

» The Schizophrenia Spectrum

As with autism or depression, psychosis may not be an all-or-nothing condition

Most people have felt depressed or anxious, even if those feelings have never become debilitating. And how many times have you heard someone say, “I’m a little OCD”? Clearly, people intuitively think that most mental illnesses have a spectrum, ranging from mild to severe. Yet most people do not know what it feels like to hallucinate—to see or hear things that are not really there—or to have delusions, persistent notions that do not match reality. You’re psychotic, or you’re not, according to conventional wisdom.

Evidence is growing, however, that there may be no clear dividing line. Psychiatrists have debated whether psychosis exists on a spectrum for as long as psychiatry has existed, and researchers have been investigating the question for more than a decade now. A 2013 meta-analysis, combining much of the existing data, by Jim van Os, Richard Lindscott and their colleagues at Maastricht University in the Netherlands, found the prevalence of hallucinations and delusions in the general population was 7.2 percent—10 times higher than the



0.7 percent prevalence of schizophrenia diagnoses. Now the most comprehensive epidemiological study of psychotic experiences to date, published this past July in *JAMA Psychiatry*, has given researchers the most detailed picture yet of how many people have these experiences and how frequently. The results strongly imply a spectrum—and suggest that the standard treatment for a psy-

chotic episode might be due for an overhaul.

The researchers, led by John McGrath of the University of Queensland in Australia, analyzed data from the World Health Organization’s World Mental Health Survey, a set of community surveys carried out between 2001 and 2009, involving 31,261 adults in 18 countries. After ruling out experiences caused by drugs or sleep, the researchers determined that 5.8 percent of the respondents had psychotic experiences. Two thirds of these people had had only one type of episode, with hallucinations being four times more common than delusions.

The psychotic experiences were typically rare, with 32 percent of sufferers having only a single episode and another 32 percent having two to five. The other third reported between six and more than 100, and having more than one type of experience was linked to having more in total. These people were not seeking help, and none had been diagnosed with a psychotic disorder. “Most people have only fleeting, sporadic, experiences, but there’s a subgroup that have a lot, and they’re persistent,” McGrath says.

Benign Hallucinations?

Jenny does not have schizophrenia, but she has hallucinations. “I could feel Mark in the room, standing behind me,” she says of one such experience. “My first love, whom I hadn’t seen since I was a teenager, still guiding me, as he had ever since my hallucinations started taking definite shape. I glimpsed him out of the corner of my eye, stroking my spreading wings, reassuring me I’d made the right decision, to leave my old life behind and travel to England to be a journalist.” Jenny, who requested that her real name be withheld for privacy, agreed to talk with me about her hallucinations, which she regards as benign. When she hallucinates, she always sees Mark, and he always offers her advice. He is the part of herself she turns to for guidance.

Jenny’s childhood experiences led her to believe she was predisposed to psychosis, and her mother had related problems—perhaps not surprisingly, as there is a known genetic component. A study last year found 108 genes strongly implicated in schizophrenia. Yet psychologists have told Jenny that the content of her experiences is related to the fact that she lacked adequate psychological support in childhood, causing her to internalize her own support network. Where mental health is concerned, it seems, nature and nurture are almost always inextricably intertwined.

—S.M.

The results suggest psychosis indeed has a spectrum, but whether it is distributed in a continuous way across the population remains to be seen. “Is it that we all have a bit of schizophrenia in us, or are there some people who do, and some who don’t?” Linscott asks. One complication is that what counts as a hallucination can be a difficult line to draw, and even carefully crafted research surveys can be open to interpretation. “It could be that what we see at the margins are these subtleties due to the language used in the questions,” he says.

The experiences were slightly more common in women (6.6 percent) than men (5 percent), even though full-fledged schizophrenia is more prevalent in males. In addition, psychotic experiences were more prevalent among people living in middle- and high-income countries (7.2 and 6.8 percent, respectively) than low (3.2 percent). Being unemployed or unmarried or being from a low-income family was also associated with higher rates. Socioeconomic and environmental factors such as stress are known risk factors for schizophrenia.

Psychotic experiences are sometimes markers of general psychological distress, McGrath explains: “They pop up in depression, anxiety disorders, a whole range of things.” They also occur in healthy people, and ultimately the goal is to discover what determines why some people get a mild dose and are not distressed, whereas others go on to have serious illness. Answering this question could have important ramifications for helping those in distress. Treatment would look very different for a person whose psychotic experiences were linked to depression or anxiety disorder or were the one-time result of acute stress, compared with a person who is showing the first signs of schizophrenia. The fact that psychosis may exist on a spectrum could help ease the stigma attached to a schizophrenia diagnosis. That would be a huge boon to people with symptoms, no matter how mild or severe. —*Simon Makin*