

## **Mother-daughter interactions among depressed Puerto Rican adolescents: Two case studies in CBT<sup>1</sup>**

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### **Abstract**

This article presents two case studies of adolescents receiving cognitive-behavioral therapy (CBT) for depression to illustrate how family patterns, particularly mother-daughter interactions, contribute to the perpetuation of depressive symptoms and to treatment response. Participants were two adolescent girls selected for this case study from a larger sample of adolescents participating in a randomized clinical trial on therapy for depression. Both cases required additional therapy sessions to reduce depressive symptoms. The first case presented no depressive symptoms at therapy termination and the second continued to present mild symptoms although neither met criteria for Major Depressive Disorder (MDD). During the last follow up assessment one case presented a relapse of MDD. However, when calculating the reliable change index individually, both cases presented significant clinical changes.

**Keywords:** *Adolescent, cognitive behavioral therapy, depression*

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## Resumen

Este artículo presenta dos estudios de caso de adolescentes recibiendo Terapia Cognitivo Conductual (TCC) para la depresión para ilustrar cómo los patrones de interacción familiar, particularmente aquellos entre madre e hijas, contribuyen al mantenimiento de la depresión y la respuesta a terapia. Las adolescentes fueron seleccionadas de una muestra mayor de un ensayo clínico de TCC para la depresión en adolescentes. Ambos casos requirieron sesiones adicionales para reducir la sintomatología depresiva. Un caso no presentó síntomas depresivos al terminar la terapia, mientras que el otro continuó presentando síntomas a nivel moderado, aunque ambas estaban en remisión de acuerdo con los criterios diagnósticos del Trastorno de Depresión Mayor (TDM). Durante la última evaluación de seguimiento uno de los casos presentó un episodio recurrente de TDM. Sin embargo, al calcular el índice de cambio confiable a nivel individual, ambos casos presentaron cambios clínicos significativos.

**Palabras claves:** *Adolescente, terapia cognitivo conductual, depresión*

Family factors are particularly relevant for depression in Latino/a adolescents. They have been found to be significantly related to depressive symptoms in Puerto Rican adolescents. Particularly variables such as: family dysfunction, perceived criticism and perceived acceptance have been found to influence treatment response (Sáez-Santiago & Rosselló, 2001; Sáez-Santiago & Rosselló, 1997). Other studies have found that depressive symptoms significantly correlate with deficiencies in the following areas of family functioning: roles, communication, expression of affect, affective involvement, and norms and values (Arzola-Colón, González-Vilanova, & Rosselló, 2000; Martínez & Rosselló, 1995). Forty percent of Puerto Rican adolescents in a clinical trial of treatment for depression considered their most frequent problem a family problem (Padilla, Dávila, & Rosselló, 2002) and 70% considered their most frequent interpersonal problem was with one or both parents (Rosselló & Bernal, 1999).

Most studies on family factors in adolescent depression have focused on the impact of parental marital status, parental conflict and family functioning, while fewer have addressed parent-adolescent interactions, particularly by gender and ethnicity (Corona, Lefkowitz, Sigman, & Romo, 2005; Sheeber, Hops, & Davis, 2001). Gender

differences in the prevalence of depression generally appear by early adolescence, with most studies reporting approximately twice as many girls presenting depression than boys (Hart & Thompson, 1996; Powers & Welsh, 1999). These gender differences in depression have also been observed in samples of Latino youth (Canino *et al.*, 2004; Siegel, Aneshensel, Taub, Cantwell, & Driscoll, 1998). Most explanations for this difference revolve around differing cultural expectations and developmental processes for males and females (Hart & Thompson, 1996; Powers & Welsh, 1999; Sheeber *et al.*, 2001).

Since *familismo* is such an important cultural value for Latinos/as, and Latino parents often adopt cultural values of absolute parental authority and respect and family unity, the task of individuation for Latino/a adolescents tends to take place later in adolescence as compared to mainstream Anglo American culture (Corona *et al.*, 2005; Rosselló & Bernal, 2005). For Latina girls, the task of individuation can be more difficult and conflicted due to differences in gender roles and expectations for females – girls are provided less autonomy and are expected to stay closer to the family until later in adolescence (Zayas & Pallega, 1988).

Gender and ethnicity (female and Latino culture) appear to be risk factors for depression in adolescents, and family variables seem to contribute significantly to the course of depression and response to treatment in Latino population (Bernal, Cumba-Avilés, & Sáez Santiago, 2006; Duarte-Vélez & Bernal, 2007). Few studies on variables associated with treatment response in adolescent depression have focused on specific ethnic minority groups or included a significant number of ethnic minority subjects in their samples. Preliminary data from a small qualitative study on response to treatment in Puerto Rican adolescents receiving psychotherapy for depression suggests that some factors associated with partial or limited response to treatment for depression are: being female, presenting multiple co-morbid diagnosis and significant family conflict, particularly conflict in the mother-daughter relationship (Jiménez, Rosselló, & Bernal, 2006).

The purpose of this article is to present two case studies of Puerto Rican adolescents receiving cognitive-behavioral therapy (CBT) for depression to illustrate how family patterns, particularly mother-daughter interactions, contribute to the perpetuation of depressive symptoms and to treatment response.

## Method

### *Procedure*

Two patients were selected after obtaining informed consent from a larger sample of adolescents participating in a randomized clinical trial on therapy for clinical depression which included two treatment conditions: 12 sessions of CBT and a CBT plus a group psycho-educational parent intervention (PPI). As part of a supplemental research project to the clinical trial, additional sessions (up to a maximum of 12) were offered to adolescents whose depression did not remit at post-treatment to examine the optimal dose needed for complete remission as well as characteristics associated with partial or limited response to therapy. The patients selected were chosen because they presented partial or limited response to therapy and there were significant mother-daughter issues that appeared to be contributing to the adolescent's depression and response to therapy. Both patients were selected from the CBT only condition to examine parent participation in treatment without the structured PPI component.

For the purposes of this study, partial or limited response was defined as presenting elevated symptoms of depression after a standard 12 session dose of CBT according either to self-report instruments or clinical interviews assessing depression. Elevated depressive symptoms were defined as scores above 19 on the *Children's Depression Inventory* which reflect depressive symptoms of moderate severity or greater and/or reporting five or more depressive symptoms on the *Diagnostic Interview Schedule for Children-VI*. Therapists were doctoral level students in clinical psychology supervised by licensed clinical psychologists. Both quantitative data from self-report assessments and qualitative data from videotaped sessions and progress notes were analyzed to obtain data for this study.

All patients in the project were treated using a manual-based CBT which has demonstrated efficacy in treating depression in Puerto Rican adolescents (Rosselló & Bernal, 1996; Rosselló & Bernal, 1999, 2005). The CBT manual sessions are divided into three major modules: how *thoughts* influence mood (sessions 1-4); how daily *activities* influence mood (sessions 5-8); and how *interactions* with other people influence mood (sessions 9-12) (see Rosselló & Bernal, 2005). Additional continuation sessions for adolescents with partial or limited response to therapy were planned according to each adolescent's needs

by reinforcing the selected themes of CBT manual.

### *Measures*

*Diagnostic Interview Schedule for Children (DISC-IV)* (Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000). Diagnoses were established using DISC-IV which is based on criteria from the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. It is the most recent revision of a structured interview for youth developed initially by NIMH for epidemiological studies involving children and adolescents. The use of the Spanish version of the DISC-IV with clinical samples establishes it is a reliable instrument for children and parents (Canino *et al.*, 2004). The DISC-IV was administered pre and post treatment, and at 3, 6, 9 and 12 month follow up assessments.

*Children's Depression Inventory (CDI)* (Kovacs, 1992). The CDI is a 27 item self-report symptom-oriented scale suitable for children and adolescents that has been translated and adapted for use with Puerto Rican youth. The CDI is able to differentiate mild and severe depression (cutoffs values of 12 and 19, respectively) and its use in Puerto Rican samples suggests high internal consistency ( $\alpha = 0.83$ ) and acceptable concurrent validity (Rosselló, Guisasola, Ralat, Martínez, & Nieves, 1992). The CDI was administered at the following times: pre-treatment, at the 3<sup>rd</sup>, 5<sup>th</sup> and, 9<sup>th</sup> session, post treatment every two sessions of the additional treatment sessions, and at all follow up assessments (months 3, 6, 9 and 12).

The following measures were administered pre and post treatment, and at six and 12 month follow up assessments:

*Dysfunctional Attitude Scale (DAS)* (Weissman, 1979). This scale measures dysfunctional cognitions and thought patterns of depressed persons, elevated scores indicate greater dysfunction. Reliability indices have ranged from 0.71 to 0.84 in U.S. samples. It was translated and adapted for use with Puerto Rican youth yielding reliability indices ranging between 0.80 to 0.87 (Scharron del Río & Rosselló, 1996). A short version of 14 items that has demonstrated adequate psychometric properties was used in this study.

*Piers-Harris Children's Self-Concept Scale (PHSCS)*. The PHSCS is a self-report instrument consisting of 80 items designed to assess what children and adolescents think about themselves, higher scores indicate better self-concept (Piers & Harris, 1984). The scale has

a reliability coefficient of .94 and adequate validity. The PHSCS was translated and adapted for use with Puerto Rican youth demonstrating high internal consistency ( $\alpha = .94$ ) (Ramos, 1984). A short 25-item version with demonstrated adequate psychometric properties was used in the present study.

*Suicide Ideation Questionnaire* (SIQ-Jr) (Reynolds, 1998). The SIQ-Jr is a 15-item self-report scale that measures severity of suicide ideation. The SIQ-Jr has an internal consistency of .94. The Spanish version was translated and adapted in Puerto Rico (Miller, Warner, Wickramaratne, & Weissman, 1999) and was accepted by both the author and the publisher (Duarte-Vélez, Lázaro, & Rosselló, 2002).

*Brief Family Assessment Measure* (BFAM) (Skinner, Steinhauer, & Santa-Barbara, 1995). The Brief FAM is a short version of each of the three FAM-III versions (General, Self and Dyadic) designed to measure family functioning in which higher scores indicate greater dysfunction. It has been translated and adapted for use with Puerto Rican youth and demonstrates adequate validity and reliability.

*Family Emotional Involvement and Criticism Scale* (FEICS) was designed to measure family expressed emotion (Shields, Franks, Harp, McDaniel, & Campbell, 1992). The two subscales of 14 items each measure perceived negative criticism and emotional involvement in the family. A high score in both sub-scales implies higher criticism and higher emotional involvement, respectively. The translation and adaptation carried out in PR has shown reliability coefficients of .54 for *Emotional Involvement* subscale and of .71 for the *Perceived Criticism subscale* (Martínez & Rosselló, 1995).-

### *Participants*

The two adolescent girls selected for this case study were both 14 years old, currently in the 9<sup>th</sup> grade and had been randomized into the CBT only condition of the clinical trial.

Lisa (a pseudonym) attended a public school and lived with her mother, a younger brother, her pregnant older sister and husband, and their young child. Lisa had never met her father. She had no history of previous mental health treatment and initially presented no medical conditions. Her psycho-social history revealed that she had spent several years in her early childhood living with her grandmother, but

for the past few years had been living with her mother. Her older sister, who had been living with their grandmother, had recently moved back in with the patient and their mother. During the screening and assessment phase of the study she met criteria for Major Depressive Disorder (MDD), Anxiety Disorder NOS, Obsessive Compulsive Disorder and Conduct Disorder NOS.

Carmen (as pseudonym) attended a private school and lived with her mother, her stepfather and a younger sibling. She spent two weekends a month with her father. Carmen had a history of psychological and psychiatric treatment; she had been diagnosed with Attention Deficit Disorder (ADD) and was being treated with medication (amphetamine). Carmen had been on an anti-depressant for depressive symptoms, but discontinued it several weeks prior to entering the clinical trial. During the screening and assessment phase of the study she met criteria for MDD, ADD, Separation Anxiety Disorder and Specific phobia.

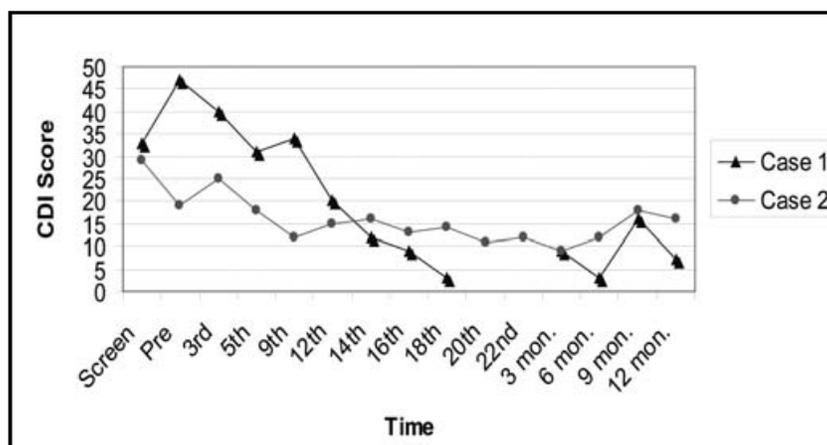
## Results

### *Case 1 – Lisa*

Lisa was brought to therapy by her mother who reported that she was irritable, cried often, frequently lied, slept and ate a lot, was receiving failing grades and had been disrespectful to her teachers. Lisa was very dependent on her and refused to do many things if she wasn't present (i.e., go to the bathroom outside their home, go into a store, sleep at night). She admitted to often feeling "suffocated" by Lisa and having difficulty maintaining relationships with men because Lisa was jealous and often interfered. She also reported having had to quit a nighttime job because Lisa's grades dropped significantly and Lisa called her often at work. The results of Lisa's pre-treatment evaluation revealed that she presented depressive symptoms in the severe range (Figure 1), as well as high suicidal ideation, dysfunctional attitudes, and low self-esteem (Table 1). In terms of family functioning, at pre-treatment Lisa reported low family emotional involvement and high scores on perceived family criticism.

During the initial session, Lisa complained of irritability which was causing interpersonal difficulties with her friends and family, and frequent bouts of crying for no apparent reason. She was cooperative although very cautious before answering the therapist's questions, and

FIGURE 1  
Depressive  
symptoms  
from pre-  
treatment to  
follow-up



\*Note: Scores from the 3rd to the 12th session were obtained during the standard 12 manual-based CBT sessions, scores from the 14th to the 22nd session were obtained during additional CBT sessions, and scores from 3-12 months represent follow-up assessments.

TABLE 1

Pre, post and follow-up scores on psychological and family variables

<i>Variable</i>	<i>Pre</i>	<i>Post</i>	<i>Follow-up (6 mon.)</i>	<i>Follow-up (12 mon.)</i>
Case 1				
Suicidal ideation (SIQ)	77	13	15	13
Self-concept (PHSCS)	6	20	24	22
Dysfunctional attitudes (DAS)	62	14	14	14
Family functioning (BFAM)	25	15	3	12
Perceived criticism (FEICS)	21	12	11	12
Emotional involvement (FEICS)	11	14	15	22
Case 2				
Suicidal ideation (SIQ)	15	8	12	8
Self-concept (PHSCS)	17	15	17	16
Family functioning (BFAM)	10	14	12	10
Dysfunctional attitudes (DAS)	19	19	21	57
Perceived criticism (FEICS)	11	9	10	10
Emotional involvement (FEICS)	23	31	24	21

appeared to have difficulty in expressing her feelings. Some psychosocial stressors identified initially by the therapist were the recent move of her sister with her family into the patient's home, failing grades, and interpersonal difficulties in the relationship with her mother and her sister.

During the *thoughts* module, it became apparent that Lisa presented insecure attachment to her mother which was reflected in her irrational thought patterns concerning their relationship. She told her mother she loved her several times a day and became annoyed when her mother would not say it back. Lisa felt her mother preferred her boyfriends to her and told her therapist that when she was 11 years old her mother had to break up with her boyfriend because Lisa's jealous behavior drove him away. Lisa's verbalizations reflect that she feels unprotected by her mother particularly when she and her older sister have heated arguments over housecleaning and babysitting duties. When her mother goes out with her friends, Lisa becomes angry because she interprets this to mean "she doesn't care about her children" and thinks – "she should be, or want to be, with me *all* the time."

During these initial sessions, the therapist worked with challenging some of Lisa's irrational thoughts particularly concerning her relationship with her mother. She used several cognitive techniques to work with these thoughts. For example, "finding the evidence" is a technique used to debate an irrational thought by asking the patient to find evidence that either support or contradict her negative thoughts. The therapist worked on Lisa's main cognitive distortion of "my mother doesn't love me or she would want to be with me all the time," by talking with Lisa about some of her mother's other behaviors that demonstrated that she did love her such as doing activities together and worrying about her health and grades. The therapist also asked Lisa if her mother ever told her that she did not love her; Lisa admitted that her mother had told her that she loved her but not as often as she would like. Cognitive techniques were also used to teach Lisa to challenge other negative thoughts such as: "I can't express my feelings, I can't make decisions, and I am worthless." Lisa presented very rigid and ego-centric thought patterns so these techniques were used often throughout therapy.

In the *activities* module the therapist worked with behavioral strategies to help Lisa set goals and organize her time to improve her

grades, increase her pleasant activities and become more independent in daily activities. Lisa's fear of using public bathrooms alone was explored and an in-vivo desensitization exercise was carried out to work with these fears in the clinic's bathroom.

At this point in therapy (after 8<sup>th</sup> session), Lisa had developed increased trust in the therapist and her depressive symptoms had decreased somewhat (Figure 1), yet she continued to present fatigue, sleep problems, and irritability. After a two-week absence from therapy sessions, Lisa's mother informed the therapist that Lisa had been diagnosed with low hemoglobin and was presenting resistance to taking her medications. She also informed the therapist that Lisa continued to sleep with her, was resistant to doing her chores at home and her grades were not improving. The next two sessions focused on managing symptoms related to her medical condition, improving her adherence to medical treatment, and setting goals for a joint session with her mother to work on the difficulties in their relationship.

During sessions in the *interpersonal* module, Lisa identified her social support network as consisting entirely of her mother and her best friend. This module focused on teaching Lisa social skills to expand her support network. Lisa admitted being distrustful of others and complained that her irritability and mood swings were affecting her friendships at school. Assertive communication skills were practiced in session using role play exercises.

In a joint session with Lisa's mother, the therapist counseled the mother on the importance of setting rules and boundaries at home particularly regarding sleeping arrangements and household chores. It had become apparent that Lisa didn't like to be alone in the house in the afternoons and spent most of the time sleeping. In turn, her mother complained that household chores were not being completed which left her little time to devote to Lisa and her siblings. Specific household chores were assigned for Lisa by her mother with the therapist's help to increase Lisa's self-efficacy and self-esteem as well as decrease family conflict. The therapist coached the mother on the importance of verbal positive reinforcement to maintain behavioral changes initiated by Lisa. Increasing Lisa's independence was addressed using a behavioral contract in which an initial short term goal of sleeping by herself for three nights a week was established and in return, her mother would take her out Sunday afternoon for a special activity just the two of them.

Upon termination of the standard 12 session dose of CBT, Lisa had reached the goal of sleeping alone and was cooperating more in carrying out her assigned chores. However, she continued to present depressive symptoms that met criteria for MDD on post-treatment evaluations using the CDI (Figure 1) and the DISC-IV, so she was invited to participate in a supplemental study. The goals for the remaining sessions were to continue working on Lisa's independent behavior and interpersonal difficulties with her mother and sister. Lisa still presented a lot of anger and resentment towards her sister due to her sister's frequent criticism and hostility towards her and lack of involvement in household chores. One of Lisa's most frequent thoughts was, "my sister will never change."

Lisa no longer met criteria for MDD after two additional sessions so termination was initiated at this point. She was cooperating more at home after her mother had set rules and boundaries regarding her sister's behavior towards her and her responsibilities within the home. Lisa slept alone most nights of the week and demonstrated increased confidence and independence in her behavior and her relationships. Post-treatment evaluations revealed that Lisa no longer presented depressive symptoms (Figure 1) or suicidal ideation, and her dysfunctional attitudes decreased. In addition, her self-esteem improved markedly (Table 1). Although Lisa met criteria for Obsessive Compulsive Disorder and Conduct Disorder NOS at pre-treatment, symptoms of these disorders were not apparent in therapy so they were not addressed. In terms of family variables, Lisa reported a decrease in perceived family criticism and increased family emotional involvement, both of which were maintained in follow-up assessments.

### *Case 2 – Carmen*

Carmen was brought to therapy by her mother presenting the following as chief complaints: a decrease in grades, feelings of inadequacy and guilt, rejection by her peers and frequent fights with mother. Carmen's mother reported that she presented a lack of interest in activities, negativism, hopelessness, isolation, sadness and anxiety. The results of Carmen's pre-treatment evaluation revealed that she presented depressive symptoms in the severe range (Figure 1), yet contrary to her clinical presentation in therapy, she didn't report dysfunctional attitudes or family dysfunction on self-report instruments (Table 1).

During the initial sessions, it became apparent that Carmen presented frequent automatic negative thoughts. She expressed guilt over being depressed since it affected her mother. Carmen also felt constant fear that her mother would die or something bad would happen to her. The relationship with her mother was a significant source of stress; it was characterized by frequent arguments initiated by her mother's constant complaints over Carmen's grades. Her mother was very critical of her academic performance and it became clear that she had very high and unrealistic expectations regarding her daughter's academic and social abilities. She expected Carmen to grasp material quickly without taking into consideration that forgetfulness and difficulty concentrating were some of the main symptoms of MDD and ADD that were affecting Carmen.

Socially, Carmen's mother expected her to fit in and choose the "right" friends, while Carmen felt rejected by her classmates at her new school. Carmen reported some instances of physical and verbal abuse by her mother prior to beginning therapy. Carmen's reaction to the abuse was to initially become very submissive and unresponsive, which her mother interpreted as disrespect. Later Carmen would present outbursts where she would cry, yell, scratch her nails into her skin and bite her arms. Her mother felt these outbursts were tantrums that Carmen displayed to "get attention" and would yell at Carmen to stop and control her behavior.

The therapeutic work in the *thoughts* module was directed at challenging and transforming Carmen's negative thoughts, while validating her feelings of sadness over family and academic problems. Her thinking patterns were characterized by the use of a negative mental filter through which she evaluated all aspects of her life: her self-concept, her social and academic experiences and her family. Some of Carmen's most frequent thoughts were - "I don't enjoy anything", "Everything is useless", "Something is wrong with me", "I'm ugly" and "I would like to disappear."

A frequent technique used in CBT for challenging negative thoughts is identifying an event, thoughts associated with the event, and the consequences or emotions resulting from those thoughts. Next, the therapist and the patient work to identify alternate more realistic and positive thoughts that will in turn, reduce the impact of the event on the patient's mood and behavior. The therapist used this technique often in therapy to work with Carmen's negative thoughts. For

example, after a heated argument with her mother over her schoolwork, Carmen's automatic thought was "My mother doesn't understand me", which led her to feel "down" all day at school where she also had problems with her classmates. With the therapist's help she debated her thoughts by telling herself that her mother was experiencing a lot of tension at work and with the rest of the family and that her mother was trying to understand her. She also told herself - "Even though I had an argument with my mother, I'm not going to let it ruin the rest of my day."

The completion of the first module took seven sessions, instead of the usual four, due to the severity of her negative thought patterns and problems between Carmen and her mother. It became apparent that a meeting with her mother was warranted at this point for Carmen to be able to progress in therapy. During the meeting, Carmen's mother expressed worry over Carmen's schoolwork and accepted that she put a lot of pressure on Carmen to improve her grades. On a personal level, Carmen's mother recognized that she was experiencing a lot of tension at her work, often felt depressed and unable to understand and manage her daughter's depression (Tarullo, DeMulder, Martínez, & Radke-Yarrow, 1994). She reported having little patience to deal with Carmen and had been aggressive verbally and on occasion, physically. The therapist used this meeting to counsel Carmen's mother on having more realistic expectations of her daughter's grades, on how to manage her depression in a more sensitive manner, and be more accepting of her strengths and weaknesses. In addition, the therapist identified some of the mother's behavior as abusive and worked on providing her information on Carmen's emotional needs and more appropriate alternatives to disciplining Carmen. Also, the therapist recommended that the mother seek professional help to manage her own depressive symptoms.

During the following session Carmen reported having a heated argument with her mother over schoolwork and on this occasion managed her feelings by writing a letter in which marked feelings of hopelessness and of wanting to die were apparent. Suicide risk was assessed and determined to be minimal since she presented no intention or plan to harm herself. A suicide prevention protocol was activated and included establishing both a plan of action for times when she felt very hopeless, and a prevention plan in which her mother participated. Strategies for communicating Carmen's need for personal

space to relax and distance herself from her mother were mutually agreed upon. Nonetheless, writing a letter to express her feeling was a significant accomplishment for Carmen, since she dealt with her feelings without having an outburst or hurting herself.

In the following *activities* module, therapy focused on increasing Carmen's pleasant activities and helping her organize her time better, as well as learning to set realistic goals. Carmen's self-concept began to improve which became apparent in her personal grooming and verbalizations during therapy. She increased her pleasant activities, even including a friend in several activities. In the *interpersonal* module, Carmen acquired assertiveness skills that helped her feel more confident and comfortable with herself, particularly when interacting with her peers. However, her most conflicted relationship continued to be with her mother.

Upon termination of the standard 12 sessions of the manual-based CBT, Carmen continued to present symptoms of depression (Figure 1) and still met criteria for MDD on post-treatment evaluations using the DISC-IV so she was invited to participate in the supplemental study to receive additional sessions. The additional sessions focused on improving mother-daughter interactions using skills acquired during therapy, particularly by focusing on Carmen's thoughts and behaviors during these interactions.

During negative interactions with her mother Carmen often thought, "If I say something, it won't make a difference", and her corresponding behavior would be to remain silent and feel sad which in turn, would reinforce the cycle of negative interactions with her mother (Sheeber *et al.*, 2000). Role playing exercises using concrete examples of interactions with her mother were used to increase Carmen's assertive communication skills. Some of the role playing exercises included identifying pleasant activities Carmen could participate in with her mother and practice asking her mother to do them with her.

Carmen had the opportunity to practice assertiveness with her mother during a joint session. She told her mother how she felt during their fights and when her mother put her down. Carmen also expressed her desire to spend more time with her mother and improve their relationship. These were significant accomplishments for Carmen given her previous difficulty in expressing her needs and her tendency to adopt a passive communication style. During the final sessions,

therapy focused on providing Carmen with strategies to prevent future negative interaction cycles with her mother and manage her mood to prevent future depressive episodes.

After receiving ten additional CBT sessions to the standard 12-session dose and a joint session with her mother, Carmen presented mild depressive symptoms, decreased suicidal ideation and no longer met criteria for MDD according to the DISC-IV so therapy termination was initiated at this point. However, contrary to her clinical presentation and what she expressed in therapy sessions, Carmen's self-esteem and dysfunctional attitudes remained essentially unchanged at post-treatment according to self-report instruments. There was a slight increase in family emotional involvement (Table 1). Unfortunately, her depressive symptoms increased at 9 (CDI = 18) and 12 (CDI = 16) month follow-up assessments. She met criteria for MDD at the 12 month follow up assessment and had a significant increase in dysfunctional attitudes. The sharp increase in her dysfunctional attitudes according to the DAS is probably associated with her MDD relapse.

## **Discussion**

The case studies of two girls in early adolescence receiving treatment for depression illustrates how mother-daughter interactions can contribute to the maintenance of depressive symptoms and to response to therapy. Both cases required additional therapy sessions to reduce depressive symptoms. The first case presented no depressive symptoms at therapy termination and the second continued to present mild symptoms although neither met criteria for MDD according to the DISC-IV. During the third follow-up assessment (nine months) both presented an increase in depressive symptoms into the moderate range. Even though at the final 12 month follow up assessment Carmen's depressive symptoms decreased slightly, she still met diagnostic criteria for MDD. Alternatively, Lisa presented no depressive symptoms and did not meet criteria for MDD. Further analyses of the response in both cases was conducted calculating the clinically significant changes using the mean of the total sample of the clinical trial from which both adolescents participated and a community sample of female adolescents; a score of 16 or greater on the CDI was revealed to represent symptoms in the clinical range (Rivera-Medina & Bernal, 2008). Thus, Lisa's scores on the CDI at the last two follow ups

were in the non-clinical range and Carmen's scores were at the clinical range. However, when calculating the reliable change index individually, both cases presented significant clinical changes when their last CDI scores were compared with their pre-treatment scores (Rivera-Medina & Bernal, 2008). These results suggest that although Carmen presented depressive symptoms which put her at risk of an MDD relapse, her symptoms at the end of treatment were markedly reduced when compared to those at pre-treatment. Overall, the results suggest that CBT provided the adolescents with strategies to manage their moods and improve interactions with their mothers. However, it appears that mother-daughter interactions could have continued to exert a significant influence on their mood even after therapy which suggests that additional or alternate interventions should be considered.

Booster sessions have been found to accelerate the recovery of non-responders to CBT (Clarke, Rohde, Lewinsohn, Hops, & Seeley, 1999) and might have helped improve response in these cases after therapy termination. Also, the use of antidepressants for adolescent depression is being extensively researched during the last decade and appears to be an effective alternative for improving treatment outcomes (TADS Team, 2004). Studies have found that the combination of antidepressant medication and CBT has been shown to have greater effect sizes on treatment outcome than therapy alone (Hollon, Stewart, & Strunk, 2006; TADS Team, 2004). However, there are mixed results regarding the efficacy of antidepressants versus CBT on treatment outcome for depression (Butler, Chapman, Forman, & Beck, 2006; Melvin, Tonge, King, Heyne, Gordon, & Klimkeit, 2006) but most studies suggest that for moderate to severe depression usually a combination of both is the best treatment to prevent relapses (Hollon *et al.*, 2006; Hollon *et al.*, 2005).

In Lisa's case, it appears that her difficulty in managing the central developmental task of adolescence of individuation contributed to the development of depressive symptoms possibly by way of low self-esteem and dysfunctional thoughts (Allen *et al.*, 2006). In turn, her mother's reaction to her depression (distancing herself, decreasing emotional support), reinforced Lisa's negative thoughts. Her depressive symptoms would then worsened causing her to display even more dependent and attention seeking behaviors which made her mother further distance herself, thus, creating a negative interaction

cycle (Pineda, Cole, & Bruce, 2007). Therapy appeared helpful in breaking the cycle by helping Lisa decrease dysfunctional thoughts that led her to be overly dependent on her mother and increase autonomous behaviors. Also, providing the mother with educational information on appropriate family rules, boundaries, structure and how to use positive reinforcement further supported Lisa's efforts at individuation.

In both cases family interaction was characterized by the mother emotionally distancing herself and withdrawing support. Carmen's mother was actively critical and occasionally abusive which reinforced Carmen's negative thoughts about herself and worsened her depression. In turn, Carmen's mother would interpret Carmen's symptoms as attention seeking behavior and would reprimand her for it, again reinforcing Carmen's negative thoughts and depressive symptoms. Carmen's behavior would escalate into tantrums, and her mother's reaction escalated into verbal abuse.

Treatment response could have been affected by the complexity of the cases. Both presented severe depressive symptoms at pre-treatment as well as multiple co-morbid diagnosis and significant negative family interactions. Interestingly, in both cases the fathers were absent so the mothers were overburdened with being the sole primary caretakers for their daughters. Mothers' assuming the role of primary caretaker is a common occurrence in Latino cultures when parents separate. Flexibility in the use of the CBT treatment manual was essential; a significant portion of therapy was devoted to working with family interaction patterns and additional joint mother-daughter and individual parent sessions were incorporated. It would have been interesting to see whether treatment outcomes would have changed if these adolescents had had received the CBT plus parent psycho-educational intervention condition of the trial.

Cases such as these, with partial response and significant family stressors, will often need additional sessions as well as modifications in the treatment manual to specifically address these issues to achieve complete remission. Some alternatives can be dismantling treatment to address the patients' particular needs and strengths by increasing the dose of certain treatment components (e.g. interpersonal skills, behavioral activation), and adding specific family and/or parent-child modules to address conflict and communication. Also, identifying the characteristics associated with treatment response in the initial stages

of treatment can help inform treatment planning in terms of selection of treatment format, components, and number of sessions (dosage) to maximize positive outcomes. Antidepressant medication should also be considered as an addition to CBT to enhance outcomes for moderate to severe persistent symptoms of depression.

Studies have found that depression in mothers is associated with an increased risk for depression in their offspring (Beardslee, Versage, & Gladstone, 1998; Connell & Goodman, 2002), which could have contributed to the negative mother-daughter interaction cycle in Carmen's case. When working with adolescents, assessing family functioning as well as parental psychological status can be important, particularly due to the impact that psychological disorders in parents can have on family functioning, and thus, adolescent mental health. In Carmen's case therapy was recommended for her mother. The fact that Carmen's mother failed to follow the therapist's recommendation to seek psychological help could have also contributed to the increase in Carmen's dysfunctional thoughts and depressive symptoms during the follow-up assessment phase.

While this case study illustrates that CBT can help adolescents manage dysfunctional thoughts and increase positive behaviors to improve their mood, the results also suggest that alternate or complementary therapies should be considered in cases where there is significant mother-daughter conflict contributing to depressive symptoms. The use of family therapy might help achieve and maintain remission of MDD in adolescents. Family therapy has been found to be efficacious with Latino youth presenting externalizing disorders (Muir, Schwartz, & Szapocznik, 2004), however no studies on family therapy for depression in Latino youth have been identified. Family therapy has recently begun to be studied as an intervention for depressed youth demonstrating preliminary positive results (Diamond & Lebow, 2005; Sander & McCarty, 2005). The challenge for the field is to identify early on those cases that require an intervention that focuses parent-child interactions and design flexible evidence-based treatments that can be accommodated to the particular needs of particular cases.

The main limitation of this study is that case studies results cannot be generalized to the general population. Nonetheless, it illustrates patterns in mother-daughter interactions that can have an effect on girls' depression. The use of self-report instruments can also be a limitation given that not all cases, such as Carmen, are good

informants of their own symptoms. Having multiple sources of information, in addition to self-report measures and structured interviews, on family functioning and parent-child interaction could have strengthened this study. Other studies have used measures of in vivo family interaction or problem solving tasks (Allen *et al.*, 2006; Pineda *et al.*, 2007; Slesnick & Waldron, 1997) or behavioral coding systems, such as the Living in Family Environments Coding (LIFE) system (Sheeber *et al.*, 2000; Sheeber, Hops, Andrews, Alpert, & Davis, 1998), which can provide a more objective measure of family dynamics and how they might have changed pre-post treatment.

Early adolescence in Latina girls is a high risk time in which mother's play a significant role in supporting or hindering healthy psychological development and adjustment (Duarte-Vélez & Bernal, 2007). It is important to stress that the father's role probably had a significant impact on patterns of mother-daughter interactions in terms of the additional burden the father's absence placed on the mothers regarding childrearing and the indirect effect this absence of support can have on the family system. Most studies on how family interactions affect adolescents' depressive symptoms focus primarily on the mother. Further studies are needed on the effect father-daughter interactions can have on Latina adolescents' symptoms. It can be challenging for therapists who work with Latina adolescents and their families to encourage healthy autonomy and individuation while preserving important cultural values of *familismo* (Halgunseth, Ispa, & Rudy, 2006). For example, in Lisa's case some of her dependent behaviors, such as sleeping in her mother's bed although she had a room of her own (a common occurrence in some Latino cultures) were understood by the family as behavior that fostered family unity and affection. However in this case, this behavior hindered the development of healthy autonomy expected at her developmental stage.

In Carmen's case, her mother regarded Carmen's verbal responses during their arguments as disrespect for parental authority (an important value in Latino culture). It was challenging to promote assertiveness skills in Carmen without her mother interpreting Carmen's assertiveness as disrespect for her authority. The therapist had to counsel Carmen's mother on the importance of fostering assertive communication skills, which are essential for the development of self-confidence and autonomy. Cultural competency is

very important for therapists who work with ethnic minority youth in order to respect cultural family values and foster healthy child development without compromising one or the other (Bernal *et al.*, 2006; Cardemil & Battle, 2003; Domenech-Rodríguez & Weiling, 2004)

In light of the higher prevalence of depression in Latina adolescents (Eaton *et al.*, 2006) it is important to further examine variables related to treatment response, as well as risk and protective factors of depression, particularly family factors which the literature has suggested are particularly relevant with this population. In both cases in this study, the interaction between the adolescent's thoughts, behaviors and feelings is clearly illustrated and improvements in mood were observed with CBT. Prior to therapy initiation, both cases presented negative family interactions, particularly with in the mother-daughter relationship. For both adolescents, CBT appeared to help achieve substantial therapeutic gains on an individual level. However in terms of the family system, in Lisa's case the family was more able to make and maintain changes than that of Carmen. Assessing family functioning and values is essential when designing treatment plans with adolescents, particularly for Latino/a adolescents. Interventions that target the family system can improve outcomes and prevent relapses with this population.

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