

Growing Up Sad

Depression in children attracts scrutiny

By BRUCE BOWER

Elliot is only 7 years old, but for two years he has considered killing himself. Walking down the street, he thinks of stepping in front of a moving car as a quick way out. But pangs of guilt about how his death would hurt his parents check his suicidal impulse.

So Elliot plods home and mopes in front of the television in mournful isolation. He tires easily but sleeps fitfully. When he talks, which is uncommon, the words come slowly, devoid of emotion. Nothing seems to cheer him or catch his fancy. At school, Elliot's teacher worries about the slump in his performance and the down-in-the-dumps expression he wears without fail.

Ten years ago, mental health professionals debated whether children like Elliot suffered from "major depression," an incapacitating mental disorder afflicting as many as 10 million adults in the United States at any given time. Today, however, they generally agree that about one in 50 school-age children does show signs of serious depression.

Many researchers and clinicians say severe depression in childhood shares the same essential symptoms as the major depression diagnosed in adults. But they still differ over the meaning of those symptoms for a developing youngster. Some investigators see a strong emotional and biological connection between the two versions of depression. Others argue that children's language and mental abilities at specific developmental stages uniquely stamp their experience of depression.

Research on children's mental ailments is underfunded and lags far behind investigations of adult disorders, according to a report released in June by the Institute of Medicine in Washington, D.C. Nevertheless, new studies are beginning to illuminate both the nature of childhood depression and the difficulties facing these patients' clinicians, who have scant data to guide their choice of treatment.

"Compelling evidence" from several investigations now demonstrates that school-aged children and teenagers experience depression, reports psychologist Maria Kovacs of the University of Pittsburgh School of Medicine in the February *AMERICAN PSYCHOLOGIST*. This conclusion holds, she says, whether one defines depression as a symptom (a long-lasting, painful emotion), a syndrome (a

combination of depressed mood with other complaints such as hopelessness, suicidal thoughts and lethargy) or a full-blown psychiatric disorder with recurring, incapacitating periods of depression lasting six months or more.

School-age youngsters can develop major depression as well as a milder form termed dysthymia, which has its own distinct symptoms, Kovacs says. A bout of major depression lasts an average of seven to nine months; an episode of dysthymia lingers three years or more.

Depressed youths usually suffer other psychiatric disorders as well, Kovacs notes, especially anxiety and conduct disorders. Anxiety can surface as excessive worry and panic over separation from parents, social withdrawal and eating disorders. The term "conduct disorder" refers to a pervasive pattern of conduct problems, including physical aggression aimed at people or animals, stealing, deliberate fire-setting and frequent school truancy.

Youngsters with major depression or dysthymia who are referred for treatment usually recover, at least temporarily. However, a long-term study directed by Kovacs indicates nearly two-thirds become depressed again by adolescence. About one in five develop some form of manic depression, which is often more severe than depression alone.

Furthermore, even youngsters who endure only a single episode of severe depression tend to have problems relating to peers and adults as they grow older, and they get much poorer grades in high school than youths who suffered only from dysthymia, according to a more recent report by Kovacs and her colleagues, which will appear in a forthcoming *ARCHIVES OF GENERAL PSYCHIATRY*.

Feelings such as depression are undoubtedly filtered through a child's mental capacities, Kovacs says. Preschoolers and some older children, for example, tend to express emotions and problems through actions, not words. When questioned at a clinic by a researcher, they may be unable to describe their mood at home. Currently, there are no good comparisons of how the different stages of development influence depression, she asserts.

On the other hand, evidence that de-

pression is much the same disorder in children and adults comes from family studies and, to a lesser extent, investigations of biological markers.

In a study of 48 children aged 6 to 12 who had been referred to the University of Pittsburgh's hospital with major depression, psychiatrist Joaquim Puig-Antich found that 33 came from families with a high rate of both adult depression and alcoholism. This pattern did not appear in the families of 27 "control" children without psychiatric disorders, and it appeared less strongly in another control group, the families of 20 children with psychiatric diagnoses other than depression. Puig-Antich and his colleagues at the University of Pittsburgh School of Medicine describe their results in the May *ARCHIVES OF GENERAL PSYCHIATRY*.

The high rate of depression and alcoholism among relatives of the depressed children closely matches the rate for relatives of depressed adults. Kovacs cautions, however, that researchers still do not know whether depression and alcoholism are in fact less common in the families of children with mental disorders other than depression.

A majority of the 48 depressed children in Puig-Antich's study had a second psychiatric diagnosis, such as mania, conduct disorder or separation anxiety. He and his co-workers say the most severe forms of depression may first appear during childhood and are strongly influenced by a child's genetic background.

Other recent studies suggest that biological changes prominent in adults with depression, such as sleep disruption and oversecretion of the adrenal hormone cortisol, occur less frequently in severely depressed children. But preliminary reports do point to an abnormality in the regulation of growth hormone secretion, even after children recover from episodes of depression.

A finding that depressed children and adults show similar improvement when treated with the same drugs would greatly enhance the argument for a biological link between the two disorders. But researchers currently disagree on the effectiveness of antidepressant medications in children.

"Antidepressants are increasingly being prescribed by pediatricians for children they think are depressed," says psychiatrist Barbara G. Geller of the University of South Carolina at Columbia. "But there's no good evidence showing these drugs work as well with children as they do with adults."

In a study reported in May at the annual meeting of the American Psychiatric Association, Geller found that nortriptyline, one of a class of antidepressants known as tricyclics, is no more effective than an inactive placebo pill in

treating depressed children. Thirty-one severely depressed children, ages 6 to 12, received either nortriptyline or a placebo. Only about 20 percent of the children in each group significantly improved after nine weeks. Geller got similar results with 17 depressed adolescents aged 12 to 17.

None of the youngsters experienced antidepressant side effects observed among adults, such as dry mouth, constipation and disturbances of heart function.

In a study comparing 38 depressed children receiving another tricyclic, imipramine, with controls on a placebo, Puig-Antich similarly found no advantage for the antidepressant drug. But unlike Geller's group, about 60 percent of the depressed youngsters in each group improved significantly after five weeks, the Pittsburgh researchers reported in the January 1987 ARCHIVES OF GENERAL PSYCHIATRY.

In another sample of 30 depressed children, Puig-Antich's team found that those who maintained blood levels of imipramine above a predetermined cut-off point (150 nanograms per milliliter) improved significantly. Larger doses of imipramine than commonly prescribed for depressed children may be required to reach blood levels linked to an easing of symptoms, these researchers conclude.

Geller, however, says children in her study had blood levels of nortriptyline at or above the cut-off point suggested by Puig-Antich for imipramine.

Those blood levels may still be too low, asserts psychiatrist Sheldon H. Preskorn of the University of Kansas School of Medicine at Wichita. On the basis of research conducted with several colleagues over the past decade, he says depressed children often improve within six weeks of imipramine treatment at blood levels ranging from just below the Puig-Antich cut-off point to nearly twice as great. To achieve these blood levels, Preskorn's group administers imipramine doses roughly twice as large as those routinely prescribed for children.

Blood levels of the medication must be monitored carefully, Preskorn warns. When they exceed the upper limit, serious side-effects, including life-threatening heart irregularities, can occur.

Depressed children with no other psychiatric diagnoses or anxiety disorder respond much better to large doses of imipramine than those who also have a conduct disorder, Preskorn says. He maintains that the drug's minimum effective blood concentration is comparable in depressed children and adults, supporting a biological connection between the disorders. In addition, about four in 10 depressed children evaluated by the Kansas investigators oversecrete cortisol, roughly mirroring the findings for adults. Those children respond best to imipramine, Preskorn says.

Some clinicians find Preskorn's approach useful, including psychiatrist Donald H. McKnew of George Washington University in Washington, D.C. "I use relatively large doses of imipramine with depressed children and get nice results," he says. McKnew carefully monitors heart function with an electrocardiogram during drug treatment. In addition, he uses play therapy, psychotherapy and tutoring for learning problems, as well as psychotherapy for the parents.

Others, such as psychiatrist Javad H. Kashani of the University of Missouri at Columbia, hesitate to pull out a prescription pad. "I only use antidepressants for depressed children when other approaches fail," he says. "Even then, I'm uncomfortable with larger doses."

While depression in school-age children poses unanswered questions, clinicians and researchers know even less about depression in preschoolers — a subject of considerable controversy.

Kashani contends a small number of preschoolers as young as 3 years old meet most adult criteria for major depression, although at that age "you have to be more creative in finding out about their symptoms." Young children, he says, may express depression in the form of anger, irritability, hyperactivity, clinging to parents, physical aches and pains or a number of other symptoms.

Depressed preschoolers are rare, however, Kashani says. He and his co-workers have identified only one such child among 350 Missouri nursery-schoolers interviewed at random. In a survey of preschoolers referred to the University of Missouri for emotional problems, nine out of 1,000 had major depression.

"Clinical depression is pretty rare before about age 7," says psychiatrist Jules R. Bemporad of Harvard Medical School in Boston. "Some researchers may be looking at kids who are reacting to bad situations with unhappiness rather than clinical depression."

Not until adolescence do children fully experience the despair about the future so typical of adult depression, Bemporad contends. The sense of time underlying these feelings emerges only partially during childhood, he argues.

While some school-age children are indeed capable of adult-like hopelessness and despair, Kashani responds, similar feelings in preschoolers remain largely unexplored. Depressed preschoolers referred to the Missouri clinic show strikingly low self-esteem and suicidal thoughts. These children commonly come from broken homes where they are abused or seriously neglected, Kashani says.

Severe depression later in childhood usually has long-lasting consequences, according to the ongoing study directed

by Kovacs. The project is described in *The Validity of Psychiatric Diagnosis* (1989, Lee N. Robins and James E. Barrett, Eds., Raven Press, New York). Kovacs' sample consists of 104 children referred for psychiatric services when they were between 8 and 13 years old. Follow-up interviews extend from three to 10 years later, depending on the year when a child entered the study.

The researchers diagnosed 46 of the children with major depression. Another 23 had dysthymia, 16 had both major depression and dysthymia, and 19 had milder symptoms of sadness and hopelessness associated with maladjustment at home or school. Kovacs and her colleagues have also tracked a comparison group of 49 children with psychiatric disorders other than depression.

The outlook for the 62 children with major depression "is much, much worse than for depressed adults," Kovacs asserts. In most cases, periods of depression come and go into the teenage years. Even children with only one episode of severe depression experience social and academic problems as they get older.

"The next question is what happens to them when they become adults," Kovacs says.

Among the 30 cases of major depression with an anxiety disorder, she adds, the anxiety usually appeared first and often outlasted episodes of depression. This pattern lends some support to British psychiatrist John Bowlby's theory that a disruption in a mother's availability to her infant, or generally inconsistent maternal care, first leads to anxiety when separation from the mother occurs and later leads to childhood depression.

But another finding seems to contradict Bowlby's theory, Kovacs points out. Her research shows that a history of separation from parents because of hospitalization or other reasons is no more common among depressed children with an anxiety disorder than among those without it.

An independent, long-term study of depressed children is essential to confirm and clarify her group's intriguing findings, Kovacs says. Researchers must conduct psychotherapy trials with depressed youngsters, she adds, as well as involve parents and peers in the treatment process.

Psychologist Alan E. Kazdin of the University of Pittsburgh, who reviewed research on the treatment of childhood mental disorders for the recent Institute of Medicine report, expresses optimism about the future. "Major findings on the treatment of depression in childhood are just around the corner," he maintains.

In the meantime, mental health workers must rely on their clinical judgment when treating depressed children — and hope there is truth in the maxim that youngsters change more readily than adults. □