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October 15

August 25, 2010

Can Preschoolers Be Depressed?

By PAMELA PAUL

Kiran didn't seem like the type of kid parents should worry about. "He was the easy one," his father, Raghu, a physician, says. "He always wanted to please." Unlike other children in his suburban St. Louis preschool, Kiran (a nickname his parents asked me to use to protect his identity) rarely disobeyed or acted out. If he dawdled or didn't listen, Raghu (also a nickname) had only to count to five before Kiran hastened to tie his shoes or put the toys away. He was kind to other children; if a classmate cried, Kiran immediately approached. "Our little empath!" his parents proudly called him.

But there were worrisome signs. For one thing, unlike your typical joyful and carefree 4-year-old, Kiran didn't have a lot of fun. "He wasn't running around, bouncing about, battling to get to the top of the slide like other kids," Raghu notes. Kiran's mother, Elizabeth (her middle name), an engineer, recalls constant refrains of "Nothing is fun; I'm bored." When Raghu and Elizabeth reminded a downbeat Kiran of their coming trip to Disney World, Kiran responded: "Mickey lies. Dreams don't come true."

Over time, especially in comparison with Kiran's even-keeled younger sister, it became apparent that guilt and worry infused Kiran's thoughts. "We had to be really careful when we told him he did something wrong, because he internalized it quickly," Raghu says. He was also easily frustrated. He wouldn't dare count aloud until he had perfected getting to 10. Puzzles drove him nuts. After toying with a new set of Legos, he told his father, "I can't do Legos." He then roundly declared: "I will never do them. I am not a Legos person. You should take them away."

One weekend when he was 4, Kiran carried his blanket around as his mother ferried him from one child-friendly place to the next, trying to divert him. But even at St. Louis's children's museum, he was listless and leaned against the wall. When they got home, he lay down and said he couldn't remember anything fun about the whole day. He was "draggy and superwhiny and seeming like he was in pain." Elizabeth remembers thinking, Something is wrong with this kid.

After talks with the director of Kiran's preschool, who was similarly troubled by his behavior, and a round of medical Googling, Kiran's parents took him to see a child psychiatrist. In the winter of 2009, when Kiran was 5, his parents were told that he had preschool depression, sometimes referred to as "early-onset depression." He was entered into a research study at the Early Emotional Development Program at Washington University Medical School in St. Louis, which tracks the diagnosis of preschool depression and the treatment of children like Kiran. "It was painful," Elizabeth says, "but also a relief to have professionals confirm that, yes, he has had a depressive episode. It's real."

Is it really possible to diagnose such a grown-up affliction in such a young child? And is diagnosing clinical depression in a preschooler a good idea, or are children that young too immature, too changeable, too temperamental to be laden with such a momentous label? Preschool depression may be a legitimate ailment, one that could gain traction with parents in the way that attention deficit hyperactivity disorder (A.D.H.D.) and oppositional defiant disorder (O.D.D.) — afflictions few people heard of 30 years ago — have entered the what-to-worry-about lexicon. But when the rate of development among children varies so widely and burgeoning personalities are still in flux, how can we know at what point a child crosses the line from altogether unremarkable to somewhat different to clinically disordered? Just how early can depression begin?

The answer, according to recent research, seems to be earlier than expected. Today a number of child psychiatrists and developmental psychologists say depression can surface in children as young as 2 or 3. "The idea is very threatening," says Joan Luby, a professor of child psychiatry at Washington University School of Medicine, who gave Kiran his diagnosis and whose research on preschool depression has often met with resistance. "In my 20 years of research, it's been slowly eroding," Luby says of that resistance. "But some hard-core scientists still brush the idea off as mushy or psychobabble, and laypeople think the idea is ridiculous."

For adults who have known depression, however, the prospect of early diagnosis makes sense. Kiran's mother had what she now recognizes was childhood depression. "There were definite signs throughout my grade-school years," she says. Had therapy been available to her then, she imagines that she would have leapt at the chance. "My parents knew my behavior wasn't right, but they really didn't know what to do."

LIKE MANY WHO treat depression, Daniel Klein, a professor of clinical psychology at State University of New York at Stony Brook, repeatedly heard from adult patients that they had depression their whole lives. "I've had this as long as I can remember," Klein told me they said. "I became convinced that the roots of these conditions start very early."

So Klein turned to the study of temperament and depressive tendencies in young children. About a decade later, he is one of several academics focusing on preschool depression.

The history of mental illness has been, in many ways, an ongoing lowering of the bar to entry. Depression was originally seen as an adult problem with origins in childhood, rather than something that existed in children. The psychoanalytic view was that children didn't have the mental capacity for depression; their superegos were not sufficiently developed. "One of the most important mental-health discoveries of the past 10 to 20 years has been that chronic mental illnesses are predominantly illnesses of the young," says Daniel Pine, chief of the emotion-and-development branch in the Mood and Anxiety Disorders Program of the National Institute of Mental Health. They begin when we are young and affect us, often profoundly, during the childhood years, shaping the adults we become.

Controversy over whether major depression could occur in teenagers, something we now take as a given, persisted until the 1980s. First adolescents, then grade-school children were considered too psychologically immature to be depressed. Stigma was a major fear. "There was this big worry that once you labeled it, you actually had it," explains Neal Ryan, a professor of child and adolescent psychiatry at the University of Pittsburgh. By the early 1990s psychiatrists had come to recognize that depression occurs in children of 8, 9 and 10.

Still, in 1990, when Luby first broached the subject of whether children could be depressed even before they entered school, her colleagues' reactions ranged from disinterest to hostility. Then in the late '90s, the study of early childhood entered a kind of vogue among academics and policy makers. This was the era of President Clinton's White House Conference on Early Childhood Development and Learning, and there was a wave of interest in the importance of what was termed "0 to 3." Researchers took a closer look at how sophisticated feelings like guilt and shame emerge before a child's third birthday. In 1998, Luby got her first grant from the National Institute of Mental Health to begin a study of preschool depression.

"We realized, Gee, maybe we better look more carefully at preschool, too," Pine says. "And that's where we are today. The issue of diagnosis of depression in preschoolers is being looked at *very* carefully right now."

Diagnosis of any mental disorder at this young age is subject to debate. No one wants to pathologize a typical preschooler's tantrums, mood swings and torrent of developmental stages. Grandparents are highly suspicious; parents often don't want to know. "How many times have you heard, 'They'll grow out of it' or 'That's just how he is'?" says Melissa Nishawala, a child psychiatrist at the New York University Child Study Center.

And some in the field have reservations, too. Classifying preschool depression as a medical disorder carries a risk of disease-mongering. "Given the influence of Big Pharma, we have to be sure that every time a child's ice cream falls off the cone and he cries, we don't label him depressed," cautions Rahil Briggs, an infant-toddler psychologist at Children's Hospital at Montefiore in New York. Though research does not support the use of antidepressants in children this young, medication of preschoolers, often off label, is on the rise. One child psychologist told me about a conference he attended where he met frustrated drug-industry representatives. "They want to give these kids medicines, but we can't figure out the diagnoses." As Daniel Klein warns, "Right now the problem may be underdiagnosis, but these things can flip completely."

Depression, with its recurrent, long-lasting symptoms and complex of medications, is a particularly brutal diagnosis for a young child. "Mood disorders are scary to acknowledge, and depression is especially scary," says Mary J. O'Connor, a child psychologist, professor and founder of the infant and preschool clinic at U.C.L.A. "When we sit down with a parent and give them a diagnosis of depression, they have this fatalistic idea of something devastating and terrifying and permanent."

And parents tend to feel responsible. Children of depressed parents are two to three times as likely to have major depression. Maternal depression in particular has been shown to have serious effects on development, primarily through an absence of responsiveness — the parent's conscious and consistent mirroring and reciprocity of an infant's gaze, babble and actions. "Depressed mothers often respond to their babies from the beginning in ways that dampen their enthusiasm and joy," says Alicia Lieberman, a professor in the department of psychiatry at the University of California, San Francisco. This is problematic, as 10 to 20 percent of mothers go through depression at some point, and 1 in 11 infants experiences his mother's depression in the first year.

But it's easy to overstate the role of maternal depression. "Most kids of depressed parents don't get depressed," says Arnold Sameroff, a developmental psychologist at University of Michigan's Center for Human Growth and Development, who has studied children of parents with mental problems. Conversely, parents need not be depressed to heighten depression in their children. "There are definitely situations where the family interaction is creating the negativity in the child's life, and that is one pathway to depression," says Tamar Chansky, founder of the Children's Center for O.C.D. and Anxiety in suburban Philadelphia. "But what I see more often is the no-fault situation, where parents are baffled to hear such negative thoughts coming from their children." Despite the assumption that these kids must have experienced severe psychosocial deprivation, abuse or neglect, Luby says: "I've seen

many depressed kids with nurturing, caring parents. We know that psychosocial stress is an important ingredient, but it's not the only issue. And it's not a necessary condition either."

Kiran's parents have advanced degrees and stable jobs and were invested in being good parents. Both participated in a Missouri's Parents as Teachers program, receiving instruction during Kiran's first three years. But Elizabeth says she does wonder if her behavior exacerbated some of Kiran's negative tendencies. "Sometimes I worry that we were too critical of Kiran," Elizabeth told me over the phone in January. "I was exasperated with him all the time. I wasn't intentionally trying to make him feel guilty, but the way I was interacting with him was providing a guilt trip." Elizabeth's own moods sometimes played a role. "If my mood was low, his got even lower."

IN A SMALL LAB slightly off the main campus of Washington University in St. Louis's School of Medicine, Joan Luby is trying to figure out exactly what constitutes preschool depression. For a new clinical diagnosis to gain sanction with psychologists, schools, doctors and insurance companies, it requires entry into the Diagnostic and Statistical Manual of Mental Disorders, the field guide to psychiatric illness. Though the manual, last thoroughly revised in 1994, purports to describe and classify the full range of mental disorders, it was not designed to capture preschool conditions. To help practitioners recognize problems earlier, the research organization Zero to Three published its own manual, the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood, most recently in 2005. But its methods of review aren't as rigorous as those in the D.S.M., and many await the imprimatur of the updated D.S.M., due in 2013, which is expected to account for developmental stages of disorder across the lifespan.

Luby is one of the first researchers to systematically investigate the criteria for preschool depression, primarily through a longitudinal study that initially evaluated children between ages 3 and 5 for depression and was financed by the N.I.M.H. These children, who are now between 9 and 12, come into a lab every year for assessments. Offshoot studies have looked at everything from the role of tantrums in depressed children to how depressed preschoolers perform on cognitive tasks. Luby's file cabinets teem with DVDs of each of her study participants' periodic assessments. I watched one recording in which a 5-year-old squirmed in her chair while her parents answered questions. "She cries at the drop of a hat." "She realizes that something's different about her, and she's bothered by her irritability and sadness." "At times she'll accept comfort; other times, nothing will console her."

Through interviews like this, Luby is trying to identify preschool depression's characteristics; according to her research, they look a lot like those in older people. In adults, for instance, anhedonia, the inability to derive pleasure in normally enjoyable activities, can be signaled

by the absence of libido; in preschoolers, it means finding little joy in toys. Other symptoms, including restlessness and irritability, are similarly downsized. These kids whine and cry. They don't want to play. Rather than voice suicidal ideation, they may orchestrate scenarios around violence or death.

The most obvious and pervasive symptom, not surprisingly, is sadness. But it's not "I didn't get the toy I wanted at Target; now I'm really sad," cautions Helen Egger, a Duke University child psychiatrist and epidemiologist. The misery needs to persist across time, in different settings, with different people. Nor is it enough just to be sad; after all, sadness in the face of unachieved goals or a loss of well-being is normal. But the depressed child apparently has such difficulty resolving the sadness that it becomes pervasive and inhibits his functioning. "You can watch two kids try to put on shoes, and as soon as something gets stuck, one child pulls it off and throws it across the room," says Tamar Chansky, who treats preschoolers who are depressed or are at risk for depression in her clinic. "He hits himself, throws objects and says things like 'I did this wrong; I'm stupid.' "

Unfortunately there is little that young children can tell us directly about what they are going through. Preschoolers not only lack the linguistic sophistication to describe the experience, but they're also still learning what emotions are. To get a sense of what a young child is feeling, Luby's team uses a technique called the Berkeley Puppet Interview, which was developed to help children articulate how they perceive themselves and process their emotions. I watched as a wiry, blond 5-year-old boy responded to a therapist's dog-faced puppets.

"My parents care a lot about me," the first puppet said in an upbeat tone. "My parents don't care a lot about me," the second said in an equally cheerful voice. "How about you?"

"Sometimes they care about me," the boy replied, and then paused. "They *don't* care a lot about me," he added with emphasis.

"When I do something wrong, I feel bad," the first puppet said.

"When I do something wrong, I don't feel bad," the second said. "How about you?"

"When I do something wrong, I *do* feel bad," the boy responded.

Later he told the puppets that he didn't like to be alone. He worried that other kids didn't like him, and he wished he had more friends. His insecurity, low self-image and, in particular, his sense of guilt and shame mark him as a possible depressive: it's not only that I did this thing wrong, it's *I'm a bad boy*.

But generally speaking, preschool depression, unlike autism, O.D.D. and A.D.H.D., which have clear symptoms, is not a disorder that is readily apparent to the casual observer or even to the concerned parent. Depressed preschoolers are usually not morbidly, vegetatively depressed. Though they are frequently viewed as not doing particularly well socially or emotionally, teachers rarely grasp the depth of the problem. Sometimes the kids zone out in circle time, and it's mistaken for A.D.H.D., "because they're just staring," explains Melissa Nishawala, the child psychiatrist at N.Y.U. "But inside, they're worrying or thinking negative thoughts." More often, they are simply overlooked. "These are often the good kids who tend to be timid and withdrawn," says Sylvana Côté, a researcher at the University of Montreal who studies childhood mood and behavioral disorders. "It's because they're not the oppositional, aggressive children who disrupt everyone in class that their problems go undernoticed."

Many researchers, particularly those with medical training, are eager to identify some kind of a "biologic marker" to make diagnosis scientifically conclusive. Recent studies have looked at the activity of cortisol, a hormone the body produces in response to stress. In preschoolers who have had a diagnosis of depression, as in depressed adults, cortisol levels escalate under stressful circumstances and then fail to recover with the same buoyancy as in typical children.

But in adults, cortisol reactivity can be an indication of anxiety. Other research has found that in young children, anxiety and depression are likewise intertwined. At Duke, Egger found that children who were depressed as preschoolers were more than four times as likely to have an anxiety disorder at school age. "Are these two distinct but strongly related syndromes?" asks Daniel Pine of the N.I.M.H. "Are they just slightly different-appearing clinical manifestations of the same underlying problem? Do the relationships vary at different ages? There are no definitive answers."

Further complicating the picture is the extent to which depressed children have other ailments. In Egger's epidemiological sample, three-fourths of depressed children had some additional disorder. In Luby's study, about 40 percent also had A.D.H.D. or O.D.D., disruptive problems that tend to drown out signs of depression. Though it looks as if only the children with depression experience anhedonia, other symptoms like irritability and sadness are shared across several disorders.

Classifying symptoms into discrete diagnostic categories may not always be possible at this age, which leads to a reluctance among clinicians to pinpoint disorders. "There is a tension in child psychiatry about the degree to which disorders that are fairly clear in older individuals, adolescents and even school-age kids are apparent in young children, and if they

are, whether they manifest in different ways," warns Charles Zeanah, a professor of child and adolescent psychiatry at Tulane and part of the work group charged with updating the D.S.M. to reflect developmental stages. Post-traumatic stress syndrome, for example, can manifest itself differently in 4-year-olds than it does in 40-year-olds. Certain disorders like separation anxiety and selective mutism are exclusively the province of children but either disappear or evolve into anxiety or depression by adulthood. Thus far, however, depression, like obsessive-compulsive disorder, seems to be consistent across the lifespan.

But, in part to avoid stigmatizing young children, two catch-all diagnoses — adjustment disorder with depressed mood, as well as depressive disorder not otherwise specified (N.O.S.) — are frequently applied. There are benefits to such diffuse diagnoses: they spare parents the crushing word "depression" and avoid the prospect of prematurely labeling a child. They also allow for the possibility that a child may grow out of it. "We don't like to diagnose depression in a preschooler," says Mary O'Connor, from U.C.L.A. "These kids are still forming, so we're more likely to call it a mood disorder N.O.S. That's just the way we think of it here."

But this way of thinking frustrates Luby and Egger, who say they fear that if a depressed child isn't given the proper diagnosis, he can't get appropriate treatment. You wouldn't use the vague term "heart condition," they argue, to describe a specific form of cardiac arrhythmia. "Why do we call depression in older children a 'disorder,' but with young children we just call it a 'risk factor' or 'phase'?" Egger asks. Is it right that rather than treat children for depression, clinicians wait and see what might happen three or four years down the road?

THEIR TENDERNESS OF age may render preschoolers especially vulnerable to depression's consequences. Young children are acutely sensitive but lack the skill, experience and self-sufficiency to deal with strong feelings. In general, early exposure to negative experiences — separation from a caregiver, abuse, casual neglect — can have intense and long-term effects on development, even on the neural, cardiovascular and endocrine processes that underlie and support emotional functioning. Preliminary brain scans of Luby's depressed preschoolers show changes in the shape and size of the hippocampus, an important emotion center in the brain, and in the functional connectivity between different brain regions, similar to changes found in the brains of depressed adults. In a longitudinal study of risk factors for depression, Daniel Klein and his team found that children who were categorized as "temperamentally low in exuberance and enthusiasm" at age 3 had trouble at age 7 summoning positive words that described themselves. By 10, they were more likely to exhibit depressive symptoms. And multiple studies have already linked depression in school-age children to adult depression.

Studies of children with other disorders that began in preschool and continued into adolescence have shown that early-onset issues don't disappear on their own; current research suggests the same is true for depression. Among the preschoolers in Luby's longitudinal study, those diagnosed with depression at the beginning of the study were four times as likely to be found depressed two years later than those in the control group. Egger found that children who met her depression criteria as preschoolers were seven times as likely to experience depression four years down the road.

But recent successes in treating autism have also shown that in many cases, the earlier the detection and intervention of a disorder, the greater chance for significant results. One principal argument for diagnosing depression early is that even with a genetic predisposition, depression isn't cemented into the psyche; the very fluidity of preschoolers' mental states seems to make them more treatable. This window is especially tantalizing because of the brain's neuroplasticity during the early years. The brain literally changes course when you prod it in a given direction. "Nobody knows exactly why, but treatment seems to affect children's brains more powerfully," Luby says, pointing out that language acquisition, for example, is easier at younger ages. Ballet, violin, swim lessons — we begin all kinds of training at age 4.

For a diagnosis of preschool depression to have any meaningful impact, an appropriate treatment must be found. Talk therapy isn't practical for children who don't have the verbal or intellectual sophistication to express and untangle their emotions. Play therapy, a favorite of preschool counselors, has yet to be proved effective.

But there may be treatments, Luby says, that could help prevent depression from interfering with a child's development, ensuring that she functions socially, cognitively and emotionally, alongside her peers. According to epidemiological studies conducted by Egger, from 1 to 3 percent of children between 2 and 5 have depression, a rate that seems to increase over the preschool years. Altogether, she and other researchers say, 84,000 of America's 6 million preschoolers may be clinically depressed. Intervention could potentially forestall, minimize or even prevent depression from becoming a lifelong condition. At a minimum, it could teach them ways to better manage future bouts. If we wait, their only options may be medication and ongoing talk therapy, forever rehashing the hurts Mom and Dad inflicted 20 years earlier.

And while practitioners quibble over what to label depression, most agree that for any mood disorder, children this age should not be treated in isolation. "Psychotherapy for depressed preschoolers should always involve the caregiver," Luby says. "Not because the caregiver is

necessarily bad or doing anything wrong, but because the caregiver is an essential part of the child's psychological apparatus. The child is not an independent entity at this age."

One established method is called Parent-Child Interaction Therapy, or P.C.I.T. Originally developed in the 1970s to treat disruptive disorders — which typically include violent or aggressive behavior in preschoolers — P.C.I.T. is generally a short-term program, usually 10 to 16 weeks under the supervision of a trained therapist, with ongoing follow-up in the home. Luby adapted the program for depression and began using it in 2007 in an ongoing study on a potential treatment. During each weekly hourlong session, parents are taught to encourage their children to acquire emotion regulation, stress management, guilt reparation and other coping skills. The hope is that children will learn to handle depressive symptoms and parents will reinforce those lessons.

I observed one session in which a therapist deliberately invoked feelings of guilt in the same blond 5-year-old who told the puppets "When bad things happen, I *do* feel bad." Seated at a table with his mother, he turned to greet a therapist carrying a tray with two teacups, one elaborately painted. She told him that they were to have a tea party, pointing out her favorite teacup and describing the time it took to decorate it. "I'll let you use my favorite today," she beamed. As he gingerly took the rigged cup, its handle snapped off. His face darkened. The therapist lamented the break, ostensibly distraught, and excused herself from the room. The boy's mother, guided via earset by a therapist watching through a two-way mirror, helped her child work through and resolve his feelings.

"Do you feel like you're a bad boy?" his mother asked. Most parents want to distract their kids from negative emotions rather than let them process the feelings. "They want to wipe it away and move on," Luby says. In this session, the mother was instead encouraged to draw the child out.

The boy nodded tearfully. "I feel like I'm going to go into the trash can," he said.

"Who would put you in the trash can?" his mother asked.

"You would," he replied in an accusatory voice.

"I would never do that," she said. "I love you. Accidents happen." The boy seemed to recover, and they chatted about her earrings, which he flicked playfully with a forefinger. Then his face drooped again.

"Are you mad at me?" he asked, and then added, almost angrily, "I never want to do this activity again."

"You're not a bad boy," she consoled him. Often, parents don't realize that their children experience guilt or shame, Luby says. "In response to transgression, they tend to punish rather than reassure."

"I *am* a bad boy," the boy said, ducking under the table. "I don't think you love me now." He started to moan from the floor, whimpering: "I'm so sad. I'm so sad."

SUCCESS WITH P.C.I.T. rests heavily on parents, who are essentially tasked with reprogramming their child's brain to form new, more adaptive habits. Not all parents are equipped to handle the vigilance, the consistency, the sensitivity. But early results look promising. Though her data is preliminary, Luby and her team have documented considerable decreases in depression severity and impairment following treatment.

Could we somehow nip adult depression in the bud? We may never get a definitive answer, even if we do begin to systematically diagnose and treat preschool depression. "The promise of early-childhood mental health is that if you intervene early enough to change negative conditions, rather than perpetuate negative behaviors, you really are preventing the development of a full-fledged diagnosis," says Alicia Lieberman at U.C.S.F. "Of course, you would never then know if the child would have become a depressed adult."

This doesn't leave parents with a very clear road map. "We don't know if Kiran will be at risk of depression as an adult," Raghu told me when I spoke to him by phone in January. In the study that Kiran participated in, because he was part of the control group, he did not get to go through P.C.I.T. Nevertheless, Raghu and Elizabeth found the general parent training they received as part of the control helpful. And in the months following the study, Kiran's mood seemed to improve. A trip to his grandparents' farm last summer was particularly beneficial. But by this past winter, he seemed to be slipping and prone to bouts of anger and frustration; depression, it was explained to them at Luby's lab, tends to be episodic. "We worry that it's a lifelong thing," Elizabeth told me.

Recently, Elizabeth asked Kiran what the happiest time in his life had been. He told her about the trip they took to Spain when he was 8 months old. Elizabeth asked if he remembered going. "No," he said. "But I looked really happy in the picture." She pressed him for another answer, a time that he could actually remember. He thought hard. "I haven't had my happiest time yet," he said.

Pamela Paul is the author of "Parenting, Inc.," a book about the business of child-rearing. Her most recent article for the magazine was about a lesbian couple trying to adopt a baby.