

Insight and Psychosis

“Amongst the unclarities which are of utmost clinical importance and which cause utmost confusion is the term INSIGHT.”

—Zilboorg (1952)

Good outcome demands better adherence, one essential prerequisite being good insight!

Insight is an important and crucial dimension in clinical psychiatry as a component of phenomenology and clinical examination, as an important diagnostic criterion and also in assessment of the competency of in various settings such as — willingness to take treatment, provide informed consent, execute a will, in criminal responsibility etc. Insight is neither an all or none phenomenon nor a static state of mind. However, a dynamic expression largely influenced by the clinical status of the individual, also by the socio cultural milieu. Involuntary treatment methods and legislative supervision of clinical psychiatric practice are the after effects of acceptance of “lack of insight” in a group of patients with psychiatric disorders!

Impaired insight can be broadly defined as - Diminished ability to understand the “OBJECTIVE” reality of situation of self (body/mind).

Aubrey Lewis (1934) attempted to define insight as — “A correct attitude to morbid change in oneself,” but added that the terms “correct” “attitude” “morbid” “change” demand discussion, highlighting the unavoidable subjective bias in interpretations!

Jaspers (1964) defined insight as — “Objectively correct estimate of the severity of the illness and objectively correct judgment of its particular type.”

Carpenter (1973) defined insight as a symptom of schizophrenia (SCZ), evaluated as merely present or absent, and as per Diagnostic and Statistical

Manual of Mental Disorders, Fourth Edition, Text Revision — “Poor insight is a manifestation of the illness, rather than a coping strategy.”

Anthony S. David, 1990^[1] defined concept of insight having at least three distinct dimensions:

1. The recognition that one has a mental illness (awareness).
2. The ability to re-label unusual mental events (delusions and hallucinations) as pathological (attribution).
3. The recognition of the need for treatment (action).

Thereby indicating that (Un) awareness, (Mis) attribution, (In) action either alone, or together defining impaired insight. All the three mental abilities seem to require a degree of executive functioning capability and could be considered an executive function in itself, thereby hinting that lack of insight is impairment of executive function.

Amador and David^[2] expanded the concept of insight with five different dimensions for insight in SCZ:

1. Awareness of having a mental illness.
2. Awareness of the consequences of mental illness
3. Awareness of symptoms of mental disorder.
4. Attribution of symptoms to a mental disorder.
5. Awareness of the effects of medication.

Some current definitions of insight include the following:

“The degree of personal awareness and understanding.”

“The conscious recognition of one’s own condition of illness.”

“A person’s capacity to understand the nature, significance, and severity of his or her own illness.”

Pseudo Insight: Jaspers warned that on occasions patients may acknowledge “morbid change” merely

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“regurgitating overheard explanations,” which is a common occurrence in the inpatient settings, more so in patients with involuntary admissions.

In the routine mental status examination, insight is graded as:

1. Complete denial of illness.
2. Slight awareness of being sick and needing help, but denying it at the same time.
3. Awareness of being sick but blaming it on others, external events.
4. Intellectual insight.
5. True emotional insight.

Lack of insight has been variously conceptualized as:

1. Stemming from neuropsychological deficits.
2. Part of the primary psychiatric illness itself, a symptom.
3. A form of defensive denial... stigma, distress.

This conceptual model of insight has come under criticism as being more “eurocentric”... Saravanan *et al.* argued “insight as a sociocultural process.” “Hence, naturalistic (“Western”) explanations (e.g., disease, abnormality, infection, degeneration) may coexist with personalistic (“Eastern”) explanations (e.g., supernatural causation, sin and punishment, karma). Many patients (and their relatives) simultaneously seek biomedical and non-biomedical interventions.”^[3-5]

Clinical aspects of insight in psychosis,^[6] especially SCZ, have been studied with relevance to and in relationship with various factors such as:

1. Insight and severity of illness.
2. Treatment adherence, outcome, and quality of life.
3. Insight and competence to consent.
4. Insight and phase of illness: Illness phase and duration are some moderating factors in the insight of recent onset psychosis compared with chronic psychosis.^[7,8]

Insight is viewed as a state-dependent phenomenon in bipolar disorders (Nasser Ghaemi *et al.*), with reports of patient gaining total insight after episodic recovery, and a trait-like condition in SCZ! The fact is that, we talk of “recovery” in bipolar disorder and “remission” in SCZ, and this status of “insight as trait” may demand a rethink in future when we help patients with SCZ to “recover,” not just remit!!!

Relationship of insight with depressive symptoms justifies more discussion at this juncture. Good insight into illness in patients with SCZ is related not only to medication compliance and high service engagement, but also to depression, low self-esteem, and low quality of life, which is somewhat a depressing consequence!

However, Staring *et al.*, 2009 reported — “Insight Paradox” emphasizing that the association of insight with depression is moderated by stigma.

- Patients with good insight not bogged down by stigma are found to be the “best off” across various outcome parameters.
- Patients with good insight, but “carrying the load of stigma” were found to be at the highest risk for depressions and also suicides.
- The clinical implication is that when it is attempted to increase insight, perceived stigma should also be addressed particularly. Said simply and sounds meaningful; but the task is humongous with very large time and space constraints! Improving Insight requires individual attention and orientation and is an achievable goal! Reducing (leave aside removing) stigma demands interventions on the world stage taking into consideration variety of factors: cross cultural attitudinal variations, individual idiosyncrasies, magico – religious belief systems, placebo effects, time lag of generations to absorb the scientific advances, also requiring political will to facilitate the process!!!

Various scales available for assessment of insight^[6] include:

- Scale to Assess Unawareness of Mental Disorders.
- Insight and Treatment Attitude Questionnaire.
- Insight Scale (IS).
- Lack of Insight Index.
- Schedule for Assessment of Insight-Expanded.
- Beck Cognitive IS.
- Present State Examination.
- Schedule for Affective Disorders and SCZ.
- Positive and Negative Syndrome Scale.
- Hamilton Depression.

Models of insight in psychosis:

Osatuke *et al.* 2008^[9] in their review described lack of insight in SCZ as and with reference to:

- Positive symptom — “Delusion of health”.
- Negative symptom — Pathological deficit, — “Mental withdrawal”.
- Disorganized symptom — Cognitive disorganization.
- Denial — Defense, moderated by stigma.
- Biomedical model.
- Sociocultural model.
- Misattribution — Cognitive error based on lack of information, systematic biases or idiosyncratic beliefs.
- Neuropsychological model: Wisconsin Card Sort Test performance, particularly perseverative error score, shows a replicated association with measures of insight, suggesting:
 1. Deficiencies in conceptual organization.

2. Reduced flexibility in abstract thinking.
3. Impairment in executive function.^[10]

- **Meta cognition impairment:** Impaired metarepresentation and impaired self-reflection (a component of Beck's Cognitive Insight), relate lack of insight to the neuropsychological perspective.

It will be relevant to discuss insight-anosognosia model,^[11] specifically in relation to findings of neuropsychological deficits — Anosognosia is an acknowledged neurological deficit and shares striking similarities with impaired insight.

Both have:

1. A severe lack of awareness of their deficits.
2. A strong desire to prove their own assertions.
3. Invent confabulations to explain away pathological symptoms.
4. Often demonstrable Frontal lobe deficits.

Neuropsychological and neuroanatomical data show similarities between impaired insight in SCZ, and anosognosia in neurological patients paving way for the hypothesis that insight function may be primarily mediated by frontal cortical structures, dorsolateral prefrontal cortex and orbitofrontal cortex along with parietal cortical involvement...

This led to the more in depth neuroimaging and neuropsychological studies to understand insight, the methodologies being highly innovative with focused attempts to study various components — Meta memory, self-certainty, self-reflection, awareness, and attribution components of insight.

Findings from various neurobiological studies^[10,12-14] can be summarized thus: Evidence is accumulating to suggest that insight deficits may be mediated by enduring cognitive dysfunction, mainly with reference to deficits in frontal cortical systems. There is a “Cortical Midline System” (CMS) — The medial frontal (ventromedial, Brodmann areas [BA] 10, 11, and dorsomedial BA 9) and cingulate cortex, described as anterior CMS - that is, reliably engaged in tasks encompassing self-reflection, most often engaged when “self-appraisal” was contrasted to “other-appraisal.” (Are they talking about you/are they talking about others?) Tasks related to self-reflection in normal subjects show activation of anterior CMS. Patients with SCZ failed to show this increase, which is interpreted as demonstrating “FAILURE TO DIFFERENTIATE SUFFICIENTLY BETWEEN SELF AND OTHERS...”

Later studies in neuroimaging attempted to differentiate whether the two crucial dimension of lack of insight — Unawareness and misattribution

are differently represented in brain functioning. The initial results suggest that — Unawareness, compared to misattribution:

- **Exclusive** — Middle parts of anterior cingulate, posterior cingulate cortex and inferior and superior parietal lobules were only associated with unawareness and not misattribution...
- **Robust** — Activations posterior CMS — Precuneus and posterior cingulate with Unawareness...

Unawareness was associated with more widespread deficits in white matter than misattribution...

“... Symptom unawareness may be a function of a more complex brain network and symptom misattribution may be mediated by deficits in specific brain regions.”^[14]

In patients with SCZ — Failure in differentiation of “self-reflection” with “other reflection” is associated with less anterior CMS activity and more posterior CMS activity! The neurobiological finding of failure to differentiate “self” from “other” in patients with SCZ — Is it reflective of “Dissolved Ego Boundaries in SCZ”?? Does it provide some insight into the phenomena of “Running commentary hallucinations”, “Thought Broadcast”...

“Frith 1992 suggested that psychotic symptoms may be due to an inability to distinguish between external events and perceptual changes caused by patient’s own actions... the functional disconnection between frontal brain concerned with action and posterior areas concerned with perception.”

“It is interesting to note that several years later Frith’s hypothesis has been supported by the findings from this study showing an anterior-to-posterior shift in CMS activation in response to self-referential stimuli in association with insight into one’s own symptoms.

... Future research in this highly complex area of brain function will require development of a functional magnetic resonance imaging task to directly assess insight function under the scanner in order to enhance our understanding of the neurobiology of insight in SCZ.”^[14]

Can Insight be improved!

Various Therapeutic measures include:

- Pharmacotherapy, counseling... for symptom relief
- Cognitive remediation — For cognitive/metacognitive deficits.
- Psychoeducation, public awareness... to deal with denial/stigma/social cultural misconceptions.
- Futuristic — Biomarkers, imaging, labs... Diagnostic and therapeutic Indicators may help!

CONCLUSION

Insight is multidimensional and complex. Poor insight in SCZ may need to be understood as more than a simple primary symptom, but related to consequences on cognitive/meta-cognitive processes, emotional state, the phase of illness and sociocultural processes. Psychopathological assessment of insight is marked by several paradoxes... Neuronal correlates (prefrontal cortex) may advance understanding... It is essential to define the phenomenology of insight in SCZ integrating neurobiological, psychological and social contexts...^[15]

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REFERENCES

1. David AS. Insight and psychosis. *Br J Psychiatry* 1990;156:798-808.
2. Amador XF, David AS, editors. *Insight and Psychosis: Awareness of Illness in Schizophrenia and Related Disorders*. 2nd ed. Oxford, UK: Oxford University Press; 2004.
3. Tharyan A, Saravanan B. Insight and psychopathology in schizophrenia. *Indian J Psychiatry* 2000;42:421-6.
4. Saravanan B, Jacob KS, Prince M, Bhugra D, David AS. Culture and insight revisited. *Br J Psychiatry* 2004;184:107-9.
5. Jacob KS. The assessment of insight across cultures. *Indian J Psychiatry* 2010;52:373-7.
6. Chakraborty K, Basu D. Insight in schizophrenia — A comprehensive update. *Ger J Psychiatry* 2010;13:17-30.
7. McEvoy JP, Apperson LJ, Appelbaum PS, Ortlip P, Brecosky J, Hammill K, *et al*. Insight in schizophrenia. Its relationship to acute psychopathology. *J Nerv Ment Dis* 1989;177:43-7.
8. Quee PJ, van der Meer L, Bruggeman R, de Haan L, Krabbendam L, Cahn W, *et al*. Insight in psychosis: Relationship with neurocognition, social cognition and clinical symptoms depends on phase of illness. *Schizophr Bull* 2011;37:29-37.
9. Osatuke K, Ciesla J, Kasckow JW, Zisook S, Mohamed S. Insight in schizophrenia: A review of etiological models and supporting research. *Compr Psychiatry* 2008;49:70-7.
10. David AS, Bedford N, Wiffen B, Gillean J. Failures of metacognition and lack of insight in neuropsychiatric disorders. *Philos Trans R Soc Lond B Biol Sci* 2012;367:1379-90.
11. Lehrer DS, Lorenz J. Anosognosia in schizophrenia: Hidden in plain sight. *Innov Clin Neurosci* 2014;11:10-7.
12. Shad MU, Tamminga CA, Cullum M, Haas GL, Keshavan MS. Insight and frontal cortical function in schizophrenia: A review. *Schizophr Res* 2006;86:54-70.
13. Bedford NJ. Denial of Illness in Schizophrenia as a Disturbance of Insight and Self-Awareness. *Schizo-Phrenia — Academic Dissertations [MESH]*. Institute of Psychiatry Theses Ph.D, University of London. System No 001296598; 2009. p. 361. Available from: <http://www.library.kcl.ac.uk/>.
14. Shad MU, Keshavan MS. Neurobiology of insight deficits in schizophrenia: An fMRI study. *Schizophr Res* 2015;165:220-6.
15. Uzir M, Azorin JM, Adida M, Boussaoud D, Battas O. Insight in schizophrenia: From conceptualization to neuroscience. *Psychiatry Clin Neurosci* 2012;66:167-79.