

NUMBERS

300,000
HOMELESS CANADIANS

1,500,000
CANADIANS PAY MORE
THAN 30% OF INCOME
ON HOUSING

142,000
ONTARIO HOUSEHOLDS
WAITING FOR SUBSIDIZED
HOUSING

1/5TH
ONTARIO TENANT
HOUSEHOLDS SPEND MORE
THAN HALF THEIR
INCOME ON HOUSING

6,351
RICHMOND HILL
HOUSEHOLDS ON WAITING
LIST FOR SUBSIDIZED
HOUSING AS AT JANUARY
31, 2012

900
APPROXIMATE NUMBER OF
RICHMOND HILL
RESIDENTS WHO WILL
EXPERIENCE MENTAL
ILLNESS IN THEIR
LIFETIME



HOME ON THE HILL

Supportive Housing

April 2014 Edition

Charitable registration number . 84686 3082 RR0001

What Causes Schizophrenia?

by Patricia Boksa

Schizophrenia symptoms most often emerge at young adulthood. Researchers now believe the illness process actually begins with abnormalities in brain development starting much earlier in life, and that multiple vulnerability factors along the way may contribute to a person developing full blown symptoms of schizophrenia.

Symptoms of schizophrenia include positive symptoms like hallucinations and delusions, and negative symptoms, such as decreased emotion and speech, lower motivation and social functioning. People with schizophrenia also have problems with reasoning, memory, attention, and following instructions, collectively called cognitive deficits. Positive symptoms are more readily treated with current antipsychotic medications. Intensive research is focused on therapies to treat the negative and cognitive problems, that are more responsible for the loss of function such as being unable to work. Full recovery currently occurs in only about 30 per cent of people with schizophrenia.

Until the mid 20th Century, researchers were unable to detect anything abnormal in the brains of persons with schizophrenia. With the advent of neuroimaging and sophisticated techniques to analyze the molecular neurochemistry of the brain, we now have convincing evidence that schizophrenia is a brain disorder. We now view schizophrenia as a disorder involving subtle abnormalities in the early development of the brain together with some ongoing progression of the disease process. This eventually leads to malfunction in specific brain circuits, resulting in symptoms of the disorder. Understanding the brain mechanisms involved in schizophrenia may be important in designing new medications for the disorder, in developing markers to identify young people at high risk for developing the disorder before they show full blown symptoms, in devising approaches for prevention and in reducing stigma. It is well known that the long-term out-

come for people with schizophrenia is better with early detection and treatment.

What brain changes have been described in schizophrenia? Structurally, magnetic resonance imaging has shown differences in the brain even with the first episode of schizophrenia. The ventricles or spaces in the brain are larger, and the volume of the whole brain and the hippocampus are slightly smaller. With more chronic schizophrenia, decrease in volume in additional brain regions (prefrontal and temporal cortex) is seen. There is however considerable overlap between patients and control subjects, so these structural brain changes cannot be used as a diagnostic test. Neuroimaging can also image brain function, in addition to structure. When given tests of memory or attention, people with schizophrenia show decreased or inefficient activation of portions of the prefrontal cortex, a brain area involved in these functions. This may be related to the negative symptoms and cognitive problems.

All drugs now used for treating schizophrenia share the property that they block brain dopamine receptors. A receptor is the molecule that binds the neurotransmitter and sends the signal along the next neuron. Since these drugs are most active in treating the positive symptoms like hallucinations, it is thought that over activity in certain brain dopamine pathways may underlie positive symptoms

GABA is the main neurotransmitter in the brain that inhibits activity in other neurons and decreased markers for GABA neurons are consistently found in brain areas like the prefrontal cortex and hippocampus in schizophrenia.

Glutamate is the main transmitter that activates other neurons. It is implicated in schizophrenia mainly because the street drug PCP produces a brief psychotic condition in normal people that is very close to schizophrenia and the main effects of PCP occur because it blocks a class of glutamate receptors.



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An interplay between the excitatory transmitter glutamate and the inhibitory transmitter GABA are responsible for certain brain rhythms recorded by an electroencephalogram (more commonly known as an EEG). Patients with schizophrenia have abnormalities in these rhythms, which play a role in cognitive processes like memory and attention.

Knowing which transmitter systems are involved in schizophrenia can help in developing new medications for the disorder. Drugs interacting with GABA and glutamate systems are being tested for their ability to improve cognition.

The exact cause of schizophrenia is unknown. However, it is known that a combination of both genetic and environmental factors are involved in causing the disorder. Schizophrenia is not caused by abnormality in just a single gene, rather several genes or gene abnormalities contribute to increase the risk. The exact genes involved or nature of the genetic abnormality in schizophrenia are not yet known.

Environmental factors associated with an increased risk for schizophrenia include: cannabis use in adolescence, mother's pregnancy complications, having an older father, being born in winter, and living in a large city. Understanding risk factors for schizophrenia is a first step towards preventive strategies. For example a recent study showed an increased risk for schizophrenia associated with low vitamin D at birth. It remains to be determined if vitamin D supplementation to mothers during pregnancy may reduce the risk for schizophrenia. The cause of schizophrenia is multifactorial. It is caused by a mix of genetic and environmental factors that tip one over the threshold. In fact, there is not just one path to schizophrenia but many paths, or mixes of genes and environmental factors, that can cause schizophrenia, much like the case for coronary heart disease or high blood pressure.

Dr. Boksa is a professor with the Department of Psychiatry at McGill

MIND BODY AND SOUL

Mind Body and soul is a registered charity providing a range of services primarily to persons with mental health issues living in Richmond Hill. Home on the Hill Supportive Housing is working in partnership with Mind Body and Soul in with some support programs.

Mind Body and Soul held its first annual gala fundraising event on March 29. the gala was a fundraising and entertainment success thanks to the hard work of executive director Dean Colford and his volunteers.

THANK YOU

The board of directors thank the following for monetary and service donations during the quarter.

- Saint Matthew's United Church and U.C.W. for a very generous donation.
- Shepherd Photography for photographic services
- Melissa Ramos our art instructor
- Randy Wilson for marketing advice
- Dr. Berber for his presentation on anxiety
- Dean Colford, executive director of Mind Body and Soul for collaborating with us in applying for funding from the Ontario Trillium foundation.
- Saint Mary's Anglican Church for use of space for our speaker's series.

Family caregivers and persons suffering from mental illness are invited to join our art program on Wednesdays at 7 p.m. to 8:30 p.m. at Mind Body and Soul, 115 Church street, Richmond Hill.

We will be hosting another presentation in our speakers' series on Wednesday, April 30 beginning at 7 p.m. at Saint Mary's Anglican Church, 11 MacLatchy Lane, Richmond Hill.

EVENTS

Art With Melissa

Family caregivers and persons suffering from mental illness are invited to join our art program on Wednesdays at 7 p.m. to 8:30 p.m. at Mind Body and Soul, 115 Church street, Richmond Hill. The program is sponsored by Home on the Hill Supportive Housing and Mind Body and Soul. The program is free and materials are provided. Activities are carried out in a friendly, supportive environment.

For more information contact our corporate secretary at home-on-the-hill.ca.

Speakers' series

Home on the Hill Supportive Housing is running a series of presentations given by experts in the field of mental illness. The purposes of the presentation are to provide support to family caregivers and to increase understanding of the issues relating to mental illness.

We will be hosting another presentation in our speakers' series on Wednesday, April 30 beginning at 7 p.m. at Saint Mary's Anglican Church, 11 MacLatchy Lane, Richmond Hill.

The presentation will be given by Dr. Paul Kohn PhD., Professor Emeritus & Senior Scholar of the Department of Psychology, Faculty of Health, York University. He is a facilitator with the Markham Area Mood Disorder Association. Dr. Kohn has published 60 articles in journals and 7 chapters in edited books.

SZ Magazine article

SZ Magazine May edition will contain an article about Kathy Mochnacki, a founding director of Home on the Hill. Kathy is our corporate secretary.

HOME ON THE HILL SUPPORTIVE HOUSING

Charitable registration number 84686 3082 RR0001



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WAYS TO DONATE

By credit card, debit cards, PayPal: Canada Helps (internet)

By telephone: 905 883-9841

By cheque made payable to:

Home on the Hill Supportive Housing

209 Harding Boulevard West
Richmond Hill ON L4C 8X6

Canada Helps is a Canadian registered charitable organization that provides payment services to Canadian charities.

YOUR DONATION HELPS

Home on the Hill supportive Housing has two objectives.

“To provide and operate non-profit residential accommodations and incidental facilities for persons of low or modest income including seniors and disabled persons.

To provide training, counselling and other support services to people with disabilities.”

Our focus is on persons with mental illness and their family care givers..

Our long term objective, to provide affordable housing, will require substantial investment from government and the public. We are seeking government support and will be conducting major fundraising drives in the future. In the meantime we are continuing the speakers’ series in which experts in the treatment of mental illness are providing information to family caregivers and others. We are providing and developing support programs in collaboration with Mind Body and Soul, a local charitable organization. Although the speakers, the members of the board of directors and volunteers are not paid for their services we do incur expenses for supplies, rent and specialized services.

In order to continue existing services and to develop new and expanded services we need your help. Please consider a donation to Home on the Hill Supportive Housing as part of your charitable giving.

Home on the Hill Supportive Housing is a registered charity. Donations are tax deductible.