusted child. However, at approximately two years postcancer diagnosis, Lilly's mother expressed concerns regarding Lilly's affective/emotional functioning. Consequently, assessment was conducted and measures of affective/emotional disturbance were administered to Lilly during this phase of her ongoing treatment.

RESULTS

Psychological Assessment

In order to comprehensively assess for affective/emotional disturbance at approximately two years postcancer diagnosis, Lilly was administered several different measures of affective/emotional disturbance and internalizing symptomatology, including the Children's Depression Inventory (Kovacs, 2003), the Multidimensional Anxiety Scale for Children (MASC; March, 1997), and the Draw a Person: Screening Procedure for Emotional Disturbance (DAP:SPED; Naglieri et al., 1991). There were no significant elevations on either the CDI or MASC ($t < 55$), indicating no clinically significant affective/emotional problems involving depression or anxiety. Although curious at face value, this finding was entirely consistent with a substantial body of empirical literature indicating that childhood cancer patients are often found to have either equivalent or less affective distress symptoms as compared to healthy peers or normative groups (Allen et al., 1997; Bragado et al., 2008; Canning et al., 1992; Chao et al., 2003; Dejong & Fombonne, 2006; Kaplan et al., 1987; Kersun et al., 2009; Matziou et al., 2008; Noll et al., 1999; Phipps & Srivastava, 1997; Radcliffe et al., 1996; Tebbi et al., 1988; Worchel et al., 1988). Although various psychological theories have been offered that attempt to explain this phenomena (e.g., see Phipps, 2007), it is also possible that the nature of self-report inventories may not be entirely sufficient to capture the affective symptomatology that can exist within this population. Consequently, it was speculated that an alternative and more sensitive modality of assessment may be needed in order to accurately determine whether affective/emotional disturbance truly existed in this case, and it was hypothesized that the DAP:SPED might represent such a measure.

DAP:SPED Description and Results

The DAP:SPED is a measure of emotional disturbance that is an actuarial based instrument noted to be "the most psychometrically advanced of the human figure drawing instruments"

(Matto, 2002, p. 221). Several empirical investigations and reviews have found support for the reliability and validity of the DAP:SPED (Matto; Matto, Naglieri, & Clausen, 2005; Trevisan, 1996). Also, the DAP:SPED has been noted in *Mental Measurements Yearbook* reviews as having established basic validity and reliability, and as being applicable as an easy to use screening instrument for emotional disturbance (Cosden, 1995; Morrison, 1995). Validated and psychometrically sound human figure drawings such as the DAP:SPED have been noted by some to offer several advantages over self-report instruments because they are less susceptible to social desirability bias (Houston & Terwillinger, 1995; Merrill, 1994; Palmer, 1970). The nonverbal nature of human figure drawings may also be less intimidating to some children because verbal ability demands are removed, and these techniques have been specifically noted to be useful in settings such as schools or hospitals where time, child ability and resources can be limited (Matto, 2002).

With regard to administration, the DAP:SPED is a brief and efficient measure that requires the examinee to draw three pictures (man, woman and self) on three separate pages of a record form. A maximum of five minutes per drawing is allowed. The DAP:SPED scoring system uses an objective actuarial approach to the identification of individuals with emotional or behavioral problems. Specifically, the presence or absence of certain drawing features are considered to be indicative of disturbance, with the overall number of markers present being used to differentiate normal from maladjusted groups based upon a standardized, objective scoring system. According to the DAP:SPED's authors (Naglieri et al., 1991), certain items are considered potential signs of emotional disturbance because they (a) were selected following an exhaustive review of the literature of those signs used and researched as indicators of emotional disturbance, (b) were found to occur infrequently in standardization among normal individuals, and (c) showed appropriate psychometric properties. When subjected to the DAP:SPED's objective scoring system, Lilly's DAP:SPED drawings yielded a t score of 72 (99th percentile), with a 95 percent confidence interval of +/- 10 points, falling in the "strongly indicated" range and calling for further evaluation and follow-up regarding emotional disturbance (Table 1).

According to the DAP:SPED manual, the higher the t score, the more likely it is that emotional adjustment problems or disturbance truly exists. In short, this screening instrument perceived an elevated likelihood of emotional adjustment problems or disturbance even though the aforementioned self-report inventories failed to detect any such problems.

Beyond the DAP:SPED's objective actuarial scoring system, a qualitative analysis of Lilly's DAP:SPED drawings was conducted, and also yielded clinically rich and therapeutically useful information. Specifically, after Lilly had completed her drawings she was asked to simply tell who the people were depicted in her drawings, if in fact they were real identifiable people. Lilly explained that her drawing of a man (see Figure 1) was in fact a drawing of her treating oncologist. The smile on his face and the "smiley face" in his chest area would seem to convey a friendly and affable individual, which is entirely congruent with this oncologist's demeanor and rapport with children in the pediatric oncology clinic. In fact, this oncologist was sometimes likened to Patch Adams, the famous physician who has organized volunteers to travel to various countries dressed as clowns while bringing medical care and humor to patients. The most prominent feature of Lilly's drawing of a man, however, was the depiction of oversized hands in the drawing. When considering that one's hands are the primary mechanism by which an individual is able to manipulate and/or control the environment, the extraordinarily oversized hands in the drawing would seem to signify an almost omnipotent power possessed by the man in this drawing. Given that

TABLE 1
DAP:SPED Scoring

<i>Man Scoring Criteria</i>	<i>Woman Scoring Criteria</i>	<i>Self Scoring Criteria</i>	<i>Drawing Raw Score</i>
Tall Figure (1)	Tall Figure (1)	Tall Figure (1)	Man (M) 4
Big Figure (1)	Big Figure (1)	Big Figure (1)	Woman (W) 8
Crotch Shading (1)	Transparencies (1)	Transparencies (1)	Self (S) 8
Feet Shading (1)	Nose Omitted (1)	Nose Omitted (1)	Total DAP:SPED
	Fingers Omitted (1)	Fingers Omitted (1)	RAW SCORE
	Crotch Shading (1)	Crotch Shading (1)	(M + W + S) 20
	Feet Shading (1)	Feet Shading (1)	
	Hands Cut Off (1)	Hands Cut Off (1)	

Note. (Adapted) From DAP:SPED Draw A Person: Screening Procedure for Emotional Disturbances, by Jack A. Naglieri, Timothy J. McNeish and Achilles N. Bardos, Austin, TX: PRO-ED. Copyright 1991 by PRO-ED, Inc. Reprinted (or adapted) with permission.

DAP:SPED T score 72. Percentile Rank 99%. Confidence Interval @ 95% = +/- 10. Standard score range = 82 to 92

Decision: *Strongly Indicated*

oncologists often find themselves with the unique ability to perform lifesaving tasks that others are incapable of performing, this attribution seems entirely on point with how a young cancer patient might perceive her treating oncologist.

Moving forward with the second drawing of a woman, Lilly reported drawing a depiction of her mother. This drawing also reflected a smiling facial expression and a large, oversized heart over the chest area that presumably reflects motherly love, affection and caring. Noticeably absent in this drawing, however, is the presence of hands. Rather, Lilly's drawing depicted somewhat mutated arms extending from what were said to be blouse ruffles near the shoulder area. In furtherance of the previous interpretation, the absence of hands would seem to indicate a lack of ability to manipulate or control environmental factors or circumstances. Again this seems on point with what a parent of a childhood cancer patient might be perceived as experiencing.

Finally, in qualitatively analyzing Lilly's third drawing of herself, we again see a smiling facial expression, and very short and sparse hair around the head which accurately depicted her actual hair length in the early stages of regrowth following chemotherapy. The most prominent feature of Lilly's self-portrait is the dark "cloud" or "dark scribble" in the center chest area that is overshadowing her still visible heart. Although a number of hypotheses could be generated regarding the possible meaning of this depiction (e.g., physical frailty, emotional disturbance, depression, anxiety, anger), the presence of some sort of maladjustment seems highly likely and worthy of therapeutic exploration. The lack of hands in this self-portrait would also seem to reflect a lack of ability to manipulate or control the environment, which again is the primary function that hands perform.

In short, both an actuarial (quantitative) and subjective (qualitative) analysis of Lilly's DAP:SPED drawings pointed towards the common direction of emotional disturbance. Absent this data, the only other information present that pointed towards affective/emotional disturbance was parent report data conveyed by Lilly's mother who expressed concerns about her affective/emotional state. However, caution about the overreliance on such parent report data is warranted given the psychological literature indicating that data from patients' mothers may be



FIGURE 1 DAP:SPED Drawing of a Man.

particularly susceptible to bias and potentially lacking in validity (Garber, Van Slyke, & Walker, 1998; Moretti et al., 1985; Najman et al., 2001). As such, the addition of DAP:SPED data in this case made a unique, psychometrically sound, and therapeutically useful contribution to our understanding of this child's true affective/emotional state that likely would have remained otherwise obscured. It should also be noted that when sharing her psychological evaluation results with parental caregivers and her medical treatment team, Lilly's DAP:SPED drawings and information were the part of her evaluation protocol that generated the most interest and discussion compared to other assessment results.

Psychological Treatment

Because Lilly received medical services through the U.S. Army Medical Department due to her parent's active military service, she was also eligible to receive comprehensive psychological care. As such, Lilly did receive such psychological care for the remainder of time she was undergoing medical treatment for ALL. Because emotional disturbance was indeed indicated by the DAP:SPED and confirmed by Lilly's mother, cognitive behavioral psychotherapy was pursued, focusing on personal adjustment, worry, and coping/adaptation following cancer treatment.



FIGURE 2 DAP:SPED Drawing of a Woman.

Special emphasis was placed on concerns regarding body image issues following chemotherapeutic treatment; the perception of social isolation and stigmatization; low frustration tolerance; and symptoms of depression, anxiety, and moodiness. Information and hypotheses generated from Lilly's DAP:SPED drawings were also used in a psychotherapeutic context in accordance with the basic tenants of "therapeutic assessment" and "assessment intervention" (Finn, 2007; Finn & Tonsager, 1992; Tharinger et al., 2009). That is, data obtained from psychological assessment were determined to be therapeutically relevant and were used therapeutically in order to help Lilly challenge her negative self-image and to revise and edit her existing narrative about herself and her medical experiences in a more optimistic manner congruent with overcoming obstacles.

Cognitive behavioral psychotherapy was provided approximately twice per month, scheduled at intervals designed to correspond with hospital visits for follow-up medical care through the Pediatric Oncology Clinic. Because her psychological care was provided at a teaching hospital as part of an American Psychological Association (APA) approved postdoctoral fellowship training program in clinical child psychology, she received care from two different postdoctoral fellows, with continuity of care by any one provider not being possible due to fellow rotation. At approximately three years postcancer diagnosis, Lilly's parent received a military transfer and



FIGURE 3 DAP:SPED Drawing of Self.

was relocated, which resulted in termination of her services through the Child Psychology Clinic at this particular hospital. Nevertheless, the transfer issue brought her case to a comfortable point of conclusion, with both the child and parent reporting much improved affective and emotional functioning at the time the case was officially closed.

DISCUSSION

The assessment and treatment implications of this case study are significant. First and foremost, prior to engaging in any form of treatment, comprehensive psychological assessment is an important prerequisite that should be used to both identify and direct what type of treatment interventions are most needed. As these results indicate, clinicians must remain acutely aware that affective/emotional disturbance may not be readily apparent in childhood cancer patients, and self-report inventories may not sensitively discriminate when such disturbance exists. As noted by LaPiere in the early 20th century, self-report questionnaires can sometimes produce grossly misleading results that do not accurately reflect one's true behavior, attitudes, or sentiment (LaPiere, 1934). The present case study findings suggest that the same might also be true regarding the correspondence between childhood cancer patients' self-report data and their true state

of affective/emotional disturbance. As shown in this case, affective/emotional disturbance was indeed present in our childhood cancer patient, but her disturbance did not clearly manifest on traditional self-report screening instruments. Only when alternate modalities of assessment were utilized did our cancer patient's emotional problems come clearly into focus. Although maternal report was a consensus point that ultimately confirmed Lilly's affective/emotional distress, maternal report is not without its own flaws, and has been found to be a less than reliable index of psychological wellbeing in medically ill children (Garber et al., 1998; Moretti et al., 1985; Najman et al., 2001). Consequently, alternate yet well validated assessment modalities such as the DAP:SPED should be given careful consideration when screening for affective/emotional disturbance in childhood cancer patients. It is hypothesized that such techniques may hold considerable promise as sensitive indicators of distress in such complex clinical cases. It is also hypothesized that such techniques may succeed in tapping deeper levels of subconscious functioning that are simply missed by contemporary self-report measures.

Limitations of Case Study

While Lilly's case exemplifies thought provoking clinical data that should stimulate interest and intrigue among clinicians and researchers, this case study analysis is not without its shortcomings. Namely, throughout this article, the terms "depression," "distress," and "affective/emotional disturbance" have been used relatively interchangeably, but an argument could be made that these constructs are not completely synonymous. In fact, the DAP:SPED instrument was designed to detect "emotional disturbance" rather than "depression" or "distress." While these constructs would seem to overlap greatly, this has not been demonstrated through empirical research, and as such the DAP:SPED's usefulness as a screening instrument of depression or distress remains uncertain. Another shortcoming is that this case study did not make use of validated parent/teacher rating scales to comprehensively explore the way in which knowledgeable third-person raters viewed Lilly's affective/emotional functioning. Rather, third-person perspectives of Lilly's functioning came solely from brief statements made by her mother at the time of Lilly's appointments within the Child Psychology Clinic. Lastly, posttreatment assessment was not conducted in this case, and therefore pre- and postcomparison across psychological assessment measures was not possible. Our interpretation of Lilly's improved emotional functioning at the conclusion of her treatment is based solely upon Lilly's clinical presentation as perceived by her treating psychologist as well as parent and self-report. Such statements of improvement by Lilly and her mother could have been influenced by demand characteristics (Orne, 1962). In hindsight, it would have been astute to re-administer a second battery of psychological instruments, including the DAP:SPED, at the conclusion of Lilly's psychological treatment in order to allow for pre- and postintervention comparisons.

Recommendations for Mental Health Practitioners

For clinicians who work with childhood cancer patients, it is recommended that multiple modalities of assessment be utilized whenever possible when screening for affective/emotional disturbance. As is true in virtually all health care settings, multiple channels of assessment contribute to a better overall understanding of the gestalt of a particular clinical case. During

pediatrician office visits it is routine for multiple channels of assessment to be utilized in order to gauge physical health (e.g., temperature, blood pressure, heart rate, body weight, normative growth chart comparison). So too in mental health, the astute clinician should make use of multiple channels of assessment when looking for evidence of affective/emotional disturbance (e.g., self-report inventories, parent/teacher report inventories, semi-structured clinical interview, validated projective/actuarial techniques). To default to the use of only one channel of assessment would be to potentially miss important signs and symptoms that may only show up in other channels.

With regard to treatment, this case study also demonstrates how data and information obtained from psychological assessment can be useful in the delivery of psychological treatment (for a comprehensive review, see Finn, 2007; Finn & Tonsager, 1992; Tharinger et al., 2009). That is, assessment data and information can have both diagnostic and psychotherapeutic relevance, and both types of applications should be pursued whenever possible. Also, it is recommended that pre/postassessment should be completed whenever possible to allow for the analysis and quantification of treatment outcomes. While a comprehensive review of psychotherapeutic techniques and interventions applicable to children and adolescents with cancer is beyond the scope of this article, many empirically supported treatments protocols are germane to the treatment of childhood cancer patients. For further information regarding specific “evidence based” treatment protocols for various child and adolescent conditions including depression, the interested reader is referred to the Society of Clinical Child and Adolescent Psychology’s evidence-based practice videos at <http://www.effectivechildtherapy.com> and <http://www.clinicalchildpsychology.org>.

DIRECTION FOR FUTURE RESEARCH

One final implication of the present case is related to the direction of future research examining the degree of affective/emotional disturbance in childhood cancer patients. As previously noted, a considerable body of research has indicated the presence of lower depression rates in childhood cancer patients as compared to normative groups or healthy peers (Allen et al., 1997; Bragado et al., 2008; Canning et al., 1992; Chao et al., 2003; Dejong & Fombonne, 2006; Kaplan et al., 1987; Kersun et al., 2009; Matziou et al., 2008; Noll et al., 1999; Phipps & Srivastava, 1997; Radcliffe et al., 1996; Tebbi et al., 1988; Worchel et al., 1988). The present case study challenges these findings by suggesting the possibility that lower rates of affective/emotional disturbance in childhood cancer patients may be at least partially due to assessment failure. In other words, it may not be so much that childhood cancer patients possess less affective/emotional disturbance, but rather that our most commonly used assessment techniques are not sensitive enough to detect the presence of existing disturbance. Although such possibilities are merely speculative based upon an $n = 1$ case study analysis, the true value of any case study lies in its ability to stimulate further research that might better illuminate a complex area of clinical uncertainty. Nowhere is this more needed than in our current understanding of the way in which affective/emotional disturbance commonly manifests within childhood cancer patients, and how “best practice” distress screening should be structured and conducted with these young patients.

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