

## Research and Treatment for Early Psychosis

*Summarized by Thomas T. Thomas*

The Psychiatry Department at the University of California, San Francisco (UCSF) does research into the early stages of psychosis through its [Prodrome Assessment Research and Treatment \(PART\) program](#), runs its own Early Psychosis Clinic, and partners with several local counties in their Prevention and Recovery in Early Psychosis (PREP) programs. At our January 22 meeting, **Carmen Chow, MA, MFT**, shared her experiences as treatment coordinator of the PART program, along with **Michael Minzenberg, MD**, UCSF associate professor of psychiatry.

The PART program specializes in comprehensive assessment, psychoeducation, cognitive training, treatment planning, and referrals for individuals between ages 12 and 35 who are either at ultra high risk (UHR) of developing psychosis or have developed recent onset (RO) of a psychotic disorder within the last five years.

Psychosis is a symptom related to a number of severe mental conditions, including schizophrenia, schizoaffective disorder, and bipolar disorder. People with psychosis have difficulty telling what's real from what's imaginary, experience delusions (demonstrably false beliefs), auditory and other sensory hallucinations, disorganized thinking, lack of motivation and emotion, and other symptoms as detailed in the *Diagnostic and Statistical Manual of Mental Disorders* (currently in its fifth edition).



CARMEN CHOW, MA, MFT



MICHAEL MINZENBERG, MD

While the actual incidence of schizophrenia may be low—affecting only about 1% of the population across all cultures—it can be one of the most costly medical conditions to treat. Annual costs per patient can run as high as \$16,000, including both the direct cost of treatment, indirect cost such as lost productivity, and uncounted personal and societal costs in terms of social isolation, police intervention and emergency room visits, repeated hospitalizations, and homelessness. Compare that with annual per-patient costs for conditions we normally think of as severe: cancer (\$15,000), stroke (\$12,000), or heart disease (\$8,000).

“We’ve know for years that early intervention in psychosis can result in better outcomes,” Chow said, “with fewer psychotic episodes, better response to medication, fewer relapses, and lower long-term costs. We still have only 16

prevention and early intervention [P&EI] programs in this country—but that’s better than a few years ago.”

A big factor in developing a psychotic illness is genetics, she said. While only 1% of the general population may be at risk for schizophrenia, that rises to 2-3% for people with a second-degree relative who has the condition, 10-15% with a schizophrenic parent, and 50% with an identical twin who with schizophrenia. Other risk factors may include birth traumas and past head injuries.

A great deal of stigma is attached to psychosis and its symptoms, Chow said. People are able to look at depression or anxiety on a scale or spectrum, but think of psychosis as an absolute. “Psychosis actually has a spectrum, too,” she said. “Some people may have psychotic symptoms but never require treatment or become dysfunctional.”

For people in the UHR category, early intervention includes careful assessment. Many of the early signs of psychosis apply to undiagnosed conditions like anxiety disorder and late-developing attention deficit hyperactivity disorder (ADHD). The PART program starts with a three-hour assessment of candidate patients. If a trend toward psychosis is indicated, the patient is followed carefully and treated as necessary for anxiety and other conditions but not given antipsychotic medications.

“Most of the patients are teenagers,” Chow said, “so early treatment and the opportunity to talk about symptoms can be reassuring, can make the situation less scary for them, and let them know they are not alone in feeling this way.”

Chow noted that, from the PART program’s experience, only 30-35% of people in the UHR category will go on to develop a psychotic episode within about two and a half years. These are generally people with a family history of psychosis, more severe symptoms, lower social functioning, and a history of substance use.

For people with a recent onset of psychosis, the PART program provides antipsychotic medications, which help reduce disturbing thoughts and behaviors, and provides therapy to help the patient cope with the condition.

A “prodrome” is a set of warning signs or early symptoms of a disorder, Minzenberg explained, as fever is a prodrome to measles. How can one detect a psychotic prodrome? Here are signs they urge professionals, particularly teachers and school counselors, to look for in young people:

- Confusion with what’s real and what’s not, with imaginary incidents and dream states.
- Drop in function, a falloff in grades, or increased tardiness—“although with teenagers,” Chow said, “these could be due to other things.”
- Preoccupation with the supernatural, such as telepathy, ghosts, and UFOs.
- Other unusual thoughts, like mind tricks, strange ideas about the body, overvalued beliefs, and delusions of control.
- Unfounded suspicions about people or situations.
- Perceptual sensitivities to light or sound.
- Seeing, hearing, feeling, tasting, or smelling things other people don’t experience.

- Disorganized communication, such as being unable to make a point in conversation, rambling or going off track, using incorrect words, introducing irrelevant topics, and odd speech patterns.

A lot depends on how much insight and awareness the person has as to what's going on, and how much conviction he or she puts into ideas and sensations, Chow said. The person may still be questioning these beliefs and perceptions, and suspicions have not yet become full-blown paranoia.

These symptoms may appear together or in isolation, Minzenberg said, but do they cause distress or result in a loss of function? Some of these symptoms can be related to a range of conditions that are not pre-psychotic, and that's why the PART program starts with confidential phone screening and a rigorous assessment, which may include a detailed prodromal questionnaire, free MRI and EEG scans, and psychiatric testing. The program then offers feedback to therapists on the test results.

The PART program conducts studies for people with UHR status, 12 to 35 years old, with no substance dependence, to:

- **Learn how to predict outcomes:** includes a comprehensive assessment and monitoring of symptoms every six months for two years, paying up to \$620 for participation.
- **Improve cognitive deficits and/or prevent cognitive decline:** includes one hour of training five days a week for eight weeks, paying up to \$790 for participation.<sup>1</sup>

And for people with RO status—psychotic onset within the last five years with a diagnosis including schizophrenia, schizophreniform, or schizoaffective disorders—and no substance dependence, to:

- **Improve cognitive deficits** in people 16 to 30 years old: includes one hour of training five days a week for eight weeks, paying up to \$690.
- **Improve health, social, and role functioning** in people 16 to 30 years old: encourages daily use of techniques from the PRIME program (Prevention through Risk Identification, Management, and Education), and may also include cognitive training, over two months before and after testing, paying up to \$290.
- **Learn how oxytocin<sup>2</sup> improves family communication and social cognition,** with people 12 to 35 years old: uses oxytocin to improve the social deficits associated with mental illness; includes two study visits of about three hours each.

Each study has a control group drawn from randomly assigned participants. At the end of the study period, if the participant was a control, he or she is offered the opportunity to repeat the study with actual treatment.

The PART program also works through PREP programs in San Francisco, Alameda, and San Mateo counties. In this case UCSF provides case management, therapy, medication management, educational and vocational therapy, and efforts to involve family members.

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<sup>1</sup> Participation in both UHR studies is available, with payments totaling up to \$1,150.

<sup>2</sup> A pituitary-gland hormone that acts as a neuromodulator in the brain. Studies suggest it plays a role in social recognition, pair bonding, anxiety, orgasm, and maternal behaviors.

In addition, UCSF's Early Psychosis Clinic, which is part of the Langley Porter Psychiatric Hospital and Clinics, offers evaluation and consultation services to individuals struggling with the early signs of chronic psychosis or who are at risk for developing a psychotic disorder.