

FUNCTIONAL OUTCOMES IN SR

Functional Outcomes in School Refusal: An In-Depth Examination of Youth Participating in a
Pilot Study of Dialectical Behavior Therapy for School Refusal

A DISSERTATION

SUBMITTED TO THE FACULTY

OF

THE GRADUATE SCHOOL OF APPLIED AND PROFESSIONAL PSYCHOLOGY

OF

RUTGERS,

THE STATE UNIVERSITY OF NEW JERSEY

BY

LAUREN BONAVIDACOLA, PSY.M.

IN PARTIAL FULFILLMENT OF THE

REQUIREMENTS FOR THE DEGREE

OF

DOCTOR OF PSYCHOLOGY

NEW BRUNSWICK, NEW JERSEY

OCTOBER 2015

APPROVED:

Shireen L. Rizvi, Ph.D.

Brian C. Chu, Ph.D.

DEAN:

Stanley B. Messer, Ph.D.

Abstract

School refusal (SR), defined as youth-motivated refusal to attend school and/or problems remaining in classes for an entire day, is a psychological problem that accounts for thousands of school-aged children not attending school every day (Kearney & Albano, 2007). School refusal behavior is associated with impairments in several functional domains including academic, familial, and social functioning (e.g., Lambin, 1996; Last and Strauss, 1990; Naylor et al., 1994). Several cognitive and/or behavioral therapies have been researched for the treatment of SR, yet there has been limited research on the effects of treatment on broader functional outcomes. The implementation of a novel approach to treating school refusal behavior meant to address all domains of functioning called Dialectical Behavior Therapy for School Refusal (DBT-SR) was utilized in this research. This paper presents two case studies from this pilot study focusing primarily on identification of, and changes in, the functional outcomes of academic, familial, and social functioning across the course of the study. Qualitative and quantitative data revealed that many constructs within family functioning, such as high conflict and low cohesion, remained relatively constant throughout the course of the study. Other constructs within the domains of social and academic functioning showed improvement, including social withdrawal and class grades. As the main primary outcomes of diagnostic remission and school attendance improved, some but not all functional outcomes improved. These mixed findings imply that youth with SR continue to exhibit some functional impairment despite treatment success. Future controlled studies of SR that address all areas of youths functioning are warranted.

Acknowledgments

This paper would not be possible if it were not for all the support, guidance, and encouragement that my dissertation chair and mentor, Dr. Shireen Rizvi, has provided me. From the beginning stages of developing the DBT-SR treatment manual, to braving the IRB process, facing recruitment stressors, and supervising my study case, Shireen has been a steadfast supporter the whole way through. Thank you for providing me this opportunity to work with you on this study and for passing down all of your DBT wisdom to me over the past 4 years.

The other partner in this dynamic duo who deserves just as much praise is Dr. Brian Chu, the second dissertation chair and co-principal investigator for the DBT-SR project. With endless optimism and an excellent vision, he has helped me think deeply about my research questions in order to ensure that I get the most out of this paper. I am very grateful for your guidance throughout this whole process.

Another truly irreplaceable friend and colleague who shared the duties of RA'ing this project, Ms. Elaina Zendegui, deserves acknowledgement. Thank you for helping me enter all that data and keeping me sane by listening to Pandora and always being a phone call away. Additionally, a big thank you to the other study therapists who were there all along the way, Mrs. Marget Thomas Fishman and Ms. Lauren Hoffman. Your support and consultation were much appreciated. Of course, thank you to the study participants, their families, and the wonderful school staff who helped make this project possible.

Lastly, completing a dissertation requires lots of moral support and an extra emphasis on self-care. For that I can thank my partner in life, Mr. Leo Barinov. You were right there by my side buying me coffee, motivating me to finish that last paragraph, keeping my head held high, and you even helped me with some stats! Thank you for taking care of me.

Table of Contents

Abstract.....	ii
Acknowledgements.....	iii
List of Tables.....	v
List of Figures.....	vi
Chapters	
1. Introduction.....	1
2. Method.....	18
3. Results.....	24
4. Discussion.....	66
References.....	83
Footnotes.....	93
Tables.....	94
Figures.....	103
Appendix.....	107

List of Tables

Table 1. Measures used to capture primary outcomes.....	94
Table 2. Measures used to capture functional outcomes.....	95
Table 3. Diagnoses and School Absences at Pre, Post, and 4-month Posttreatment.....	96
Table 4. Emotion Regulation at Pre, Mid, Post, and 4-month Posttreatment.....	97
Table 5. FES-R at Pre, Mid, Post, and 4-month Posttreatment.....	98
Table 6. CBCL and YSR- Social Problems Subscale and Social Competence Score at Pre, Mid, Post, and 4-month Posttreatment.....	100
Table 7. Academic Grade Reports, Disciplinary Actions, and CBCL School Competency Score at Pretreatment, Midtreatment, Posttreatment, and 4 month Posttreatment.....	101
Table 8. Frequency Count of Functional Outcome Constructs that Emerged through Video Coding.....	102

List of Figures

Figure 1. Changes in Clinical Severity Ratings, School Absences, and Selected FES Subscales Over Time- Ricky.....	103
Figure 2. Changes in Clinical Severity Ratings, School Absences, and Selected FES Subscales Over Time- Lance.....	104
Figure 3. Changes in Clinical Severity Ratings, School Absences, and Selected CBCL Subscales Over Time- Ricky.....	105
Figure 4. Changes in Clinical Severity Ratings, School Absences, and Selected CBCL Subscales Over Time- Lance.....	106

Introduction

School refusal is a psychological problem that prevents thousands of school-aged children from attending school everyday (Kearney & Albano, 2007). School refusal behavior has been broadly defined by Kearney as youth-motivated refusal to attend school and/or problems remaining in classes for an entire day (Kearney, 2008). This may include extended absences from school, periodic absences from school or missed classes, chronic tardiness, and/or intense dread about school that precipitates pleas for future nonattendance. Examples of variations in school refusal behavior once at school include children complaining of feeling sick and getting sent to the nurse's office habitually or texting/calling their parents or guardian frequently throughout the day to express their distress in an effort to get picked up from school.

School absenteeism can occur for a variety of reasons including, but not limited to, pain or distress from physical conditions, psychiatric problems, and/or oppositional behavior. Researchers suggest that youth with school refusal sometimes meet criteria for anxiety disorders such as separation anxiety disorder or social phobia, and/or depression according to the DSM-IV-TR (Lyon & Cotler, 2007), indicating that anxiety and depressive states may be associated with school refusal behavior (Buitelaar et al., 1994). Youth who refuse school due only to oppositional behavior, which can be defined as truancy, are distinguishable from distress-based school refusers in important ways. The current research focuses on school refusal behaviors based primarily on anxious and/or depressive symptoms.

The prevalence of school refusal ranges from 5-28%; about one in four school aged children exhibit distress-based school refusal behavior at some point in their academic lives (Kearney & Albano, 2007; Kearney, 2008). This is a significant societal issue considering the plethora of negative outcomes that are often associated with this pattern of behavior. One

outcome is the level of anxiety- and/or depression-based psychological distress that this population experiences. In a large community study, Egger et al. (2003) found that 24.5% of the 165 youth in his sample of anxiety-based school refusers met criteria for a major psychological disorder including depression (13.9%), separation anxiety disorder (10.8%), oppositional defiant disorder (5.6%), and conduct disorder (5.0%). Notably, remission of these psychological disorders, as well as increasing school/class attendance, have been the primary focus of measurable change in treatment outcome studies to-date.

Several researchers have highlighted the associations between school refusal behavior and several other psychological variables in the short- and long-term. Beyond the clear consequence of academic underachievement due to school refusal (e.g., Lambin, 1996), difficulties in several other functional domains, including familial and social, can manifest (Last & Strauss, 1990; Naylor et al., 1994). Such difficulties include, but are not limited to, social isolation, problems with peer relationships, high levels of family conflict, and low family cohesion. These secondary variables, or functional outcomes, represent domains of functioning outside of the primary domains of diagnostic status and school attendance, and are often underreported in treatment efficacy studies of school refusal. Functional outcomes are important to attend to in the research and treatment of school refusal in order to ensure lasting change across all domains of functioning for these youth.

Family Functioning

The domain of family functioning may be especially important in understanding school refusal behavior because of certain associations that some researchers have found. In their review of school refusal research, King and Bernstein (2001) cite several studies demonstrating that problematic family functioning can contribute to school refusal in adolescents. Of the studies that

have investigated the relationship between families with a youth who has school refusal and their functioning, several assessment measures were used including the Family Environment Scale (FES; Moos & Moos, 2009), the Family Assessment Measure (FAM; Skinner et al., 1983), and the Family Adaptability and Cohesion Scale IV (FACES IV; Olson, 2008). The research literature suggests that school refusers tend to live in enmeshed households characterized by high conflict and poor cohesion, low independence, poor role definitions and adaptability, value differences between families and their community, and communication difficulties (Bernstein & Borchardt, 1996; Bernstein et al., 1990; Bernstein et al., 1999; Kearney and Silverman, 1995). For families with children who refuse school, tension and conflict in the household can arise if parents have to repeatedly miss work in order to watch over their child. Emotional and financial distress is likely to occur with repeated instances of missing work (Kearney & Albano, 2007; McShane et al., 2004; Pina et al., 2009).

There has also been research by Kearney and Silverman (1995) that discusses five familial subtypes representative of the school refusal population including enmeshed, conflictive, detached, isolated, and healthy, using data collected from the FES subscales to corroborate these subtypes (particularly the conflict, independence, and cohesion subscales). Although it may be difficult to ascertain whether these family types and difficulties lead to or come from school refusal problems, research and treatment should aim to measure and address familial variables in order to understand and treat youth with school refusal more effectively. Moreover, King and Bernstein's review implies that assessing for familial dynamics is important but none of the cited treatment studies in their meta-analysis included measures on family functioning. This is concerning especially since King and Bernstein claim that, "targeting family dynamic difficulties is essential in successfully treating school refusal."

In fact, only two studies have specifically investigated familial variables in school refusal treatment. More than 30 years ago, Berg & Fielding (1978) measured child-mother dependency along with personality changes of participants and parents of 32 youth with school refusal randomized to either 3 or 6 months of supportive psychotherapy, social skills training, milieu therapy, and family therapy delivered at an inpatient hospital. The results indicated that there were no significant group differences at post-treatment on youth or parent reports of child-mother dependency except that mothers of youth in the 3-month condition reported higher ratings on a subscale of mother-child assistance, indicating that the shorter stay moms would have liked their children to be more reliant on them. It is important to note though that these scores were not different from a normed non-clinical sample at pretreatment.

Kearney & Silverman (1999) measured percentage of time out of school, youth anxiety, and overall parent anxiety and depression ratings of eight youth with school refusal who were assigned to either prescriptive (based on Kearney's model) or non-prescriptive CBT ranging from 3-10 sessions. From pre- to post-treatment there were improvements on percentage of time out of school and on parent daily anxiety and depression ratings, but these results were not maintained at 6-month follow up. The variable of parent anxiety and depression ratings is certainly linked to overall family functioning, yet it is more a measure of the emotional state of the parents and less of a measure of the dynamics amongst family members. Therefore, it is unclear whether overall family functioning improved in conjunction with the improvements that were observed in the primary outcomes.

Of these two studies, the family-related variables that were measured only capture aspects of family functioning and not family functioning overall, i.e., through utilization of a measure containing several subscales for varying domains of family functioning or parent

distress measures. Therefore, the conclusions that can be drawn about the association between family functioning and school refusal over the course of a treatment are limited. It is also important to note that although some treatment programs for SR that have been studied may include focused interventions to target family functioning (e.g., Heyne et al., 2011), the lack of assessment of this domain or variables within the domain makes it near impossible to draw conclusions about whether those interventions actually improve family functioning. More studies directly examining this relationship are needed.

Social Functioning

In the social domain, school refusal is associated with isolation from peers, poor social skills, and peer relationship problems (e.g., Egger et al., 2003; Place, Hulsmeier, Davis, & Taylor, 2002). Also, a sense of low school connectedness is associated with school refusal behavior (Brookmeyer, Fanti, & Henrich, 2006). The social-developmental milestones that often occur through peer interaction at school are altogether missed or deficiently experienced for those who refuse school. Place et al., (2002) found that establishing good social relationships and a youth's sense of belonging may serve as protective factors against school refusal. Although research demonstrates that there is a relationship between social functioning and school refusal, again the question of directionality (i.e., whether social deficits lead to school refusal or whether school refusal leads to social deficits) is not completely understood.

Despite this association, only five studies, three of which are single case experimental design studies of various iterations of CBT, utilized measures of social functioning or skills (Hagopian & Slifer, 1993; Kearney & Silverman, 1999; King et al., 1998; Kolko et al., 1987; Moffitt et al, 2003). All of these studies reported improvements on the primary outcomes of

increased class attendance as well as various functional outcomes including social functioning from pre- to post-treatment. They are briefly summarized below.

Kolko et al. (1987) report on a 6-year-old female with school refusal who was treated with 8 weeks of exposure to the classroom followed by 5 weeks of a “positive practice routine” in which she worked in the principal’s office. No changes were noted after the exposure portion but after the positive practice routine, the participant had improved on class attendance and social involvement. Hagopian and Slifer (1993) report on a 9-year-old female with separation anxiety disorder and school refusal following a holiday break with a 10-week exposure-based treatment. Primary outcomes of time spent in class and at Girl Scout meetings without her mother increased from pre- to post-treatment as was a decrease in social withdrawal measured from the withdrawn/depressed subscale of the Child Behavior Checklist (CBCL).

Moffitt et al. (2003) reported on a 12-year-old female who received an intensive CBT treatment consisting of traditional CBT methods plus functional analysis and problem solving strategies implemented with the youth, the family, and the school. This treatment spanned one year with only 8 treatment sessions due to difficulties with engaging the family consistently. At pretreatment, the youth attended on average 19.25% of her classes, was diagnosed with major depressive disorder, social anxiety disorder, and separation anxiety disorder, and scored in the clinically significant range for social withdrawal on the CBCL. At posttreatment, she was attending 45.63% of her classes and she continued to improve such that by 8-month follow up she was attending 76.13% of her classes. At posttreatment she did not meet criteria for any disorders and this was maintained at follow up. All of her CBCL scores dropped to the normal range at follow up, including the social withdrawal subscale.

King et al. (1998) investigated youth with school refusal who were randomized to either CBT plus parent-teacher training (PTT) or waitlist. The CBT plus PTT group received 6 individual sessions and 5 parent-teacher training sessions across 4 weeks of treatment. Results indicated that the CBT plus PTT group improved on number of full days present at school and demonstrated a decrease in internalizing symptoms on the CBCL compared to waitlist. The CBT plus PTT treatment program included a focus on helping parents and teachers implement social rewards for positive behaviors; also teachers were encouraged to set up a buddy system to reduce social withdrawal or teasing. Although there is a subscale specific to social withdrawal on the CBCL within the internalizing scale, only the overall internalizing scale was reported. Similarly, functional outcome results from the Kearney and Silverman's (1999) study that were previously described include a decrease in social withdrawal measured through changes in the internalizing subscale of the CBCL.

These studies begin to highlight the association between social functioning and school refusal behavior across treatment, providing more evidence of the importance of continuing to measure these variables in treatment outcome studies. The problem with many of the studies that do exist is that valid and reliable methods for measuring social functioning were not used. Only two studies used a well-validated measure somewhat specific to social functioning, which is the CBCL-withdrawn/depressed subscale. Future studies should include measures specific to social functioning since it does appear to be connected to school refusal behavior; therefore treatments should aim to address this domain as well.

Academic/School Functioning

To attest to the seriousness of school refusal, the longer youth with school refusal are out of school, the worse the potential academic consequences may be. School refusers exhibit poor

academic achievement from having increased levels of school absenteeism, often performing below their intellectual capacity (e.g., Lamdin, 1996). Even more problematic is that school refusers are at a greater risk for dropping out of school (Alexander, Entwisle, & Kabbani, 2001; Rumberger, Ghatak, Poulos, Ritter, & Dornbusch, 1990). Staying abreast of the curriculum becomes much harder the longer a student has been missing school or specific classes (Elliot, 1999). It is also possible that feeling embarrassed due to increased absences makes it harder for youth to then confront their teachers or peers when they do return (Elliot, 1999).

Only two studies, both of which were single case experimental designs, measured academic functioning in terms of grades during the course of treatment for school refusal behavior (Houlihan & Jones, 1989; Kolko et al., 1987). Both studies demonstrated an improvement on class attendance and academic grades for the participants over the course of the treatment with gains maintained at follow up, although for Houlihan and Jones' case (1989), diagnostic remission did not occur. Without measuring changes in academic grades across treatment studies, an incomplete picture of the overall functioning of youth with school refusal is captured.

Another school-related variable that has been measured in some school refusal treatment studies is youth's self-efficacy related to school situations. Through the use of the Self Efficacy Questionnaire- School Situations (Heyne et al., 1998), King et al. (1998), Heyne et al. (2002), and Heyne et al. (2011) captured youths perception of their ability to manage 12 different potentially anxiety producing school situations. In the King et al. study, self-efficacy improved from pre to post and was statistically different than the waitlist control at post. In the Heyne et al. (2002) study where children with school refusal were randomized to child therapy, parent/teacher training, or a combination group, all three groups demonstrated statistically

significant improvements on self-efficacy. In the Heyne et al. (2011) study, on average youths were more than one standard deviation below a community norm for school related self-efficacy at pretreatment and by posttreatment, there was a statistically significant improvement in school-related self-efficacy. Maric et al. (2013) specifically investigated the cognitive mediation effects of self-efficacy on school attendance and fear about attending school for a group of youth with school refusal receiving a 13 session CBT manualized treatment. Results indicated that self-efficacy did mediate changes in the primary outcomes, being the first study of its kind to investigate this important relationship.

Long-Term Consequences of School Refusal

Beyond just having an increased risk of school dropout, youth with school refusal are also at risk for other negative consequences in the long-term. Several studies have investigated these consequences. Such studies have shown that for those who refused school in childhood that there is a higher risk of psychiatric hospitalization and a decreased probability of attending college (King & Bernstein, 2001). Additionally, there is the risk of long-term impaired social functioning impacting personal and professional goals, and increased risks of substance abuse, anxiety and depression into adulthood. In a 20-29 year follow up study of school refusers, non-school refusing outpatients, and the general population in Sweden, the school refusing group had more psychiatric consultation, were more likely to live with their parents compared to the general population group, and had fewer children than both comparison groups (Flakierska-Praquin, Lindstrom, & Gillberg, 1997). Other studies have shown that school refusal can result in economic deprivation, marital and occupational problems, and social maladjustment (Berg & Jackson, 1985; Hibbett & Fogelman, 1990). Therefore, it is evident how the negative long-term

consequences of school refusal impact functional domains (e.g., social, familial, and academic), which can be very problematic for youth with school refusal, their families, and society.

Global Assessment of Functional Outcomes

It is important to note that there has been only one study that does take a more global assessment approach to capture functional impairments across the family, social, and school domains in a school refusal population. Tolin et al. (2009) used a modified version of the Sheehan Disability Scale (SDS) to gather parent reports of schooling, social, and family life functioning for 4 cases of school refusal who received 15 weeks of intensive CBT therapy across 3 weeks. SDS scores were gathered at pretreatment, posttreatment, and 3 year follow up. Across all three domains of functioning, three out of the four cases rated impairment quite high (a score of 8 or higher out of 10) and one case was rated high for schooling functional impairment (9 out of 10) and moderate (5 and 6, respectively) for both family life and social functioning. By posttreatment, overall SDS scores had dropped substantially for three of the four cases (one case did not complete the posttreatment assessment) and by 3 year follow up, two of the cases reported worsened functioning but not at the level of baseline impairment (e.g., 5.7 compared to 8.7 at pretreatment and 3.0 at posttreatment), and one case reported no impairment across all domains. For one case, data was not gathered at follow up.

Overall, the use of the SDS to measure functional impairment across the domains of interest for youth with SR is an improvement over previous treatment studies that failed to utilize any measures to capture functional outcomes. A concern of using the SDS as the sole measure of functional improvement, however, is that it only has one item per domain to capture impairment and because of this, constructs within each domain cannot be captured.

Psychotherapy Treatment Studies of School Refusal

Despite problems across multiple functional domains associated with school refusal behavior, there has been limited research on the treatment of school refusal. To the best of this writer's knowledge, there have been nine single-case experimental design studies and eleven group-design studies addressing school refusal with the primary focus of all of them to determine whether behavioral and/or cognitive strategies can effectively reduce anxiety and/or depressive disorders or symptoms associated with school refusal and to increase school attendance.

Several limitations exist for the SR treatment programs that have been studied. One major limitation is that school refusal as a phenomenon has almost entirely been studied as a symptom or consequence of an overarching anxiety or depressive disorder (Pina et al., 2009). This is surprising since as mentioned previously, Egger (2003) found that only 24.5% of his school refusing sample met full diagnostic criteria for a psychiatric disorder. To date, there is only one study of school refusal that did not require a diagnosis of an anxiety or depressive disorder for inclusion (King et al., 1998). Additionally as previously mentioned, most studies have used behavioral and/or cognitive approaches tailored to treat the specific "overarching" anxiety or depressive disorder instead of specifically targeting the emotional and behavioral dysregulation mechanisms maintaining SR behavior that are experienced by these youths. Clinically, youth with SR present with a high degree of somatic symptoms (e.g., sickness, panic attacks, muscle tension, stomachaches, sleep disturbances, migraines and headaches), behavioral dysregulation (e.g., clinging, freezing, reassurance seeking, escape, oppositionality and defiance), and catastrophic thinking (e.g., "I can't handle it," "I can't make it through the day," "School's too hard") (Chu et al., 2014). Having these symptoms suggests significant emotional and behavioral dysregulation as well as poor abilities to cope with increased stress. Research supports the notion

that school refusers rely on non-preferred emotion regulation strategies, such as expressive suppression, which prioritizes short-term emotional relief over long-term change (Hughes, Gullone, Dudley, & Tonge, 2010).

Another limitation of the current treatment studies of SR is that they almost exclusively rely on therapy or consultation that occurs in one setting (i.e., the school or a clinic), usually for one hour once a week. Yet, youth experiencing SR likely need the most help in contexts where SR behavior is the most apparent (i.e., at home during morning hours, in school), at the times when they are actually in distress and refusing, and with more frequency than just one encounter per week. All of these limitations point to the need to incorporate methods for addressing problems when they are occurring or about to occur, and preferably outside of the therapy office (Chu et al., 2014).

Lastly, the primary outcomes measured in these studies include school and classroom attendance and changes in anxiety, depression, and/or externalizing symptomatology. Changes in functional outcomes, such as academic achievement, social skills, and family environment, were not frequently used to measure behavioral improvement in these studies despite the evidence that many functional impairments exist in this population. The failure to adequately assess for these variables in the studies that exist limits the knowledge that can be gained from treating this complex and heterogeneous population. If relying only on diagnostic or school attendance as the measures of clinical improvement, results may be misleading if significant impairments remain in these other functional domains. For example, a youth may be attending school again and be less anxious to go but have impaired social functioning due to social isolation. Assessing for functional outcomes, as well as diagnostic change and school attendance, can provide a much richer and holistic picture of each youth's struggle with school refusal by illustrating the many

ways SR can impact, or be impacted by, social, family, and academic functioning. This approach, rather than focusing solely on diagnostic remission and improved school attendance, can result in a much more accurate picture of a youth's functioning.

As mentioned previously, the directionality of these variables may be unknown (i.e., whether problems in family functioning are a risk factor or consequence of SR) yet comprehensive treatment of school refusal should propose to create changes in all of these domains regardless of direction of causation. Through a multi-systems approach, all domains can be addressed thus potentially leading to lasting change. Moreover, differences in functional outcomes across cases of school refusal could lead to a variety of differing treatment implications.

Dialectical Behavior Therapy for School Refusal

DBT in its original form is an outpatient psychosocial treatment developed to treat adults with suicidal behaviors and borderline personality disorder (Linehan, 1993a, b). A core premise of DBT is that examples of behavioral dyscontrol (e.g., impulsivity, suicidal behaviors, avoidance) are usually maladaptive attempts to regulate one's emotions. Thus, one of the primary goals in DBT is to teach individuals skills to more effectively manage their emotions and behaviors. A large body of literature now exists to support the efficacy of DBT (see Kliem, Kroger, & Kosfelder, 2010 for a review) and it has been adapted to treat adolescents (DBT-A; Miller, Rathus, & Linehan, 2007).

Dialectical Behavior Therapy- School Refusal (DBT-SR) is a novel approach to treating school refusal behavior and associated problems. The DBT-SR treatment package follows an adaptation of the DBT with Suicidal Adolescents (Miller et al., 2007) model consisting of 16-18 weeks of therapy including weekly 60-90 minute individual therapy sessions with youth and/or

parent(s), weekly two hour multi-family group skills training, and weekly consultation team meetings for the study therapists. Differing from DBT-A is the inclusion of scheduled web-based skills coaching sessions (WBC) in addition to as-needed phone coaching, in which both youth and/or parents of youth have video-conferenced access to the individual therapist in the morning during moments of distress that often lead to school refusal behavior.

DBT is a logical choice of treatment for SR for multiple reasons. First, as discussed, a great number of school refusal cases can be conceptualized as stemming from emotion regulation and distress tolerance problems and DBT conceptualizes most problem behaviors as resulting from problems of emotion dysregulation. Second, this treatment approach aims to address not only the primary outcomes of symptomatic improvement and school reentry, but also the functional outcomes that have previously been discussed.

In DBT-SR, family functioning is addressed through the inclusion of parents in the skills training group so that parents, along with their school refusing youth, learn and implement the DBT skills throughout the treatment. Family members are also included in WBC sessions and individual therapy sessions, in order to generalize skills being learned in group and to assist parents in implementing contingency management plans at home. Skills coaching focuses not only on helping youth use effective skills during moments of distress, but it helps parents implement effective parenting skills in the moment (e.g., the middle path skills). Skills coaching can also help parents regulate their own emotions and use distress tolerance skills when facing difficult moments of youth's school refusal behavior. This may serve to be especially useful since data have indicated that parents of school refusing youth have higher anxiety and depression scores than healthy controls (e.g., Bahali et al., 2011). This family-based approach to

treatment aims to address problems within the family system that may be contributing to, or maintaining, school refusal behavior.

Social functioning is addressed through the inclusion of multiple families during the skills group sessions. Youth are given the opportunity to socialize and learn skills with other youth struggling with school refusal behavior and their parents. Together, youth can experience camaraderie and support by having a peer group in the skills group sessions who are experiencing similar problems to their own. The content of the skills training also directly teaches interpersonal effectiveness skills, allowing for youth to practice social skills *in vivo* during group therapy sessions and in individual sessions, with the guidance of the individual therapist as a role player.

Lastly, individual therapists in the program consult with school personnel of the youth including guidance counselors, teachers, and school psychologists, in order to facilitate continued academic achievement and support for the youth. Through the DBT case management strategy of environmental intervention, therapists intervene on behalf of youth to ensure that information is exchanged about the youth's in-school and out-of-school patterns and efforts, agreement on goals for school re-integration are established, and school resources (e.g., staff availability and study periods) and limits (e.g., maximum absences before severe consequences set in and nature of consequences) are discussed. As a collaboration, the school and treatment team can together assist youth with SR re-integrate into school in the most effective way possible.

Therefore, the DBT-SR treatment as a comprehensive package aims to treat youth with school refusal by addressing all of the domains of functioning that are associated with school refusal behavior. By taking a systemic approach that involves youth, parents, and the school,

maximum generalizability of skills is ensured, potentially leading not only to symptomatic change and improved school attendance, but improved family, social, and academic functioning.

Aims

The overall aim of this paper is to present case studies from a pilot study of DBT-SR to explore various functional domains, defined as familial, social, and academic functioning, in order to understand whether some domains, or constructs within these domains, emerge as more relevant in the lives of youth with school refusal. The relationship between functional outcomes and the primary outcomes of diagnostic remission, distress level, and school attendance will be explored, compared, and contrasted amongst cases. Another aim is to determine the presence of other functional domains, using qualitative data analysis methods. A final aim of this paper is to provide specific suggestions for measures that can be used in the future assessment of functional impairments in adolescents with school refusal. These suggestions will be made based on the information that is gathered from the presented cases and their subsequent data analyses.

For this study, the research questions are as follows: (1) Do functional outcomes, defined as familial, social, and academic functioning, of participants change over the course of treatment? I hypothesize that there will be high levels of family conflict, low family cohesion, high social isolation, problems with peer relationships, and poor grades, at pretreatment and that by posttreatment and follow up, improvements will indicate less family conflict, higher family cohesion, less social isolation, less conflict in peer relationships, and better grades. (2) Are changes in these functional outcomes, related to changes in primary outcomes, defined as distress level (emotion dysregulation of both youth and parents), diagnostic change, and school attendance? I hypothesize that changes in functional outcomes will coincide with changes in

distress level, diagnostic change, and school attendance, such that as primary outcomes improve, so will functional outcomes.

Method

Participants

Participants were recruited through the DBT-SR pilot study that was conducted in a university-based psychological clinic. Both parental consent and youth assent were required for participation in this study. Inclusion criteria for the study included boys and girls between the ages of 12 and 16 at time of pretreatment assessment, fluency in English by the youth and at least one parent, and school refusal behavior for anxiety/negative-affect related reasons by meeting criteria for anxiety/mood-related School Refusal on the Anxiety Disorders Interview Schedule (ADIS; Silverman & Albano, 1996). Of note, it was not required that participants meet full diagnostic criteria for an anxiety or mood disorder. Additionally, the families had to own a computer. If youth participants were receiving any pharmacotherapy for anxiety/depression, the youth were eligible if they remained on a stable dose for at least four weeks.

Exclusion criteria for the study included a principal diagnosis of conduct disorder or oppositional defiant disorder, or a diagnosis of mental retardation, psychosis, bipolar disorder, or autism. Youth who were receiving any other psychological services at the time of intake who were unwilling to forgo this treatment during the study time period were excluded. Also, youth with an indication of moderate or higher suicidal ideation with a plan to attempt suicide were excluded from this study.

Measures

Diagnostic and primary outcome measures.

Anxiety Disorder Interview Schedule- Child and Parent Version (ADIS-IV). The ADIS-IV is a clinician administered semi-structured interview aimed to address the primary outcomes of symptomatic and diagnostic improvement. The ADIS-C/P (Silverman & Albano, 1996) is

used to assess anxiety disorders and has good interviewer reliability (Silverman & Nelles, 1988), retest reliability (Silverman & Eisen, 1992), and sensitivity to treatment effects (e.g., Albano, Knox, & Barlow, 1995; Kendall et al., 1997). The parent and child interviews are conducted individually allowing the interviewers to derive parent-reported, child-reported, and composite (parent and child) diagnoses. The ADIS-IV includes Clinical Severity Rating (CSR) scores which youth, parents, and clinicians use to measure level of distress and/or impairment of functioning relative to each disorder endorsed, ranging from 0 (none) to 8 (very much).

Difficulties in Emotion Regulation Scale (DERS). The DERS (Gratz & Roemer, 2004) is a 36-item self-report questionnaire designed to assess multiple aspects of emotion dysregulation. Youths completed this measure and parents also completed the measure as a self-report, in order to capture parental emotion regulation abilities. Items (e.g., “I experience my emotions as overwhelming and out of control,” “I know exactly how I am feeling”) are rated on a 1 “almost never” to 5 “almost always” scale. Six subscales have been identified in the literature: lack of emotional awareness, lack of emotional clarity, difficulties controlling impulsive behaviors when distressed, difficulties engaging in goal-directed behavior when distressed, nonacceptance of negative emotional responses, and limited access to effective emotion regulation strategies. Most subscales were significantly and positively associated with anxiety and depression measures in adolescents (Neuman et al., 2010; Weinberg & Klonsky, 2009).

School/class attendance records. Academic records were collected from participant’s schools to assess for school attendance.

Functional outcome measures.

Family Environment Scale- 4th edition (FES). Selected subscales from the FES (Moos & Moos, 2009) self-report measure were used to measure social-environmental characteristics of

the family. Both youth and parents completed this measure. FES is a 90-item multi-respondent (parent/child) scale that measures each member's perspective on family environment. Four of the 10 subscales (36 items) were used to assess control (degree of set rules and procedures used to run the family), cohesion (degree of commitment to help and support family members), independence (extent to which family members are assertive and self sufficient), and conflict (amount of openly expressed anger and conflict). The FES is the most widely used measure of family climate with well-documented reliability and validity (Moos & Moos, 2009). The four chosen subscales have also been most consistently associated with internalizing (anxiety/depression) problems in youth. Respondents complete 36 True/False statements about their families; lower scores equate to more negative family environments.

Child Behavior Checklist (CBCL) and Youth Self Report (YSR). The CBCL and YSR are self-reports that were used to measure social skills deficits and/or isolation in the participants. The social problems subscale, the withdrawn/depressed subscale, as well as the social and school competencies scores of the CBCL (CBCL; Achenbach, 2009) were used. The CBCL is a 118-item parent-report scale assessing behavioral problems and social competencies of their youth. Items are rated from *not true* (0) to *very true or often true* (2). The first seven items measure social, extracurricular, and academic competencies. These seven items ask parents to identify the following afterschool activities that their child engages in: sports, hobbies/activities, organizations/clubs/teams, and jobs/chores. These activities are listed and scored on a 3-point Likert-type scale for how much time they spend on each (less than average, average, or more than average) and how well they do each (below average, average, or above average) compared to others of the same age. Number of friends, time spent with friends, ability to get along with peers, siblings, and parents as compared to others of same age, and academic performance in all

subjects are also measured on Likert scales. Normative data are available. The CBCL has high retest reliability, interparent agreement, and validity (Achenbach, 2001). Scores on the CBCL have been found to be highly correlated with similar parent measures of child behavior, and scaled scores and clinical cut points discriminated between referred and nonreferred children (Achenbach, 2001).

The youth self-report counterpart to the CBCL is the Youth Self Report (YSR; Achenbach, 2009) and was also used in this study. Only the social competency section of this measure was used to assess changes in this area. These seven items are identical to the aforementioned social competency questions on the CBCL. The YSR also has high retest reliability and validity (Achenbach, 2001).

Academic achievement. School records of disciplinary actions taken as well as grade reports were gathered from participant's schools. The school competency section of the CBCL (previously described) will also be used to report academic/school competency.

Procedures

Participants and their parents participated in the full course of DBT-SR as described above. Individual therapists in this study were masters level clinical psychology doctoral students supervised jointly by two licensed clinical psychologists who were the principal investigators of the DBT-SR pilot study. The group leader and co-leader were the principal investigators. Assessments occurred at pre, mid, post, and 4 months posttreatment with both youth and their parents. These assessments were conducted by doctoral level graduate students trained to reliability on the measures administered.

Data Analysis

Quantitative. Results of the self-report measures will be presented in both graph and table form in order to view whether functional outcomes and primary outcomes of both participants and parents change over the course of treatment from pre, mid, post, and 4 month posttreatment (see Tables 1 and 2). The relationship between primary and functional outcomes will be explored and trends will be noted.

Qualitative. Videos of individual and web-based coaching sessions were reviewed to assess for possible functional domains that emerged in sessions. In order to assist in the identification of constructs within each of the functional domains (i.e., family, social, academic), a review of the literature was conducted on the assessment of family, social, and academic functioning in youth. This review yielded several constructs and a basic coding rubric was created to help in identifying these constructs (see Appendix A). This rubric consists of a consolidation of the findings from the literature review with definitions of each construct included. Additionally, questions meant to help assist the assessor in capturing each construct were added to the rubric. Included in the rubric is a section for other domains of functioning that may emerge as a result of session viewing.

Videos of all individual and WBC sessions were viewed by this writer using the rubric as a guide to capture examples of each construct. An example was considered either actual observation of a specific construct occurring during the session (e.g., viewing the youth and parents arguing with each other would be an example of ‘conflict’ under family functioning) or discussion by youth or parents of an instance of a construct that had occurred recently outside the session (e.g., a parent stating, “Yesterday we all got in a horrible fight,” would also be coded as an example of ‘conflict’ under family functioning). Session notes for individual, WBC, and

group therapy sessions were also reviewed to gather more information on targeted goals per session and to assess for functional outcomes that were discussed by the therapist in the note.

Case Study Format

The format for each case study will follow: (1) Demographics, clinical diagnoses, and presenting problems, (2) School-refusal related problems, (3) Brief description of the treatment course including DBT interventions used and challenges faced, (4) Results of primary outcomes measures, (5) Results of functional outcome measures, (6) Results of video coding, and (7) Additional functional domains that emerged. Furthermore, an exploration of how primary outcomes change in relation to each functional outcome will be included.

Results

In total, seven participants completed intake assessments and were eligible for the study, four started the program, two participants dropped out, and two participants plus both parents completed the course of therapy including mid, post, and 4-month posttreatment assessments except for one participant's father at the follow up assessment point. Of the four total participants, three were boys and one was a girl (ages 13-16; $M = 14.5$; $SD = 1.29$). The two treatment completers from the DBT-SR pilot study will be included for this study.

Case Presentations

Ricky.^{1,2}

Demographics, clinical diagnoses, and presenting problems. Ricky was a 16-year-old, Caucasian boy in the 11th grade at a public high school who lived with both parents. Ricky's father worked full-time from home in sales and his mother was a homemaker. At intake, Ricky was diagnosed with MDD (CSR = 5) and GAD (CSR = 4). SR behavior was endorsed with severe impairment (CSR = 6). At intake, Ricky was taking an anti-depressant medication.

School-refusal related problems. At intake (mid-December), Ricky had missed 26 school days (41% of possible days) of the current school year and 13 days (50% of possible) in the past month. His long history of SR was related to gastrointestinal distress secondary to contracting a bacterial infection in the 7th grade. Periodic medical absences led to Ricky falling further behind, contributing to anxiety about homework and tests. Ricky demonstrated increasing depression and isolation from family and friends as attendance problems persisted, resulting in significant academic problems (i.e., performing below his intellectual capacity). Significant family conflict resulted from alternating attempts by the family to exert punishment and accommodation. Additionally, Ricky's SR was one reason his mother did not seek employment.

Course of treatment. Ricky and/or his parent(s) attended 17 out of a possible 20 individual sessions and 36 out of 46 scheduled WBC sessions. For group therapy, Ricky attended 8 out of a possible 16 sessions, his mother attended all 16, and his father attended 15.

The major themes and focus of the treatment included a contingency management plan in order to assist with school re-entry. Items on his hierarchy included getting out of bed by 6:45 a.m., not returning to bed once out of bed, limiting bathroom time to 30 minutes, driving to school, staying in school for one class period, and concluding with staying in school for the whole day. Ricky's reward plan, implemented when he accomplished each target behavior, included time spent on the computer and other electronics, time with friends, and driving the family car. The use of the chain analysis technique helped reveal Ricky's ineffective behavioral patterns including personal vulnerabilities of failing to take medication on time/as prescribed which affected his routine, irregular sleep patterns, and eating foods that upset his stomach.

The DBT skills that were emphasized the most with Ricky during individual and WBC sessions include the *PLEASE skills* to help him reduce personal vulnerability by appropriately manage physical illness, and achieve balanced eating, sleeping, and exercise. *Opposite action*, an emotion regulation skill that encourages actions opposite to those dictated by an emotional urge, was used to help Ricky find alternatives to isolating and de-activating when feeling pain and sadness. Distress tolerance skills, including distract activities (e.g., going for a walk, playing "Dance Dance Revolution," doing chores, and playing with his dog) and radical acceptance, a strategy aimed at accepting the current moment with your mind and body, helped Ricky accept his pain without making the situation worse (e.g., by refusing to get out of bed). These interventions helped give Ricky control over the moment even though he often struggled with embracing the concept of acceptance.

Treatment challenges included engagement in the treatment program and parent discouragement. Ricky attended most individual and WBC sessions but often did not follow through with homework assignments. Occasionally he also would refuse coaching, web-based or otherwise. DBT techniques such as irreverence, radical genuineness, and the “freedom to choose, absence of alternatives” and “foot in the door” commitment strategies were implemented to address these difficulties. A second challenge was inconsistent father participation and mother self-efficacy. Ricky’s father tended to be critical and abrupt with Ricky and in contrast, his mother was consistently supportive and engaged during sessions. However, she would often report feeling helpless to Ricky’s moods and opposition. When his mother would become more directive at home, Ricky would become verbally aggressive. The therapist emphasized the “middle path” skills of validation and cheerleading for both mother and father to practice implementing.

By the end of treatment, Ricky stated that he appreciated learning his behavioral patterns. Although Ricky’s insight improved, his willingness to attend school when in pain only slightly improved. Ricky’s commitment to implementing the DBT skills and attending treatment waxed and waned during treatment. Ricky made progress in increasing mindfulness of his emotions and increased school attendance (though tardiness continued to be an issue), but the degree to which he actually practiced his skills is unclear.

Results of primary outcome measures. Changes in diagnosis and school attendance are captured in Table 3 while changes in emotion regulation are captured in Table 4. At posttreatment Ricky met criteria for School Refusal (CSR = 6) and no longer met criteria for MDD or GAD. At follow-up, he no longer met criteria for any diagnoses (SR, MDD, GAD) according to clinician-administered parent and youth interviews. At posttreatment, Ricky had

missed 38.1% of school days in the month prior, compared to 50% at pretreatment, and by 4-months posttreatment (data collected in October) he had not missed any school days in the month prior, i.e., from the beginning of the new school year. On the DERS, Ricky and his parent's scores reflected minimal change and represent scores close to non-clinical norms for adolescents ($M = 78.9, SD = 28.2$; Weinberg & Klonsky, 2009) and undergraduate adults (Women: $M = 77.99, SD = 20.72$. Men: $M = 80.66, SD = 18.79$; Gratz & Roemer, 2004).

Results of functional outcome measures. Family functioning scores are reported in Table 5. Based on Moos and Moos' (2009) typology of family environments, Ricky's family represents a conflict-oriented family (at or above a T score of 60 on the conflict subscale) with all family members at all time points scoring above this cutoff on the conflict subscale. Representative of a conflict-oriented family is also low cohesion, and Ricky's family scored at or below a T score of 31 for each time point. Unlike the conflict subscale, which did not significantly change for any family member between any of the time points, cohesion for both of Ricky's parents was rated as higher by posttreatment and was rated by Ricky as lower at posttreatment. The improved scores are still below the means for samples of both distressed and non-distressed families indicating even greater levels of difficulty with family cohesion than distressed families at all time points. Ricky's family incongruence score, i.e., a measure representing the degree of difference between each family member's self-report, at pre, mid, and 4-month posttreatment was at or below the mean for non-distressed families. At posttreatment, the score increased somewhat to above the normed mean.

Social functioning is reported in Table 6. For social competence, Ricky and his parents rated him at or no more than one standard deviation below a normed sample of boys ages 12-18 ($M = 8.9, SD = 2.5$) at all time points. On the withdrawn/depressed subscale, Ricky's mother

rated Ricky slightly above the normed sample ($M = 2.3$, $SD = 2.1$) at pre, mid, and posttreatment. At follow up, she rated Ricky slightly below the normed sample. Ricky's father's scores also decreased over time (see Table 6). Therefore for both of Ricky's parents, Ricky demonstrated clinically significant improvement on the withdrawn/depressed subscale from pretreatment to follow up. Although Ricky's father's rating decreased from pre to posttreatment, with a score of 8 he was still well above the norm, whereas Ricky's mother's ratings stayed the same at 4.

Changes in academic functioning can be seen in Table 7. Ricky's grades demonstrated improvements from many incompletes at pre to A's-D's at mid and posttreatment and no incompletes at follow up. Ricky received no disciplinary actions at school over the course of the treatment. On the CBCL's school competency scale, Ricky's father's ratings demonstrate clear improvement over time with his mother's scores demonstrating a more variable pattern. Therefore, according to Ricky's father by posttreatment and Ricky's mother by follow up, Ricky's change in scores reflects clinically significant change. This is due to the shift from pretreatment scores that reflect a more distressed profile to scores that resemble more of a non-distressed profile by post and 4-months posttreatment.

Results of video coding. All individual sessions and WBC sessions were viewed for coding except for individual session 14 and two WBC sessions due to recording errors. One additional WBC session was partially coded due to error with the audio of the recording, i.e., only the therapist could be heard for most of the session. In coding for each construct, examples of said construct occurring or being mentioned were coded, and absences of a construct were not officially coded. If the absence of a construct stood out to the coder, these examples were included in the results. A list of all of the constructs with the frequencies of each as they emerged

through video coding can be seen in Table 8. Overall findings and some illustrative examples will be described below.

Family functioning. Family functioning constructs and definitions of these constructs were gathered from Moos and Moos' (2009) FES, Olson's (2008) Family Adaptability and Cohesion Evaluation Scale IV (FACES), Linehan's (1993) biosocial theory (e.g, invalidation), Spanier's (1976) Dyadic Adjustment Scale, Johnston and Mash's (1989) Parenting Sense of Competence, and Krysan et al.'s (1990) overview of constructs to identify successful families. The Pritchett et al. (2011) review of measures of family relationship was instrumental in identifying many of these resources. The following constructs of family functioning were explored below: relationship dimensions (cohesion, expressiveness, conflict/punishment, validation, positive reinforcement, marital quality, and sibling relationships), personal growth or value dimensions (parental beliefs, independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral-religious emphasis), and system maintenance dimensions (organization/clear roles, control/power, and adaptability).

There were 5 individual sessions and 8 WBC sessions that demonstrated examples of high cohesion. Selected examples of high cohesion include Ricky's mother stating that she is trying to implement new strategies that she is learning in the program to motivate Ricky to go to school (session 4), Ricky and his parents collaborating in session to make a reward plan for spring break (session 9), Ricky's father being interested in learning what goals may be the best for Ricky to focus on during the summer (session 15), Ricky's mother expressing affection and support by placing her arm around his shoulders (WBC 1), and Ricky's parents bringing the WBC equipment into his bed to facilitate coaching on a day that Ricky was refusing to get out of bed (WBC 15). Two examples of poor cohesion were noted in individual sessions, including

Ricky's parents becoming less consistent with encouraging Ricky to go to school on certain days (session 11). Session notes and session viewing indicate that overall, both of Ricky's parents demonstrated consistent cohesion with Ricky by attending all or almost all of the group sessions, consistently being present (even if not being coached themselves) during WBC sessions, and consistently bringing Ricky to and/or participating in individual sessions.

Expressiveness between Ricky and his parents occurred or was discussed in 8 individual sessions and 2 WBC sessions. Examples of expressiveness include Ricky willingly communicating with his mother the treatment model (session 1) and summarizing to both parents the most useful DBT skills he's learned to target his specific problem behaviors (session 17), Ricky's mother expressing her concern to Ricky about how to best encourage him to stay out of bed in the morning (session 7), Ricky expressing to his mother what he likes and dislikes in how she communicates with him (session 15), and his mother encouraging him to talk to her in the morning to let her know how he's feeling (WBC 33). Through reading session notes and session viewing, it appears that neither Ricky nor his parents expressed their feelings many times to each other in session, nor was expression of feelings to each other mentioned frequently as having occurred outside of session. It also appears that Ricky's parents made a modest effort to communicate to Ricky to try to get him to work on his goals, but Ricky made less of an effort to communicate to his parents. It is also unclear how frequent and effectively Ricky's parents implemented the "validate and cheerlead" skill (a type of communication tool meant to facilitate effective expression between parents and youth).

Examples of conflict occur in 7 individual sessions and 4 WBC sessions. Pertinent examples of conflict include the mention of aggressive/coercive statements Ricky's father stated to Ricky including, "You're not going to get into college if you keep missing school! (session

3).” Some, yet few, *in vivo* instances of bickering and conflict occurred during sessions. One example occurred during WBC 10 when Ricky’s father somewhat accusingly asked Ricky if he had any browsers or programs up on his computer because it was choppy. Ricky sounded annoyed and said, “No! I don’t have anything open, I just turned it on!,” and then his father says sharply, “Ricky is right, shocker.” The majority of conflict examples from video viewing were of Ricky or his parents disclosing an argument that had occurred at home. Ricky’s mother stated that arguments almost always escalated when they were between Ricky and his father, and that he much less frequently would be yelled at by, or would yell back to, her (session 10). A typical aggressive interaction pattern would occur between Ricky and his father during arguments, where Ricky would yell at his father, e.g., because he changed the WiFi password, his father would yell back at him, and this would lead to more yelling from Ricky, continuing to escalate as each person gets more agitated. One incident did occur between Ricky and his mother where he cursed at her leading to his mother punishing him (no hanging out with friends over the weekend). Very rarely would conflict escalate to physical fighting, but his mother did express concern with one incident that had occurred before treatment started of Ricky pushing his father because he was trying to get the blanket off of his bed, and fearing that this could happen and escalate again in the future (physical violence did not reoccur during the treatment program). Overall, Ricky and his family exhibited conflict quite minimally during therapy sessions, but it was clear that conflict did occur outside of sessions.

Validation more specifically was mentioned or occurred in 3 individual sessions and no WBC sessions. Instances of invalidation were mentioned in 1 individual session and 1 WBC session. Since validation was a middle path skill that all participants and their parents were learning to use, this writer believed it would be important to capture in the video coding as an

example of a positive parental practice. Although validation was discussed as a skill frequently and the therapist encouraged Ricky's parents to use this skill during individual and WBC sessions, actual examples of Ricky's parents using validating statements to Ricky were not captured in video coding. Ricky did mention that his mother used the skill "validate and cheerlead" several times over the past week (session 3) and that he liked when she did this. Examples of invalidation include Ricky stating that he felt bad when his mother kept pushing the goal of getting to school on time and not praising him for just getting there at all (session 8; WBC 23).

Positive reinforcement was another positive parenting skill that was taught in the middle path module and therefore was of interest to measure in video coding. Positive reinforcement, through praise, occurred *in vivo* in 2 individual sessions and no WBC sessions. These statements include saying "Ricky did very well all week!" (session 5) and "He did a good job yesterday going to school after taking a bath!" (session 7). Session notes indicate that Ricky's mother was encouraged to praise Ricky after every step achieved on his hierarchy, and that this did occur through mother and Ricky's report. Tangible reinforcement, through rewards earned after engaging in a behavioral goal, were not always consistently implemented, as mentioned by Ricky in session 7.

Very few examples of the marital quality were observed in video sessions. Only one example was coded, which was of Ricky's mother stating that she has been helping Ricky's father by reminding him of skills he can use in the moment. Similarly, there were no instances of Ricky or his parents mentioning Ricky's two older brothers in relation to what Ricky's relationship may be like with them.

Parental beliefs emerged frequently in both individual and WBC sessions, with examples from 9 individual and 3 WBC sessions. Since Ricky's mother attended most of the individual sessions and was the main parent that was coached in WBC and over the phone, her beliefs as a parent were captured the most. The most salient theme that emerged was her statements of uncertainty in her ability to implement the contingency management plan (session 6), hesitation towards the efficacy of using different DBT skills, e.g., validation and cheerlead (session 2), and hopelessness when implementing skills did not go as planned, which sometimes led to her giving up (session 3). Towards the end of the therapy program, parental beliefs shifted, with mother and father expressing satisfaction with the DBT program (session 10) and their ability to use more effective parenting skills in the moment (session 15).

Several examples of family independence emerged through session coding. Primarily, Ricky tried to exert his own independence by being the main person the therapist communicated with during WBC sessions and spending the majority of individual session time independent from his mother. Ricky's mother also communicated to the therapist the desire for Ricky to be independent by stating that she wants him to be more self-sufficient by getting out of the bed on his own most days (session 7). This was not the case, as there were several instances when Ricky disclosed that his parents have to encourage him to get out of bed on the majority of days (WBC 8, WBC 22). Towards the end of the treatment program, Ricky mentioned coming to WBC independently, i.e., without his parents waking him up (WBC 24). Ricky's mother demonstrated a lack of independence, especially towards the beginning of the treatment program, as evidenced by reaching out to the therapist for phone coaching through text messaging or calling (captured in session notes) approximately 30 times throughout the course of the treatment program. During the last month of treatment, Ricky's mother became more self-sufficient with implementing

Ricky's behavior plan as evidenced by reaching out less and less to the therapist. Ricky's father reached out to the therapist only 4 times for coaching, often through stating a negative behavior of Ricky's that he is engaging in, but not directly asking for assistance (e.g., texting the therapist, "Ricky's in a nasty mood because I found out he has been watching hardcore porn on his computer," (session 14)).

There were no examples of Ricky or Ricky's parents casting school or work activities into a competitive or achievement orientation, therefore the achievement orientation construct was not coded. Ricky's mother and father expressed values consistent with the intellectual-cultural orientation on several occasions. Ricky's mother emphasized twice during individual sessions her concern with Ricky attending a special education program in his school because she feared that he was not learning at his intellectual level (session 3). Once during WBC (4), Ricky stated that he wasn't worried about his science mid-term and his mother chimed in the background stating, "Tell her why!" Ricky answered stating, "It's because I'm in the special education program," implying that the program was too easy for him.

Only a couple examples of an active-recreational orientation were discussed during sessions. Ricky and his parents would mention occasionally going out to dinner, sometimes the parents as a couple, and sometimes together as a family (WBC 19). Ricky certainly engaged in more recreational activities usually with friends, which will be discussed in the social functioning section. In general, Ricky's family did not mention engaging in many active or recreational activities as a family.

Ricky's parents were practicing Catholics and several times, this moral-religious emphasis was evident in the session viewing. Ricky's mother mentions her annoyance with Ricky not attending mass every Sunday due to feeling pain (session 3), frustration having to go

to the Apple store instead of mass to replace a broken iPad (session 5), and believes that morally, it is not acceptable for Ricky to swear at her (WBC 17). Neither Ricky nor his father ever mentioned personally having values related to morality or religion during sessions.

It appears that Ricky's family did not have very clear roles and were not always organized. In fact, a major focus of the treatment program focused on helping the family become more organized in terms of understanding what the parental role consisted of and what Ricky was responsible for doing. Examples of unclear roles occurred two times during individual or WBC sessions, in which Ricky's mother expressed frustration that Ricky thinks "he can just get away with not doing his chores," but not mentioning what these chores are, how often he is expected to do them, and the consequences of not doing them. The family, particularly Ricky's father, adapted well to implementing structured plans, such as a reward plan giving Ricky money towards car insurance for every day Ricky went to school plus extra if he was on time. Through session viewing and note review, it appears that structured plans (hierarchies, rewards plans, sleep schedules) were well received by Ricky's parents, and usually by Ricky as well, although continued implementation of the plans, especially if the plan did not start out as well as it was expected, was poor.

Instances of unbalanced control were evident during many sessions of individual and WBC. This construct tends to overlap at times with the organization/clear roles construct, particularly poor organization (Krysan, 1990). There were 4 examples of moments that had occurred outside of the session where Ricky had tried to impose control over his environment. This includes deciding for himself one morning that he will go to school in the afternoon but not in the morning, leaving his mother feeling frustrated and unsure if whether agreeing to Ricky's decision was the most effective thing to do (WBC 10). Another theme that emerged was Ricky

“outwitting” his mother in sessions, and his mother either acquiescing or expressing to the therapist that she often felt “manipulated” by him. This can be interpreted as an example of Ricky imposing control over his mother, and his mother feeling as if she does not have control. On the other hand, there were also examples of family rules, such as no use of electronics after 11pm (session 7) that were implemented consistently, although adherence was questionable since in the beginning Ricky’s parents did not know whether he was still using the computer after they went to bed. Over the course of treatment, this rule became more consistently adhered to as Ricky’s parents would actually take away electronics, or change the WiFi password, at 11pm (WBC 13). It appears that the therapist focused a lot on finding a balance between the dialectical dilemma of excessive leniency versus authoritarian control (Miller et al., 2007) by trying to help Ricky find control over his behavior, as well as coaching his parents to step in with contingency management or punishment when needed.

The last family functioning construct to be assessed was adaptability. Adaptability appeared to be less prominent in the beginning of the treatment program than towards the end, as Ricky’s parents began to learn and implement various DBT skills and strategies. During session 8, Ricky’s mother expressed difficulty she was having with adapting to Ricky’s needs in the moment, for example, she would often have to switch from expecting that he would go to school on time to encouraging him to get there at all. Later in the treatment program, there was an example that emerged of Ricky’s mother adapting to Ricky’s anger in the moment due to not having his own copy of his reward plan by making another copy for him (WBC 33).

Social functioning. Social functioning constructs were gathered through John’s (2001) article exploring the measurement of social functioning in children. Several types of measurements were suggested, including the CBCL parent report and YSR youth report

(Achenbach, 2009) the results of which were already reported. The following domains or constructs within social functioning were explored: team sports, social hobbies, organizations, social relationships with peers including conflict or bullying and ability to make/maintain friendships.

Ricky mentions having an interest in playing and watching sports (session 1). Due to Ricky's intestinal problems, Ricky stated that he did not want to sign up for any sports teams this year despite his parent's desire to sign him up for soccer (session 1). Later in the therapy during session 9, Ricky mentions his desire to join track and field, but is hesitant to do so due to the rigorous practice schedule. Although Ricky never ended up joining any regularly occurring school or community sports team, he did mention playing basketball with his friends once (session 15), going to the local YMCA to run at the track with friends after school sometimes (session 9), and using his school's gym to run and use weights during gym class and after school occasionally (session 6, 13).

Ricky's self-identified hobbies include listening to music, dancing, playing video games, baking, talking to friends, watching TV, and going on the computer (session 1, 4, 6). Not all of these hobbies are social in nature, although many are. Of the non-social hobbies, Ricky engaged in music listening as a distress tolerance skill several times and this was specifically mentioned in sessions 4, 9, and 10. Additionally, the playing of Dance Dance Revolution (DDR) was implemented as an activity Ricky can use in the mornings as an example of using the skill "opposite action." DDR was used at least once, but further use was unclear through session viewing. It was clear through session viewing that the therapist discussed with Ricky activities and hobbies he could engage in a skillful way, or that could be used as rewards, but it was less

clear how often Ricky actually implemented these hobbies over time. Hobbies that are social in nature will be discussed under the section describing his ability to make/maintain friendships.

Ricky was not involved in any organizations at the start of treatment. By session 9, Ricky mentions that he joined and attended the Wall Street Club at his school. He mentioned having interest in this because a lot of his friends joined the club as well. Ricky mentions continuing to go to meetings in session 11.

Ricky never mentioned having any conflict with peers or any problems with peers bullying him. Ricky spent a lot of his free time when he was feeling well with his friends. There were 7 individual and 2 WBC sessions that Ricky mentioned having spent time with friends in the past week/days. There were examples from session coding highlighting Ricky's value of friendships, as he mentioned that he enjoyed spending time with his friends (session 1), disliking a previous therapist's rule of not seeing friends on the weekend if he didn't go to school during the week (session 3), and making plans throughout the treatment phase to spend extended time with friends (sleepovers, parties, etc.). There were also several examples (4 from individual and 1 from WBC sessions) of missed opportunities to hang out with friends due to feeling sick. At session 1 and 2, Ricky articulated that he tends to isolate when he is feeling sick and does not like being around his friends during these times. Over the course of the treatment program, Ricky continued to isolate when not feeling well, despite the therapist's encouragement to hang out with friends even if he's in pain, Ricky articulating that getting to hang out with his friends is a huge motivator to go to school (session 4), and admitting that his friendships would improve if he went to school more consistently (session 12).

Academic/school functioning. Constructs within academic functioning were gathered through the Achenbach's (2009) CBCL/YSR measures and through reviewing the constructs that

emerged related to youth with school refusal and academic/school functioning from this paper's literature review. The following constructs will be discussed below: child/teacher interaction, classroom behavior, homework, and tests/grades.

Ricky mentions mostly positive interactions with his teachers concerning the planning of make up work when he has been absent and discussing how the curriculum will be accommodated for him. He was in only one mainstream class at the beginning of the treatment program (math) and by session 8 added on Latin and Modern Foods. Ricky expressed having a particularly good relationship with his Latin teacher, as he stated, "He's awesome!" (session 8). If he missed school or that particular class, he would easily approach his Latin teacher who was usually quite accommodating and understanding (session 9, 10). Ricky mentioned that his teachers were all informed that he has school refusal problems since he has a 504 plan (session 1). His math teacher was also understanding, i.e., he would create make up plans for Ricky, but he appeared less accommodating as evidenced by communicating with the therapist and parents about Ricky's need to make up work in order to pass the class.

There was no mention of Ricky's classroom behavior, in neither a negative nor positive way. For homework, Ricky mentioned in session 1 that he did not have any homework for his special education classes (all except math). Once Ricky started taking Latin, there was more mention of Ricky engaging in (and usually enjoying) his Latin homework (session 8, 9, WBC 26). Once, Ricky mentioned staying up all night waiting for his laxative medication to work, so he accomplished some math homework while he was awake (WBC 28). Similarly, there was infrequent mention of tests, quizzes, or grades by Ricky. Ricky mentioned in session 3 that he was not stressed about the academic demand right now, because his classes are not challenging. Any mention of a test or quiz that he was about to take (4 examples) he responded saying that he

wasn't worried about how he would do. He did mention doing well on two Latin quizzes "because they were easy," (session 9).

Additional functional domains. Within the areas of social and academic/school functioning, additional domains of interest emerged for Ricky through video coding including engagement of friends and other social concerns (social functioning) and self-efficacy and interest in school (academic functioning). Three other domains of interest emerged for Ricky including therapy functioning and therapeutic relationship, physiological distress, and work functioning. All of these additional domains will be explored below.

Engagement of friends and other social concerns (social functioning). There were several instances where Ricky mentioned how his friends would reach out to him to encourage him to go to school or would express their worries to him that he is not in school. Sometimes encouragement would occur through a text message (session 5) and one time, he mentioned that his friends all showed up at his house unannounced to encourage him to feel better (session 12). Ricky mentions not liking that his friends worry about him (session 1) but states that for him, the worst-case scenario would be having to interact with his friends when he is feeling physical pain (session 2).

Self-efficacy and interest in school (academic functioning). Ricky's interest in attending school appeared to heighten in response to added events such as guest speakers and field trips (WBC 18, 21). Ricky expressed interest in his mainstream classes, particularly Latin and Modern Foods (WBC 12, 25). He also suggested going to school even if it's just for his mainstream classes, because he valued them more (WBC 27). He mentioned feeling bored in his special education classroom (session 1). Even in his preferred classes, he mentions the ease and relative low pressure he felt in taking tests, quizzes, or completing homework (WBC 17, 26).

Therapy functioning and therapeutic relationship. Since committing to a therapy program as intensive as DBT-SR closely resembles the commitment youth have to make to attend school, it was not surprising that difficulties in treatment adherence manifested. The therapeutic relationship as a proxy for interpersonal functioning with authority figures such as adults, teachers, and school administration became an area of functional interest.

Ricky completed therapy homework, specifically filling out completely and remembering to bring in his diary card, in 7 sessions. There were 10 instances in which Ricky either filled out his diary card incompletely, forgot to bring in his diary card, or forgot to do another assignment such as completing his hierarchy (session 4) or creating a pros and cons list (session 12). As for Ricky's interaction style with the therapist, he was polite and engaged with the therapist in all individual and WBC sessions, if he was present. There were 3 instances though when Ricky refused to be coached by the therapist through web or phone coaching and 10 instances that he no showed to WBC. Although Ricky was pleasant and agreeable in person with the therapist, he would often not complete tasks he stated to the therapist he would do. There were also instances in which Ricky would be willing to listen and talk to the therapist, but was unwilling to change his behavior (e.g., to take the next step on his hierarchy, go to bed at a scheduled time). The high number of no shows to WBC reflects a lack of willingness to engage in the therapy. Ricky's parents were also polite and pleasant when interacting with the therapist both in session and during coaching. Ricky's mother was frequently engaged in the therapy process, both in the therapy and skills coaching components. She was very willing to try new skills and strategies. Ricky's father was less directly involved in the treatment process for individual and skills coaching (he only attended 2 individual sessions and was present for 9 WBC sessions) so less

information was gathered about his interaction style with the therapist, although there were no negative interactions noted in the coding.

Physiological distress. Ricky's presenting problem was school refusal related to physical pain so it became clear that measuring changes in Ricky's actual pain and/or pain tolerance would be informative. Reports of intensity from actual physical pain did not appear to change from the beginning of the treatment program to the end as evidenced by frequent reports of moderate to high pain/distress levels (see WBC examples). It does appear that Ricky made some changes in his ability to tolerate pain and distress as evidenced by examples of Ricky taking steps on his hierarchy including getting out of bed, getting ready for school, and even going to school on days when he was not feeling well (information gathered through session notes). There appeared to be many examples though of Ricky choosing not to tolerate pain even by the end of the treatment program by not following through with steps on his hierarchy, not getting enough sleep because of waiting for his medication to work, and waiting to feel better in the morning before deciding to leave for school (e.g., WBC 32, 28).

Work. Towards the end of treatment, the idea and hope of getting a summer job became mentioned more frequently by Ricky. At session 10, 12, 15, and 16, Ricky mentions excitement about earning money again as an umpire this summer and that he might apply for another job in addition to umpiring as well.

Lance.^{1,2}

Demographics, clinical diagnoses, and presenting problems. Lance was a 14-year-old, Caucasian boy, enrolled in the 9th grade at a private school. His parents were separated and had joint custody. Lance's mother was a recently retired speech/language specialist and his father was working full time as a research scientist. At intake, Lance was diagnosed with SR (CSR =

7), GAD (CSR = 6), and SOP (CSR = 4). At intake, Lance was not prescribed any psychotropic medications.

School-refusal related problems. Lance's SR began in 8th grade, following an illness, and he finished the school year with home tutoring. In 9th grade he had difficulty returning after a weather-related school closure and again after an illness. At intake (mid-January), he had not attended school for six weeks although winter break made up several of those weeks. Lance's refusal was related to fears of explaining his absence to others at school or elsewhere, performance fears, social evaluation, and catching up on schoolwork/homework. He reported no short-term consequences of SR but was concerned that continued absences may negatively affect long-term goals, like going to college and getting a job. Lance noted numerous benefits to staying home, including sleeping in, watching TV, playing video games, being free of worry about school, and spending more time with good friends because he did not have to commute to school or do homework. His parents reported that SR interfered with grades, social relationships, and family functioning.

Course of treatment. Lance and/or his parent(s) attended 15 of a possible 25 individual sessions (including rescheduling sessions) and 41 out of 48 WBC sessions. For group therapy, Lance attended 11 of 16 group sessions and his mother and father attended 12.

Lance's treatment, similar to Ricky's, focused on setting up a contingency plan in order to assist Lance in reaching the eventual goal of school reentry. During individual and WBC sessions, the therapist coached the family to complete morning social anxiety exposures, e.g., going to a local café, by helping Lance use DBT skills such as *opposite action* and *distract*, to be successful. The therapist also focused on helping the parents successfully execute the reward plan faithfully. Broadly, therapy focused on helping his parents move towards synthesis of the

“Holding on too tight-Forcing independence too soon” dialectical dilemma. The parents often yielded authority to Lance on if, when, and how school reentry would occur, yet they avoided talking about school with Lance or in front of him, because they considered it “too upsetting for him.” Therapy focused on helping parents take more control over decisions reserved for parents (e.g., school attendance, choice of schools) while remaining emotionally supportive.

Many DBT skills were essential to the treatment, not only for Lance but also for his parents. Mindfulness was used, particularly with his mother, who was coached to use the *describe* skill and to avoid judgments when discussing other family members’ behavior. Lance’s mother was also coached to use *wise mind*, particularly by staying focused on the present moment, when implementing the reward plan. Learning and practicing *validation* was also critical, as the family had a history of conflict, criticism, and blame that often led to escalating emotional arguments. *Opposite action* as well as *self-soothe* were skills that Lance was often coached to try during WBC sessions, particularly when he was tired or distressed and did not want to get out of bed or leave the house.

There were numerous challenges to treatment. Most notably, the family missed, was late to, or cancelled at the last minute numerous individual, group, and WBC sessions. This was most often due to Lance’s refusal to come to therapy but also due to parental tardiness or family/personal crises not related to SR. Further, Lance often became unresponsive when the therapist tried to address school topics directly discussed. The family’s inconsistency and Lance’s avoidance of emotional topics led to a large proportion of session time dedicated to addressing these therapy-interfering behaviors. In the sixth week of the program, Lance began psychopharmacological treatment with an SSRI, and he reentered school in the 12th week. After school reentry, the family’s treatment attendance decreased and commitment became unstable.

Decreased attendance may have resulted from continued treatment disengagement, recovery from distress via DBT-SR or the medication, or logistical challenges with balancing travel to school, homework, and travel to the treatment facility.

It should be noted that Lance's mother and father both acknowledged gaining personal benefit from participating in the skills group. Practicing skills with the mother helped her keep her emotions regulated and adhere to family interventions calmly (e.g., contingency management; avoid switching between "Too loose" and "Too strict"). The father presented with greater emotion regulation, but he self-acknowledged having an avoidant coping style, which through engaging in this program, shifted over time. Parents reported that having WBC scheduled in the morning helped to keep Lance accountable for getting out of bed and starting his morning routine. Waking at a consistent time to participate in WBC may have helped Lance regulate his sleep. In addition, it appeared that daily WBC increased his parents' coordination of childcare, and it helped parents follow through with treatment recommendations.

Results of primary outcome measures. Changes in diagnosis and school attendance are captured in Table 3 while changes in emotion regulation are captured in Table 4. At posttreatment Lance did not meet criteria for School Refusal (CSR = 6) nor GAD or SP according to clinician-administered parent and youth interviews. At follow-up, he maintained remission in all three of these areas. At posttreatment, Lance had missed only 8.7% of school days in the month prior, compared to 100% at pretreatment, and by 4-months posttreatment he had not missed any school days in the month prior (data collected in October). Lance's DERS scores did not appear to change significantly across time nor did either of his parents. Despite even the largest jump in scores demonstrated by Lance's mother from posttreatment to follow

up, all scores remained within a standard deviation from a non-clinical norm for both adolescents and adults.

Results of functional outcome measures. Family functioning scores are reported in Table 5. Lance's family represents a conflict-oriented family with all family members scoring above a *T* score of 60 at pretreatment on the conflict subscale. Conflict scores remained elevated at all time points for Lance's self-report and for mid and posttreatment for Lance's father's self-report (follow up data was not collected from Lance's father). Lance's mother scored family conflict as elevated at pre and posttreatment but not at midtreatment and the 4-months posttreatment follow up. Representative of a conflict-oriented family is also low cohesion, and Lance's family scored at or below a *T* score of 31 at pretreatment. Cohesion scores varied between family members, particularly between Lance and his parents, at all time points with Lance scoring family cohesion much lower than his parents. By follow up, Lance's cohesion score jumped above the non-distressed family norm and his mothers score rose, but was still at the distressed family norm. Therefore, according to Lance's self-report there was clinically significant change in family cohesion from pretreatment to follow up, but this was not corroborated by his parent's scores. The only other clinically elevated scores were from Lance's self-report of control at pre and 4-months posttreatment time points, implying that Lance experienced his family as imposing more control than his parents believed they were. Ricky's family incongruence score was near the mean for normal families at pre and midtreatment but there was more incongruence at post and especially at 4-months posttreatment. These scores imply growing differences between each family member's self-report of the family functioning over time.

Social functioning is reported in Table 6. For social competence, Lance and his parents rated him at or no more than one standard deviation below the normed sample at all time points. On the withdrawn/depressed subscale, Lance's father rated Lance above the normed sample at pre and midtreatment and below the normed sample at posttreatment. Lance's mother's scores were more variable, starting above the normed sample, reducing to zero at mid and posttreatment, and rising to slightly above the normed sample at follow up. Therefore, from pre to posttreatment, both parents rated Lance with clinically significant change on social withdrawal due to scores moving from resembling a referred sample to a non-referred sample over time.

Changes in academic functioning can be seen in Table 7. Lance's grades were variable across time, improving slightly for some classes, remaining constant for one, and decreasing for one other. Follow up academic grades were unable to be gathered due to the participant's father rescinding consent to contact the school. Lance received no disciplinary actions at school over the course of the treatment but did have one minor dress code violation in the months prior to starting treatment. On the CBCL's school competency scale, all family members scored Lance above the mean for a normed sample at all time points.

Results of video coding. All individual sessions and WBC sessions were viewed for coding except for individual sessions 1, 2, 12, and 16 and four WBC sessions due to recording errors. One additional WBC session was partially coded due to error with the audio of the recording, i.e., only the therapist could be heard for most of the session. A list of all of the constructs with the frequencies of each as they emerged through video coding can be seen in Table 8.

Family functioning. Lance's family demonstrated examples of high cohesion in 6 individual sessions and 16 WBC sessions. Both Lance's father and mother demonstrated a

willingness to help Lance through many examples of taking him out of the house for exposures (e.g., WBC 1, 2, 10), making sure the equipment was set up if they were using a different computer or at a different house (S6), traveling to each other's home in order to be present together for WBC (S5, WBC 11), and agreeing to going to group even if another family member couldn't go (S11). One example of non-verbal cohesion was captured in WBC 5 when Lance's mother was hugging him and praising him. From video coding, only three examples of poor cohesion were captured. In session 6, Ricky's mother became frustrated and did not express any support for Lance, in WBC 20 she expressed frustration related to having to turn off the internet in order to help Lance with his contingency plan, and in session 10 both parents avoid making the choice of what school Lance will start attending, which is unsupportive of Lance's school reentry goal by halting the progress that can occur. Through session notes, Lance's family show moderate to high levels of cohesion through therapy attendance as evidenced by attending 60% of individual sessions, 85% of scheduled WBC sessions, and parents attended 75% of group sessions.

There are 4 individual sessions and 14 WBC sessions in which expressiveness between family members occurred. For a large portion of these WBC sessions (12 of the 14), Lance's parents would encourage Lance to express himself or engage with the therapist. Although Lance was consistently encouraged to be expressive, he rarely would engage with the therapist or with his parents during sessions. Lance's mother was directly expressive to Lance and/or Lance's father, sometimes expressing frustration or anger, in about 4 sessions. Two types of poor expressiveness were captured in video coding, including Lance's mother cutting him off while he was talking (e.g., S6) and Lance's father speaking for Lance during several WBC sessions instead of encouraging Lance to speak for himself (e.g., WBC 12, 27, 29).

Examples of family conflict or punishment occurred in 7 individual sessions and 7 WBC sessions. Video coding captured many instances of *in vivo* conflict as well as disclosures of other moments of conflict that had occurred outside of session. Most of the *in vivo* examples of conflict were initiated by Lance's mother. Examples of *in vivo* conflict include Lance's mother yelling at Lance and telling him, "Maybe you should call DYFS to be taken out of my house!" (session 6), Lance yelling at his mother during WBC while still in bed, "No! Stop! Don't touch me. This is stupid!" and his mother yelling that she's taking the computer away (WBC 4), and Lance's father expressing annoyance with Lance's mother that she is not paying attention to what he is saying by stating, "Don't tune this out!" (session 3). Another trend that was noted was the use of punishment by Lance's mother, often appearing to occur impulsively at the end of an argument or after trying to use the "validate and cheerlead" skill with no success (e.g., sessions 5, 6, WBC 4). Conflict existed between Lance and his father, but these instances appeared to be less emotionally intense or destructive (e.g., Lance expressing annoyance with his father that he took his phone away at his bedtime in session 11.) Conflict did not appear to change from the beginning of the treatment program to the end, as evidenced by continued disclosure of conflict occurring at home, *in vivo* examples of conflict, and the therapist's statement to the family in session 14 that they appear to still be in a lot of conflict as a family.

Validation only occurred 2 times during sessions unprompted by the therapist, once by Lance's mother and once by his father (sessions 8 and WBC 3, respectively). The therapist did coach family members to use validation with each other during several sessions (session 6, 7, WBC 4, 19, 21) and these were coded as examples as well. There were also instances of invalidation (e.g., Lance's mother continuously interrupting both Lance and his father from expressing their opinion during session 6) as well as missed opportunities to validate (e.g., Lance

and his father failing to validate Lance's mother's concerns in session 6). Although it is clear that the skill of validation was discussed and incorporated into Lance's treatment consistently, it is unclear through video coding alone whether Lance's family became more skilled at using this skill over the course of treatment.

Reinforcement, in the form of praise, was observed in 3 individual sessions and 4 WBC sessions. Examples of praise include Lance's father praising Lance for attending individual therapy (session 6), Lance's mother praising Lance for doing his homework and sticking to the contingency management plan (session 7), and Lance thanking/praising his father for keeping him on track with his goals (session 7). Lance's father also mentions using positive reinforcement to encourage therapy compliance (Lance was allowed to use his laptop until 10:30pm if he set it up for WBC by installing Jabber; WBC 5). Although actual instances of positive reinforcement (besides praise) were not often observed or discussed in session, in practice it did occur more frequently as the therapy progressed as it formed the basis for the contingency management plan and Lance's family reported more success with its implementation over time. This was also noted by the therapist in session notes.

Lance's parents exhibited conflict-ridden interactions in 6 individual therapy sessions and 1 WBC. The marital conflict observed in video coding appeared to stem mostly from Lance's mother expressing feelings of frustration about her role in Lance's treatment and life. For example, she said she was upset for not being a part of making changes to the contingency plan (session 6) and feeling "out of the loop" of his treatment in session 10. Although Lance's mother felt like she was not always included as an active participant in Lance's treatment, she was quick to support Lance's father as the primary implementer of the treatment plan, stating that he's "more stable" than she is (session 10, 11).

Lance's relationship with his brother is only discussed or evident in two sessions, sessions 11 and WBC 11. In session 11, Lance's mother states that she believes Lance enjoys staying at his father's house because that is where his brother stays. In WBC 11, Lance appears more energetic and playful with his brother in the background of the coaching session and states his plans to get his haircut that day with his brother.

Parental beliefs varied between Lance's mother and father. Lance's mother expressed her concerns about her ability to effectively parent Lance in 7 individual and 5 WBC sessions. Commonly expressed thoughts included thoughts of hopelessness and discouragement, e.g., "I don't think I can do this anymore," (session 5, 6) and thoughts praising Lance's father's parenting abilities while dismissing her own, e.g., "I should be doing more, Lance's father is doing so great," (session 3) and "Things are going so well and I don't think I can do what Lance's father does right now," (session 7). Connected to this low parental confidence that Lance's mother expressed was her high level of emotion dysregulation and overall distress. This was expressed by Lance's mother in 4 individual and 3 WBC sessions. Examples of Lance's mother's expression of distress include stating she was very anxious about deciding whether to push Lance to go back to school or not, admitting that she needs to learn how to tolerate her own distress (session 10), and expressing anxiety about whether Lance can "handle" the distress of talking about school reentry (WBC 20). No instances of Lance's father expressing thoughts about his own efficacy as a parent were coded. Lance's mother's low confidence and beliefs of parenting efficacy did not appear to change during the course of treatment, as evidenced by continued disclosures of her parental beliefs in later sessions.

Examples of poor family independence were observed in 3 individual and 1 WBC sessions, with specific references to Lance's low level of independence and/or wanting to instill

more independence in Lance. Examples include Lance's mother wanting to install locks onto his bedroom door to give him more independence and privacy (session 5) and Lance stating that he never gets up on his own for WBC; his parents always have to wake him up (session 6). During WBC sessions, Lance's father would talk for Lance at times (see expressiveness paragraph), stifling Lance's ability to be independent in the therapy process. For instance in WBC 26, the therapist asked Lance to get his diary card and Lance's father got up to retrieve it, instead of encouraging Lance to do so for himself.

An achievement orientation was only captured in one session, session 13, when Lance mentions that he was worried about his grades this year because he was out of school for a while and wanted to still do well. There were no examples of an intellectual-cultural orientation. An active-recreational orientation was present in 5 individual and 2 WBC sessions. Both parents emphasized throughout treatment the importance of Lance being active by getting out of the house (session 11), socializing (session 7, 8, 10), and spending time with the family on vacations (session 13). There were also several instances in which missing treatment (either WBC, group, or individual) was allowed in order to allow Lance to spend time with his friends (e.g., WBC 32). Two examples of a moral-religious emphasis were captured through video coding, both expressed by Lance's mother. One example was of Lance's mother stating, "I am your mother, you need to respect me. I don't deserve to be treated that way," highlighting her emphasis of expecting her son to interact with her in a morally right/respectful manner (session 6). In session 14, Lance's mother discusses her own religion and how this influences her views. Neither Lance nor his father discussed religion or concerns with morality.

There are several examples (3 individual and 1 WBC sessions) of poor family organization with fewer examples of high organization within the family. For example, Lance

shifted from living at his mother's house, then to his father's house, and back and forth sometimes without notice (session 5). As previously discussed in the parental beliefs paragraph, Lance's mother frequently discussed her frustrations with feeling not included in task development and execution of responsibilities, highlighting poor organization of tasks and family roles. There was one session (7) when all family members appeared in agreement with the treatment plan and the roles of each family member (i.e., Lance living at father's house, father helping Lance implement out of house exposures, and mother visiting Lance at the father's house frequently to help and stay involved). It is unclear whether family roles and organization improved consistently over the course of the treatment program as there were instances of clear organization from time to time that would later return to disorganization.

Control within the family shifted during the course of therapy. In the beginning of the treatment program, there were several instances of Lance taking control over school and treatment decisions and his parents acquiescing to his requests or enabling these requests (4 individual and 6 WBC sessions). Examples of this include not going to the agreed upon location for an exposure because Lance did not want to go (e.g., session 4), creating his own contingencies (e.g., stating he will not go to therapy unless he gets his computer back; WBC 24), and Lance's father looking to Lance to decide what he could handle as an exposure each day, instead of expressing his expectation and encouragement of what he expects Lance to do (e.g., WBC 23). Towards the beginning of the program, there were also a couple examples of poor communication between Lance's parents about rules, making it difficult to consistently implement a contingency management plan (sessions 3, 6). By the end of the therapy process, there were more instances of Lance's father demonstrating control by setting clear rules through the contingency plan, and mostly following through with this plan (WBC 25, 26, 31). Although

Lance's father appeared to demonstrate more control, there was still evidence that Lance's mother felt little control towards the end of the treatment program as evidenced by her disclosure that she feels like she has low control and power over her family (sessions 11, 14).

There were several instances of high adaptability that were captured through video coding (1 from individual and 3 from WBC sessions). For example, Lance demonstrated high adaptability to changing homes and still being ready for WBC at the other house by bringing over the equipment and setting up Jabber on another computer (WBC 8). Lance's mother also demonstrated adaptability by driving to Lance's father house last minute so that she could be present for WBC one morning when Lance's father could not be there (WBC 11). Lance's mother was also highly adaptive and responsive to the therapist's instruction during WBC 21 by following the therapist's coaching of the 'validate and cheerlead' skill.

Social functioning. Sports were mentioned in 4 individual and 2 WBC sessions, but only two of these disclosures were of Lance playing a sport with peers (session 9, WBC 33). Two of these instances included Lance talking about being interested in sports but stating that he did not want to engage in these sports unless he was by himself (e.g., Lance stated he would be interested in learning to play ping pong but only if he could be coached with no one else present; session 3). The couple instances when Lance did engage in the social playing of sports occurred later in the treatment program (sessions 9, WBC 33).

In sessions 3 and 5, Lance mentions engaging in hobbies by himself, including watching TV, going on the computer, and listening to music. Starting in session 5, there are more examples of Lance engaging in hobbies with others, including playing video games (sessions 6, 9) and watching TV. An organization, specifically Boy Scouts, is discussed in two sessions (9

and 13). Lance disclosed anxiety about going back to Boy Scouts due to missing many meetings but that he planned on returning the next day (session 13).

Neither Lance nor his parents ever disclosed any problems related to conflict with or bullying by peers at school. At the beginning of the treatment program, Lance and his mother disclosed anxious thoughts related to engaging with peers again. For example, Lance's mother stated in session 3, "I'm afraid he's going to snap if he goes back to St. Peter's, he's lost all his friends," and in session 5, Lance was debating whether to go to a friend's birthday party because it had been a long time since he had seen this friend and didn't want it to be "weird." By session 6, Lance disclosed engaging in increasingly more social activities (mentioned in 6 individual and 5 WBC sessions) including going to birthday parties (session 10), sleepovers (session 8; WBC 32), the mall (session 13), and barbeques (session 13) with his friends. Lance stated in session 13 that he is very happy with his current social life and when asked by his therapist, he stated that his rating of peer connectedness is an 8 out of 10.

Academic functioning. Lance did not attend school for the majority of the active treatment phase; therefore there were no child/teacher interactions or classroom behaviors to code. He did have in home tutoring that started after session 8 and in sessions 9-11, Lance's parents stated that the tutoring was going well and that Lance was cooperative.

With school homework, video coding revealed two instances of difficulty with homework completion (sessions 6, 8) including difficulty concentrating and Lance stating he would not do his homework until he was given his computer back. In WBC sessions, there were 7 instances of successful homework completion mentioned. Lance's father praised Lance for following through with the contingency plan to do his homework in order to earn various rewards (e.g., computer

time; WBC 26). It appears Lance's homework compliance increased as the therapy process continued.

There are only 2 individual and 1 WBC sessions in which school grades were mentioned. These instances include Lance's father noting that Lance had not been receiving any grades for his completed homework assignments (session 8), Lance expressing worry about his final grades (session 13), and Lance's mother expressing her own concern over his academic functioning related to earning good grades and continuing to learn (WBC 1).

Additional functional domains. Within the area of academic/school functioning, an additional domain of interest emerged for Lance through video coding: fears/self-efficacy related to school reentry (academic functioning). Outside of the main three domains, one other domain of interest emerged for Ricky: therapy functioning and therapeutic relationship. These additional domains will be explored below.

Fears/self-efficacy related to school reentry. For Lance specifically, there emerged through video coding a fear and low self-efficacy about his ability to return to school disclosed by Lance and his parents. Through 5 individual sessions, the progression of Lance's willingness to discuss school reentry was captured. Lance started in session 4 stating that he is afraid to go back to school after missing 3 months already and is not willing to commit to thinking about returning to school. In session 10, Lance's father stated that Lance is still very nervous to go back to school but is at least starting to consider it as an option, and then by session 11, he had committed to going back to school but did not want to talk about it with the therapist. Lance's mother and father articulated similar fears about Lance's ability to "handle" going back to school, engaged in avoidance behavior of not discussing school reentry with Lance for fear that he would feel more anxious. Once Lance reentered school his parents disengaged in the therapy

process for fear of “rocking the boat,” i.e., distressing Lance too much and causing him to engage in SR behavior again (disclosed over phone calls and written by therapist in session notes).

Therapy functioning and therapeutic relationship. Similar to Ricky, the therapeutic relationship and overall therapy functioning emerged as an important additional domain of functioning for Lance and his family. Lance did not complete his therapy homework, specifically filling out completely and remembering to bring in his diary card, in 6 sessions. As described under family functioning, Lance’s father several times would not follow through with exposure assignments discussed in WBC sessions if Lance did not want to engage in the task. Sometimes Lance’s father would compromise an easier exposure and other times he would give up on an exposure all together. There were only 3 instances in individual sessions and 2 instances in WBC where Lance did complete his diary card homework or followed through with the contingency plan. It is possible that there were more session weeks that Lance was compliant with his contingency plan, but if it was not mentioned in session or in the session note, it could not be captured here.

As for Lance’s interaction style with the therapist, he was overwhelmingly quiet and uninterested in talking with the therapist in most individual and WBC sessions until week 7 of the treatment program. In individual sessions, Lance’s therapist tried to engage him in games like UNO to establish rapport with only minimal success, i.e., he would very shortly respond to her questions if they played a game (sessions 3, 5). At times, Lance would respond to the therapist’s questions with a defiant tone, e.g., the therapist asked him for his friend’s names and he responded saying, “Why? You don’t know who they are anyways!” (session 6). At other times, Lance would respond to the therapist’s questions with silence. By session 7 and afterwards,

Lance was more amenable to listening to the therapist during session and answering her questions. In session 8, the therapist established the contingency that if he engaged in the session, she would end the session 10 minutes early, which he complied with. Lance's father was polite and pleasant when interacting with the therapist both in session and during coaching. Lance's mother was also engaged in the therapy process but was more emotionally labile in presentation and in her interactions with the therapist. Both parents were very willing to try new skills and strategies, although at times it is possible that their own anxieties may have influenced their treatment compliance (e.g., Father backing off on encouraging Lance to complete an exposure for fear of pushing Lance too much).

During WBC sessions, Lance was almost always silent except for head nods or shakes, or the occasional one word "yes/no" answer to a question. Even though Lance's parents were always present during WBC, the therapist tried to engage Lance in conversation more than the parents, yet this was unsuccessful the majority of the time. Lance no showed to WBC a total of 7 times. This relatively high number of no shows to WBC may reflect a lack of willingness to engage in the therapy.

Functional and Primary Outcomes- Do they change, or not change, together?

Ricky. In order to compare whether the functional outcomes changed with the primary outcomes, it is important to note how the primary outcomes changed if at all. For Ricky, school attendance decreased substantially from pretreatment to posttreatment and follow up, indicating a positive and linear change over time. Diagnostically, Ricky's MDD and GAD remitted by posttreatment although school refusal, according to clinician severity rating, had not changed at all from pre to posttreatment (CSR = 6). By follow up assessment, Ricky had maintained remission of MDD and GAD and was also newly remitted from SR. Therefore, diagnostic

change over time also follows a positive and linear direction. Lastly, he demonstrated an increase in emotion dysregulation from pre to post treatment (83 to 99) and a decrease in scores by follow up (62). For Ricky's mother, her DERS scores increased slightly (66 to 76) from pre to posttreatment, then decreased to her pretreatment score at follow up, demonstrating minimal to no change over time. Ricky's father's scores also did not appear to change significantly from pre to post or follow up. It is important to note that all of these DERS scores, even at pretreatment, fall below the cut off that is typically used to indicate high emotional dysregulation, (i.e., 105; Rizvi & Steffel, in press), therefore it is possible that Ricky and his family did not experience high emotion dysregulation at the outset. Overall, Ricky's primary outcomes demonstrated mixed changes over time, specifically with school attendance and diagnostic remission improving over time and level of distress not changing.

When comparing Ricky and his parent's family functioning scores from the FES to the primary outcomes, it appears that high levels of conflict did not change over time. Video coding corroborates a high conflict profile across the treatment as well. This supports the hypothesis of having high family conflict at pretreatment but does not support the hypotheses that family conflict would decrease over time or that as primary outcomes improved so would family conflict. Therefore as school attendance and diagnostic remission improved over time, family conflict did not (see Figure 1). The relatively unchanging DERS scores from Ricky and his parents may be related to the unchanging levels of family conflict as well.

As for family cohesion on the FES, Ricky's parents noted an increase in cohesion from pre to posttreatment and a decrease was noted in Ricky's self-report. In video coding, high cohesion was coded across all of treatment and not just later in the treatment program. Moreover, by 4-months posttreatment Ricky and his parents scores had either returned to baseline or

decreased by a point. Ricky and his parent's FES family cohesion scores support the hypothesis that low cohesion would be present at pretreatment but does not support that cohesion would improve over time. Even when considering the parent's report of improvement at posttreatment, these scores were still below the mean for distressed families ($M = 5.25$, $SD = 2.13$). Video coding also does not support the hypothesis since relatively high cohesion was coded throughout the treatment program. Overall, the findings for family cohesion are quite mixed with overall low scores for all family members irrespective of change over time on the FES and high cohesion observed through video coding.

Other family functioning variables that emerged through video coding and appeared to improve across treatment include parental beliefs (e.g., from low self-efficacy expressed in the beginning of the program to stating towards the end of the treatment that they feel more effective implementing the skills in the moment), independence (e.g., from relying on therapist coaching frequently, exhibited by both Ricky and his parents in the beginning to Ricky relying less on his parents to wake him up and his parents relying less on the therapist for coaching), and adaptability (e.g., Ricky's mother becoming more adaptable to Ricky need's in the moment as she became more skilled). Therefore these family functioning constructs appeared to improve along with the primary outcomes of diagnostic remission and school attendance over time, supporting this hypothesis. Additional variables that like the distress levels remained constant and did not appear to improve across treatment were low expressiveness, low clarity of roles/low organization, and poor control. These variables did not improve across treatment as did school attendance and diagnostic remission, therefore these variables did not support this hypothesis.

According to Ricky's parents, both social problems and social competence levels on the CBCL were at or near the norm for a non-referred sample of 12-18 year old boys. For the

withdrawn/depressed subscale, both of Ricky's parents indicated improvement on the withdrawn/depressed subscale from pretreatment to follow up, with scores being slightly above a non-referred sample at follow up. From video coding, Ricky demonstrated minimal increases in social involvement over the course of treatment including playing sports with friends, joining a school club, as well as spending more time with friends as a result of feeling physically better on more days. Although Ricky continued to isolate on days that he did not feel well, since the frequency of these days reduced over time, so did Ricky's isolation. These results indicate that Ricky did not have social skills deficits and was socially competent throughout the study, but that he did feel socially withdrawn at pretreatment leading to a small decrease in isolation by posttreatment and follow up. This change in social withdrawal over time supports the hypotheses that elevated levels of social withdrawal at pretreatment would reduce over time and that as the primary outcomes of school attendance and diagnostic remission improve, so would social withdrawal (see Figure 2). Ricky did not disclose any problems with maintaining peer relationships despite his frequent absences from school, therefore the hypothesis that there would be heightened peer conflict that would improve over time was not supported. The hypothesis that distress levels would improve as social withdrawal improved was not supported, which may be a reflection of Ricky's continued difficulties with school refusal even at posttreatment despite this one functional change.

Ricky's academic grades demonstrated improvements from many incompletes at pre to A's-D's at mid and posttreatment in several classes with no more incompletes and mostly A's by follow up. Ricky received no disciplinary actions at school over the course of the treatment. From the CBCL school competency scale, Ricky's parent's scores indicate improvement over time, especially by follow up when both his mother and father's scores reflect those of a non-

referred sample (see Figure 2). Therefore, the hypotheses that poor grades at pretreatment would improve across the treatment study and that as primary outcomes improve so does academic functioning were both supported. Since Ricky did not have any disciplinary actions before or during the course of the treatment study, this may indicate a higher level of academic functioning at pretreatment and throughout, or it may reflect the accommodating nature of Ricky's school, i.e., not giving detentions for tardiness or absences due to his gastrointestinal problems.

Lance. Looking first at primary outcomes, Lance showed diagnostic remission of SP, GAD, and school refusal by posttreatment with sustained remission by 4 months posttreatment demonstrating a positive, linear change over time. For school attendance, Lance demonstrated a drastic change from having missed 100% of school days in the month prior to treatment, to 8.7% at post, and 0% at follow up, also indicating a positive, linear change on this primary outcome variable. On the DERS, Lance and his parents did not demonstrate significant change from pre to posttreatment, with the largest change being Lance's father who decreased in his score by 10 points. By 4 month follow up, both Lance and his mother reported an increase in emotion dysregulation with a 6 point increase for Lance and a 23 point increase for his mother from pretreatment. Therefore, distress level, captured through the DERS, did not change significantly from pre to post and distress increased for Lance and his mother by the follow up assessment. Even so, the increased distress levels at follow up are still within one standard deviation of the norm for non-clinical adults and adolescents implying that Lance and his family did not represent a highly emotionally dysregulated family from the outset according to this measure.

Family conflict was reported as elevated on the FES for Lance and both of his parents at pretreatment with some but minimal change reported throughout the course of the study. Lance's father continued to rate conflict as elevated at mid and posttreatment whereas Lance's mother

rated conflict non-linearly, with sub-clinical scores at midtreatment and follow up. Results from video coding corroborate these outcomes, with many instances of family conflict that emerged in sessions and throughout the study period. Although conflict was still occurring at posttreatment, the frequency of these occurrences appeared to reduce somewhat. Therefore these results support the hypothesis that family conflict would be elevated at pretreatment but only somewhat support the hypothesis that as primary outcomes improve (school attendance and diagnostic remission), so will levels of family conflict (see Figure 3). Changes in family conflict did not change with changes in the distress level outcome. The difference between Lance's report and his mother's report, especially at follow up, indicates that Lance felt that family conflict was still high whereas his mother believed conflict had improved substantially.

Family cohesion at pretreatment was rated on the FES by Lance and his parents at levels below the norm for distressed families. Lance did not rate any large changes in family cohesion from pre to mid or posttreatment, but rated cohesion much higher, and above the mean for non-distressed families, at 4 months posttreatment. Lance's mother rated cohesion slightly lower at post than pre and slightly higher at follow up than pre, whereas Lance's father rated cohesion as higher and close to the non-distressed family mean by posttreatment. Results from video coding indicate that family cohesion was moderately high throughout the course of the treatment program, with no evidence of change in either a positive or negative direction during the program. Taken as a whole, there is some evidence that family cohesion does improve slightly over time, with each family member reporting the time of this change differently (i.e., Lance's father at posttreatment and both Lance and his mother at follow up), but this change is not strongly supported through other sources such as video coding or session notes. The hypothesis that family cohesion would be lower at pretreatment is supported and the hypothesis that family

cohesion would change over time along with the primary outcomes was somewhat supported. When looking at distress levels, it appears that as family cohesion improved by 4 months posttreatment, distress levels from the DERS increased, which does not support the hypothesis.

Lance's mother scored Lance as a zero across time points for social problems on the CBCL, whereas Lance's father's scores show a positive, linear change from pre to posttreatment albeit starting near the non-referred norm ($M = 1.9$, $SD = 2.4$). On the social competence subscale, Lance's mother rated Lance at the referred sample mean (5.5) with her report showing substantial improvement at post and 4-months posttreatment. Lance's father's report demonstrated a slight improvement from pre to posttreatment and Lance's self-report indicated high but mostly unchanging scores across treatment. These results are also corroborated in video coding, where Lance's amount of peer social interactions increased over the course of treatment. Therefore, there is less evidence that Lance lacked social competence but did experience some social problems and withdrawal at pretreatment that increased somewhat by follow up. This supports the hypotheses that high levels of social withdrawal at pretreatment would reduce over time and that as the primary outcomes of school attendance and diagnostic remission improve, so would social withdrawal (see Figure 4). Lance did not disclose any problems with maintaining peer relationships despite the lack of social involvement at pretreatment, therefore the hypothesis that there would be heightened peer conflict that would improve over time was not supported. The hypothesis that distress levels would improve as social withdrawal improved was not supported, which may be more a function of non-clinical DERS scores at pretreatment and throughout.

Lance's grades from pre to posttreatment improved slightly, since his grades improved in two classes but dropped in one. Lance incurred one disciplinary action at pretreatment but did

not get any other actions across the course of treatment. On the CBCL school competency scale, both of Lance's parents rated Lance above the non-referred sample mean for all time points with no change. Therefore, as grades improved and there were less disciplinary actions, so did the primary outcomes of diagnostic remission and school attendance, supporting this hypothesis. Differing from this is the data from the CBCL, which through Lance's parent's report indicates he did not have school problems (see Figure 4). The CBCL school competency scores may be artificially high due to improper scoring of this section of the CBCL since the family did not endorse that Lance was having difficulty getting to school. Although Lance's grades did improve slightly by posttreatment, Lance's grades were not very low to begin with at pretreatment (mostly B+'s), which does not support the hypothesis that grades would be poor at pretreatment. Again, since the distress scores did not change linearly as did his academic functioning, the changes in this functional domain did not reflect changes in distress.

Discussion

Which Functional Outcomes Matter Most?

Family functioning.

Within the domain of family functioning, many constructs emerged as being of high relevance to the two cases investigated in this paper. Through the use of video coding, a richer and more thorough understanding of the family functioning of these youth with SR was obtained that would not have been possible through the use of the self-report measures alone. The inclusion of this qualitative data provides evidence to support the conclusion that the domain of family functioning matters considerably when assessing and treating youth with SR.

Specifically, the family functioning constructs of family conflict, validation and positive reinforcement, family cohesion, independence, parental beliefs, organization, control, and adaptability appeared to be the most noteworthy in both cases. This is consistent with previously presented literature that indicates that youth with school refusal most often have families characterized by high conflict and poor cohesion, low independence, poor role definitions and adaptability, value differences between families and their community, and communication difficulties (Bernstein & Borchardt, 1996; Bernstein et al., 1990; Bernstein et al., 1999; Kearney and Silverman, 1995). Both cases were categorized as being “high conflict” families according to the FES and the video coding data corroborated this conclusion. Interestingly, although two of the primary outcomes improved over the course of treatment, this construct did not, indicating that these families were still experiencing deficits in their family functioning specific to conflict. Additionally, each family’s specific presentation of conflict was quite different, with Lance’s family appearing much more emotionally dysregulated in and out of sessions and Ricky’s family appearing much more controlled in sessions but less so out of session. Therefore, it appears to

matter less how distressed or conflict-ridden families appear in session because high conflict behavior may be occurring frequently outside of sessions. Ultimately, a thorough assessment of family conflict, including marital conflict, is warranted in order to best address this construct in a therapy program. Future therapy for SR should explicitly address high conflict through added emphasis and coaching of more effective interaction styles, including validation and cheerleading.

Similarly, coding of validation and positive reinforcement revealed that for both cases, these constructs did not occur very frequently in sessions. Validation did not appear to increase over the course of treatment for both cases, although it is quite possible that instances of validation occurred outside of session that were not observable or discussed in video coding. Similarly, instances of positive reinforcement did not appear to increase significantly over the course of treatment for both cases but for Lance, successful implementation of the contingency plan implies that an increase in positive reinforcement did occur over time. These results are discouraging considering that a major intervention and goal of the DBT-SR treatment was to increase the use of validation and positive reinforcement over time. It is possible that if validation and positive reinforcement are more specifically targeted and successfully implemented by family members in the treatment of SR, that decreases in family conflict and longer lasting change of the primary outcomes may occur. Conversely, it is possible that decreases in family conflict may influence a measured increase in validation and positive reinforcement over time.

Complementing both families' high conflict profile was also low cohesion reported by both families on the FES. Inconsistent to this report though were the video coding results which indicated that both families demonstrated high cohesion as evidenced by, for example, attending

the majority of sessions (a bit less consistent with this was Lance's family), parents consistently assisting the participants implement the behavior plans, and through non-verbal physical expression of cohesion. This discrepancy may be due to either this writer coding for items that were inconsistent with the items relating to cohesion on the FES or the family member's self perception of cohesion was lower than what it was to the observer through video coding.

Regardless, cohesion was a construct that remained constant throughout the course of treatment, either low or high depending on data source, indicating that this remains a variable of interest for the treatment of youth with school refusal and their families. Beyond the interpretation of the data, cohesion should continue to be of importance in treating youth with SR since FES norms indicate high scores in the cohesion domain for typical families (Moos & Moos, 2009).

Therefore, if youth with SR indicate low cohesion at pretreatment, successful treatment would increase the family's cohesion to closer resemble that of a 'normal' family. Specific interventions should aim to establish and foster high cohesion in these families by encouraging family members to support each other and by praising efforts made at increasing cohesion.

Another reflection of a 'normal' family according to the FES (Moos & Moos, 2009) is high independence. Independence was a construct that on the FES was rated low in both families, and especially in Lance's family. Video coding corroborates these findings, but also demonstrates that for Ricky and his family, independence increased by the end of the therapy while this improvement was less apparent for Lance and his family. Future treatment of SR should measure changes in this construct over time and should aim to instill independence by encouraging and fostering self-efficacy in each family member's ability to be self-sufficient by the conclusion of the treatment program. This can occur through gradually shifting skills coaching from the family-at-large to the youth alone, instilling independence of the youth over

time, or by decreasing the use of parental skills coaching over time, which can instill more independence in the parents over time.

Parental beliefs for both mothers reflected high anxiety about their abilities to successfully implement the treatment plan consistently. Lance's father did not express concern with his abilities to implement the treatment plan and Ricky's father was much less involved in treatment implementation. Ricky's mother expressed less anxious parental beliefs over the course of the treatment and in contrast, Lance's mother remained quite anxious. Ricky's mother may have felt less anxious over time due to the frequent use of skills phone coaching that she had with the therapist, which was much less utilized by Lance's mother. This implies that the availability and use of phone coaching may have an effect on the self-efficacy parents feel when successfully implementing the treatment plan. Future treatment of school refusal may benefit from added and explicit parental support available through a separate skills coach as is recommended by Miller et al., (2007), in order to reduce burden to the individual therapist and maintain the youth's rapport with the individual therapist.

Low organization was apparent for both cases, as was unbalanced distribution of control. Once again, this pattern of scores is more reflective of a distressed rather than normal family according to the FES norms (Moos & Moos, 2009). Disorganization for these families was the result of unclear parental roles and/or unclear rule development. Unbalanced control for both cases was evident through the youths imposing control over their environment including refusing school, refusing to collaborate with parents, and parent's poor efficacy in regaining more control over their youth. Organization appeared to improve slightly for both cases, but examples of poor organization still remained at posttreatment in video coding. There were more discrepancies between the cases for control with Ricky demonstrating improvement by the end of treatment

and Lance's level of control remaining the same. The results are mixed indicating that perhaps the DBT-SR program was helpful in shifting control and organization towards the norm for one youth but not the other. Moreover, it is clear that SR treatment should focus on helping families establish an organized treatment plan, assist family members to establish clear roles for each member, and educate parents to implement effective parenting skills so as to remain in balanced control.

Adaptability appeared to be a noteworthy construct in both cases with more instances of adaptability observed later in the treatment process for Ricky's family than Lance's family. This change over time contrasts to Lance's family who exhibited instances of high adaptability throughout the treatment program. Lance's family's ability to flexibly apply the treatment program, and to make adjustments in the moment to skills implementation, may be related to the improvements observed in his primary outcomes. Similarly, Ricky's family's improvement in overall adaptability over time may have influenced treatment outcome as well. Overall, it appears that the ability to be flexible in both treatment planning and implementation benefited these families, implying that therapists who treat SR should encourage flexibility, while also modeling adaptability, e.g., by being available for unscheduled phone coaching and suggesting in the moment adjustments to skills being used.

Social functioning. Although not as prominent as family functioning, constructs related to social functioning were certainly noteworthy contributors to the overall functioning of the youth in this study. The most salient of these constructs were social withdrawal, interest and participation in social sports/hobbies/organizations, and the ability to make and maintain friendships. For both Ricky and Lance, social withdrawal somewhat steadily decreased, as engagement in social activities with peers increased, over the course of therapy. These changes

were more drastic for Lance who at pretreatment was quite socially isolated due to not attending school as well as not engaging with peers outside of school. This change towards social engagement is important considering the protective quality establishing positive peer relationships can have (Place et al., 2002).

It is interesting to note that although both Lance and Ricky were less active with peers at pretreatment, their overall interest in social activities, sports, hobbies, and organizations remained high throughout. Additionally, both youth did not have difficulty with bullying, social skills, establishing friendships, or having low interest in social activities, but were more socially withdrawn at pretreatment which subsequently improved over time. It is unclear whether this trend would remain true for all cases of SR, since SR can represent such a heterogeneous group of youth with differing antecedents to SR behavior. For instance, there may be youth with SR who refuse school due to difficulty making friends at school and for these youth, measuring social competence would be crucial in demonstrating clinically significant change. Therefore, treatment of SR should aim to conduct a thorough assessment of the specific social needs of each youth by determining what social factors are impacted by their unique presentation of SR.

Academic functioning. Although one would assume that the academic domain of functioning would be highly impacted by youth with SR, this was less obvious for the youth in this study. Both Ricky and Lance's grades appeared to improve slightly by the end of the treatment program. Despite differing school attendance rates for Ricky and Lance during the course of treatment, both youth engaged in homework and demonstrated increased homework compliance by the end of treatment. In general, the school personnel involved in the youth's treatment were quite accommodating with the school requirements for attendance and

completing assignments, likely influencing degree of impact that school attendance had on the youth's overall grades.

Self-efficacy related to school also emerged as an additional construct for both youths, with Ricky expressing more interest in school as he started to take more mainstream classes and Lance experiencing more self-efficacy related to his ability to return to school over the course of treatment. High parental ratings of school competence for both youth implies that although the youth were having difficulty going to school, that this was less a cause of low academic capacity or ability to function at school and more likely related to another construct. The DBT-SR study hypothesized this construct to be the youth's heightened distress levels. These findings are important to note because they highlight that these youth with SR do not inherently have a low capacity to perform well in school but that their SR behavior may inhibit them from continuing to progress academically. Again, understanding the specific reasons for each youth's SR behavior is necessary since some may refuse school due to low academic functioning, e.g., difficulty maintaining good grades. Moreover, academic functioning, and particularly self-efficacy related to school, engagement in school work, and academic grades clearly are relevant constructs to monitor over the course of SR treatment in order to ensure that youth with SR are focusing on improving functioning in these areas as well as increasingly going to school over time.

Other functional domains. Through video coding, the ability to capture other domains of functioning was possible. By relying solely on pre-existing outcome measures, future assessment and outcome monitoring procedures for SR would be missing relevant constructs connected to youth's overall functioning. Without including these other domains, reported

outcomes of youth in the treatment of SR may be misleading due to potentially failing to capture holistic change.

The additional functional domain that emerged for both cases was therapy functioning. Both cases were low on therapy homework compliance, implying either lack of interest or commitment to the therapy process, poor planning, or more deliberate “therapy refusal” behavior. Interestingly, Ricky and Lance’s interpersonal styles with their therapists differed quite drastically. Ricky was much more pleasant, cooperative, and engaged in therapy sessions whereas Lance was more closed off, disengaged, and somewhat uncooperative with his therapist in sessions. Despite Ricky’s more engaged style, and by extrapolation stronger therapeutic alliance, he suffered in treatment compliance just as much as Lance did by not following through with agreed treatment plans. Both sets of parents were mostly engaged in the therapy process and encouraged engagement of their youth in the treatment, although Lance’s parents engaged in more avoidance behaviors (e.g., cancelling WBC sessions last minute, encouraging youth to go out with friends instead of going to therapy, not always following through with the exposure plan).

It remains unclear how much youths with SR’s therapy behaviors are reflective of school refusal behavior, but it does appear to share several parallels in these presented cases. Focusing on establishing a strong therapeutic alliance, encouraging a commitment to the treatment and compliance with homework, and making sure parents reinforce these same commitments, can help develop and foster similar skills that are necessary for successful school reentry. Engaging these youth by appealing to their self-identified goals may help foster a stronger commitment to the therapy process.

Suggestions for Future Assessment of Functional Outcomes in School Refusal

Despite the inability of this study to draw causal links between changes in functional domains and primary outcomes, it is clear from the previous section that there are many functional domains, and constructs within these domains, that are of clinical and research interest to measure in the school refusal population. It is crucial that the suggested measures used to capture changes across these domains in future research and clinical work include these most essential constructs.

Based on this study's analysis within the domain of family functioning, the constructs that emerged as being the most noteworthy, i.e., the constructs that emerged strongly for both cases, were family conflict, validation and positive reinforcement, family cohesion, parental beliefs, independence, organization, control and adaptability. The FES measure in its full format addresses almost all of these constructs. The FES that was used in this study only included the subscales specific to independence, conflict, cohesion, and control. For future studies, since organization emerged as a relevant construct in both cases, this subscale may be beneficial to include. Additionally, the FES has been used by several researchers in the school refusal literature to capture family functioning as mentioned previously, implying that it is well received and effects across studies may be possible to observe if used consistently by researchers.

To capture adaptability, another frequently cited measure in the child psychology literature that can be used is called the FACES IV (Olson, 2008), which was cited earlier in this paper. The FACES would also capture cohesion, another identified pertinent family functioning variable, but overall it is not as robust as the FES in capturing the majority of the other central family functioning constructs.

To capture changes in validation and positive reinforcement practices of parents, there are not many validated self-report measures that appear to exist in the literature. The Parent Behavior Inventory (Lovejoy et al., 1999) is a measure that captures two broad areas of parenting- support/engagement and hostility/coercion. This measure appears to capture some positive parental practices, i.e., through the support/engagement subscale. Although the Parenting Scale was the most cited of the parental practices and discipline measures listed in the Pritchett et al. (2011) review, this measure only captures dysfunctional parenting styles and does not capture positive parenting styles. A promising self-report measure is called Parenting Young Children (PARYC; McEachern et al., 2012), which assesses the frequency of several parenting behaviors, the perception of the parenting behaviors as problematic, and the degree to which the caregiver would like to make changes in specific parenting skills. Three scales of parenting behavior are measured including supporting positive behavior, setting limits, and proactive parenting. This measure was validated for use with high risk (i.e., socioeconomically disadvantaged) parents of children 5 years old. To this author's knowledge, no studies of an adaptation or validation of this measure exist for use with adolescents.

Lastly, the parental beliefs construct can be captured through the use of the Parenting Sense of Competence self-report measure (Johnston & Mash, 1989), which was the most cited measure of parental beliefs captured by Pritchett et al., (2011). This measure captures how confident a parent is in their parental role through measures of satisfaction and perceived efficacy.

Unfortunately there is no one measure that exists to capture all of the family functioning constructs identified through this paper as being of importance for school refusal research and

practice. Future research and parsimonious practice would benefit from the existence of such a measure.

Within the domain of social functioning, social withdrawal, interest and participation in social sports/hobbies/organizations, and the ability to make and maintain friendships were constructs that emerged the most significantly. Therefore, a measure that captures social engagement and social withdrawal would be preferable to a measure that focuses on social skills deficits. Although the CBCL was used in this study to capture social withdrawal through the withdrawn/depressed subscale, it may not be the most appropriate measure to use specifically for the social constructs of interest considering the length and breadth of the measure. With this being said, the social competency section of the CBCL may be a useful tool to capture interest and participation in sports, hobbies, and organizations specifically. This portion of the measure is short and may serve as a quick assessment of this construct for use in future research and practice. Certainly, if there existed one measure that can be used to capture all constructs of interest, this would be ideal.

The Social Adjustment Inventory for Children and Adolescents (SAICA; John et al., 1987) is a semi-structured interview administered by a therapist that is designed to capture a full range of observable and well-defined social interactions and outcomes for children and/or adolescents. This measure has been validated and is reliable although in practice, it may be difficult to implement due to being a semi-structured interview that takes about 30 minutes to complete. Overall though, this measure may be the most comprehensive and does capture all the constructs of interest within social functioning.

Recently in 2011, Crowe et al. conducted a systematic review of social functioning measures for children and adolescents. Of the 86 measures included in this review, none capture

all of the identified constructs of interest specifically. Several measures capture friendship quality or closeness/intimacy of friendships. These include the Friendship Qualities Measure (Grotepeter & Crick, 1996), Friendship Quality Questionnaire (Parker & Asher, 1993), Dyadic Friendship Qualities Score (Laird et al., 1999), Adolescent Friendship Closeness Scale (Beadnell et al., 2007), and Adolescent Intimacy Scale (Schulman, 1997). A couple of measures capture peer relationships and perceived social competence, which according to Rubin et al.'s (2010) chapter on social withdrawal in children and adolescents, are the two variables that contribute to social withdrawal the most. These measures are the Peer Network and Dyadic Loneliness Scale (Hoza et al., 2000) and the Perceived Adolescent Relationship Scale (Andrews & Francis, 1989). The former was developed for grades 5-7 and measures loneliness associated with lack of involvement in a social network and the absence of a close dyadic friendship. According to Crowe et al. (2010) it has been cited 26 times. The latter was developed for 13-20 year olds and measures adolescent's perceptions of their own social competence and social participation in relationships. It was cited 4 times according to Crowe et al. (2010).

Based on the constructs that were identified as the most noteworthy within social functioning in this paper, the information discussed by Rubin et al. (2010) and the measures that were reviewed by Crowe et al. (2010), the Perceived Adolescent Relationship Scale plus the social competency section of the CBCL may be the most appropriate additions to an assessment battery for youth with school refusal. Again, finding one measure to parsimoniously address all of the necessary constructs within social functioning does not exist, and research as well as practice would benefit from such a measure.

For academic functioning, grades, engagement in homework, and self-efficacy about school functioning emerged as the most relevant constructs. Beyond actual grade reports and

possibly teacher feedback on homework compliance received from the school, the most relevant measure to include is the Self-Efficacy with School Situations (Heyne et al., 1998) measure that was described earlier in this paper. This measure clearly addresses one of the aforementioned variables of importance within academic functioning, has been validated and shown to be reliable with the school refusal population in previous studies, and therefore would be an excellent addition to an assessment battery for school refusing youth. Additionally, including the academic competency section of the CBCL would add a more subjective, parental report of youths academic functioning.

Lastly, since therapy compliance, engagement in the therapy process, and therapeutic alliance all emerged as constructs of interest for both cases, a measure that can capture these elements would be beneficial. Many measures exist in the area of therapeutic alliance, one of which was used in the DBT-SR pilot study. This measure is one of the most popular measures to capture therapeutic alliance in children and it is the Therapeutic Alliance Scale for Children/Adolescents (Shirk & Saiz, 1992). A literature review by this author did not yield any validated and reliable measures that specifically capture adolescent engagement in the therapy process through homework compliance, attendance, and perceived interest in the therapy process. In general, the field of clinical psychology would benefit from such a measure and especially the school refusal population, which has such a high drop out rate. In the meantime, these variables could simply be captured through therapist note taking and consistent diary card completion, which includes a question that asks the patient to rate their urge to drop out of treatment before and after each session.

Conclusions

The goal of this study was to present two in-depth and contrasting accounts of a novel treatment for school refusal in order to add to the case study literature on the treatment of school refusal specifically related to functional outcomes. Additionally, suggestions of measures to use to capture these functional outcomes in future studies of school refusal were presented. This paper brings into the forefront the importance of measuring and treating functional outcomes in the treatment of school refusal in addition to primary outcomes. Overall, this study received mixed findings related to the initial hypothesis that functional outcomes would improve over the course of this study, indicating that this study did not thoroughly address all areas of the youth's functioning. Though many outcomes changed or did not change similarly across the two cases, some constructs contrasted much more drastically illustrating heterogeneity within the SR population, and that a one-sized-fits-all approach to treatment would likely be ineffective. Although nothing can be conclusively stated regarding which constructs are the most important and which do not appear to matter as much from this paper, it certainly highlights that functional outcomes do represent a large part of the overall wellness of youth with SR and it warrants further research.

This study did not support the hypothesis that all primary and functional outcomes would change in a similar fashion. Some functional outcomes did appear to improve as diagnostic change occurred and school attendance improved, such as social withdrawal and academic grades, but this was not the case for all of the constructs including family conflict. This implies that even when primary outcomes improve, that there are functional deficits still impacting these youth and/or their families. Considering that most treatment studies of school refusal, and clinical psychology more broadly, have not consistently reported on functional outcomes, youth

who are reported as treatment responders may not actually present as functionally well. This is deceiving and may lead consumers, researchers, and therapists alike to believe that a treatment is effective when it only was shown to improve one area of functioning, i.e., the primary outcomes. It is possible that continuing to experience functional impairments may lead to quicker and/or more relapse of the primary outcomes. Of course, these are empirical questions ripe for investigation. Even if relapse of the original school refusal or diagnostic problem does not occur, further worsening of the functional impairments may occur thus leading to more problems in the future. As mentioned previously in this paper, long-term functional problems do exist at higher rates for youth who refuse school.

The treatment of school refusal should also aim to overtly address these functional impairments so that youth improve across domains of functioning and not just symptomatically. Directly treating functional impairments takes away the need to rely on the hope that reduction in the primary problem will create generalized improvements across other domains of functioning. The DBT-SR program appeared to specifically address most if not all domains of functioning through the design and implementation of the program. Future randomized controlled trials comparing DBT-SR to other treatments for SR would help to determine whether DBT-SR is more effective in addressing the overall functioning of these youth. Overall, it is important that functional outcomes continue to be investigated in order to, at the very least, have a more robust picture of youth's functioning.

Despite the various implications of this study, there are also many limitations. First of all, since the original study from which this paper was derived was not a randomized controlled trial, it cannot be claimed that any changes in primary or secondary outcomes are a direct result of the DBT-SR program. Likewise, only two cases were considered treatment completers in this study

and thus conclusions drawn across cases should be taken cautiously. Future studies of the DBT-SR program should aim to include a control group with a large enough number of participants in order to have the power to detect medium to large effect sizes.

The method of qualitative data analysis in this study was inherently limited since the coding rubric was created by this author and was not psychometrically evaluated. Therefore conclusions about the presence or lack thereof of the functional outcomes should be taken tentatively as the reliability and validity of the constructs themselves as they were coded was not determined. Additionally, the sole video coder was this author who was also a therapist for one of the participants, potentially introducing bias in the coding. There may have been more specific issues within the coding rubric as well, such as potentially having a differing definition of cohesion than what is captured on the FES creating differing conclusions on the presence of this variable. Future studies whose aims are to use qualitative data analysis of functional outcomes should aim to first to create a psychometrically sound instrument for video coding, and should also use multiple coders to test for inter-rater reliability.

Another limitation is the lack of qualitative information that could be coded from phone coaching sessions, which occurred quite frequently throughout the treatment phase for both cases. Through session notes and discussion with the study therapists, moments of true school refusal behavior were more often captured during phone coaching than during WBC sessions. This may be due to the structured nature of WBC sessions, which were scheduled sessions, when in contrast, phone coaching was utilized as needed when dysfunctional behavior was presently occurring. Additionally, there were several individual and WBC sessions for each case that were not coded due to recordings errors. Hence, there may be many more instances of parent-child, parent-parent, therapist-child, and even peer-child interactions to code for related to youths

functioning that were not captured in this paper. Conclusions that were made related to each functional outcome may not be completely accurate. Ideally, future studies utilizing qualitative data analysis methods should aim to record phone coaching sessions to later be used as data for coding. This of course requires more use of technological aids to facilitate this and therefore feasibility must come into question.

For the purposes of this paper, the DERS measure was used as the measure to capture the primary outcome of distress. As hypothesized in the introduction of this paper, DBT-SR was created under the premise that youth with SR have difficulty managing general distress related to various dimensions of being in or going to school. If this theory were true, decreases in SR behavior would be mediated by a decrease in distress levels of youth with SR. Since this pattern did not emerge, it is possible that distress was not a mediator of change for the youths, although anecdotally the youths did appear quite distressed related to school reentry. Another possibility is that the DERS measure, which is really a measure of emotion dysregulation, may not have adequately captured the construct in question. Because the DERS was the only measure used to capture distress and it did not demonstrate any significant change across time points for youth and their parents, one of the main questions of this paper, i.e., do functional outcomes change in relation to the primary outcome of distress, could not truly be explored. Future studies of DBT-SR should aim to find a better measure of this construct in order to determine whether distress is truly a mediating variable for youth with SR.

To conclude, functional outcomes, in addition to primary outcomes, are crucial to assess and target in the treatment of youth with SR in order to have a more accurate and holistic portrayal of clinically significant improvement in these youth. A testament to the heterogeneity of youth with SR are the mixed findings of this study. This provides strong evidence for the need

to conduct thorough assessments of the specific antecedents driving each youth's unique presentation of SR as well as assessing how this is impacting each functional domain. Providing more evidence of this need is the fact that although there were many similarities across the two cases in terms of functional constructs of interest, there were several constructs that emerged uniquely for each case. Through the utilization of the suggested assessment measures, an understanding of the most typical constructs of interest in mind, as well as an openness to the individual differences that may emerge, a treatment plan can be developed that incorporates the unique family, social, academic, and therapy functioning constructs of importance to each youth and their family. Future studies of the DBT-SR program, which is inherently flexible and addresses to some capacity each of these functional domains, would benefit from the inclusion of measurements that capture all domains of functioning in order to investigate whether this program successfully addresses the whole youth.

References

- Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA School-Age Forms & Profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.
- Achenbach, T. M. (2009). *The Achenbach System of Empirically Based Assessment (ASEBA): Development, Findings, Theory, and Applications*. Burlington, VT: University of Vermont Research Center for Children, Youth and Families.
- Albano, A. M., Knox, L. S., & Barlow, D. H. (1995). Obsessive-compulsive disorder. In Eisen, A. R., Kearney, C. A., & Schaefer, C. E. (Eds.), *Clinical handbook of anxiety disorders in childhood and adolescents* (pp. 282-316). New Jersey: Jason Aronson Inc.
- Alexander, K. L., Entwisle, D. R., & Kabbani, N. S. (2001). The dropout process in life course perspective: Early risk factors at home and school. *Teachers College Record, 103*, 760–822.
- Andrews, D. & Francis, S. (1989). Development of Perceived Adolescent Relationships Scale. *Perceptual and Motor Skills, 69*, 305–306.
- Bahali, K., Tahiroglu, A. Y., Avci, A., & Seydaoglu, G. (2011). Parental psychological symptoms and familial risk factors of children and adolescents who exhibit school refusal. *East Asian Archives of Psychiatry, 21*, 164-169.
- Beadnell, B., Carlisle, S., Hoppe, M., Mariano, K., Wilsdon, A., Morrison, D., et al. (2007). The reliability and validity of a group-based measure of adolescents' friendship closeness. *Research on Social Work Practice, 17*, 707–719.
- Berg, I., Fielding, D. (1978). An evaluation of hospital in-patient treatment in adolescent school phobia. *British Journal of Psychiatry, 132*, 500–505.

- Berg, I., & Jackson, A. (1985). Teenage school refusers grow up: A follow up study of 168 subjects, ten years on average after inpatient treatment. *British Journal of Psychiatry*, *147*, 366 – 370.
- Bernstein, G. A., Borchardt, C. M. (1996). School refusal: Family constellation and family functioning. *Journal of Anxiety Disorders*, *10*, 1–19.
- Bernstein, G. A., Svingen, P., & Garfinkel, B. D. (1990). School phobia: Patterns of family functioning. *Journal Of The American Academy Of Child & Adolescent Psychiatry*, *29*, 24–30.
- Bernstein, G. A., Warren, S. L., Massie, E. D., & Thuras, P. D. (1999). Family dimensions in anxious-depressed school refusers. *Journal of Anxiety Disorders*, *13*, 513–528.
- Brookmeyer, K. A., Fanti, K. A., & Henrich, G. C. (2006). Schools, parents, and youth violence: A multilevel, ecological analysis. *Journal of Clinical Child and Adolescent Psychology*, *35*, 504–514.
- Buitelaar, J. K., van Aniel, H., Duyx, J. H. M., van Strien, D. C. (1994). Depressive and anxiety disorders in adolescence: a follow-up study of adolescents with school refusal. *Acta Paedopsychiatrica*, *56*, 249–253.
- Chu, B. C., Rizvi, S. L., Zendegui, E. A., & Bonavitacola, L. (2014). *Dialectical behavior therapy for school refusal: Treatment development and incorporation of web-based coaching*. Manuscript submitted for publication.
- Crowe, L. M., Beauchamp, M. H., Catroppa, C., & Anderson, V. (2011). Social function assessment tools for children and adolescents: A systematic review from 1988 to 2010. *Clinical Psychology Review*, *31*, 767-785.
- Egger, H. L., Costello, E. J., & Angold, A. (2003). School refusal and psychiatric disorders: A

- community study. *Journal of the American Academy of Child and Adolescent Psychiatry*, 42, 797–807.
- Elliott, J. G. (1999). Practitioner review: School refusal: Issues of conceptualization, assessment, and treatment. *Journal of Child Psychology and Psychiatry*, 40, 1001–1012.
- Flakierska-Praquin, N., Lindström, M., Gillberg, C. (1997). School phobia with separation anxiety disorder: A comparative 20- to 29-year follow-up study of 35 school refusers. *Comprehensive Psychiatry*, 28(1), 17-22.
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, 26, 41–54.
- Grotepeter, J. K., & Crick, N. R. (1996). Relational aggression, overt aggression, and friendship. *Child Development*, 67, 2328–2338.
- Hagopian, L. P. & Slifer, K. J. (1993). Treatment of separation anxiety disorder with graduated exposure and reinforcement targeting school attendance: A controlled case study. *Journal of Anxiety Disorders*, 7, 271–280.
- Heyne, D., King, N. J., Tonge, B. J., Rollings, S., Pritchard, M., Young, D., et al. (1998). The self-efficacy questionnaire for school situations: development and psychometric evaluation. *Behaviour Change*, 15(1), 31-40.
- Heyne, D., King, N. J., Tonge, B. J., Rollings, S., Young, D., Pritchard, M., et al. (2002). Evaluation of child therapy and caregiver training in the treatment of school refusal. *Journal of the American Academy of Child and Adolescent Psychiatry*, 41, 687–695.
- Heyne, D., Sauter, F. M., Widenfelt, B. M. V., Vermeiren, R., & Westenberg, P. M. (2011).

- School refusal and anxiety in adolescence: Non-randomized trial of a developmentally sensitive cognitive behavioral therapy. *Journal of Anxiety Disorders*, 25, 870-878.
- Hibbett, A., & Fogelman, K. (1990). Future lives of truants: Family formation and health-related behaviour. *British Journal of Educational Psychology*, 60, 171–179.
- Houlihan, D. D. & Jones, R. N. (1989). Treatment of a boy's school phobia with in vivo systematic desensitization. *Professional School Psychology*, 4, 285–293.
- Hoza, B., Bukowski, W. M., & Beery, S. (2000). Assessing peer network and dyadic loneliness. *Journal of Clinical Child Psychology*, 29, 119–128.
- Hughes, E. K., Gullone, E., Dudley, A., & Tonge, B. (2010). A case-controlled study of emotion regulation and school refusal in children and adolescents. *The Journal of Early Adolescence*, 30, 691-706.
- John, K., Gammon, G. D., Prusoff, B. & Warner, V. (1987). The Social Adjustment Inventory for Children and Adolescents (SAICA): Development and testing of a new semi-structured interview. *Journal of the American Academy of Child and Adolescent Psychiatry*, 26, 898-911.
- Johnston, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology*, 18, 167–75.
- Kearney, C. A. (2008). School absenteeism and school refusal behavior in youth: A contemporary review. *Clinical Psychological Review*, 28, 451-471.
- Kearney, C. A., & Albano, A. M. (2007). *When children refuse school: A cognitive-behavioral approach*. New York: Oxford University Press.
- Kearney, C. A. & Silverman, W. K. (1995). Family environment of youngsters with school refusal behavior: A synopsis with implications for assessment and treatment. *The*

- American Journal of Family Therapy*, 23 (1), 59-72.
- Kearney, C. A. & Silverman, W. K. (1999). Functionally based prescriptive and nonprescriptive treatment for children and adolescents with school refusal behavior. *Behavior Therapy*, 30, 673- 695.
- Kendall, P. C., Flannery-Schroeder, E., Panichellit-Mindel, S. M., Southam-Gerow, M., Henin, A., & Warman, M. (1997). Therapy for youths with anxiety disorders: A second randomized clinical trial. *Journal of Consulting and Clinical Psychology*, 65, 366-380.
- King, N. J., & Bernstein, G. A. (2001). School refusal in children and adolescents: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40(2), 197-205.
- King, N., Tonge, B., Heyne, D., Pritchard, M., Rollings, S., Young, D., et al. (1998). Cognitive-behavioral treatment of school-refusing children: A controlled evaluation. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37(4), 395-403.
- Kliem, S., Kroger, C., & Kosfelder, J. (2010). Dialectical behavior therapy for borderline personality disorder: A meta-analysis using mixed-effects modeling. *Journal of Consulting and Clinical Psychology*, 78, 936-951.
- Kolko, D. J., Ayllon, T., & Torrence, C. (1987). Positive practice routines in overcoming resistance to the treatment of school phobia: A case study with follow-up. *Journal of Behavior Therapy and Experimental Psychiatry*, 18, 249–257.
- Krysan, M., Moore, K. A., & Zill, N. (1990, May). Identifying successful families: An overview of constructs and selected measures. Retrieved from <http://aspe.hhs.gov/daltcp/reports/ressucfa.htm>.
- Laird, R., Pettit, G., Dodge, K., & Bates, J. (1999). Best friendships, group relationships, and

- antisocial behavior in early adolescence. *The Journal of Early Adolescence*, *19*, 413–437.
- Lamdin, D. J. (1996). Evidence of student attendance as an independent variable in education production functions. *Journal of Educational Research*, *89*, 155–162.
- Last, C. G. & Strauss, C. C. (1990). School refusal in anxiety-disordered children and adolescents. *Journal of the American Academy of Child & Adolescents Psychiatry*, *29*(1), 31-35.
- Linehan, M. M. (1993a). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.
- Linehan, M. M. (1993b). *Skills training manual for borderline personality disorder*. New York: Guilford Press.
- Lovejoy, M. C., Weis, R., O'Hare, E., & Rubin, E. C. (1999). Development and initial validation of the parent behavior inventory. *Psychological Assessment*, *11*, 534–545.
- Lyon, A. R., Cotler, S. (2007). Toward reduced bias and increased utility in the assessment of school refusal behavior: The case for diverse samples and evaluations of context. *Psychology in the Schools*, *44*, 551–565.
- Maric, A., Heyne, D. A., MacKinnon, D. P., van Widenfelt, B. M., & Westenberg, P. M. (2013). Cognitive mediation of cognitive-behavioural therapy. *Behavioural and Cognitive Psychotherapy*, *41*, 549-564.
- McEachern, A. D., Dishion, T. J., Weaver, C. M., Shaw, D. S., Wilson, M. N., & Gardner, F. (2012). Parenting Young Children (PARYC): Validation of a self-report parenting measure. *Journal of Child and Family Studies*, *21*(3), 498–511.
- McShane, G., Walter, G., & Rey, J. M. (2004). Functional outcomes of adolescents with 'school

- refusal.' *Clinical Child Psychology and Psychiatry*, *9*(1), 53-60.
- Miller, A. L., Rathus, J. H., & Linehan, M. M. (2007). *Dialectical behavior therapy with suicidal adolescents*. New York, NY: The Guilford Press.
- Moffitt, C. E., Chorpita, B. F., & Fernandez, S. N. (2003). Intensive cognitive-behavioral treatment of school refusal behavior. *Cognitive and Behavioral Practice*, *10*, 51-60.
- Moos, R., & Moos, B. (2009). *Family Environment Scale Manual and Sampler Set: Development, Applications and Research (Fourth Edition)*. Palo Alto, CA: Mind Garden, Inc.
- Neumann, A., van Lier, P. A. C., Gratz, K. L., & Koot, H. M. (2010). Multidimensional assessment of emotion regulation difficulties in adolescents using the Difficulties in Emotion Regulation Scale. *Assessment*, *17*, 138–149.
- Olson, D. H. (2008). *FACES IV manual*. Minneapolis, MN: Life Innovations.
- Parker, J., & Asher, S. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology*, *29*, 611–621.
- Pina, A. A., Zerr, A. A., Gonzales, N. A., & Ortiz, C. D. (2009). Psychosocial interventions for school refusal behavior in children and adolescents. *Child Developmental Perspectives*, *3*(1), 11-20.
- Place, M., Hulsmeier, J., Davis, S., & Taylor, E. (2002). The coping mechanisms of children with school refusal. *Journal of Research in Special Educational Needs*, *2*, 1-10.
- Pritchett, R., Kemp, J., Wilson, P., Minnis, H., Bryce, G., & Gillberg, C. (2011). Quick, simple measures of family relationships for use in clinical practice and research. A systematic review. *Family Practice*, *28*, 172-187.

- Rizvi, S.L. & Steffel, L.S. (in press). A pilot study of two brief forms of DBT skills training for emotion dysregulation in college students. *Journal of American College Health*.
- Rubin, K. H., Wojslawowicz-Bowker, J. C., & Gazelle, H. (2010). Social withdrawal in childhood and adolescence: Peer relationships and social competence. In K.H. Rubin & R. Coplan (Eds.), *The Development of Shyness and Social Withdrawal* (pp. 131-156). Guilford Press.
- Rumberger, R. W., Ghatak, R., Poulos, G., & Ritter, P. L. (1990). Family influences on dropout behavior in one California high school. *Sociology of Education*, 63, 283–299.
- Shirk, S. R. & Saiz, C. C. (1992). Clinical, empirical, and developmental perspectives on the therapeutic relationship in child psychotherapy. *Development and Psychopathology*, 4(4), 713-728.
- Shulman, S., Laursen, B., Kalman, Z., & Karpovsky, S. (1997). Adolescent intimacy revisited. *Journal of Youth and Adolescence*, 26, 597–617.
- Silverman, W. K. & Albano, A. M. (1996). *The Anxiety Disorders Interview Schedule for Children for DSM-IV: (Child and Parent Versions)*. San Antonio, TX: Psychological Corporation.
- Silverman, W. K. & Eisen, A. R. (1992). Age differences in the reliability of parent and child reports of child anxious symptomatology using a structured interview. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31, 117–124.
- Silverman, W. K. & Nelles, W. B. (1988). The Anxiety Disorders Interview Schedule for Children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 27, 772–778.
- Skinner, H. A., Steinhauer, P. D., & Santa-Barbara, J. (1983). The Family Assessment

Measure. *Canada Journal of Community Mental Health*, 2, 91–105.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, 38, 15–28.

Tolin, D. F., Whitling, S., Maltby, N., Diefenbach, G. J., Lothstein, M. A., Hardcastle, S.,

Catalano, A., & Gray, K. (2009). Intensive (daily) behavior therapy for school refusal: A multiple baseline case series. *Cognitive and Behavioral Practice*, 16, 332-344.

Weinberg, A. & Klonsky, E. D. (2009). Measurement of emotion dysregulation in adolescents. *Psychological Assessment*, 21(4), 616-621.

Footnotes

¹ The names and some demographic details of both youth were changed to protect confidentiality.

² The case descriptions of the participants in this study were taken from the DBT-SR study, Chu et al. (2014).

Table 1
Measures used to capture primary outcomes

Primary outcome	Measure	Data sources	Time points
Diagnosis	ADIS-IV	Parents, Youth	Pre, post, and 4-month post treatment
Emotion Regulation Youth Parent	DERS	Youth Parents	Pre, mid, post, and 4-month post treatment
School Attendance	Number and percentage of days missed the month prior to assessment date	School records and/or parent report	Pre, post, and 4-month post treatment

Table 2

Measures used to capture functional outcomes

Functional domain	Measure	Data sources	Time points
Familial	FES-R	Parents, Youth	Pre, mid, post, and 4-month post- treatment
Social	CBCL- Withdrawn Subscale, Social Problems Subscale, and Social Competency Score	Parents	
	YSR- Social Competency Score	Youth	
Academic	<ol style="list-style-type: none"> 1. Grade reports 2. Number of disciplinary actions taken 3. CBCL- School Competency Score 	<ol style="list-style-type: none"> 1., 2. School records 3. Parent report 	

Table 3

Diagnoses and School Absences at Pre, Post, and 4-month Posttreatment

	Diagnoses	Pre-Tx CSR	Post-Tx CSR	Follow up CSR	Pre-Tx absences	Post-Tx absences	Follow up absences
Ricky	SR	6	6	(0)	13 (50%)	8 (38.1%)	0
	MDD	5	(0)	(0)			
	GAD	6	(0)	(0)			
Lance	SR	7	(3)	(3)	12 (100%)	2 (8.7%)	0
	GAD	6	(0)	(0)			
	SP	4	(0)	(0)			

Note: CSR=ADIS-IV Clinician Severity Rating where $CSR \geq 4$ is threshold for clinical diagnosis, CSR in parentheses are subclinical; Absent rate was calculated by listing number and percentage of days absent in the month prior to assessment.

Table 4

Emotion Regulation at Pre, Mid, Post, and 4-month Posttreatment

	Pre-Tx DERS	Mid-Tx DERS	Post-Tx DERS	Follow up DERS
Ricky	83	80	99	62
Mother	66	61	77	66
Father	69	64	68	72
Lance	84	85	86	90
Mother	61	64	56	84
Father	68	71	58	n/a

Table 5

FES-R at Pre, Mid, Post, and 4-month Posttreatment- Raw Score (T-score)

Child		Pre-tx	Mid-tx	Post-tx	Follow up
Ricky	Youth				
	Cohesion	3 (25)	2 (18)	1 (11)	2 (18)
	Conflict	8 (75)*	8 (75)*	8 (75)*	8 (75)*
	Independence	4 (29)	5 (37)	3 (21)	5 (37)
	Control	5 (54)	4 (49)	4 (49)	4 (49)
	Mother				
	Cohesion	2 (18)	2 (18)	4 (31)	2 (18)
	Conflict	8 (75)*	6 (65)*	6 (65)*	8 (75)*
	Independence	8 (61)*	5 (37)	6 (45)	6 (45)
	Control	5 (54)	5 (54)	6 (59)	5 (54)
	Father				
	Cohesion	3 (25)	3 (25)	4 (31)	2 (18)
	Conflict	6 (65)*	6 (65)*	6 (65)*	6 (65)*
	Independence	6 (45)	5 (37)	7 (53)	6 (45)
	Control	5 (54)	5 (54)	5 (54)	5 (54)
	Overall Cohesion	2.67 (25)	2.33 (21)	3 (25)	2 (18)
	Overall Conflict	7.33 (73)*	6.67 (70)*	6.67(70)*	7.33 (73)*
	Overall Independence	6 (45)	5 (37)	5.33 (41)	5.67 (45)
	Overall Control	5 (54)	4.67 (54)	5 (54)	4.67 (54)
	Family Incongruence [^]	11.68 (44)	6.68 (34)	18.33(55)	6.68 (34)
Lance	Youth				
	Cohesion	2 (18)	2 (18)	1 (11)	7 (52)
	Conflict	5 (60)*	6 (65)*	6 (65)*	6 (65)*
	Independence	2 (13)	5 (37)	1 (5)	5 (37)
	Control	7 (65)*	6 (59)	5 (54)	7 (65)*
	Mother				
	Cohesion	4 (31)	6 (45)	3 (25)	5 (38)
	Conflict	5 (60)*	4 (54)	6 (65)*	3 (49)
	Independence	6 (45)	3 (21)	7 (53)	4 (29)
	Control	6 (59)	5 (54)	4 (49)	4 (49)
	Father				
	Cohesion	4 (31)	4 (41)	6 (45)	n/a
	Conflict	6 (65)*	6 (65)*	5 (60)*	n/a
	Independence	4 (29)	4 (29)	5 (37)	n/a
	Control	6 (59)	4 (49)	6 (59)	n/a
	Overall Cohesion	3.33 (28)	4 (31)	3.33 (28)	6 (45)
	Overall Conflict	5.33 (62)*	5.33 (62)*	5.67(65)*	4.5 (60)*
	Overall Independence	4 (29)	4 (29)	4.33 (33)	4.5 (33)
	Overall Control	6.33 (62)*	5 (54)	5 (54)	5.5 (57)
	Family Incongruence [^]	13.33 (46)	16.68 (53)	23.33 (65)*	41.68 (100)*

* Elevated subscore, i.e., *T* score >60

^ Converted score. Incongruence score calculated from the 4 subscales then multiplied by 2.5 in order to compare to the standard norm scores created from the 10 subscales

Table 6

CBCL and YSR- Social Problems Subscale and Social Competence Score at Pre, Mid, Post, and 4-month Posttreatment

Child	Reporter	Pre-tx	Mid-tx	Post-tx	4-month post-tx
Ricky	Mother-Social Problems	0	0	0	0
	Father-Social Problems	0	0	0	0
	Mother-Social Competence	7	5.5	7	6.5
	Father-Social Competence	7	7	7.5	7
	Youth-Social Competence	7.5	8.5	8.5	5
	Mother-Withdrawn/Depressed	4	4	4	2
Father-Withdrawn/Depressed	14	1	8	2	
Lance	Mother-Social Problems	0	0	0	0
	Father-Social Problems	2	1	0	n/a
	Mother-Social Competence	5.5	9.5	9.5	7.5
	Father-Social Competence	7.5	6.5	8.5	n/a
	Youth-Social Competence	8.5	9.5	8.5	8.5
	Mother-Withdrawn/Depressed	4	0	0	3
Father-Withdrawn/Depressed	5	5	1	n/a	

Table 7

Academic Grade Reports, Disciplinary Actions, and CBCL School Competency Score at Pretreatment, Midtreatment, Posttreatment, and 4 month Posttreatment

	Ricky Pre-tx	Ricky Mid-tx	Ricky Post-tx	Ricky 4-month Post-tx	Lance Pre-tx	Lance Mid-tx	Lance Post-tx	Lance 4-month Post-tx
Math	I	I	I	A	B+	A+	A	n/a
English/Humanities	I*	A*	B+*	A	A	B	B	n/a
Science	F	B	D	A	B+	A+	B+	n/a
Latin	I	I	I	B+	B+	I	A	n/a
Disciplinary Actions	none	none	none	none	1 minor dress code violation			
CBCL School Competency								
Mother	2	4	2.5	5	6	6	6	6
Father	2	3	5	4	6	6	6	n/a

Note: I = Incomplete. *Remedial class

Table 8

Frequency Count of Functional Outcome Constructs that Emerged through Video Coding

Functional Domain/Construct	Ricky- Individual	Ricky- WBC	Lance- Individual	Lance- WBC
<i>Family functioning</i>				
Cohesion	5	8	6	16
Expressiveness	8	2	4	14
Conflict	7	4	7	7
Validation	3	0	3	4
Positive reinforcement	2	0	3	4
Marital quality	1	0	6	1
Social relationships with siblings	0	0	1	1
Parental beliefs (mothers)	9	3	7	5
Independence	2	10	3	1
Achievement Orientation	0	0	1	0
Intellectual-Cultural Orientation	2	1	0	0
Active-Recreational Orientation	0	1	5	2
Moral-Religious Emphasis	2	1	2	0
Organization/Clear Roles	2	1	3	1
Control/Power	6	3	8	9
Adaptability	2	1	1	3
<i>Social functioning</i>				
Sports (with others)	5	0	1	1
Hobbies (with others)	0	0	2	0
Organizations	2	0	2	0
Conflict/Bullying with Peers	0	0	0	0
Ability to make/maintain friendships	7	2	6	5
<i>Academic/School functioning</i>				
Child/teacher or tutor interaction	4	0	4	3
Classroom behavior	0	0	0	0
Homework completion	2	1	2	7
Test/Grades	4	5	2	1
<i>Other-</i>				
<i>Therapy functioning</i>				
Not doing therapy homework	10	n/a	6	n/a
Therapy refusal behavior	3	13	10	7
<i>Self-efficacy and interest in school</i>	1	7	5	0
<i>Engagement of friends/social concerns</i>	4	0	n/a	n/a
<i>Physiological distress</i>	4	13	n/a	n/a
<i>Work</i>	4	0	n/a	n/a

Note: Multiple instances of a single construct occurring during one session was only counted once, therefore the maximum possible frequency per construct is the number of coded sessions per domain of therapy

Changes in Clinical Severity Ratings, School Absences, and Selected FES Subscales Over Time-Ricky

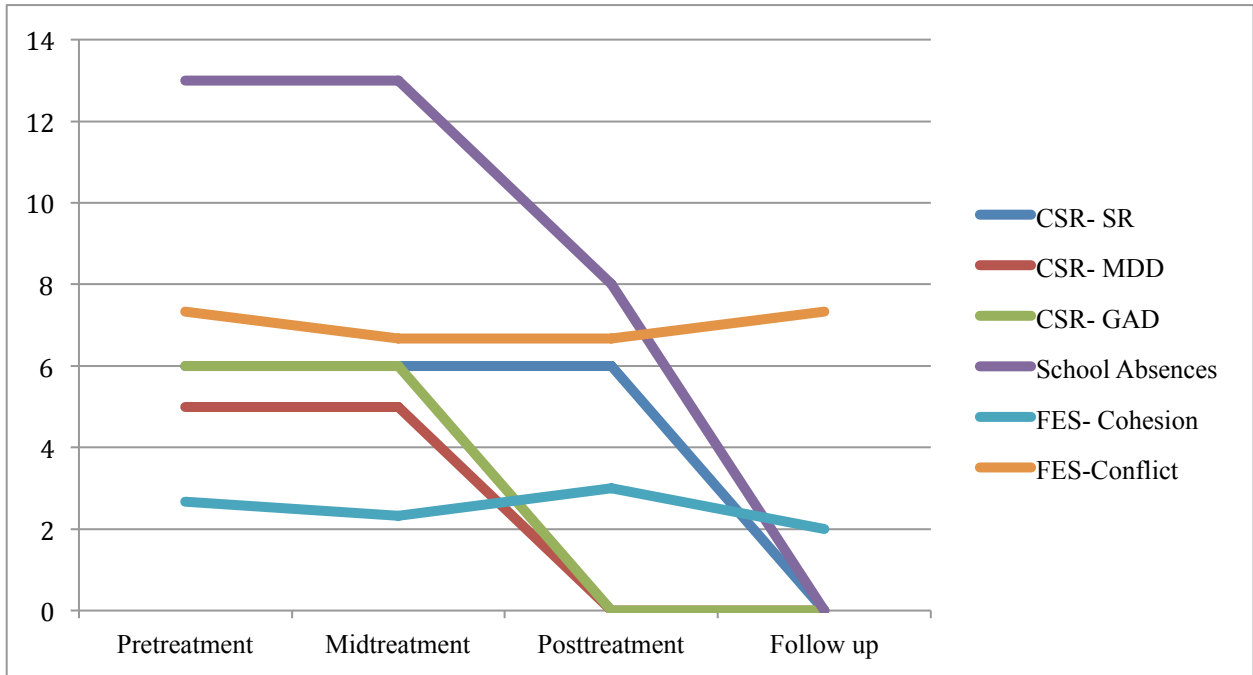


Figure 1

Note: CSR and school absences data for midtreatment were not collected, therefore the pretreatment scores were carried forward for graphing purposes. FES subscale scores are the overall family scores.

Changes in Clinical Severity Ratings, School Absences, and Selected FES Subscales Over Time-Lance

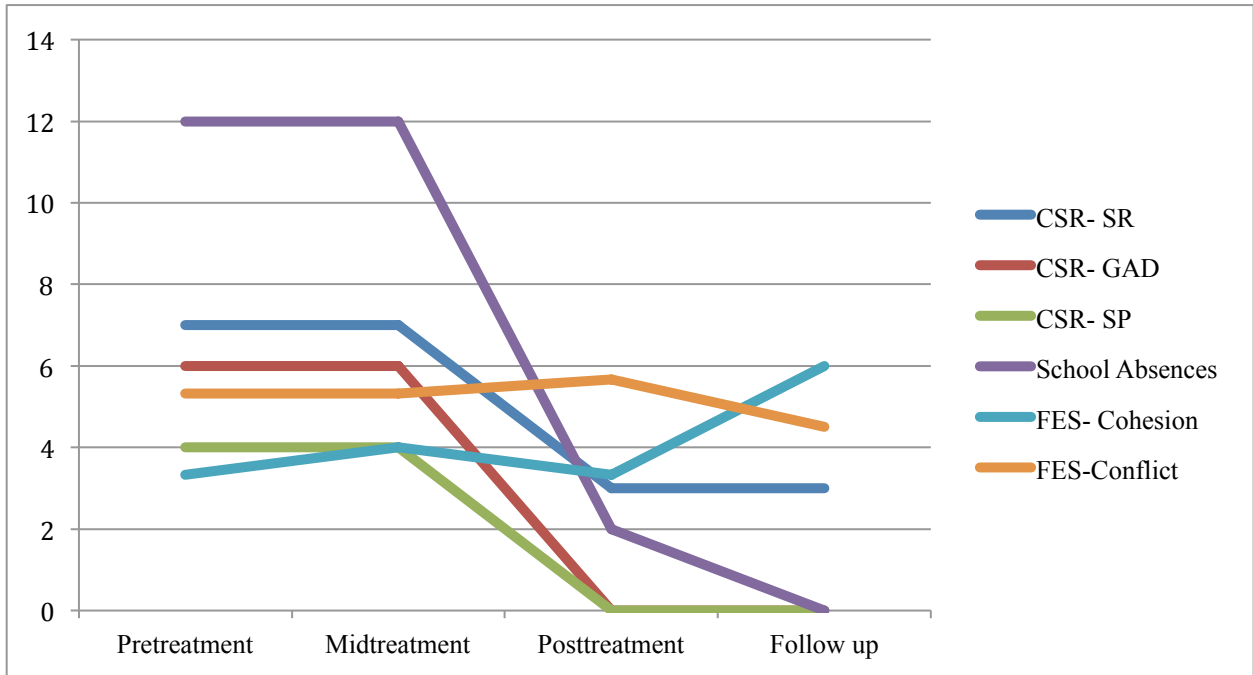


Figure 2

Note: CSR and school absences data for midtreatment were not collected, therefore the pretreatment scores were carried forward for graphing purposes. FES subscale scores are the overall family scores.

Changes in Clinical Severity Ratings, School Absences, and Selected CBCL Subscales Over Time- Ricky

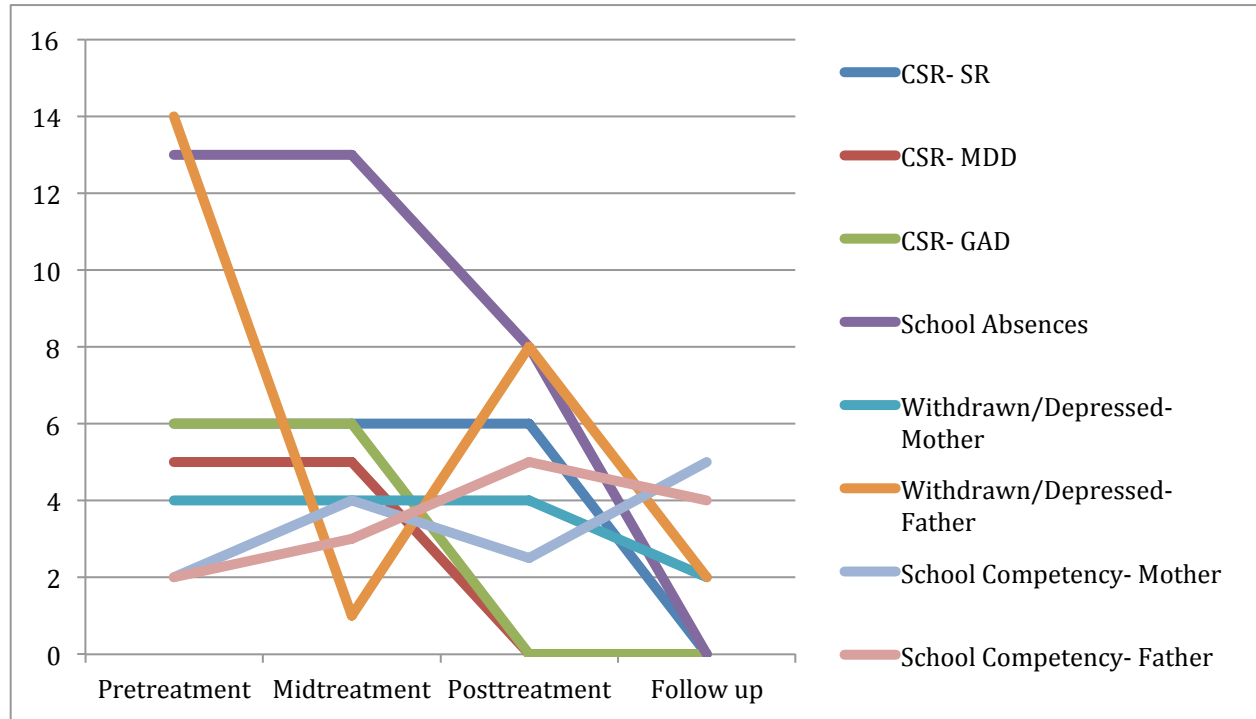


Figure 3

Note: CSR and school absences data for midtreatment were not collected, therefore the pretreatment scores were carried forward for graphing purposes.

Changes in Clinical Severity Ratings, School Absences, and Selected CBCL Subscales Over Time- Lance

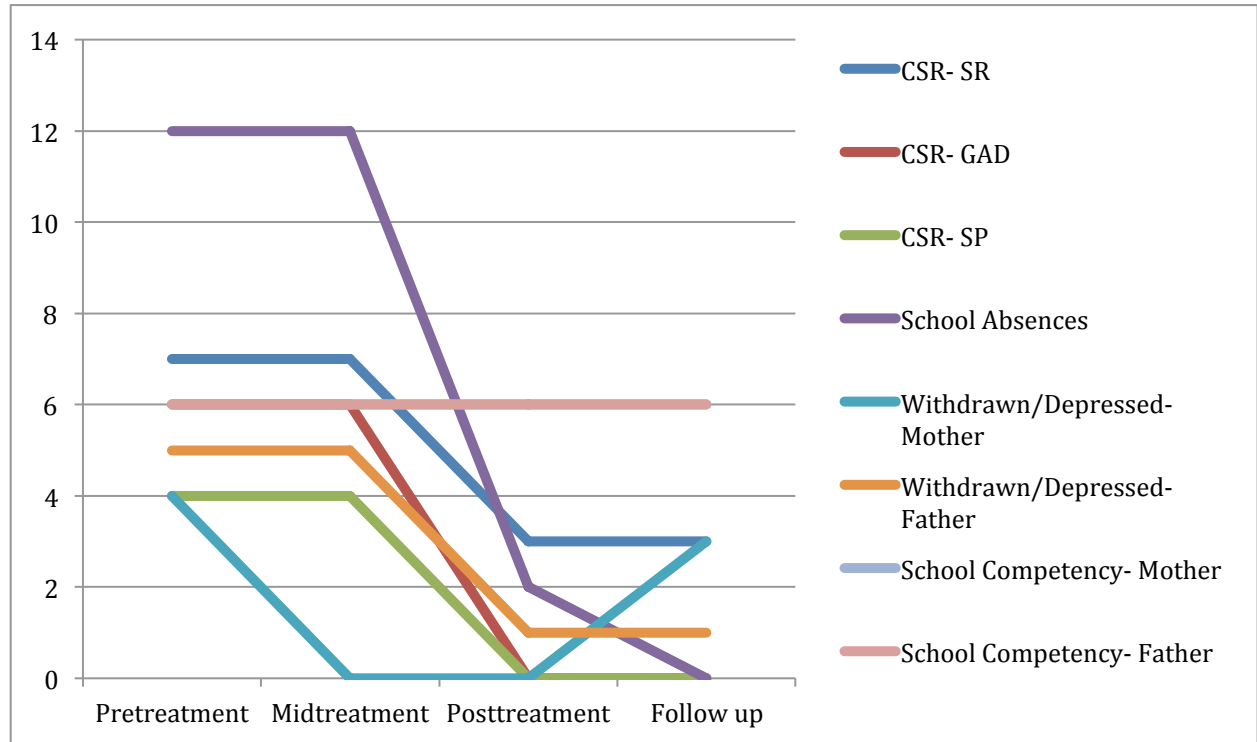


Figure 4

Note: CSR and school absences data for midtreatment were not collected, therefore the pretreatment scores were carried forward for graphing purposes. Similarly, data from Lance’s father were not collected at follow up; posttreatment scores were carried forward.

Appendix A

Constructs for Video Coding with Definitions and Questions

Family functioning-**Relationship dimensions-***Parent-child relationships*

Cohesion- The degree of commitment, help, and support family members provide for one another (Moos and Moos, 2009). The degree of family connectedness (Olson, 2008). **Do family members appear committed and supportive of each other?**

Expressiveness- The extent to which family members are encouraged to express their feelings directly (Moos and Moos, 2009). **Do family members express feelings and communicate with other family members directly, or are they encouraged to do so?**

Parental practices and discipline

Conflict- The amount of openly expressed anger and conflict among family members (i.e, punishment) (Moos and Moos, 2009). **Do family members express openly express anger with each other?**

Validation- The recognition and acceptance of another person's internal experience as being valid (Linehan, 1996). **Do family members recognize and express to other family members that their emotions and thoughts are valid?**

Positive Reinforcement- Praise and encouragement following a desired behavior that increases the likelihood that the behavior will occur again in the future. **Do family members praise and/or encourage each other after engaging in an adaptive behavior?**

Marital quality- Consensus on matters of importance to couple functioning, couple satisfaction, couple cohesion, and affectional expression (Spanier, 1976). **Do family members reflect on the quality of the parent's relationship? Do the parents appear committed and supportive of each other? Do they express affection to each other?**

Social relationships with siblings- Quality and frequency of interactions with siblings (i.e., how close are they, do they fight, do they confide in each other, do they play together). **Do family members reflect on the quality or frequency of sibling interactions?**

Personal growth or value dimensions

Parental beliefs: How confident a parent is in their parental role- satisfaction (extent of frustration, anxiety, and motivation) and efficacy (competence, problem-solving ability, and capability (Johnston and Mash, 1989). **Do parents express thoughts about their satisfaction and efficacy as a parent?**

Independence- The extent to which family members are assertive, self-sufficient, and make their own decisions (Moos and Moos, 2009). **Do family members appear assertive and self-sufficient, e.g., making their own decisions?**

Achievement Orientation- Reflects how much activities are cast into an achievement oriented or competitive framework (Moos and Moos, 2009). **Do family members discuss activities with a competitive or achievement emphasis?**

Intellectual-Cultural Orientation- Measures the level of interest in political, intellectual, and cultural activities (Moos and Moos, 2009). **Do family members discuss an interest in, or attendance at, political, intellectual, or cultural activities?**

Active-Recreational Orientation- Measures the amount of participation in social and recreational activities (Moos and Moos, 2009). **Do family members discuss participation in social or recreational activities?**

Moral-Religious Emphasis- Measures the emphasis on ethical and religious issues and values (Moos and Moos, 2009). **Do family members discuss issues concerning ethical or religious values?**

System maintenance dimensions

Organization/Clear Roles- The degree of importance of clear organization and structure in planning family activities and responsibilities (Moos and Moos, 2009). Are tasks clearly and equitably assigned to family members and carried out responsibly? (Krysan, 1990). **Do family members put effort into planning family activities? Are organization and structure of family life emphasized by family members? Are tasks clearly and equitably assigned to family members and carried out responsibly?**

Control/Power- How much set rules and procedures are used to run family life (Moos and Moos, 2009). **Do parents appear to have control? Are family rules and procedures discussed by family members?**

Adaptability- The degree to which the family system is able to change (Olson, 2008). **Do family members appear or discuss instances in which they had to be adaptive and flexible?**

Social functioning (John, 2001)

Sports- School or non-school related sport activities with others. **Are sports mentioned?**

Hobbies- Activities or games other than sports, social in nature. **Are hobbies mentioned?**

Organizations- School or non-school related organizations. **Are organizations mentioned?**

Social relationships with peers:

Conflict/Bullying- **Does child mention frequent instances of verbal or physical aggression with other peers?**

Ability to make/maintain friends- Number of friends, how often he/she interacts with friends outside of school (including through social media or phone texting/apps). **Do family members reflect on child's friends and how often he interacts with them outside of school, including through social media or phone texting/apps?**

Academic/School functioning

Child/teacher interaction- **Do family members mention any problems (or lack thereof) related to communicating, trusting in, and getting along with teachers?**

Classroom behavior- **Do family members mention problems (or lack thereof) with behavior in the classroom (e.g., isolated, inattentive, talking out of turn)?**

Homework completion- **Do family members mention completing/not completing homework assignments?**

Tests/Grades: **Is there mention of grades, from tests or otherwise, good or bad?**

Other functional domains