

Consultation-Liaison Psychiatry: A Longitudinal and Integrated Approach

Eva M. Szigethy, M.D., Ph.D.

Pedro Ruiz, M.D.

David Ray DeMaso, M.D.

Federic Shapiro, M.D.

William R. Beardslee, M.D.

Historically, psychiatrists and other mental health professionals have played an important role as consultants in medical-surgical inpatient services and to a lesser extent in outpatient services. However, with the advent of managed care, this situation has changed radically. As a result of the carving out of psychiatric benefits from general medical-surgical benefits, consultation-liaison psychiatric services have not been routinely covered. Consequently, the coordination and integration of psychiatric and medical-surgical services in ambulatory care settings are not only more difficult to achieve but often lead to discontinuity in longitudinal and integrated health services.

Several factors illustrate the scope and magnitude of this problem:

1. Patients with concomitant medical-surgical and psychiatric conditions represent a significant number of the patients currently treated by the health services system in this country (1).

2. The presence of comorbid medical-surgical and psychiatric conditions leads to higher morbidity and mortality, as well as an increase in the health care costs of such patients (2, 3).

3. Evidence exists that comorbid medical-surgical and psychiatric disorders tend to improve, if not be cured, when psychiatric interventions, such as psychopharmacotherapy and psychotherapy, are applied (4).

4. It has been demonstrated that primary care practitioners quite often fail to appropriately diagnose and treat psychiatric disorders and conditions (5, 6).

It is within this context that we present and discuss the story of a patient with comorbid medical-surgical and psychiatric conditions who demonstrated a reduction in both her psychiatric and physical morbidities after treatment with an integrated, longitudinal psychiatric and medical-surgical approach. We hope that our description of this case will serve to improve and/or call attention to the deficiencies that are present in this country's health

care system, insofar as psychiatric consultation-liaison services are concerned.

Case Presentation

Angela (not her real name) was a 13-year-old girl who had been hospitalized for assessment and treatment of severe neck dystonia of 8 months' duration. The dystonia had developed acutely after she had been hit in the neck by a soccer ball. After the seemingly minor injury, she had developed extreme neck hyperextension to the point at which her occiput was in contact with her back. This position became fixed such that neither active nor passive forward flexion was possible. Cervical spine X-rays and head and neck magnetic resonance imaging and bone scans were unremarkable except for the extreme hyperextension. These symptoms persisted over several months, despite the use of various pain medications, muscle relaxants, superficial neck muscle botulinum toxin injections, intensive physical therapy, and hypnotherapy. Angela stopped attending school and no longer participated in any social activities.

Given the lack of any improvement in Angela's neck mobility or pain, she was referred to and admitted to an inpatient orthopedic unit for consideration of more aggressive orthopedic treatment, such as botulinum toxin injections into deeper neck musculature and/or surgical release of the contracted cervical extensor muscles. Her admission work-up was consistent with neck dystonia secondary to traumatic injury. The severe intensity of her pain, the lack of any symptom resolution with conventional medical interventions, and the high risk of longer-term complications with invasive interven-

tions resulted in a psychiatric consultation to assess the role of psychological factors in her clinical presentation.

Initial Assessment

During her psychiatric examination, Angela was lying in bed with her neck hyperextended; she appeared to be much younger than her age. She alternated between loud moaning and speaking in a quiet voice. She was withdrawn and angry, often refusing to answer questions, stating, "I hate doctors." Angela's complete history was obtained slowly by returns to her bedside for small intervals over several consecutive days. Angela reported feeling apathetic, hopeless about any improvement, worthless, and guilty about subjecting her family to her medical ordeal. She reported symptoms of insomnia, decreased concentration, fatigue, and decreased appetite, along with "constant pain." Angela progressively developed extreme anticipatory anxiety regarding medical procedures, along with hypervigilance and defensiveness during attempts to move her neck. She reported no

"After the seemingly minor injury, she had developed extreme neck hyperextension to the point at which her occiput was in contact with her back."

suicidal ideation or nightmares or flashbacks related to the injury. Angela expressed anger because her neck pain had not disappeared; however, she had a nonchalant attitude about missing school, her peers, and participation in sports. She had not yet reached menarche and reported being happy about it, since she dreaded becoming "a grown-up."

Angela met full criteria for a DSM-IV major depressive episode after the injury. At that time, there were significant ongoing interpersonal stressors related to heightened self and family expectations regarding both academic and athletic achievement, which occurred in the context of developmentally normative separation-individuation issues. The diagnosis of depression was further supported by a family history of depression, a history of subsyndromal depressive symptoms, social isolation, and the presence of a disabling physical illness (7, 8). Angela also manifested symptoms (e.g., anticipatory anxiety, hypervigilance, and avoidance) of a subthreshold anxiety disorder.

Given the predominance of depressive symptoms, the demonstrable pathophysiological evidence for her dystonia, and the absence of an individual or familial pattern of somatization, Angela did not meet DSM-IV criteria for either conversion or somatization disorders. Although her physical symptoms overlapped with the neurovegetative symptoms of depression (e.g., insomnia, lessened appetite, fatigue), her psychological symptoms of depression (e.g., guilt, indecision, low self-esteem, diminished social interest, feelings of worthlessness and hopelessness) were highly specific for the diagnosis of major depressive disorder (9).

In addition to diagnostic considerations, a good strategy, determined by use of a biopsychosocial model, was essential in planning a flexible, developmentally appropriate treatment algorithm for this complicated clinical presentation of physical pain and disability, as well as depression and anxiety.

Course of Treatment

Treatment began with head halter traction designed to relax the contracted extensor muscles of the neck and allow flexion to resume gradually, also gentle physical therapy to strengthen the stretched anterior cervical muscles. During the second week, Angela was given paroxetine, 10 mg/day, for her depressive symptoms and lorazepam, 0.5 mg as necessary, for anticipatory anxiety related to the physical therapy. Trazodone, 50 mg at bedtime, was added to her regimen for several days to provide relief from insomnia.

Psychotherapy consisted of a blend of supportive, psychodynamic, cognitive behavior, and family therapy and focused on building a therapeutic alliance, educating Angela and her family about depression, addressing the stigma of having a mental illness, and decreasing the anxiety related to physical therapy. During psychotherapy, the treating psychiatrist (E.M.S.) listened to Angela's account of her distress, while allowing her to verbalize her anger at her doctors for "not helping [her] more" and at her parents for "being too demanding." The psychiatrist also spoke with both parents to address their concerns about their daughter's failure to attain their "expected" performance goals, to help them accept a diagnosis of depression in the context of the physical injury, and to develop behavioral strategies to reduce their

inadvertent reinforcement of the sick role in Angela. They were encouraged to express their feelings of helplessness to Angela without additionally blaming her. During this treatment phase, Angela showed improved motivation for physical therapy, an increase in neck mobility, better tolerance of pain, an elevated mood, an improvement in sleep and appetite, and better social interactions. However, her hopelessness about regaining full neck mobility and her lack of interest in interacting with her peers persisted.

Her orthopedic management (performed by F.S.) consisted of continuing head halter traction and frequent but gentle physical therapy. Since traction could only be performed while Angela was in bed, a brace was made to incorporate support for the back of her head, neck, and trunk. Angela was placed under general anesthesia on two occasions for passive manipulation of her head to a more upright position and for neck brace adjustments that moved her head into more neutral postures. This allowed for demonstration of the fact that the contracture into hyperextension was not rigidly fixed. To allow Angela to practice relaxation techniques without the distraction of pain, the psychiatrist worked with the orthopedic surgeon and the pain treatment staff to medicate Angela with intravenous methohexital before changing the position of her head and neck. This premedication was titrated to produce a light-drowsy but alert state, which facilitated the use of relaxation techniques. With verbal encouragement from the psychiatrist, Angela was able to move her neck with nearly full range of motion. Her second head adjustment session was videotaped with her family's permission and later reviewed with Angela and her parents to help reinforce the fact that she had the ability to move her neck. Although her neck was able to tolerate more upright positions, it returned to its initial hyperextension when Angela was not sedated or in a neck brace.

Angela remained depressed and had significant ruminations about her pain. The psychiatrist reframed her mood symptoms and pain into her lexicon as a "biochemical reaction to the injury." Angela spontaneously shared thoughts about the meaning of her symptoms (e.g., understanding her physical impairment as a vehicle for coping with fears about growing up and maturing into a woman, her ensuing inability to continue to compete successfully with her twin brother, and separation from her parents). Relaxation and distraction techniques were presented to help her "cope better" with her "ordeal"; her paroxetine dose was increased to 20 mg/day without producing side effects. Over the next several weeks, both her physical symptoms and depression improved.

Upon discharge, after 6 weeks in the hospital, Angela was able to hold her neck in the neutral position with a brace and at 45° of extension of the cervical spine without a brace. Her depression remitted, but stress-induced dysphoria, fatigue, and low self-esteem were evident. She wore her brace during waking hours and continued daily physical therapy. Paroxetine, 20 mg/day, was continued; the lorazepam was tapered before discharge.

After discharge from the hospital, twice-a-week outpatient therapy with the psychiatrist was arranged to continue treatment of the depression and to maintain continuity. A behavioral plan was constructed to provide daily structure and to pave the way for a return to school and

extracurricular activities. Discharge planning with Angela's parents centered on reinforcement of the behavioral plan, education about relapse of depression, and anticipation of a possible temporary worsening of mood, behavioral, and pain symptoms.

Angela participated in daily physical therapy and gradually reduced her need for the neck brace. By the end of this treatment phase, Angela was able to hold her head upright without a brace and no longer complained of pain. She was increasingly able to constructively express anger at her parents for "expecting perfection," and at the same time she was able to recognize that her feelings also represented her own fear of failure. She was able to talk about her neck injury as a way of "preventing me from viewing my whole body;" thus, she did not have to see her pubertal body changes. She was also able to talk more directly about how the illness helped her differentiate from her brother. While identifying these issues, Angela had a concomitant improvement in her neck symptoms. After this improvement, her sessions were reduced to once a week, with emphasis on a behavioral plan for a gradual return to school and contact with peers. Angela no longer reported depressive symptoms upon standard clinical questioning; her episode of major depression had remitted. Work with her parents consisted of helping them reinforce the behavioral plan. Given the family's vacation plans, a 3-hour drive to therapy, and her improvement, psychiatric care was discontinued for the summer.

Angela was seen by the psychiatrist again after a nearly 3-month absence from psychiatric treatment. Her history of the interval found her free of depressive and neck symptoms. However, the family had made a decision to stop psychotherapy as well as discontinue paroxetine therapy, stating that the depressive symptoms were a reaction to the illness and "a chapter in our lives we now want to forget about." Angela was to return to school, although she expressed ambivalence about discontinuing psychiatric care in light of the "anniversary date" of her injury being just a few months away. Her neck dystonia was found to be in full remission at a follow-up orthopedic visit.

Angela did well in the first 6 weeks of school with no relapse of symptoms. She settled into a full academic schedule, started socializing with same-sex peers, and began participating in nonathletic extracurricular activities. Nevertheless, at the anniversary of her injury and onset of her menses, Angela developed fatigue, hypersomnia, spontaneous crying episodes, anhedonia, decreased concentration, social withdrawal, and academic decline. Angela also complained of neck pain but retained normal neck posture and mobility. She was immediately seen for reassessment by the psychiatrist, after a 5-month absence from psychiatric treatment, at which time she again met the DSM-IV criteria for a recurrent major depressive disorder. On the Children's Depressive Inventory (10), her score of 20 was consistent with moderately severe depression. On the Children's Global Assessment Scale (11), her score was 50, which is consistent with a serious impairment in functioning.

Psychiatric treatment was reinitiated on a weekly basis, with the same combination of supportive, psychodynamic, cognitive behavior, and family therapy, and paroxetine was reinitiated. This treatment approach was supplemented by exploration of both Angela's and the

family's illness narratives (12–14); that is, the use of narratives applied cognitive skills to the family's experiences and helped target the coping skills needed to appropriate areas of functional difficulty. Angela's negative attributional style, particularly her fear of failure and feeling of hopelessness, was targeted with cognitive reframing exercises. A family meeting was held to reeducate her parents on the patterns of depressive relapse and to gently confront their denial about Angela having a major depressive disorder that was beyond an adjustment reaction to the injury. Angela's parents were taught ways in which they could support her developmentally normal attempts to individuate from them.

After completing a 14-session course of this enhanced cognitive behavior therapy along with family therapy, Angela reported a remission of her depressive symptoms (Children's Depressive Inventory: score=10, Children's Global Assessment Scale: score=70), had a remarkable improvement in her academic performance, and began socializing with peers. After 1 month of sustained remission, the therapy sessions were tapered to monthly intervals for 4 months then discontinued given her sustained remission. The final sessions focused on the feelings surrounding the termination of therapy. The family decided to continue to give Angela paroxetine through their local pediatrician.

One year after her relapse, Angela, who is now nearly 16 years old, has been free of paroxetine for 6 months. Her depression is still in remission, as are her physical symptoms. She made the honor roll in school and has begun to play and enjoy competitive hockey.

Discussion

This case illustrates the critical importance of how an accurate diagnosis of major depressive disorder in an adolescent girl with a physical disorder and an appropriate multimodal treatment over time resulted in a reduction of both psychiatric and physical morbidities. It further outlines the crucial importance of coordinating medical-surgical and psychiatric services into an integrated treatment approach by using the same therapist over time. The recognition of depression and its appropriate treatment likely prevented more expensive and invasive medical-surgical interventions (e.g., cervical muscle resection and/or deep muscle injection of botulotoxin), as well as protracted physical and functional disability. The integrated treatment involved the use of psychotherapeutic strategies supplemented by narratives of the physical illness and family psychoeducational approaches, along with psychopharmacotherapy.

In this case, the manual-based cognitive behavior therapy approach developed by Weisz et al. (15) was used. This approach is based on a two-process model of control and coping (16, 17). The model holds that depression may be addressed in part by learning to apply primary-control coping strategies (making objective conditions conform to one's wishes) to distressing conditions that are modifiable (e.g., relaxation to decrease pain and social skills training to overcome isolation from peers) and secondary-control strategies (adjusting one's interpretation of events to fit reality) to conditions that are not modifiable (e.g., cog-

natively reframing negative distortions). In Angela's case, linking the expression of her depressive symptoms to changes in her processing of anxiety (18, 19) and to learned helplessness (20) provided a theoretical framework within which to better target the coping strategies taught.

Enhancing cognitive behavior therapy with a narrative framework appeared critical in Angela's treatment, since it allowed integration of cognitive-based learning with her life circumstances. Narrative therapy emphasizes the construction of meaning as a central goal by helping to reconstruct life experiences that have become too restrictive or too negative into more adaptive ones; it can be useful as a bridge across different therapy modalities (12, 21). Some researchers have had good results applying narrative approaches to the treatment of children (22) and adults (23) with chronic physical illness. These data suggest that for an intervention to optimize resilience in patients with chronic physical illness, it should include a focus on self-understanding in a developmentally appropriate context. Self-understanding has proven to be an important component of resiliency in two studies (24, 25). In this case, it was important to frame Angela's injury and associated depression as a vehicle with which to remove her from her peer group, an important component in successful separation from parental figures during adolescence.

Psychoeducation of adolescents and their families about depression is an important step in treatment (25, 26). Psychoeducation can help adolescents and their parents identify affect, deal with stigmatization, modulate shame and guilt, decrease noncompliance and resistance to the concept of illness, and create a more hopeful perspective (14). Cognitive approaches in family therapy have been shown to be quite effective in educating families about childhood depression, increasing family understanding, and decreasing the risk factors associated with depression (26, 27). Angela's intervention targeted psychoeducation about depression and family communication about the illness and linked psychoeducational material to her narratives about life experiences. Given the developmental tasks of adolescence, the added burden of comorbid depression and physical illness had far-reaching functional implications for this family.

There is considerable evidence that families with comorbid pediatric depression and physical illnesses deserve special attention: families with depressed children are much more likely to have parents who are also depressed (27), and families with children who suffer from chronic physical illness have higher rates of psychological distress and poorer communication than other families (28, 29). In this case, the psychoeducational material presented to the family framed depression as a medical as well as an emotional illness, with definable physical and psychological manifestations. In this way, the family was able to link its own conceptualization of the illness to a framework of understanding based on factual information about pain and depression and thus begin to communicate better and to mitigate confusion, guilt, and shame.

This case report supports the premise that an efficacious psychosocial treatment for depression in an adolescent with physical illness needs to target negative attributional style and learned helplessness, while simultaneously providing family psychoeducation and taking into account illness narratives.

Angela's neurovegetative symptoms at her initial psychiatric assessment supported the use of antidepressants in addition to psychotherapy. Selective serotonin reuptake inhibitors have become a common treatment for uncomplicated adolescent depression, given their efficacy, their relatively benign side effect profile, and their low lethality in overdose (30). However, we are aware of no controlled studies exploring the efficacy of antidepressants in treating depression among adolescents with physical illnesses, although there are studies of adult patients with comorbid depression and physical illness and who have shown improved functioning after antidepressant treatment (31, 32). Keller et al. (33) reported that in a group of eight adults with chronic depression, the combined use of cognitive behavior therapy and antidepressants was found to be more effective than either modality alone. Clinical experience has supported the premise that major depressive disorders respond to a combination of psychotherapy and pharmacotherapy, even when somatization complicates the clinical picture (34). This case report outlines the successful multimodal use of psychotherapy, family psychoeducation, narratives of physical illness, and psychopharmacology appropriately integrated over time with orthopedic care in an adolescent with a physical illness.

Depression is a recurrent condition, even after successful remission of the acute phase, with many individuals having ongoing subsyndromal depressive symptoms and difficulty functioning (35). For this reason, longitudinal follow-up is key. In this case, the 3-year perspective of continuous psychiatric care allowed for the integration of Angela's developmental, biological, psychological, and social domains into a responsive multimodal treatment program. Despite a full remission, Angela had a relapse of depression as well as neck pain 5 months after her family's decision to terminate treatment. This is consistent with the literature, which shows that depression is recurrent (32). As many as 60% of all adolescents experience a second depressive episode within 2 years and nearly 75% within 5 years of their initial episode (36). Several reasons can be hypothesized for the patient's relapse, including

1. Noncompliance with treatment after remission was first obtained.
2. Increased psychosocial stressors (e.g., academic and social demands).
3. Reemergence of the family's high achievement demands and their denial of the existence of mental illness.
4. The discontinuance of antidepressant medication (paroxetine).

Regardless of the reason for relapse, this case report demonstrates the importance of treatment continuity as a vital part of relapse prevention, particularly with continuous psychiatric care across time and across different mo-

dalities of treatment, and especially in patients with complex conditions and co-occurring physical and emotional illnesses.

Between 10 and 20 million American youth have a chronic physical illness (37). This population has a disproportionate burden of psychiatric comorbidities, particularly depression (9). Although the definition of chronic physical illness usually refers to conditions such as diabetes, asthma, or inflammatory bowel disease, which persist for long periods of time, given that Angela's neck symptoms appeared after an acute injury, persisted for almost 1 year, and were associated with physical disability, her physical symptoms were labeled as "chronic." In this regard, the case formulation and multimodal treatment approach outlined in this case report can be extended to more prototypical chronic physical illnesses. It was likely that none of these approaches would have been successful in lessening physical or psychiatric symptoms, but their application in a staged, sequential manner appeared most instrumental in the treatment's success.

Although our single-case study cannot allow us to make definitive causal conclusions about the relationship between treatment and behavioral outcome, in this case there was a strong suggestion that treatment did lead to symptomatic and functional improvement. First, when psychiatric treatment was most intense, Angela had the greatest improvement in psychiatric and physical symptoms. Continuous assessment of her depressive symptoms with clinical observation and use of the Children's Depressive Inventory and of her global functioning with use of the Children's Global Assessment Scale provided a way to follow trends for change. Second, the family's termination of integrated treatment after the remission of depressive and neck symptoms and the subsequent relapse of depression after a resolution of depressive symptoms followed the reversal design (ABAB) advocated by Kazdin (38) and suggests that it was treatment that accounted for the behavioral changes, rather than any other influence. Studies with a larger group and with therapists who are blind to outcome assessments would certainly strengthen the validity of these findings.

Conclusions

This case report demonstrates the potential for positive treatment outcome, which is achievable with a multimodal treatment approach based on psychiatric consultations across medical specialties and across time. This case also offers a rich source of clinical observations and intervention strategies that can be tested in larger comparative trials. These include the following:

1. Supportive, psychodynamic, and cognitive behavior therapy approaches appear to be most useful if developmental considerations and physical illness narratives are considered within a biopsychosocial model.
2. Cognitive behavior therapy techniques seemed to help this patient cope better with her physical illness, particularly in terms of fatigue and pain.

3. Combined psychotherapy and antidepressant treatment appears to have been most beneficial to this patient in terms of initial recovery and sustaining remission from pain and depression.

4. Family involvement seemed to be an essential component in this case in that it helped the family navigate the stresses of dealing with a comorbid disorder, while still reinforcing developmentally appropriate autonomy in social realms.

5. The continuity of psychiatric care appeared to be critical in this case.

6. Supportive, psychodynamic, cognitive behavioral, and family therapy were logistically and conceptually integrated with pharmacotherapy in a highly complicated consultation-liaison case.

It is obvious, however, that this case is not representative of the majority of children with physical and psychological conditions. Actually, the treatment in this case required much effort and length. Without question, continuing advances in the treatment and understanding of psychosomatic illness interfaces will result in even more effective treatments geared toward decreasing illness-related morbidity and mortality in this patient population.

Received July 11, 2001; revision received Aug. 19, 2001; accepted Sept. 5, 2001. From Harvard University Medical School, Boston; Children's Hospital, Boston; and the University of Texas Medical School, Houston. Address reprint requests to Dr. Ruiz, 1300 Moursund St., Houston, TX 77030; pedro.ruiz@uth.tmc.edu (e-mail).

References

1. Sherbourne CD, Jackson CA, Meredith LS, Camp P, Wells KB: Prevalence of comorbid anxiety disorders in primary care outpatients. *Arch Fam Med* 1996; 5:27-34
2. Dwight MM, Stoudemire A: Effects of depressive disorders on coronary artery disease: a review. *Harv Rev Psychiatry* 1997; 5: 115-122
3. Black SA, Markides KS: Depressive symptoms and mortality in older Mexican-Americans. *Ann Epidemiol* 1999; 9:45-55
4. Fawzy FI, Fawzy NW, Hyun CS, Elashoff R, Guthrie D, Fahey JL, Morton DL: Malignant melanoma: effects of an early structured psychiatric intervention, coping, and affective state on recurrence and survival 6 years later. *Arch Gen Psychiatry* 1993; 50:681-689
5. Eisenberg L: Treating depression and anxiety in primary care: closing the gap between knowledge and practice. *N Engl J Med* 1992; 326:239-245
6. Kirmayer LJ, Robbins JM, Dworkin M, Yaffe MJ: Somatization and the recognition of depression and anxiety in primary care. *Am J Psychiatry* 1993; 150:734-741
7. Kaslow NJ, Deering CG, Racusin GR: Depressed children and their families. *Clin Psychol Rev* 1999; 14:39-59
8. Birmaher B, Ryan ND, Williamson DE, Brent DA, Kaufman J: Childhood and adolescent depression: a review of the past 10 years, part II. *J Am Acad Child Adolesc Psychiatry* 1996; 35: 1575-1583
9. Knapp PK, Harris ES: Consultation-liaison in child psychiatry: a review of the past ten years, part II: research on treatment approaches and outcomes. *J Am Acad Child Adolesc Psychiatry* 1998; 37:139-146
10. Kovacs M: *Children's Depressive Inventory (CDI)*. New York, Multi-Health Systems, 1982

11. Shaffer D, Gould MS, Brasic J, Ambrosini P, Fisher P, Bird H, Aluwahlia S: A Children's Global Assessment Scale (CGAS). *Arch Gen Psychiatry* 1983; 40:1228-1231
12. Focht L, Beardslee WR: Speech after long silence: the use of narrative therapy in a preventive intervention for children of parents with affective disorder. *Fam Process* 1996; 35:407-422
13. Focht-Bikerts L, Beardslee W: A child's experience of parental depression: encouraging relational resilience in families with affective illness. *Fam Process* 2000; 39:417-434
14. Beardslee WR, Swatling S, Hoke L, Rothbert P, van de Velde P, Foch L, Podorefsky D: From cognitive information to shared memory: healing principles in prevention intervention. *Psychiatry* 1998; 61:112-129
15. Weisz J, Thurber C, Sweeney L, Proffitt V, LeGagnoux G: Brief treatment of mild-to-moderate child depression using primary and secondary control enhancement training. *J Consult Clin Psychol* 1997; 65:703-707
16. Rothbaum F, Weisz J, Snyder S: Changing the world and changing the self: a two-process model for perceived control. *J Pers Soc Psychol* 1982; 42:5-37
17. Weisz J, McCabe M, Dennig M: Primary and secondary control among children undergoing medical procedures: adjustment as a function of coping style. *J Consult Clin Psychol* 1994; 62:324-332
18. Pine D, Cohen P, Gurley D, Brook J, Ma Y: The risk for early-adulthood anxiety and depressive disorders in adolescents with anxiety and depressive disorders. *Arch Gen Psychiatry* 1998; 55:56-64
19. Pine D, Grun J: Childhood anxiety: integrating developmental psychopathology and affective neuroscience. *J Child Adolesc Psychopharmacol* 1999; 9:1-12
20. Noelen-Hoeksema S, Girus J, Seligman M: Learned helplessness in children: a longitudinal study of depression, achievement, and explanatory style. *J Pers Soc Psychol* 1986; 51:435-442
21. Crossley M: *Introducing Narrative Psychology: Self, Trauma, and the Construction of Meaning*. Philadelphia, Open University Press, 2000
22. DeMaso D, Gonzalez-Heydrich J, Dahlmeier Erikson J, Pagan Grimes V, Strohecker C: The experience journal: a computer-based intervention for families facing congenital heart disease. *J Am Acad Child Adolesc Psychiatry* 2000; 39:727-734
23. Smyth J, Stone A, Hurewitz A, Kaell A: Effects of writing about stressful experiences on symptom reduction in patients with asthma or rheumatoid arthritis. *JAMA* 1999; 281:1304-1309
24. Beardslee WR, Podorefsky D: Resilient adolescents whose parents have serious affective and other psychiatric disorders: the importance of self-understanding and relationships. *Am J Psychiatry* 1988; 145:63-69
25. Beardslee W, Wright E, Rothberg P, Salt P, Versage E: Response of families to two preventive intervention strategies: long-term differences in behavior and attitude change. *J Am Acad Child Adolesc Psychiatry* 1996; 35:774-782
26. Brent D, Poling K, McKain B, Baugher M: A psychoeducational program for families of affectively ill children and adolescents. *J Am Acad Child Adolesc Psychiatry* 1993; 32:770-774
27. Beardslee W, Salt P, Porterfield K, Rothberg P, van de Velde P, Swatling S, Hoke L, Moilanen D, Wheelock I: Comparison of preventive interventions for families with parental affective disorder. *J Am Acad Child Adolesc Psychiatry* 1993; 32:254-263
28. Cohen P, Brook J: Family factors related to the persistence of psychopathology in childhood and adolescence. *Psychiatry* 1987; 50:332-345
29. Engstrom I: Inflammatory bowel disease in children and adolescents: mental health and family functioning. *J Pediatr Gastroenterol Nutr* 1999; 28:S28-S33
30. Emslie GJ, Rush AJ, Weinberg WA, Kowatch RA, Hughes CW, Carmody T, Rintelmann J: A double-blind, randomized, placebo-controlled trial of fluoxetine in children and adolescents with depression. *Arch Gen Psychiatry* 1997; 54:1031-1037
31. Gruber A, Hudson J, Pope H: The management of treatment-resistant depression in disorders on the interface of psychiatry and medicine: fibromyalgia, chronic fatigue syndrome, migraine, irritable bowel syndrome, atypical facial pain, and premenstrual dysphoric disorder. *Psychiatr Clin North Am* 1996; 19:351-369
32. Beliles K, Stoudemire A: Psychopharmacological treatment of depression in the medically ill. *Psychosomatics* 1998; 29:S2-S19
33. Keller M, McCullough JP, Klein DN, Arnow B, Dunner DI, Gelenberg AJ, Markowitz JC, Nemeroff CB, Russell JM, Thase ME, Trivedi MH, Zajecka J: A comparison of nefazodone, the cognitive behavioral analysis system of psychotherapy and their combination for the treatment of chronic depression. *N Engl J Med* 2000; 342:1462-1470
34. Fritz GK: Consultation-liaison in child psychiatry and the evolution of pediatric psychiatry. *Psychosomatics* 1990; 31:85-90
35. Rao U, Ryan N, Birmaher B, Dahl R, Williamson D, Kaufman J, Rao R, Nelson B: Unipolar depression in adolescents: clinical outcomes in adulthood. *J Am Acad Child Adolesc Psychiatry* 1995; 34:566-578
36. Lewinsohn P, Clarke G, Seeley J, Rohde P: Major depression in community adolescents: age at onset, episode duration, and time to recurrence. *J Am Acad Child Adolesc Psychiatry* 1994; 33:809-818
37. American Academy of Pediatrics Committees on Children With Disabilities and on Psychosocial Aspects of Child and Family Health: Psychosocial risks of chronic health conditions in childhood and adolescents. *Pediatrics* 1993; 92:876-878
38. Kazdin A: *Single Case Research Designs: Methods for Clinical Applied Settings*. New York, Oxford University Press, 1982