



Schizophrenia: the search for solutions

Why networking pays off ...

During Schizophrenia Awareness Week, May 2007, Professor Stanley Catts, Chair of Hospital and Community Psychiatry at the University of Queensland, travelled around Australia to speak about Schizophrenia, and spoke in Alice Springs on Friday 25 May. His talks focused on why he believes research is central to finding solutions to schizophrenia and on seeking support for a proposal called the Australian Psychosis Research Network...

WHEN A DETERMINED group of scientists and researchers with a common goal join forces around the country the scope for a breakthrough is accelerated—particularly when they have a new set of tools to work with. “There is no better place to try to prevent schizophrenia and bipolar disorder. The structure of our mental health services is ideal for approaching patients to participate in research and for carrying out clinical trials. Under-utilised analytic equipment is already available here, avoiding capital costs.”

The recently formed Australian Psychosis Research Network (APRN) has a clear mission—to prevent schizophrenia and bipolar disorder. Over the past few years that goal has become tantalisingly within reach but the scientists are frustrated by the limits of existing funding.

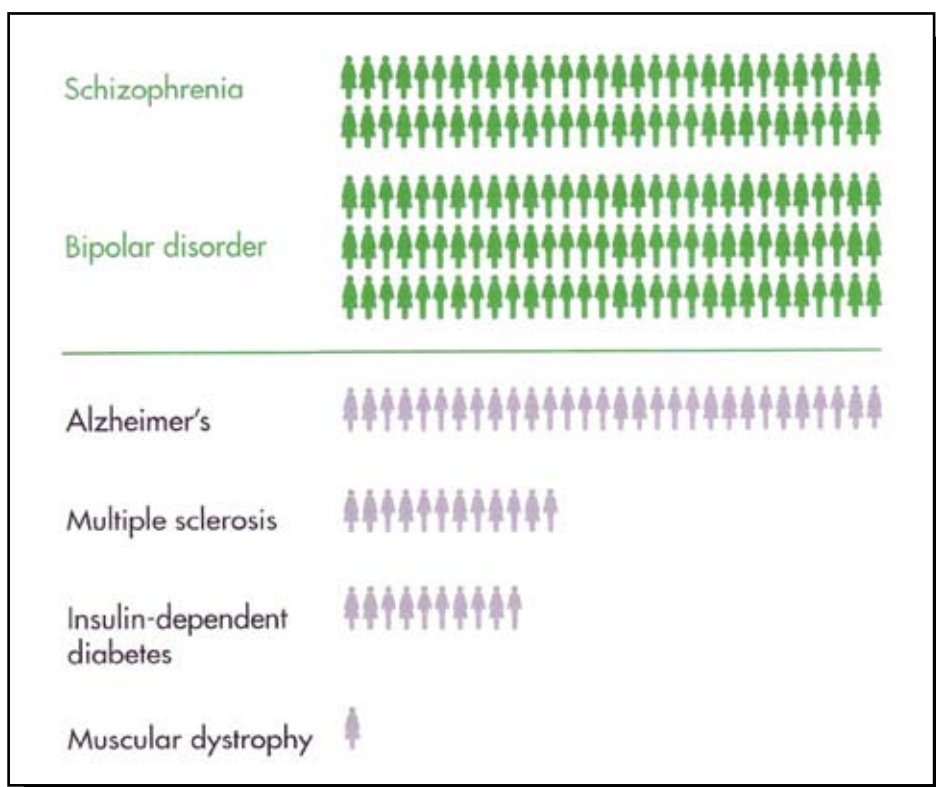
The chair of Hospital and Community Psychiatry at the University of Queensland, Professor Stanley Catts, says science is now able to solve health problems as complex as psychotic disorders but a new way of doing research is required. “We need to catch up,” he says.

The Network, described as a world first, links more than 120 leading Australian scientists from all states and territories and is seeking additional government funding.

Advances in the past couple of years in genetics—such as widening the known spectrum of human genetic variation via the haplotype map (HapMap) of the human genome—neuroscience and brain imaging mean researchers are better equipped than ever before to tackle psychotic disorders. Huge numbers needed.

“We must collect genetic information on groups of people with psychotic disorders of the size never before contemplated—ideally 10,000 people.

“To be able to analyse this much genetic data we must have access to the latest analytic equipment that can process hundreds of thousands of genes at a fraction of the cost of processing



smaller numbers,” Dr Catts says. At the moment only 1000-2000 cases can be assessed.

“This research requires a much larger recruitment. We need a huge data base,” he says. “The scale of this project demands a national effort and increased funding—more than \$10 million per year.”

Australia, with its population size, is the ideal place to collect such data.

“There is no better place to try to prevent and cure schizophrenia and bipolar disorder. The structure of our mental health services is ideal for approaching patients to participate in research and for carrying out clinical trials. Under-utilised analytic equipment is already available here, avoiding capital costs.

“And most importantly, our scientists have agreed to put aside some personal interest to mount a collaborative research effort against these devastating disorders,” Dr Catts says.

He would like to see a nationwide adoption of the well-established system of linked health records used in Western Australia which would enable access to more complete records of mental health patients.

“At present, research efforts are



Prof. Stan Catts presenting his research on schizophrenia on 25 May 2007 in Alice Springs

largely uncoordinated, with little incentive for collaboration, resulting in piecemeal findings due to inadequate sample sizes. It provides clues for solving the problem, but not major discoveries.”

Results from animal experiments across neuroscience centres must be coordinated more efficiently so that results can be understood in months not years, says Dr Catts. The Neuroscience Institute of Schizophrenia and Allied Disorders (NISAD) is already supporting this research strategy.

While diseases such as dementia, cardiovascular disease and diabetes shorten the lives of mainly older people, psychotic disorders—such as schizophrenia and bipolar—permanently disable young people at a huge cost.

Schizophrenia alone costs the community \$2.62 billion annually and costs government \$1.7 billion annually. Australia spends \$6.1 million on schizophrenia research annually.

“In spite of new medications and psychosocial treatments for serious mental illness, there is little evidence so far that these have led to reductions in disability,” Dr Catts says.

Visit www.aprn.net.au

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Prof. Stan Catts with MHACA Committee members Trish Fernley and Mardijah Simpson and General Manager, Claudia Manu-Preston

National research project

Wanted:

people to take part in sample group of 10,000

APRN are seeking 10,000 volunteers - both people with schizophrenia as well as people who don't. If enough people in Alice Springs express interest APRN will also conduct consultations here. If you or someone you know are interested in being part of this national research project please contact Rita at MHACA on 8950 4613.

The nature of schizophrenia:

- A chronic relapsing psychiatric disease typically commencing in adolescence and causing lifelong disability
- The characteristic symptoms are:
 - ‘Psychotic’ symptoms, eg, delusions, hallucinations
 - ‘Negative’ symptoms, eg, impaired motivation, emotional expression
 - Mood disturbance, eg, excitement, depression
 - Cognitive difficulties, eg, impaired memory, attention
- During acute relapses, almost all patients have difficulty fully accepting that they are ill.
- About 50% of patients cannot recognise that they are ill at any stage of the disease
- Patients often oppose attempts to help or treat them

Cognitive difficulties are less spoken about because of the more obvious psychotic symptoms. However, they are a core aspect of schizophrenia strongly linked to the brain changes associated with the illness. Together with negative symptoms, cognitive difficulties are major barriers to employment. 85% of patients are on some sort of disability support.

Prof. Catts' Research

MHACA has a few copies of Prof. Catts' presentation to give away. If you would like a copy contact Rita on 8950 4613. Email Prof. Catts via s.catts@uq.edu.au



Schizophrenia ...

The following are some excerpts from the research presentation given by Professor Stan Catts at the free community forum held in Alice Springs on 25 May 2007.

More common than you may think

More than 3% of the population will suffer a psychotic disorder sometime in their lives. It often occurs in young people, causing life long disability. These diseases cause great suffering: 30% of patients attempt suicide, and at least 5% die by suicide. We do not have diagnostic tests, so recognition of these diseases is a problem.

Influencing factors

A range of factors can influence the development of schizophrenia: genetic predisposition; pre-birth factors (maternal influenza infection or poor nutrition); during birth (obstetric complications) and childhood abuse are each risk factors.

Then in the predisposed young adolescent, substance abuse can play an important triggering role. Indeed, one well designed study showed that

10% of young people using cannabis by age 15 later developed a schizophrenia-type illness by the age of 26 years.

And if the combined effects of genes and environment are sufficient, the first signs of schizophrenia become evident.

But that is not the end of the story. After the illness begins, further brain changes occur, especially if multiple acute relapses occur, causing chronicity and treatment resistance. This is why early effective treatment is important.

When we talk about early interven-

tion for schizophrenia, we are talking about treatment one year after onset of delusions and hallucinations and 5 years after the onset of earliest symptoms. When we talk about early intervention for bipolar disorder, we are talking about treatment 10 years after first symptoms emerge. About 69% of bipolar patients are initially misdiagnosed. Who knows what disability could be prevented simply by early diagnosis.

“If you think research is expensive, try disease.”

(Mary Lasker 1901–1994)

Early diagnosis critical

Whilst cures for some cancers are already a reality, psychotic disorder continues to be as much a public health challenge now as it was a century ago. In spite of new medications and psychosocial treatments, there is little evidence thus far that these have led to reductions in disability. Are we satisfied with just supporting the disability, giving palliative care and never a cure?

What has research done about this situation? The most important thing is a better description of the diseases, which tells us how to go about tackling them.

With strong research-health service partnerships we can establish the world's first comprehensive translational research program for schizophrenia. In response, we have developed the Australian Psychosis Research Network. ✘



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