



The Commonwealth Research Center (CRC) newsletter is designed to communicate the progress we're making as researchers investigating the underlying causes and optimal treatments for mental illnesses. Our goal is to translate new scientific knowledge to the citizens of Massachusetts. The Communicator will be distributed biannually. We greatly appreciate the support you've given us over the years!
CRC website: http://sitenav.bidmc.harvard.edu/display.asp?node_id=9858

About the CRC

The CRC was created in 1988 at the Massachusetts Mental Health Center (MMHC) by the Massachusetts Department of Mental Health (DMH) to address the need for cutting edge biological and treatment research on schizophrenia and related psychotic disorders. The CRC has been a "Center of Excellence in Clinical Neuroscience and Psychopharmacological Research" funded by the DMH since 1993. The other DMH Center of Excellence is at the University of Massachusetts, focusing largely on services research. Currently the CRC is administered by the Beth Israel Deaconess Medical Center (BIDMC) Dept of Psychiatry. Larry J. Seidman, Ph.D. has been the Director of the CRC since 2002.

For further information about participation in research or clinical services, contact Corin Pilo at (617) 998-5016 or cpilo@bidmc.harvard.edu

Director's Point of View

Youth and Mental Health Services: Early Intervention and Prevention of Serious Mental Illness

Larry J. Seidman

A paradox of adolescence and young adulthood (ages 13-30), is that the period of greatest physical health and fitness is also a time when risk for various emotional, behavioral and mental disorders is highest. Problems ranging from anxiety, depression, eating disorders, substance abuse and violence, to suicide and serious mental illnesses such as schizophrenia and bipolar disorder, tend to peak during this period. Although psychosis occurs less frequently than some of the other problems mentioned, it is a hallmark of the most severe mental illnesses and, as a result, is associated with some of the most catastrophic outcomes, including hospitalization and severe trauma to the patient, family and others. This is compounded by enormous financial expense associated with chronic disability in many who do not get effective early treatment.

Of related importance, mental health services are less developed than those for physical health, and do not emphasize prevention and early intervention. This "hole in the system" is maximal in early intervention of psychotic disorders, mainly because until recently, it was not possible to identify persons prior to the onset of psychosis, nor treat them effectively. Yet, given the complex interplay of biological and environmental risk factors in the onset and progression of major mental illness, early intervention efforts can improve outcomes and reduce a wide range of problems. In particular, early outpatient treatment can prevent hospitalization and help youth retain the social supports and functioning so necessary for successful transition into adult life.

Thus, an important research focus of our Center of Excellence is on early intervention and prevention of serious mental illness. In response to clinical needs we have opened a new outpatient (CEDAR) clinic in Boston (see also: <http://www.cedarclinic.org/>).

Issue Highlights:

New Research Findings

New Research Projects and Clinical Services

Multicultural Awareness in Mental Health Services

New clinic for Youth & Young Adults

Consumer Perspectives

New Research Studies

B-SNIP study

PI: Matcheri Keshavan, MD

This study is designed to discover how the risk for schizophrenia and bipolar disorder is transmitted in families, and to identify the most important risk factors through assessment of brain structure, brain function, personality, genes and/or cognitive abilities in close family members and healthy volunteers.

Language and Risk for Schizophrenia

PI: Matcheri Keshavan, MD

This study is designed to determine whether the brain changes in white matter pathways that connect frontal and temporal cortices are significantly different in people who are at genetic high risk for developing schizophrenia compared to healthy controls. We will compare activation in the brain regions by an fMRI lexical decision task in the relatives of patients with schizophrenia to matched healthy controls.

Self-Reflective Processing, Activation of the Medial Prefrontal Cortex, and the Genetic Liability to Schizophrenia: An FMRI Study

PI: Ben Brent, MD

This study is designed to determine whether dysfunction of the medial prefrontal cortex (MPFC) represents a biological marker for the genetic risk for schizophrenia. We will compare activation within the MPFC during an fMRI task of self-reflection in the relatives of patients with schizophrenia compared to matched healthy controls.

First Person Stories:

Treatment of Schizophrenia

Nathan Schwirian

Several years ago I was forced into a mental hospital for reasons I don't understand. Unclear accusations stressed my difficult situation and induced a psychotic episode.

I felt no pleasure leaving the hospital. Past pleasures were no longer enjoyed. Sitting still was impossibly uncomfortable and a constant urge to walk could not be relieved. Concentration diminished and going through the motions of life; I often wondered how I could live feeling so distanced from experiences and pleasure. Antipsychotic medications, which block dopamine receptors, prevented a feeling of involvement in my surroundings and any pleasure from them.

While medications were adjusted, I woke up everyday knowing I would not enjoy anything, and looked forward to sleep because it was the only time I was unaware that I experienced no pleasure. Shame about the circumstances that brought me through the courts to the hospitals; and chemical isolation of antipsychotic medications cast doubt over ability to live my life.

Antidepressants, benzodiazepines, and stimulants gradually brought me back to acceptable living conditions. I no longer feel removed while living my experiences, and I can again feel pleasure.

Benzodiazepines, SSRI medications, other antidepressants can calm stress, possibly averting or treating psychosis. Evaluating accuracy of perceptions and practice of understanding can strengthen synaptic pathways which are more adaptive. Such treatments should be attempted before antipsychotic medication.

Antipsychotic medications which block dopamine receptors caused prolonged suffering, and doubt that I could live my life; they should be used only as a last resort.

CRC Communicator

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Ethnic Variation in Symptom Manifestation in Patients with Schizophrenia Spectrum Disorders

Huijun Li

Research indicates that ethnicity may play a role in symptom expression in schizophrenia. Black patients were rated high on hallucinations and delusions. White patients report more negative (e.g. withdrawal) symptoms than Black and Hispanic patients. White patients also exhibited higher excitement score on the Positive and Negative Symptom Scale, creating a risk factor for aggressive behaviors. Higher risks for psychotic symptoms were present among more acculturated Hispanics.

Patients from different groups share similar manifestations of symptoms. However, differences also occur in subtypes of positive symptoms, especially in hallucinations and delusions. Specifically, Black patients were found to show more paranoia related to persecutory delusions of generalized rather than specific sources of harm. White patients with schizophrenia, nevertheless, displayed more grandiosity content in their delusions. Both rural and urban inpatient and outpatients in a study showed that Black patients with schizophrenia had more anger, disorientation, asocial behavioral, and hallucinations, whereas White patients exhibited more symptoms of irrelevant speech. More recent studies also indicate that White patients were more symptomatically impaired and they show more emotional disturbance and flat affect than their black counterparts. Gender has been found to interact with race/ethnicity in the expression of psychotic symptoms. Black men presented more first-rank psychotic symptoms than Black women and White women and men.

Cultural relevant and religious attributions, familial and interpersonal factors, and clinician backgrounds have been found to partially explain psychotic symptom expression in patients from different racial and ethnic backgrounds.

Cognition Already Seriously Impaired in First Episode Schizophrenia

Raquelle Mesholam-Gately and Anthony Giuliano

Significant and widespread cognitive problems are reliably present in schizophrenia in its earliest phase. These cognitive problems make it very hard for people with the disorder to work, study or socialize successfully. These findings were reported in a recent study published in the journal *Neuropsychology* (May 2009) by CRC researchers Drs. Raquelle Mesholam-Gately, Anthony Giuliano and Larry Seidman.

The study provided a meta-analysis of results from 47 studies of first-episode (FE) schizophrenia (based on people within 1-2 years of illness onset). A meta-analysis systematically synthesizes research findings by statistically combining and summarizing the results of many different studies. All together, the meta-analysis was based on 2,204 FE patients with a mean age of 25.5 and 2,775 largely age- and gender-matched control participants. FE samples demonstrated medium-to-large impairments across 10 areas of cognition (mean effect sizes from -0.64 to -1.20). Findings indicate that impairments are reliably and broadly present by the FE, approach or match the degree of impairment shown in well-established illness, and are maximal in immediate verbal memory and processing speed. Larger IQ impairments in the FE compared to the premorbid period (but comparable to later phases of illness) suggests a process of cognitive deterioration between premorbid and FE phases of the illness, followed by deficit stability at the group level. Considerable changes put adolescents and young adults at high risk for psychotic disorders. variability in effect sizes across studies, however, underscores that while clinically significant cognitive deficits are commonly present, some people show mild or even little deficit. In summary, the early and central role of cognitive difficulties in schizophrenia strengthens the case for early intervention which may lessen the intensity and duration of these cognitive problems, allowing for better functional outcomes, lower relapse rates, and improved preservation of social skills and family and social supports.



Staff at the CEDAR Program

Psychoeducational Multifamily Group Treatment:

Strengthening Recovery by Strengthening Families
Kristen Woodberry

Sadly, it is not long ago that the families of individuals with major mental illness were blamed by mental health providers for causing their loved ones' illnesses. Thankfully, we now recognize the major role many families play in the care of their loved ones and their need for information, support, and guidance in this endeavor. Indeed, the power of family participation in treatment for preventing symptom relapse can be comparable to that of medications. Yet, while psychopharmacological treatments are widely available to individuals with psychotic symptoms, empirically-validated treatments for families are much harder to find. The Prevention and Recovery in Early Psychosis (PREP) and Center for Early Detection, Assessment, and Response to Risk (CEDAR) programs are proud to be able to offer one of the "best practice treatments" for schizophrenia unavailable elsewhere in the greater Boston area: psychoeducational multifamily groups.

What are **psychoeducational multifamily groups (PEMFG)**? Under the guidance of specially trained clinicians, 5-7 families come together to support each other and learn strategies to enhance recovery. In a psychoeducational workshop, families receive information on the experience and biology of psychosis, the impact of stress and social processes in symptom exacerbation, and guidelines for helping their loved ones and caring for themselves. Young people and their families then meet together every other week for social support and structured problem-solving. Sharing wisdom and new perspectives, they learn to manage odd or frightening symptoms, overcome school or work difficulties, and work together to rebuild their lives. For more information on PEMFG with early psychosis, please contact Kristen Woodberry at kwoodber@bidmc.harvard.edu

CEDAR Clinic Opens

Press Release: June 1, 2009

The Commonwealth of Massachusetts

NEW MENTAL HEALTH INTERVENTION PROGRAM FOR YOUTH TARGETS EARLY DETECTION AND PREVENTION BOSTON

The Massachusetts Department of Mental Health (DMH), in collaboration with the Beth Israel Deaconess Medical Center (BIDMC) Department of Psychiatry, today announced the opening of the Center for Early Detection, Assessment, and Response to Risk (CEDAR), a specialized clinic for young people experiencing clinical signs of risk for psychosis, and their families.

The clinic is funded by a grant from the Sidney R. Baer, Jr. Foundation to Drs. Larry Seidman and Anthony Giuliano of the BIDMC Department of Psychiatry, affiliated with Harvard Medical School and the Commonwealth Research Center, one of two research Centers of Excellence funded by DMH . . .

Read Press Release - See PDF at http://www.cedarclinic.org/images/stories/pdfs/cedar_opens.pdf



CEDAR Family Services

Inside Story Headline

This story can fit 150-200 words.

One benefit of using your newsletter as a promotional tool is that you can reuse content from other marketing materials, such as press releases, market studies, and reports.

While your main goal of distributing a newsletter might be to sell your product or service, the key to a

successful newsletter is making it useful to your readers.

A great way to add useful content to your newsletter is to develop and write your own articles, or include a calendar of upcoming events or a special offer that promotes a new product.

You can also research articles or find "filler" articles by accessing the World Wide

Web. You can write about a variety of topics but try to keep your articles short.

Much of the content you put in your newsletter can also be used for your Web site. Microsoft Publisher offers a simple way to convert your newsletter to a Web publication. So, when you're finished writing your newsletter, convert it to a Web site and post it.



Caption describing picture or graphic.

Inside Story Headline

This story can fit 100-150 words.

The subject matter that appears in newsletters is virtually endless. You can include stories that focus on current technologies or innovations in your field.

You may also want to note business or economic trends,

or make predictions for your customers or clients.

If the newsletter is distributed internally, you might comment upon new procedures or improvements to the business. Sales figures or earnings will show how your business is growing.

Some newsletters include a

column that is updated every issue, for instance, an advice column, a book review, a letter from the president, or an editorial. You can also profile new employees or top customers or vendors.

"To catch the reader's attention, place an interesting sentence or quote from the story here."

Inside Story Headline

This story can fit 75-125 words.

Selecting pictures or graphics is an important part of adding content to your newsletter.

Think about your article and ask yourself if the picture supports or enhances the message you're trying to

convey. Avoid selecting images that appear to be out of context.

Microsoft Publisher includes thousands of clip art images from which you can choose and import into your newsletter. There are also several tools you can use to draw shapes and symbols.

Once you have chosen an image, place it close to the article. Be sure to place the caption of the image near the image.



Caption describing picture or graphic.



Organization

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Primary Business Address
Your Address Line 2
Your Address Line 3
Your Address Line 4

Phone: 555-555-5555
Fax: 555-555-5555
E-mail: someone@example.com

Your business tag line here.

This would be a good place to insert a short paragraph about your organization. It might include the purpose of the organization, its mission, founding date, and a brief history. You could also include a brief list of the types of products, services, or programs your organization offers, the geographic area covered (for example, western U.S. or European markets), and a profile of the types of customers or members served.

It would also be useful to include a contact name for readers who want more information about the organization.

We're on the Web!

example.microsoft.com

Back Page Story Headline

This story can fit 175-225 words.

If your newsletter is folded and mailed, this story will appear on the back. So, it's a good idea to make it easy to read at a glance.

A question and answer session is a good way to quickly capture the attention of readers. You can either compile questions that you've received since the last edition or you can summarize some generic questions that are frequently asked about your organization.

A listing of names and titles of

managers in your organization is a good way to give your newsletter a personal touch. If your organization is small, you may want to list the names of all employees.

If you have any prices of standard products or services, you can include a listing of those here. You may want to refer your readers to any other forms of communication that you've created for your organization.

You can also use this space to remind readers to mark their calendars for a

regular event, such as a breakfast meeting for vendors every third Tuesday of the month, or a biannual charity auction.

If space is available, this is a



Caption describing picture or graphic.