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Early Psychosis: A Novel Gateway for Suicide Prevention

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Early Psychosis: A Novel Gateway For Suicide Prevention

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Declaration
No stocks or bonds

- Janssen Group
- Eli Lilly
- Astra Zeneca
- Nicholas Piramal-Rosch
- Pfizer
- Sun Pharma- India

- Consultant
- Advisor
- Drug trial coordinator
- Research Investigator
- Reviewer
- Speaker
- Educational Groups
WHO: Challenges and obstacles

- Lack of awareness
- Taboo in societies
- Reliability, Reporting
- Intervention from outside the health sector.
- Innovative, comprehensive multi-sectoral approach,
- Health and non-health sectors, e.g. education, labour, police,
- Justice, religion, law,
- Politics, the media.
Young people: not as healthy as they seem

Suicide is the second largest cause of mortality in the 10-24 age group.

Lancet story, 15 September 2009
Contemporary Issues

- Is there a correlation of early psychosis and suicide?
- Does early intervention of psychosis prevent suicide as well?
- Whether treatments for psychosis also work for suicide?
- What is the public health implication of EI with respect to suicide prevention?
Injuries both intentional & non intentional, by 2020 could rival infectious disease as a source for all ill health.
1. Is there a correlation of early psychosis and suicide?
Case

- 16+ female, brought by her dad and step mother for counseling.
- Her mother had discussed 3 years about ‘suicidal ideation’ and odd words on the eve of her X std. exam. She was advised to bring her for assessment after the exams.
- The clients mother is on treatment for schizophrenia for 15 years.
- “When i saw the girl now she was very depressed, dejected and
i called the parents and told them that it could be schizophrenia or major depression needing medication.

The father got very angry with me. He told, "Doctor, I brought her for counselling to you. She was seen roaming with a boy cutting classes. When i questioned, she insisted on going to hostel. Later in the night, she has slashed her forearm. Don't make her mad. Don't even tell her about medications"

our psychologist was to call her and convince her for assessment with a promise that she has no licence for drugging (medications).

The psychologist went for a conference and called the girl only after 14 days.

The girl's mobile was not reachable. So she called her father who cried telling that the girl hung herself to death. He felt guilty that he did not listen to the Dr.
Preventive psychiatry
Need for early Intervention across diagnosis

• EI opens up a window of opportunities:

• Non-affective psychosis cluster

• Psychosis of schizophrenia spectrum disorder

• Conversion to classical schizophrenia

• Several conditions present as early psychosis enhancing opportunity to treat
Why do people kill themselves?

At best we can say, we do not know?
Known causes of suicide
Risk and causation of psychosis
90% have psychiatric illness (WHO)

Suicide
Mental disorders: 71.9% depression (38.9%), psychoactive substances (21.9%), PTSD (20.8%), alcohol abuse (17.7%), Schizophrenia (15.6%)

Mental Illness
Current MDD (27%), Schizophrenia SD (22%), SUD (16%), CMD 24%
Psychosis

- Mortality in schizophrenia X 2 to 3 times
- Lifetime risk of about 5%
- 10%–15% of individuals die by suicide, completed suicide (4% to 13%),
- 20%–40% making suicide attempts,
Having symptoms of psychosis does NOT mean having schizophrenia, it opens the window for intervention across a number of disorders!

- Suicidal behavior may result from discomfort with psychotic symptoms
- Previous attempts - significant predictors
- Greatest risk: younger and earlier in their course
Severe mood changes

- **Persistence of symptoms**
  - Untreated psychosis
  - breakdown in relationships,
  - loss of family and social support,
  - loss of employment or study interruption,
  - denial of disease,
  - depression,
  - suicide, substance abuse and violence.
Risk of suicide and suicidal ideation in psychosis & At-Risk clients: Italian study

Similar prevalence of Past suicide in at-risk & FEP

Conversion to psychosis

During First Year

attempted suicide before intake

First Episode (N= 87, P=short DUP)

Prodromal (N=81, Significant F/H of suicide & SUD)

Schizophr Res. 2009 Sep;113(2-3):145-50. Epub 2009 Jul 1
Suicide in First episode

- Died (6)  
- Attempted prior to entry (93)  
- Attempted during treatment (57)

### Rates of suicide in early psychosis

<table>
<thead>
<tr>
<th>Study</th>
<th>Prior to contact</th>
<th>During</th>
<th>Death</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aust N Z J Psychiatry. 2009</strong></td>
<td>14.3%</td>
<td>8.7%</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Harvey SB, Br J Psychiatry. 2008</strong></td>
<td>11.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Bertelsen M, Br J Psychiatry Suppl. 2007</strong></td>
<td></td>
<td></td>
<td>67/547 in 5 years</td>
</tr>
<tr>
<td><strong>Can J Psychiatry. 2006</strong></td>
<td>18.8%</td>
<td></td>
<td></td>
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</tbody>
</table>

Suicidal behavior: Event precipitating the first treatment contact (9, 13)

- Striking difference in suicide rates between first-episode and chronic schizophrenia patient groups,
- First admissions have rates three times higher (1).
- 15%–26% - at least one attempt by first treatment contact
- 2%–11% - one more during their first year of treatment (7–9).
- Seriousness of suicide attempts is high for patients with schizophrenia spectrum psychoses (3, 10).
What predicts suicidal behaviour in early psychosis?

- Lifetime history of parasuicide before first admission
- Lower Positive And Negative Symptom Scale—positive subscores
- Longer duration of first admission
- Longer duration of psychotic symptoms
- Greater risk of being readmitted
- Substance misuse
- Prior attempts or ideation,
- Severity of depressive symptoms and thought disorder,
- Lifetime substance abuse,
- Younger age.

Early insight predicts


Challenges in clinical Practice of Suicide Behavior.

Risk estimates

- Risk
  - Risk periods:
    - In-patient, Post-discharge
  - Risk candidates:
    - Borderline comorbidity,
    - Schizophrenia,
- Previous attempts
  - Risk situations:
    - Loss,
    - Disaster,
    - Recent trauma,
    - abuse
Risk factors for suicide in young people: a long-term follow-up study, A case-control study

No Axis I or axis II diagnosis is free from risk of suicide. Psychiatric morbidity remains the major risk factor for suicide.

- Risk factors for suicide
- Male gender,
- Chronic illness with frequent relapses
- Frequent short hospitalization,
- Negative attitude towards treatment,
- Impulsive behavior
- Parasuicide
- high pre-morbid IQ,
- psychosis
- depression

Schizophr Res. 2001 Mar 1;47(2-3):127-34
A schematic depiction of the putative key relationships between information processing biases, schema and appraisal system
High suicide in recently discharged patients

- The first week
- First day after discharge
- Risk factors:
  - history of self-harm,
  - Expressing clinical symptoms at last contact
- Suicide cases:
  - 1) More likely to have initiated their own discharge
  - 2) Missed last appointment
- Less likely to die by suicide
  - compulsory treatment
  - Enhanced levels of aftercare,

N=238, death by suicide within 3 months of discharge
What does Early intervention mean?
Early intervention Programs

Outside the Programs, advantage is lost?
Risk for Schizophrenia

Childhood Experience & the Expression of Genetic Potential: What Childhood Neglect Tells Us About Nature and Nurture? 1, 2

Neuronal development & Child abuse

Psychosis

Suicide

Cannabis

Acta Psychiatr Scand. 1999 Nov;100(5):389-95
Adjusted odds ratio for any psychosis outcome according to ever use versus ‘Frequent use’ of Cannabis in individual studies at 95% CI

Theresa et al, Lancet, 2007
A risk-vulnerability model for prevention of schizophrenia: Possibilities of preventive sites in process of ‘causation’

Impact on brain and personality development

Schizophrenia Spectrum Disorder & Liability Comorbid disorders
Risk syndrome of Psychosis with suicide risk – an indication for APD

Opening up windows of opportunities for identification & treatment:

• To decide Need for medication
• Medication trial = Medication free challenge
• Ongoing functional decline
• Suicide
• Homicide or risk

Preventive Family intervention;
Expressed Emotion (EE)

• Predictive of psychotic relapse (Bebbington & Kuipers, 1994)
• ‘Not an artifact of patient morbidity’ (Leff and Vaughn, 1995)
• ‘Family intervention is recommended to reduce relapse risk’ (NICE, 2003)

McGorry PD, Yung AR Randomized controlled trial of interventions designed to reduce the risk of progression to first-episode psychosis in a clinical sample with subthreshold symptoms, Arch Gen Psychiatry. 2002 Oct;59(10):921-8
The First Episode Can Be the Best Episode!

2. Does early intervention of psychosis prevent suicide as well?
Early detection of the first episode of schizophrenia and suicidal behavior. **Melle Study**

1. Suicidal behavior is present in the early phases of psychotic disorders.
2. Precedes the first treatment contact.
3. The rate of severe suicidality (plans or attempts) was significantly higher in subjects from communities without the early detection program,
4. May reduce suicidality risk at first treatment contact.
5. Beyond the decrease in duration of untreated psychosis.

The power of clinical contact in life-and-death situations

<table>
<thead>
<tr>
<th></th>
<th>Community with EI</th>
<th>Community without EI</th>
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</thead>
<tbody>
<tr>
<td>Rates of suicidal ideation &amp; attempt</td>
<td>56%</td>
<td>39%</td>
</tr>
<tr>
<td>Previous attempt</td>
<td>16%</td>
<td>5%</td>
</tr>
<tr>
<td>Decrease in Rates after first clinical contact</td>
<td>Similar</td>
<td>Similar</td>
</tr>
<tr>
<td>SUD</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Suicidal behaviors</td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>
• early detection and intervention have the potential of reducing one of the most dangerous and permanent complications of schizophrenia.
Earlier Intervention Improves the Chances of Recovery!
3. Whether treatments for psychosis also work for suicide?
EI: The role of the Case Manager:
Do Antipsychotic Drugs Influence Suicidal Behavior in Schizophrenia?

- **First Hypothesis: Negative Influence**
  - Depressive Symptoms Related to Extrapyramidal Side Effects (EPS, depressogenic effect)

- **Second Hypothesis: Positive Influence**
  - Specific effect on suicide, e.g. Clozapine, but can it be applied to suicide across diagnosis, NOT clear

- **Third Hypothesis: No Influence**
  - Lindenmayer et al. suggest that suicidality may represent a separate symptom domain that is related to, but independent of, depression or psychosis
Increase in suicide Attempt rate when Atypical Antipsychotic Therapy is Interrupted.

- Drug dispensing and Hospital discharge databases in The Netherlands (N=865 K)
- Patients with schizophrenia (n=603) interruption of 30+ days in Tx (n=204)
- Relative risk increased by 4.2 times (95%CI: 1.7-10.1)

Herings RM, Erkens JA Pharmacoepidemiol Drug saf. 2003;12;423-424
Medication Compliance

- The Quebec data -- significant association between
good versus poor compliance and a
decreased risk of death and
suicide

Treatment effects for Suicide

- Increased overall suicide mortality in bipolar disorder
- Zurich Cohort, n=406, 1959-1997

Adopted from Angst et al 2002
Treatment of suicidality in schizophrenia.

Meltzer HY. 2001

- Insight
- less severe cognitive impairment
- feelings of hopelessness.
- Typical neuroleptic drugs: No evidence.
- evidence suggest that clozapine, reduces
  ▫ the suicide attempt
  ▫ completion rates in schizophrenia and schizoaffective disorder,
  ▫ perhaps by as much as 75-85%.
- Other atypical antipsychotic drugs may have a similar effect, but direct evidence is lacking.

Ann N Y Acad Sci. 2001 Apr;932:44-58;
• Improvement in positive and negative symptoms,
• Reduced (EPS),
• Direct antidepressant action,
• Improved cognitive function, and
• Improved compliance may contribute to reduced suicidality.

Clozapine has been approved by US FDA for suicide in schizophrenia Feb, 2003
Lithium is perhaps the best-known mood stabilizer,

A Cochrane review of RCTs concluded that, despite some evidence supporting the efficacy of lithium augmentation among 11 studies testing this, Overall results were inconclusive.

Leslie Citrome, M.D., M.P.H., AMERICAN SOCIETY OF CLINICAL PSYCHOPHARMACOLOGY

Meltzer & Baldessarini, 2003
4. What is the public health implication of EI with respect to suicide prevention?

Management of psychosis & suicide
Effective interventions

* Strategies involving restriction of access to common methods of suicide, such as firearms or toxic substances like pesticides, have proved to be effective in reducing suicide rates;

* There is compelling evidence indicating that adequate prevention and treatment of depression and alcohol and substance abuse can reduce suicide rates, as well as follow-up contact with those who have attempted suicide
Is it possible to reduce ‘suicidality’?

- Reducing suicide is a World Health Organization priority.
- Risk reduction programs in general youth populations and the U.S. Armed Forces have given indications of positive results.
- Positive effects on suicide rates of educating general practitioners about patients with depression.
- ‘Defeat depression’ program Royal college of Psychiatrists UK.
Successful Treatment Options
Poor Awareness

Continuous Education
Prevention of Suicide in Psychotic Disorders: General principles and strategies.

Assessment,
Care Plan,
Discharge Plan,
Risk Management &
Transfer of care

Documentation
A survey of general practitioners' knowledge of symptoms and epidemiology of schizophrenia.

GPs had a fair theoretical knowledge of schizophrenia symptoms, but underestimated the prevalence and the risk of suicide.

Can early detection of psychosis prevent suicidal behavior?  
[Am J Psychiatry. 2006]

Early Intervention program offers opportunity for suicide prevention
Cochrane Review

• Treating people presenting with prodromal symptoms of schizophrenia provides any benefits???
• Ethical issues are less intense in FEP
• Little evidence:
  ▫ Intervention in FEP
  ▫ Support the ‘standard care’. (NICE2002) as well.
  ▫ Phase specific treatment of FEP
• Family therapy is effective.
• No evidence from clinical trials to support early detection of patients in their first episode of psychosis.
• It is premature to implement wide-spread treatment programs
Opportunities from early psychosis and the health systems

- Early age
- Key contacts, awareness
- Education
- Low stigma
- Risk factors, mental illness
- Case managers,
‘Care needs to reach where people live, where problems arise’
Integrating mental health into primary care

A global perspective

Mental health in primary care

- Treatment gap
- Enhances access
- Mental and physical health problems are interwoven
- Burden of mental disorders
- Affordable and cost effective
- Generates good health outcomes
Radical reform in Primary care
Proactive prevention

- Almost 90% of suicides occur - DSM-IV diagnosis of a major mental health disorder,
- 83% of these patients have at least one contact with a medical practitioner within 1 year of completed suicide
- More than 60% have had contact within 1 month,
- Physician education has been a valid target in suicide prevention strategies.
- Physician education has been shown to increase the detection rate and prescription of antidepressant medication in the community,

Need for paradigm shift in prevention
Gateway for prevention:
Crisis help line: Mumbai experience

- Study of suicidal ideation (2341, N= 15.4%)
- DSM-IV,
- 25%, had schizophrenia,
- 17%, had depression
- 13% had personality disorder,
- 7% had diagnosis of addiction.
- Rest 38% clients had no Axis I or Axis II diagnosis

- Suicide in Schizophrenia
- 5-14% die
- 14-18% attempt before first contact
- 25% make at least one attempt
- 50% contemplate suicide

Future of mental health lies in primary care

Future of primary care lies in mental health
Primary Care

Institutional support

Voluntary and social support (CMHA, ODSP, HOUSING)
Consequences of missed opportunities.

Suicide prevention is about breaking the barriers.