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Outcome in Schizophrenia: How Good Is "Good Outcome" Schizophrenia in Long-term in Developing Countries

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How Good is ‘Good Outcome’ Schizophrenia in Long-term in Developing countries.

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Declaration

- Declaration of Conflict of Interest
  - Janssen Group
  - Eli Lilly
  - Astra Zeneca
  - Nicholas Piramal-Rosch
  - Sun Pharma- India
  - Prempharma , Canada

- in Capacity of
  - Consultant
  - Advisor
  - Drug trial coordinator
  - Research Investigator
  - Reviewer
  - Speaker
  - Educational Groups
Majority of Patients With Schizophrenia Remain Marginalised Even After Recovery: Presented at CPA

By Thomas S. May

VANCOUVER -- September 9, 2008 -- A considerable proportion of patients with schizophrenia remain marginalised, even after they have been deemed to have recovered clinically, according to a study of patients with schizophrenia living in Mumbai, India, presented here at the 58th Annual Meeting of the Canadian Psychiatric Association (CPA).

It is generally believed that the long-term outcome of schizophrenia is more favourable in developing countries compared with industrialised societies.

"The use of the term recovered in outcome studies of schizophrenia has, for a long time, been problematic, because of the many different definitions in use," said lead researcher Amresh Srivastava, MD, Department of Psychiatry, University of Western Ontario, London, Ontario.
Introduction:

• The illness of schizophrenia has always been a matter of concern for its nature and extent of outcome particularly for its regional and cultural differences.

• The concept of outcome has been evolving and this study examines the scenario of good outcome in developing countries.

• Methods Re-examination of recovered patients in ten years long term, naturalistic, prospective study using Meltzer et al’s 13 outcome criteria & on a new outcome scale
Methods

In a Longitudinal, Naturalistic, cohort study, patients with completed 10 years treatment were assessed on clinical and social parameter.

These patients were re-assessed for the status and quality of recovery using Global outcome scale on 7 outcome criteria.

Results were analyzed.
Methods

Study parameters:
- Demography
- Clinical parameters
- Global Outcome criteria
- PANSS
- CGIS
Multiple outcome criteria in schizophrenia
Various parameter quantified based on clinical outcome and using popular scales for measurement

**Thirteen criteria**
- 1. Psychopathology (positive symptoms, negative symptoms and disorganization)
- 2. Cognitive function (attention, executive function, working memory, recall memory, semantic memory, storage memory)
- 3. Interpersonal social function
- 4. Work–school function
- 5. Extra pyramidal function (parkinsonism, akathesia, tardive dyskinesia)
- 6. Independent living
- 7. Aggression
- 8. Quality of life
- 9. Compliance
- 10. Hospitalization
- 11. Family burden
- 12. Social burden
- 13. Suicidality

Meltzer HY. Eur Psychiatry 1995;10(Suppl. 1):19S–25S
Psychopathology: Total

PANSS, P < 0.001

Base: 108
End: 49
Diff.: 59
Positive Symptoms

![Bar Chart]

- >7 at 10 years: 40
- Reduction: 21.6

Significance: P<0.001
The residual features and persisting symptoms include positive symptoms, negative symptoms, suicidality, side effects like EPS,
Interpersonal Social Functioning

![Bar Chart]

- **Base**: 2.95
- **End**: 3.13
- **Diff**: -0.18
- **% > 3**: 40

Legend:
- **Interpersonal**

Note: NS
Cognition: Global

Bar chart showing:
- Decline: Global Cognition = 49.3
- Base: Global Cognition = 98
- End: Global Cognition = 82

Legend:
- Global Cognition
- NS
Work/ employment

- Base: 3.31
- End: 3.05
- Diff: 0.27
- % not resumed work: 40
EPS

Graph showing EPS values: base (1.38), end (2.17), diff (-0.81), 34% with EPS (p< 0.001).
Independent Living

![Bar chart showing independent living statistics]
Aggression

![Chart showing aggression levels](chart.png)
Quality of Life

Mean of the group at 10 years: 76.2
% patients scoring >80: 68
Hospitalization

37 hospitalization in 67 patients in 10 tears.
Family Burden

- Family Burden ($P < 0.001$)

<table>
<thead>
<tr>
<th></th>
<th>base</th>
<th>West</th>
<th>end</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>1.83</td>
<td>3.33</td>
<td>-1.5</td>
<td>53</td>
</tr>
</tbody>
</table>
Suicidality

![Bar chart showing suicidality, P<0.001](chart.png)
Global assessment of functioning
Hospitalization does not Correlate with any of the thirteen outcome variables ( $P < 0.01$ to $P < 0.5$, NS)

<table>
<thead>
<tr>
<th>parameters</th>
<th>Hospitalized(25)</th>
<th>Non-hospitalized (42)</th>
<th>P-value</th>
<th>significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive symptoms</td>
<td>28</td>
<td>42</td>
<td>0.01</td>
<td>NS</td>
</tr>
<tr>
<td>Negative symptoms</td>
<td>15</td>
<td>21</td>
<td>0.05</td>
<td>NS</td>
</tr>
<tr>
<td>Disorganization</td>
<td>17</td>
<td>24</td>
<td>0.05</td>
<td>NS</td>
</tr>
<tr>
<td>Interpersonal functioning</td>
<td>12</td>
<td>30</td>
<td>0.01</td>
<td>NS</td>
</tr>
<tr>
<td>Cognition not Declined</td>
<td>14</td>
<td>20</td>
<td>0.05</td>
<td>NS</td>
</tr>
<tr>
<td>Independent living possible</td>
<td>12</td>
<td>17</td>
<td>0.5</td>
<td>NS</td>
</tr>
<tr>
<td>Aggression not present</td>
<td>22</td>
<td>30</td>
<td>0.05</td>
<td>NS</td>
</tr>
<tr>
<td>Improved QOL</td>
<td>16</td>
<td>30</td>
<td>0.5</td>
<td>NS</td>
</tr>
<tr>
<td>Family Burden</td>
<td>15</td>
<td>25</td>
<td>0.01</td>
<td>NS</td>
</tr>
<tr>
<td>Social burden</td>
<td>23</td>
<td>29</td>
<td>0.05</td>
<td>NS</td>
</tr>
<tr>
<td>No Suicidality</td>
<td>23</td>
<td>29</td>
<td>0.01</td>
<td>NS</td>
</tr>
<tr>
<td>Sustained work/school</td>
<td>15</td>
<td>17</td>
<td>0.01</td>
<td>NS</td>
</tr>
</tbody>
</table>

Cross analysis of independent variables against hospitalized Vs non-hospitalized did not provide statistically significant parameter. The two groups do not differ significantly on several parameters assessed.
Improvement with various Criterias

![Bar Chart]

- Improvement on All 13 Criteria: 34
- Single criteria: Max: 53
- Single Criteria: Minimum: 34
Re-assessed outcome at 10 years

Good outcome appears to have several variables
Why does schizophrenia show ‘poor’ outcome in developing Countries as well.

• Changing culture
• Treatment response
• Changing phenomenology: Needs studies
• Changing families
• Late intervention
• Treatment design, Lack of continuity
• Lack of support system, resource, accessibility
• Stigma
• Poor advocacy and awareness
Conclusion

Schizophrenia is a complex neurobehavioral disorder with limited outcome.

Multidimensional Clinical and Social recovery is achieved in 32% subjects in ten years treatment.

Half of the patients improve with no concomitant difficulty while another half improves varieties of disability.

Outcome measures in schizophrenia need to be re-structured to capture real-life situation.