Interview

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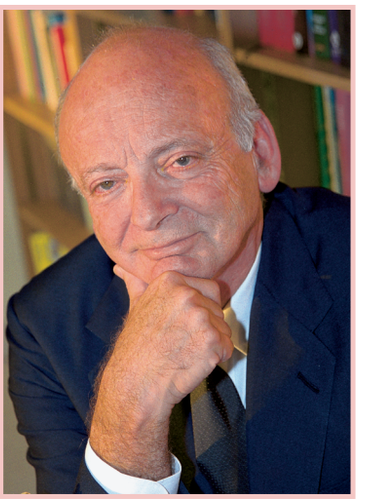

Treating Teens at Risk for Suicide

Q: You have been at the vanguard of research into the causes and prevention of suicide in young people for many years. Would you trace for us some your most important early findings?

A: The first research I ever did on suicide was in very young children, who had never been studied before. They were under–15-year-olds; suicide is pretty rare in that group. What I found was that the kids were remarkable for the amount of aggression that they had shown before their death, and that you didn't really find any suicides occurring before the age of 12. And when you did find suicide in 12-, 13-, 14-year-olds, the kids were all very tall for their age, so in a sense they were precocious; they were showing a behavior that wasn't typical for their age, but physically for they weren't typical their age, either. The other thing that I noticed in the study, which I think was the first time it had been recorded in a scientific study, was that there was good evidence of imitation, in that some of the kids who committed suicide had committed suicide after a famous person had committed suicide, or they were reading a book about suicide, or that there were small clusters of suicides occurring in villages or schools. So those were factors which were influenced by nuance. I thought that it was nearly always associated with a mental illness, that acquisitiveness had something to do with it, and that it was pretty dangerous, because it was contagious.

Then, when I came to the US—I did the previous research in England—I did a much bigger study on adolescence and pretty much found the same thing: that a very high proportion of the kids had a history of aggressive, impulsive behavior; that they tended to commit suicide within minutes or hours of some stress event occurring; that there was evidence of kids committing suicide shortly after they'd seen a film about suicide, or shortly after they had been exposed to some other kind of stimulus that may have taken their minds in that direction—and that, for the most part, they had shown symptoms for quite a while, about 2 years or more.

Q: What were some of the prevailing thoughts about what caused suicide at that time?

A: Around that time—this was in the late '80s—people had become aware that the suicide rate had increased a lot for teenagers, and various people were blaming it on increased rates of divorce, or more mothers working, or rock music, all

sorts of crazy ideas. Suicide prevention had become the domain of education, not of mental health. The education department was then promoting a number of suicide awareness programs, didactic curriculum kind of programs where you essentially tell kids the facts about suicide. You often would have a videotape in which you show someone who attempted suicide but didn't die. We knew from other prevention research, mainly in substance abuse, that providing only information may be quite counterproductive, because it may actually stimulate interest. Then I knew from my own research—by then, other people had been publishing research on imitation—that potentially it was quite dangerous to go to a class and talk about suicide, because you didn't know what ideas you were going to induce.

So then I did a study where I looked at about 1,000 kids who had gone to suicide awareness classes and 1,000 who didn't, and I wanted to see what changes were produced by going to a suicide class. We found evidence that the suicide class did change opinions, but that if you looked separately at the kids in the class who had made a previous suicide attempt, then their reaction to the class was quite negative. They were upset by it, they felt it shouldn't be recommended to other people, and they were disturbed by it. We did that study for the Centers for Disease Control and published the results and caused quite a lot of upset because there were a lot of people who were very committed to this approach to prevention. The CDC then said, Well, you can't just leave it here, you've got to come up with an alternative.

Q: What was your approach to this challenge by the CDC?

A: By that time, we knew that suicides were quite distinctive: People who were going to commit suicide weren't the people next door. They tended to be above a certain age; much more likely to be male than female; likely to have depressed thoughts; to be thinking about suicide; to have made a previous suicide attempt; and to have a drug and alcohol problem. And all of those elements are potentially identifiable by asking the kids questions. Now, there had been a long tradition in psychiatry, I suppose it's based on the psychoanalytic approach, that you don't trust what people say. Somehow, you have to infer because people won't necessarily tell you what's true. So there was more emphasis on inference rather than directly asking people. So the approach to case-finding—that is to say, finding those kids—was based on telling other kids or teachers or parents what to look for, so-called warning signs, and they will then find these kids and then you can treat them. Or they'll persuade the kids to come forward and offer themselves for treatment.

Because I'd been doing measurement work as well, we knew that if you ask teenagers direct questions, they'll answer you. In fact, if there's any problem with this method it's that teenagers tend to answer yes too readily. So their threshold for saying yes is quite low, whereas an adult will qualify it a bit. It's not that teenagers withhold information, it's just the reverse. That's how we embarked on the notion of screening, and screening for depression and substance abuse, and thinking about suicide and having made a suicide attempt, and that thinking became the so-called TeenScreen.

Q: What clues led you to realize that this type of screening could be valuable, and how did that influence the development of the TeenScreen?

A: We did studies to look at the accuracy of the TeenScreen. What we found was that the TeenScreen approach misses hardly anybody, but it does identify a whole bunch of kids who aren't really suicidal, so you get a lot of false-positives. And that means if you're running a large program at a school, you're going to cripple the program because you're going to have too many kids you have to do something about. That coincided with having done a lot of work on this computerized diagnostic interview for the NIMH called the DISC. We had done about 3 versions of the DISC and it was fairly advanced. Somebody who was very technically adept and interested in self-evaluation—his name is Chris Lucas—he basically made the DISC sound-deliverable [called the VoiceDISC]. It was an incredible piece of work. It was almost as if the computer was adapting its language to what the kid had already told it.

So we then moved onto a procedure in which we would do the TeenScreen and if anybody was positive, and we knew there would be a lot of false-positives, that would be followed up by one of these computerized diagnostic assessments. With the use of the VoiceDISC you can have 8 people around a table doing it at the same time, doing it with headphones—nobody would know what the other person was answering. And you could go into a classroom and lay out 10, 15, 20 laptops and that meant that you could process a lot of screens very quickly and efficiently, at a very low cost, because you weren't having to hire an interviewer to do one-on-ones. It could be done with a piece of inexpensive equipment.

Q: How did these findings translate into preventive and treatment options?

A: At the end of the VoiceDISC interview, it prints out a report, and the report then goes to a clinician who's based in the school. For the purpose of the screening, they read the report, then see the kid. They are able, because they have so much information, to make some kind of triage decision within, say, 15 or 20 minutes—because they don't have to go back over a whole lot of things which have already been discovered by the computer—and then either decide to refer them to a clinician to do a further evaluation, to send them to the emergency room, or to a clinic. We tracked what happened to kids who the clinician at the school said needed further evaluation or treatment, and on the whole we found that only about 25 percent of those kids would end up going to a clinic or to a psychiatrist or to a general psychologist and attending more than 2 times. So that suggests that there is quite a big gap between identifying someone who is at risk, and doing something about it.

Our approach was that every time we had screened a school we would have a case manager who would try and make sure that the connection with a clinic was made. So we started a program where we are trying to get communities throughout the country to say that they want schools in their community to do regular kind of check-ups of teenagers to identify depression, because depression is treatable, it's easy to screen for; it also is strongly related to suicide. So our reasoning is that if parents insist of screening their kids for depression, we might spare a lot of unhappiness, be able to overcome a lot of the academic and social difficulties that kids who are depressed experience, and lower the suicide rate.

Q: Did this research roughly coincide with the drop in the suicide rate?

A: That's right—in the meanwhile natural events were ahead of us. The suicide rates were dropping, and dropping very fast in the United States—30 percent over 10 years. There were other countries where it was dropping as well, and many countries where nothing much was happening, or maybe it was only a slight increase. There's a Swedish scientist, Isaacsson, who in the mid '90s had been saying for the previous 7 or 8 years that the reason why the suicide rate was falling in Sweden was because people were getting more antidepressants. And there were data in the United States which suggested that the rate of prescription of antidepressants among teenagers was amazingly high. Most of these drugs were being prescribed by family doctors and by pediatricians, not by psychiatrists. Because in the average community, if you go to your family doctor and the doctor is worried about your mental health as a teenager, you've got anything from a 3- to a 5-month wait before you can see the shrink. So what's happened is that even though many antidepressants aren't on-label for teenagers, they're actually being prescribed.

Q: How closely related in time is the drop in the suicide rate with the availability of the selective serotonin reuptake inhibitors?

A: Isaacsson's first paper came out in about 1996. The teen suicide rate in the United States started to steady out and then to fall in 1988, and then to fall precipitously after '94. Prozac was first introduced in '88, but we believe the widespread use of SSRIs in young people really started a bit later than that.

Q: This connection obviously has had a profound impact on your subsequent work. What are some of your beliefs about this perceived cause-and-effect relationship between SSRI use and a drop in the rate of teen suicide?

A: In my view, the biology of suicide is one of the best established pieces of biological psychiatry. It is one that has been replicated in hundreds of papers, all pointing in the same direction. That is to say that there is something wrong with the behavioral inhibition mechanisms of the brain, which are largely under the influence of serotonin, and there's something wrong with the serotonergic system. And that's been shown in brains of suicide, in cerebrospinal fluid of suicide attempters, in PET scans, in many different ways, and it all points to the same direction. So in other words, you have a situation where you have an individual who has a mental illness and gets stressed—compared to people without mental illness, those with mental illness get stressed, and doubly so, because they create a lot of stresses in their life; their behavior and their perceptions often generate real stresses in their family life, in their occupational life and so on—and then if you are cursed with having something wrong with your behavioral inhibition system, you are more likely to react to some stress by committing suicide. So if that's the model we're thinking about, what really matters is first of all to try and treat the depression, and secondly, to try and control this impulsive, extreme, rapid response to stress.

Q: How did this way of thinking influence how you thought children at risk should be treated?

A: The original TeenScreen plan was posited on the idea that you screen people, then you get them to a mental health clinic. Maybe what we should be thinking now is that you screen people, then you get them to their family doctor. Maybe it's premature to say that, but it seems to me that that's the way we should be thinking. In reality, what happens? You go to your family doctor, say you're depressed, and they'll nearly always give you a prescription. As far as we know, many people then get better and never need another referral. What psychiatrists do, they will nearly always try a nonmedical approach first and then, if things aren't working out with supportive therapy or some specialized therapy, they'll give medication.

I think that's changing, but it seems to me that, except for very difficult cases, often medication can be handled by relatively undertrained people like general practitioners. And I would think that if things carry on as they are at the moment, then suicide will really be a complication of the past, like people dying of measles or tuberculosis—on the whole, they don't anymore because there are treatments. So that's how I got to the importance of screening, because screening is only valuable if you can do something with the people you've found, and I think the evidence is accumulating that you can. That's why screening becomes incredibly important.

Q: Is your vision of referring teens at risk for suicide to their family physician a reflection of the increasing destigmatization of depression in our society?

A: It is, and what we're experimenting with at the moment at one of the local schools is a system where we have a screening set up, but we don't call for the kids to come and be screened. We tell the parents that if they want their kids screened, they can send them to be screened and we will send them back the results, and then give some suggestion about what to do then. So that personalizes it even more. The stage beyond that is to say to the teenagers themselves, "Look, depression is an illness. Often, you don't realize it, but this is what it looks like, and it is something that can be treated. Do you want to come and test yourself?"—moving it much more toward self-agency and being able to take things into your own hands, which is where health is going. It demystifies the illness somewhat.

Q: What is the blueprint for implementing your plan on a national level?

A: We've got two or three plans. There's a group at Columbia which is headed by Laurie Flynn [see Dr. Flynn's article on the TeenScreen program in this issue], and she's a great believer in working through parents and parent organizations in trying to apply community pressure to introduce good things. So what they are trying to fight for is getting more and more communities to routinely screen high school students at least once during their stay for depression. We also have a group who think that maybe it would be easier to do the screening all in the pediatrician's office, because a lot of teenagers do visit the pediatrician once a year. So we've got a project going on right now trying to pilot that and see what the cost and inconvenience would be.

If the FDA eventually approves SSRIs for teenage use in depression, then the drug companies are going to do that, and that's going to make an enormous difference. At the moment they cannot go to a pediatrician's office and distribute their screens, questionnaires, and starter packs. Eventually that will change because the studies on antidepressants and teenagers have all shown an effect, so eventually that is going to become on-label. Then I think industry will do a lot of the necessary work.

Q: How do you address people who question the dangers of prescribing to the false-positives?

A: I think that standing by itself that criticism is meaningless because we don't know what harm the antidepressants do, if any, and we don't know who they do harm to. In a typical case that you're treating with antidepressants, the kind of things that can go wrong with antidepressants: You can start with too high a dose, and that can be a real problem if the patient also is very anxious because it may increase their level of agitation and anxiety early on. Typically what happens then, not always, is the patient feels terrible and they stop taking the medication. The right thing to do there is to drastically reduce the dose or to have made a diagnosis early on so that you know that reaction is likely. The second complication, nonspecific side effects like nausea, sexual dysfunction, dry mouth, constipation and so on, those aren't really dangerous; they're inconvenient and unfortunate.

The dangerous side effects are the induction of mania. When someone who may be bipolar, when you put them on an SSRI, they become manic. I'm not sure that pediatricians are that aware of that complication, and clearly the pediatricians need a lot more education than they currently have. Very rarely, you will get something called a serotonin syndrome, which is where, usually in association with other medications, there is interference with some of the enzymes that normally deal with the medication you're taking. And when that happens, the person is quite sick, and it is highly likely they will be taken back to their doctor because their behavior becomes abnormal; they're clearly unwell.

At the moment, we don't know whether there are any long-term hidden side effects, and there may be. But we do know that there are short-term, major adverse effects of being depressed. So if you had to weigh what is the cost of being depressed against what is the potential—yes, I know, no evidence so far—of taking an antidepressant, I know where I would put that cost-benefit. I would say it's probably better to treat the depression.

A whole bunch of people are going to say, "Oh, my God, this is everywhere! You're going to put it in the tap water. Aren't people getting too many of these pills anyway?" The truth is, we don't know that this very high rate of prescriptions is doing any harm, and on the face of it, it looks as if it's doing some good.

Q: What about treating children who have not yet reached adolescence?

A: This all only applies to adolescents. I think for children who are prepubital, who are still undergoing a great deal of brain growth and differentiation, there's not nearly enough research on what is the impact of antidepressants on development of the

nervous system. So I think you would have to be very, very cautious indeed—and there's an urgent need for more research, animal research, some sort of research—on what is the impact of giving antidepressants to young children who are developmentally active.

For all we know, giving an antidepressant may actually introduce a permanent good change, but it may induce a bad change as well.

Q: If the suicide rate spikes again in five years, will that change your belief about the role of antidepressant therapy?

DS: I think that at the moment we are still at the stage of saying this reduction fits what we would expect, but that we don't have conclusive evidence. We have to have better studies, large studies, on kids who have been suicidal to look at the impact on suicide ideation and suicidal behavior.

The NIMH is currently planning to fund such a study, and ideally what you would have is, I guess, a placebo condition, you'd have a medication-only, a cognitive or psychotherapy-only, and a combined cognitive therapy and medication. Those are the kinds of studies that have been very informative in adults when it comes to treating depression. When you have a 4-arm study like that, it requires a very large population, so I don't think it is going to be that perfect a design. The subjects plan to be youngsters who have made a suicide attempt. They are aiming at 200 or 300 cases, which is very good in any kind of treatment study.

Q: Finally, what are your thoughts about nonpharmacological approaches to suicide prevention?

DS: The psychotherapies that are available for depression, mainly cognitive behavior therapy or interpersonal therapy, are very good at helping you correct some of the distorted ideas you have when you're depressed and some of the relationship issues that afflict many people with depression. But they're not terribly good with telling you how to deal with extremes of emotion.

There's one kind of therapy that focuses on that, and that's dialectic behavioral therapy (DBT). That's the only one that has ever been shown to be effective. But it's a very cumbersome treatment: It takes a long time; it requires many therapists and many frequent visits. But it does focus on how you can possibly deal with extremes of feeling. So, psychotherapy is not terribly effective, at least for this kind of impulsivity. And it's hard to find people who have been well-trained. There are 10,000 run-of-the-mill therapists, but there are very few who have been specifically trained in the cognitive approaches and certainly even far fewer—I think there are a total of 1,700 people in the whole US—who have had DBT training. So the chances of you actually coming across an effective therapist are pretty slim. When you find one, it's going to be very expensive and inconvenient, because you have to go very often. So if there really is evidence that certain or all antidepressants can cut this cycle of depression plus stress plus this rapid response, then that seems to be where the big hope is. MF

—Edward Petoniak