The Context of Depression in Clinic-Referred Youth: Neglected Areas in Treatment

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ABSTRACT

Objective: To review the empirical, methodological, and conceptual limitations of psychotherapy and pharmacotherapy for childhood and adolescent depression and to present descriptive data on key characteristics of a depressed sample to illustrate gaps in treatment. **Method:** Interview-based assessment of psychiatric features and psychosocial functioning, family psychopathology and marital adjustment, and child and parent stressful life events was performed in a sample of 43 depressed youngsters seeking outpatient treatment. **Results:** The empirical and conceptual review indicated that treatments based on downward extensions of adult procedures are limited in number and success. Also, the treatments generally neglect the following characteristics revealed in the descriptive data: depressed youngsters have high rates of recurrent depression and comorbid conditions, impaired academic and social functioning, exposure to high rates of parental psychopathology, parental assortative mating, severe marital dysfunction, and high rates of severe stressors. **Conclusions:** Treatments need to be informed by and address the actual characteristics of depressed youngsters and their environments, which are highly dysfunctional. *J. Am. Acad. Child Adolesc. Psychiatry*, 1999, 38(1):64–71. **Key Words:** depression, treatment, children, youth.

Depression in children and adolescents is debilitating and generally portends recurring or continuing episodes. It is relatively common, especially in teenagers, with apparently increasing incidence compared with earlier decades (e.g., Birmaher et al., 1996a; Hammen and Rudolph, 1996). Despite increased recognition of the existence, frequency, and adverse consequences of childhood and adolescent depression, efforts to develop effective treatments and preventive strategies have been limited. We will briefly discuss empirical, methodological, and conceptual limitations of work on treatment of depressed children and adolescents. We will then present descriptive data on a sample of treatment-seeking depressed youngsters, intended to illustrate 7 characteristics that should inform subsequent efforts to extend the efficacy of treatments to this population.

Empirical Limitations of Treatment for Youth Depression

The research on psychotherapy outcomes for childhood and adolescent depression has been well reviewed (e.g., Birmaher et al., 1996b; Weisz et al., in press). On one hand these studies generally indicate successful reduction of depressive symptoms and encourage further effort, but on the other hand, careful scrutiny reveals significant limitations. There are very few studies based on child samples, and most included nondiagnosed children with minimal symptoms (e.g., Stark et al., 1987; Weisz et al., 1997). Only 2 controlled studies that included clinical samples have been reported (e.g., Vostanis et al., 1996a; Wood et al., 1996), but these did not present results specifically for children (compared with adolescents)—and only the Wood et al. (1996) study showed significant differences on depression between cognitive-behavioral therapy–treated and relaxation control groups.

There are somewhat more studies of depressed adolescents, including 3 additional studies of clinically diagnosed youth beyond the mixed-age samples noted above (Lewinsohn et al., 1990, used a community sample; Fine

et al., 1991, and Brent et al., 1997, included outpatient samples). Although some of the studies demonstrated reduced depression and superiority of active treatment compared with control conditions, some found that support or placebo groups worked as well as active treatments (e.g., Fine et al., 1991; Vostanis et al., 1996a).

Pharmacological interventions with youngsters show similar empirical limitations (reviewed by Ambrosini et al., 1993; Birmaher et al., 1996b; Hazell et al., 1995). Studies of tricyclic antidepressants (TCAs) used in clinical populations have found a wide range of outcomes for children and adolescents, including substantial placebo effects. No study demonstrated the superiority of active medication over placebo, nor did a meta-analysis by Hazell et al. (1995) find clinically significant drug effects. Recently, a large double-blind, randomized, placebo-controlled study has demonstrated superiority of fluoxetine over placebo in depressed children and adolescents on ratings of clinical global impressions, but the investigators noted that symptom remission occurred in only 31% of patients receiving fluoxetine (Emslie et al., 1997).

The empirical limitations of treatment studies for child and adolescent depression have been compounded by methodological shortcomings including small samples, overly brief treatment, or highly heterogeneous samples. A major problem is the questionable generalization from school-based "analog" samples to clinically severe depression (e.g., see Weisz and Weiss, 1993, for a discussion of this consideration in child psychotherapy studies generally). Fortunately, a handful of recent studies have been methodologically sound and have even begun to address the all-important issue of outcomes over time (e.g., Emslie et al., 1998; Kroll et al., 1996; Lewinsohn et al., 1990; Vostanis et al., 1996b). However, they generally paint a picture similar to adult depression: most recover over time, but the risk of relapse/recurrence is very high.

Additional limitations of outcome studies include relative neglect of assessment of youngsters' functional status compared with depressive symptoms, and of the impact of treatment on comorbid conditions. While this neglect is certainly not true of all treatment outcome studies, all studies should evaluate treatment effects on the commonly reported academic, family, and social dysfunctions of depressed youngsters that likely contribute to future depression. Also, given the highly probable comorbidity associated with depressive disorders in youngsters and its likely contribution to poorer treatment outcomes (e.g., Brent et al., 1998), studies should

specifically evaluate the impact of treatment on such conditions.

Conceptual Limitations in Treatment of Youth Depression

Our evaluation of the empirical and methodological limitations of treatment outcome research on depression in youngsters is doubtless shared by many in the field, and we make no claim of originality on these points. Perhaps the more novel issue at this time is not the question of whether treatments work for children, but rather what is the rationale behind the development of efficacious treatments. Our argument is that interventions have been based on downward extensions of treatments and models of adult depression, resulting in the relative neglect of important developmental considerations.

A key developmental issue for youngsters is that they are embedded in a context (though maladaptive contexts are certainly relevant to adult depression as well). Specifically, depressed youngsters are often psychologically caught in environments they cannot control, may lack the cognitive skills to distance from or reframe such situations, and may have long-standing or pervasive problems contributing to ongoing difficulties in achieving developmentally important academic and interpersonal competence. For all these reasons, short-term and narrowly focused therapies might be inadequate to deal with some of the circumstances giving rise to clinically significant depressive disorders.

The most obviously overlooked developmental consideration is that children typically live in a family environment in which they depend on parents for nurturance and support. They do not have independent sources of emotional support and personal fulfillment such as a job or relationships with other adults. As we note below, a child's reliance on the family is often compounded by problematic parenting and by stress and disruption that may well contribute to the youngster's disorder.

Another potential developmental consideration concerns the high level of reliance by child and adolescent treatments on cognitive techniques compared with family interventions or other targets. As Stark and colleagues (1996) have pointed out, there is suggestive but only limited evidence that cognitive dysfunctions play a similar role in children's depression as they do in adult depression; in many cases negative cognitions about themselves or perceptions of others' reactions to them may *not* be distorted. Moreover, it is unclear whether youngsters in treatment have the cognitive *ability* "to

reflect on these (cognitive) disturbances, [or] to accurately identify, reflect upon, evaluate, and counter maladaptive cognitions" (p. 67) (see also Weisz et al., 1992). While adolescents may profit from cognitive interventions to some extent, their application to children might be more limited.

Similarly, downward extensions of psychopharmacological treatments initially used TCAs. Their relative failure with juvenile depression led some to raise the possibility that delayed maturation of noradrenergic systems may preclude adequate response to TCAs in younger populations. Others have speculated that more efficient deamination of tertiary compounds to more noradrenergic metabolites in juvenile patients, and effects of high levels of gonadal steroids on end-organ receptor sensitivity, may diminish response to TCAs in juvenile patients (see Birmaher et al., 1996b; Jensen et al., 1992). These important developmental considerations suggest that selective serotonin reuptake inhibitors might prove to be more effective in younger populations; the relative success of the well-designed Emslie et al. (1997) study will need to be replicated to pursue this issue.

In addition to the problems associated with downward extensions of adult treatment, there are other conceptual limitations of the existing treatments. Because most of the programs treated nonclinical samples, few included assessment of a child's clinical history. A child with multiple prior episodes of depression, or with coexisting attention deficit disorder, might have very different social skills from a child without such conditions. Nonetheless, in the treatment research to date, children of a similar age have been given the same treatments unadjusted for their particular developmental history or unique impairments. These applications of adult treatments, therefore, have been "disorder-specific" rather than tailored to the needs, circumstances, and social context of children and adolescents.

In view of the limitations of treatments for youth depression, the remainder of this article proposes a strategy for potential improvement of treatments. The approach we adopt here is to analyze some of the features of a sample of depressed children and adolescents referred to clinics for treatment. We present data on 7 characteristics of depressed youth, followed by a discussion of their implications for treatment of depressive disorders. The features to be explored are child characteristics, including (1) features of depressive disorders, (2) comorbid diagnoses, and (3) impaired functioning, and family/

environmental factors, including (4) maternal psychopathology, (5) assortative mating in parents, (6) marital and family dysfunction, and (7) child and family chronic and episodic stress. These features have been selected because they have appeared in the research literature as relevant to childhood and adolescent depression (e.g., Birmaher et al., 1996a; Hammen and Rudolph, 1996; Kaslow et al., 1994; Kovacs et al., 1988; Lewinsohn et al., 1994; McCauley et al., 1993; Puig-Antich et al., 1993).

METHOD

Participants

Participants were recruited from an ongoing study of child mental health care in Los Angeles County. Families with a child in treatment at one of several facilities were eligible for that study, and the present sample was drawn from 88 families (of 129 who were asked to participate) who met the following criteria: they had completed a 1-year follow-up of the mental health care study and had a child who had been seen by an agency for at least an initial session and was between the ages of 8 and 16 years, who had a probable diagnosis of an emotional or disruptive behavior disorder and gave separate consent to participate. Of the 88 who participated in our study, the present report is based on 43 youngsters and their families. Those 43 met *DSM-III-R* lifetime diagnostic criteria for a depressive disorder (major depressive episode or dysthymic disorder).

Among the depressed youth, 18 (42%) were female and 25 (58%) were male, with a mean and median age of 13.0 years (SD = 2.36 years), ranging from 8 years 4 months to 18 years 2 months. The sample represented the ethnic diversity of Los Angeles County: 11.6% African-American, 28% Hispanic, 4.7% Asian-American, and 55.8% white. Median family income was in the range of $15,000 to $30,000. Eighty-one percent of mothers had high school education or above; 30% of the total had bachelor's or professional degrees. Fathers' education (available for 63%) indicated that 85% had high school education or above, including 19% with bachelor's or professional degrees. Marital status is reported under "Results."

Measures

Diagnostic Evaluation of Target Child. The Schedule for Affective Disorders and Schizophrenia for School-Age Children (Orvaschel et al., 1982) was separately administered to children and their mothers. Consensual diagnoses were assigned by a team of raters, using the "best-estimate" approach. Weighted κ values for past and current disorders, respectively, were 0.94 and 0.90 for depressive disorders, 0.86 and 0.81 for anxiety disorders, and 0.88 and 0.74 for disruptive behavior disorders.

Parent Diagnosis. The Structured Clinical Interview for *DSM-III-R* (SCID) (Spitzer et al., 1990) was administered to parents. Weighted κ values were 1.0 for current and past depressive disorder, 0.95 and 0.91 for current and past anxiety disorders, 0.90 for current "other," and 1.0 for past substance abuse disorders. In the current sample, only 8 fathers (3 biological fathers and 5 stepfathers) were available for direct diagnostic assessment. Information about the fathers who did not participate was obtained from the mothers, as reported below.

Family History-Research Diagnostic Criteria. Information regarding the mother's first-degree relatives was obtained using the Family

History-Research Diagnostic Criteria (FH-RDC) method (Andreasen et al., 1977). Information was also obtained from the mother about the biological father of the child, the stepfather if relevant, and additional children in the family. In making decisions about diagnoses of fathers by mother report, weight was given to behavioral data such as indications of hospitalization or medication treatment, incarceration, drug rehabilitation, attendance at Alcoholics Anonymous meetings.

Children's Functioning in Important Roles. A semistructured interview was developed for this study, modified from similar procedures used initially by Hammen (1991) to characterize chronic strain and adjustment. Four crucial areas for children and adolescents are academic functioning, school behavior, peer relationships, and family relationships. The mother and child were interviewed separately with standard behavioral probes to elicit information about each of these areas, which were rated on a 5-point scale for that domain. For these analyses, the rating team formed a consensus rating based on information from both the mother and child. Intraclass coefficients of reliability were 0.91 for academic, 0.94 for school behavior, 0.89 for family, and 0.86 for social functioning, all highly significant *p* values <.0001.

Episodic Life Stress. Reports of mothers' recent stressful life events were obtained in an interview procedure developed by this group and used extensively in our prior research (e.g., Hammen, 1991). Modeled after the contextual threat assessment method of Brown and Harris (1978), it attempts to assess sufficient background information about each event to rate its independence of the person and severity according to the degree of threat to the typical person in those circumstances. Raters are blind to the subject's actual reaction. Fuller details and psychometric characteristics are described in the cited articles.

Children's episodic life stress data were obtained from an interview procedure (e.g., Adrian and Hammen, 1993) based on similar procedures. Mothers and children separately reported on the child's experience of life events during the past 12 months. A team rated each event on two scales, one for severity ranging from 1 (minimal impact) to 5 (severe impact), and one for dependence of the event on the child's behaviors or characteristics (ranging from 1 (totally independent or fateful such as death of a grandparent) to 5 (totally dependent on the child, such as failing an examination because he/she did not study). Intraclass reliability coefficients were 0.85 for severity and 0.97 for independence, both highly significant (*p* < .0001).

Mothers' Marital Adjustment and Relationship Functioning. First, a semistructured chronic stress interview (e.g., Davila et al., 1995) covered several domains of maternal functioning, including the nature and quality of any existing intimate relationship, evaluating supportiveness, closeness, and conflict resolution. An overall rating was given by the interviewer on a 5-point scale. Second, the Satisfaction subscale of the Dyadic Adjustment Scale (DAS) (Spanier, 1976) was administered to the mothers. This subscale has high levels of reliability and validity and is useful as a measure of overall relationship quality (Kurdek, 1992). In this sample, the interview and self-report methods of assessing marital/relationship functioning were highly correlated (*r* = 0.81).

RESULTS

Children's Depression History, Comorbidity, and Impairment

Features of Depression. In our sample, 60% had lifetime diagnoses of dysthymic disorder, mean duration 5.13 years (SD = 3.86; range = 1–14 years); 79% had at least 1 major depressive episode, mean duration 4.63

months (SD = 4.99 months; range = 1–26 months). Eight (19%) of 43 depressed children had 2 or more episodes of major depression, and 40% had "double depression"—periods of both dysthymic disorder and major depressive episode.

Comorbidity. In this sample, 74% had another diagnosis besides depression—i.e., only 11 youngsters (26%) had no comorbid disorder. Eleven children (26%) had primarily anxiety disorders (chiefly separation anxiety disorder or overanxious disorder). Twenty-one (49%) had a disruptive behavior disorder diagnosis (15 had oppositional defiant disorder; 6 had conduct disorder). Six of the children with depressive and disruptive behavior disorders *also* had diagnoses of attention-deficit hyperactivity disorder, and 8 children (19% of the total) had depressive, disruptive behavior, *and* anxiety disorder diagnoses.

Role Functioning and Impairment. In academic performance, 23% of the sample had severe or serious problems (full-time special placement, failure of grade or in multiple subjects) and 33% had moderate problems (failure in one or two subjects or temporary failure later resolved). Behavioral functioning at school was similar: 28% had serious problems (expulsion, dropped out, repeated suspensions) and 35% had moderate problems (e.g., repeated problems but of short duration). In social functioning, 28% had severe or serious difficulties (isolated from peers, frequent fights or conflicts with friends) and 53% had moderate problems. Family relationships were rated as very poor to moderately poor in 67%.

Parental and Environmental Features of Depressed Children

Maternal Psychopathology and Intergenerational Context. Table 1 presents diagnostic features of the mothers based on SCID interviews. Many had a current depressive diagnosis, and 42% overall had some current diagnosis. Even more striking, 84% of the mothers had a lifetime history of at least 1 disorder, most commonly major depressive episode (58%) or dysthymic disorder (12%). Moreover, there was ample evidence of *intergenerational transmission* of disorder, based on FH-RDC interviews of the women about their relatives. The 36 women who had current or lifetime disorder tended to come from families in which one or both parents also had a probable diagnosis (76%; chiefly depression in the [grand]mothers and alcohol abuse/dependence in the [grand]fathers).

Paternal Psychopathology and Assortative Mating. Seventy-two percent of the biological fathers of the

TABLE 1
Psychopathology in Parents of Depressed Children

	n	(%)
Maternal psychopathology		
Current MDE or dysthymia	13	(30)
Current other	5	(12)
Current none	25	(58)
Past MDE or dysthymia	30	(70)
Past other	6	(14)
Past none	7	(16)
Biological father psychopathology		
Lifetime depressive disorder	6	(14)
Lifetime substance use disorder	14	(33)
Life antisocial personality disorder	6	(14)
Other	5	(12)
None	12	(28)
Assortative mating		
Maternal disorder present		
Probable father diagnosis	26	(60)
No probable father diagnosis	9	(21)
Maternal disorder absent		
Probable father diagnosis	7	(16)
No probable father diagnosis	1	(2)

Note: MDE = major depressive episode.

depressed children in our clinical sample had a diagnosis, commonly drug or alcohol abuse or dependence, followed in frequency by depressive disorders or antisocial personality disorder (Table 1). Seventy-four percent of the women with disorders (26/35) had been involved with the child's biological father, who also had a disorder. There was only 1 couple of the 43 in which *neither* parent had a diagnosis.

Among the women with a current marital or dating partner who was not the child's father, 16 (of 25; 64%) had significant problems: drug or alcohol abuse, arrests or incarceration, and antisocial conduct including spousal abuse.

Marital and Family Dysfunction. In the current sample of depressed children, we found that only a minority of the mothers (16%) were currently married to the biological father of the proband child. Current marital status included the following: 11 (26%) divorced and not dating, 6 (14%) divorced and casually dating, 11 (26%) engaged and/or living with a boyfriend, and 7 (16%) married to the child's stepfather.

Assessment of quality of current marital (or nonmarital) functioning found that the mean DAS Satisfaction score was 33.6 (SD = 13.3), which was between approximately 1.5 and 2 standard deviations below that of a normative sample of wives assessed over time (Kurdek, 1992), indicating substantial maladjustment. The mari-

tal quality *interview* ratings for this group suggested that 37% were having significant or severe marital problems.

Finally, information about siblings of the depressed child was obtained from maternal report: 37% of the depressed youngsters had no siblings or only a preschool-age sibling, and 3 children's sibling status was unknown or unclear. Fifteen children (37.5% of 40 known families) had at least one school-age or older sibling with a major diagnosis or legal problem, and 22.5% had siblings with no known problem.

Maternal and Child Episodic Stress. Overall, the women in the study received a mean stress score of 13.3 (SD = 6.5; range 2.5–27.5). By comparison, using identical procedures and time frame, a group of normal community women with school-age children (reported in Hammen, 1991) received a mean stress score of 7.6 (SD = 7.6). Forty-nine percent (n = 21) of the sample had a least one event rated in the severe range in the prior year.

The youngsters' total stress scores ranged from 5.0 to 33.0, with a mean of 15.2 (SD = 7.9). In contrast, a similar method with a nonclinical community sample of children in the UCLA Family Stress study yielded an average 1-year mean stress level of 9.2 (SD = 4.4) (e.g., Adrian and Hammen, 1993). The most common kinds of events reported by the children were interpersonal in content, including conflicts with parents and peers; school-related events also were frequently reported.

DISCUSSION

Controlled studies of efficacious psychotherapies for depressed children are very limited in number, especially in clinical samples. Pharmacotherapies based on TCAs are generally ineffective compared with placebo controls. Treatments for adolescents have fared somewhat better, with the recent state-of-the-art studies suggesting efficacious treatment with individually administered cognitive-behavioral techniques (Brent et al., 1997) or fluoxetine (Emslie et al., 1997). Nevertheless, the latter studies have included features common to most studies of depressed youth: failure to treat or evaluate functional impairment in specific roles, scant demonstration of significant follow-up effects in preventing recurrences, and continuing comorbidity of psychiatric disorders.

We have argued that some of the gaps in treatment stem from the conceptual inadequacies of downward extensions of adult models, failing to consider and accurately characterize the developmental psychopathology

of depression. To make this point more graphically, we presented data from our own descriptive evaluation of a sample of depressed children and adolescents seeking treatment in outpatient settings. Specifically, we argued that depression commonly occurs in a highly problematic interpersonal and environmental context that typically is not adequately addressed by existing treatments. The data demonstrated that the children's families were characterized by high rates of psychopathology in both parents as well as maternal intergenerational patterns of diagnoses, assortative mating, and marital dysfunction, plus high rates of exposure to stressful life events. In addition, the children typically displayed comorbid diagnoses. Substantial proportions functioned poorly both socially and academically, reflecting not only impairment but also significant sources of stress that the children are typically ill-equipped to handle. These results are consistent with many previous studies of the characteristics of depressed youngsters but demonstrate that multiple sources of difficulty occur in these families at the same time.

While maternal depression among samples of depressed youth is well documented, less attention has been granted to the need to treat such women owing to their critical and unresponsive interactions with children that might contribute to the youngsters' own depression (e.g., Kaslow et al., 1994). Also, depressed mothers, especially those whose own parents may have been psychiatrically impaired, may model dysfunctional problem-solving skills and may be unavailable to help children buffer the ill effects of stress (e.g., Hammen et al., 1991). Moreover, the finding that the siblings and the fathers of depressed youngsters also had significant psychiatric problems further challenges current treatments. Certainly one implication of assortative mating is marital distress, which was observed in abundance in the current sample. Marital discord has been shown to be a significant contributor to children's maladjustment generally and is hypothesized to be a mechanism of transmission of negative outcomes in children of depressed parents (e.g., Downey and Coyne, 1990).

A final implication of the current work is that depressed children are also exposed to considerable stress. Their mothers show elevated stress levels, and the youngsters themselves have relatively high rates of both chronic and episodic stress. These stressors, children's social isolation or conflict, and academic failure or inability to handle typical school environments would challenge the

skills of healthy children, much less those with deficient coping capabilities and resources. Moreover, children with clinically significant depression might be at risk for actually contributing to stress occurrence, likely through maladaptive academic and social skills and conflict-laden family and personal relationships (Adrian and Hammen, 1993). Thus, treatments should include techniques for resolving difficulties or preventing their occurrence.

Limitations of this study include acknowledgment that the data presented to illustrate key points were based on clinic samples drawn mostly from publically supported agencies that might include more severely ill youth than those in some settings or in community samples. The sample was small and heterogeneous in age, and a truly developmental approach to treatment design would require distinguishing among age groups. Also, we do not claim that the features of the clinic sample reported here are unique to depressive disorders. We would argue that the same issues raised in this study are likely to apply to many other disorders of children and their treatments. Finally, we did not link the severity of children's dysfunctions and symptoms to the maladaptive environmental factors, but hope to do so in future work.

Clinical Implications

We wish to emphasize that many of the psychotherapy programs reviewed in this article appear to be useful for treating relatively mild depressive symptoms. Such approaches should pursue longer-term follow-up and evaluations of children's actual psychosocial functioning to demonstrate more than transitory improvement in depressive symptoms. Similarly, we have no quarrel with the cognitive-behavioral and social problem-solving types of interventions, because such procedures may well prove to be effective in helping children to acquire compensatory skills needed to deal with difficulties. Similarly, medications may be useful and sometimes essential in reducing depressive symptomatology as a necessary step in tackling psychosocial and skills problems. Finally, it is acknowledged that some studies have already begun to address some of the issues raised here.

The interventions that may be needed to treat the multiple difficulties faced by the depressed children are challenging. Stark and his colleagues (1996) outlined a multifaceted intervention program for depressed children that spans at least 30 sessions and includes individual child and parent treatment, as well as family and school interventions. These investigators propose cogni-

tive and behavioral techniques to help the child and parents with the child's mood and social skills problems; parents' discipline, marital conflict, and interpersonal negotiation strategies; and individual and family problem-solving and communications.

Parent involvement would seem to be an important component to add to the interventions, especially with younger children. Parental psychopathology and marital difficulties may be significant obstacles to successful treatment of the child unless addressed in some fashion.

Another essential component for treating severe depressions in youth is individual treatment. Most existing therapies provide children with a range of cognitive and skill-building exercises that are delivered in a group format that may be a poor fit to the youngsters' interpersonal functioning—at least at the initial stages of treatment (see Stark et al., 1996). Group interventions may also limit the therapist's ability to focus on each child's specific skill deficits and cognitive patterns. Virtually none of the existing treatments indicate how comorbid conditions would be addressed, and individual programs tailored to the child's unique symptom and behavioral profile are greatly needed.

The treatments that we envision are enormously challenging, and listing what we need to do is far easier than accomplishing these goals. Getting parents to participate, cooperate, and persevere over an extended period is potentially very difficult, and family interventions vary greatly in parent acceptance, efficacy, and success with children of different ages. Brent and colleagues (1997) included a family treatment, but they found that many families refused it, and overall the results were inferior to those of cognitive-behavioral therapy for depressed adolescents. Brent et al. (1997) also attempted to get depressed parents into treatment in their psychotherapy study, but few availed themselves of the opportunity. Thus, considerable work is needed to develop treatments that can deal effectively with the problematic family context. Moreover, it goes without saying that extended and multifocused treatment is also costly. Altogether these are daunting challenges, but encouraging steps have been taken and new treatment projects are rising to the occasion.

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Why Patients Use Alternative Medicine: Results of a National Study. John A. Astin, PhD

Context: Research both in the Untied States and abroad suggests that significant numbers of people are involved with various forms of alternative medicine. However, the reasons for such use are, at present, poorly understood. *Objective:* To investigate possible predictors of alternative health care use. *Methods:* Three primary hypotheses were tested. People seek out these alternatives because (1) they are dissatisfied in some way with conventional treatment; (2) they see alternative treatments as offering more personal autonomy and control over health care decisions; and (3) the alternatives are seen as more compatible with the patients' values, worldview, or beliefs regarding the nature and meaning of health and illness. Additional predictor variables explored included demographics and health status. *Design:* A written survey examining use of alternative health care, health status, values, and attitudes toward conventional medicine. Multiple logistic regression analyses were used in an effort to identify predictors of alternative health care use. *Setting and Participants:* A total of 1035 individuals randomly selected from a panel who had agreed to participate in mail surveys and who live throughout the United States. *Main Outcome Measure:* Use of alternative medicine within the previous year. *Results:* The response rate was 69%. The following variables emerged as predictors of alternative health care use: more education (odds ratio [OR], 1.2; 95% confidence interval [CI], 1.1–1.3); poorer health status (OR, 1.3; 95% CI, 1.1–1.5); a holistic orientation to health (OR, 1.4; 95% CI, 1.1–1.9); having had a transformational experience that changed the person's worldview (OR, 1.8; 95% CI, 1.3–2.5); any of the following health problems: anxiety (OR, 3.1; 95% CI, 1.6–6.0); back problems (OR, 2.3; 95% CI, 1.7–3.2); chronic pain (OR, 2.0; 95% CI, 1.1–3.5); urinary tract problems (OR, 2.2; 95% CI, 1.3–3.5); and classification in a cultural group identifiable by their commitment to environmentalism, commitment to feminism, and interest in spirituality and personal growth psychology (OR, 2.0; 95% CI, 1.4–2.7). Dissatisfaction with conventional medicine did not predict use of alternative medicine. Only 4.4% of those surveyed reported relying primarily on alternative therapies. *Conclusion:* Along with being more educated and reporting poorer health status, the majority of alternative medicine users appear to be doing so not so much as a result of being dissatisfied with conventional medicine but largely because they find these health care alternatives to be more congruent with their own values, beliefs, and philosophical orientations toward health and life. JAMA 1998;279:1548–1553. Copyright 1998, American Medical Association