

Case Report

Formal Thought Disorder - A Case of Extra-ordinary Answers to Ordinary Questions

Suveer Thakral¹, S.G Mehta², Bhakti Murkey^{3*}, Dheeraj Mewara¹, Shivam Garg¹

¹PG Resident, ²Professor and Head, ³Assistant Professor

Department of Psychiatry
Pacific Medical College and Hospital, Udaipur, Rajasthan, Bharat

*Corresponding Author Email: doctor.bhaktii@gmail.com

ABSTRACT

Formal thought disorder (FTD) has been a subject of interest for phenomenologists for a long time. Ever since Bleuler introduced the concept of "loosening of associations," it has been recognized as a fundamental symptom of psychosis. The understanding of FTD has evolved over time, and we now know that it involves a range of cognitive and linguistic abnormalities. While it was originally believed to be exclusive to schizophrenia, it is now acknowledged that FTD can also occur in affective psychoses, non-psychotic disorders, and even in individuals without any psychiatric conditions. Despite some promising research findings about FTD, there is still a lot that remains unknown or undiscovered about this symptom. One of the challenges in studying FTD is its clinical diversity, as its core clinical characteristics have not been definitively established. This sparks interest in this case of a 45 year old woman presented with chief complaints of irrelevant and incoherent thought with marked disturbances in verbal communication that had typical markers of symptoms that characterise a disruption in the expression and organisation of ideas and thoughts.

KEYWORDS: Formal Thought Disorder, Schizophrenia, Cognitive disturbances

BACKGROUND

Formal thought disorder is a prominent psychopathological feature primarily associated with schizophrenia and related psychotic disorders, and denotes a disruption in the foundational cognitive processes that govern the coherent and logical expression of ideas¹. Schizophrenia often impacts thought content, which might include auditory hallucinations and delusions, whereas FTD affects thought processes, such as how you structure sentences, choose speech, and formulate logical arguments. FTD is an objective sign indicative of schizophrenia psychopathology, which differentiates it from delusions and hallucinations, considered as diagnostic of schizophrenia, but found in many other psychiatric

diagnoses. This disorder is marked by several key attributes. FTD rating scales describe up to eighteen distinct anomalies in speech rate and arrangement². It is suggestive of a collection of linked affective, linguistic, and cognitive conditions. As a consequence, research on FTD has been explored from a variety of clinical viewpoints, encompassing psychiatry, neurolinguistics, and cognitive neuroscience.

Individuals grappling with FTD exhibit disorganized thinking, which impairs their ability to effectively structure and communicate their thoughts, resulting in speech and writing that appear disjointed and fragmented. Second commonly prevalent phenomenon is loose associations in thought, leading to responses or statements that lack logical

continuity with previous topics, rendering discourse incoherent. Thirdly, word salad may manifest as an extreme form, characterized by chaotic combinations of unrelated words and phrases, rendering communication unintelligible. Additionally, individuals may engage in clang associations, connecting words based on sound rather than meaning, further disrupting logical discourse. Finally, neologisms or unconventional word usage are common. Recognizing formal thought disorder is vital in clinical assessment and diagnosis due to its substantial impact on effective communication and conveying coherent ideas, making it a critical criterion for understanding and managing psychotic disorders in academic and clinical contexts⁶.

It is strongly heritable with occurrences observed in unaffected relatives of individuals diagnosed with schizophrenia. Specifically, family members of those with schizophrenia exhibit specific traits, including reduced verbal fluency, distinctive word usage, unconventional verbal expression, and simplified grammar, when compared to individuals without the disorder⁴. Furthermore, studies involving adoptees, designed to minimize the impact of genetic and environmental factors, reveal that individuals with schizophrenia who were adopted tend to display significant FTD compared to adopted individuals without the condition. Similarly, biological relatives of adopted individuals with schizophrenia show a higher incidence of FTD than the biological relatives of adopted individuals without schizophrenia. These findings suggest that genetic factors play a substantial role in the susceptibility to schizophrenia, overshadowing the influence of early life experiences.

CASE PROFILE

The following excerpts summarise positive findings in a case of chronic psychotic illness, highlighting salient features suggestive of FTD in history and examination. A 45 year old female, belonging to lower socioeconomic background, living in a joint family from rural background was brought to us by her elderly parents with complaints of irrelevant, incomprehensible talks, difficulties with spoken communication, muttering and insomnia for a total duration of 7 years. The onset seemed to be insidious and course of symptom progression was continuous with predominant complaints of suspicion, remaining aloof, poor self care and aggression without provocation.

Parents reported that the patient had recently worsened. She was talking nonsensical words which were difficult to comprehend and largely irrelevant. The patient would frequently scream and cry loudly, while looking for a baby from the terrace of their house and saying that 'they' would take the baby and kill it. This was not in any context of recent pregnancy or childbirth. She had a history of infertility and had borne no children over 25 years of her married life.

After a recent event on the occasion of 'Janmashtami' she had started to behave as though she was Goddess 'Durga' and 'Kali'

and would behave possessed by them. Her family sought faith healing and took her to an 'Ojha' (local shaman) to exorcise any evil spirit. However, the faith healer denied the role of any spirit and directed the family to visit a Mental Health Professional.

On examination, her first impressions included being agitated and vigilant. She was unable to provide appropriate answers. For example, if asked what her age is then she would reply 115 years. When asked about her siblings, she answered that she has 108 sisters and brothers. She would often include names of made-up places and people when asked open ended questions. She was persevering on the word 'Halwaa'i' and would keep circling back to this term. Her sentences also showed marked clang associations and rhyming words. For examples, when asked about her mother she says 'mummy nahi kami par zameenhai'.

She also talked about ideas such as 'my mother is a Goddess (Devi) and lives on the sun and can hear me from anywhere'. Another verbatim seen was 'my brother is an incarnation of the Pandavas', 'my father is a God who can control what goes on around him'. However this content of thought kept shifting. She would also sit idle for hours and smile inappropriately and often mutter to herself. Reduced psychomotor activity and inappropriate affect, incongruent to grandiose thought content were observed.

On treatment, she showed slow but consistent response, with improvement in affect appropriateness and reactivity, and reduction in content of grandiose thinking. Her answers were still largely irrelevant but more circumstantial than before. She was prescribed Tab. Olanzapine 10mg and Tab. Quetiapine 100mg daily in divided doses.

Thus, we could observe various signs of formal thought disorder such as loosening of associations or derailment, tangential thinking, word salad, perseveration, concreteness, and impaired communication in mental status examination¹². This report intends to highlight the clinical presentation of the same in a patient of chronic psychotic illness.

CONFLICT OF INTEREST: None

FINANCIAL SUPPORT: None

REFERENCES

1. Bleuler E. *Dementia Praecox or the Group of Schizophrenias*. Translated by Zinkin J. New York: International Universities Press; 1958.
2. The Epidemiology and Associated Phenomenology of Formal Thought Disorder: A Systematic Review. Academic.oup.com. (n.d.). <https://academic.oup.com/schizophreniabulletin/article/41/4/951/2337804>

3. Kerns JG Berenbaum H. Cognitive impairments associated with formal thought disorder in people with schizophrenia. *J AbnormPsychol* .2002; 111: 211 – 224.
4. Levy DL Coleman MJ Sung H et al. . The Genetic Basis of Thought Disorder and Language and Communication Disturbances in Schizophrenia. *J Neurolinguistics* .2010; 23: 176.
5. Heckers S Barch DM Bustillo J et al. Structure of the psychotic disorders classification in DSM-5 .*SchizophrRes* .2013; 150: 11 – 14.
6. Liddle PF Ngan ET Caissie SL et al. . Thought and Language Index: an instrument for assessing thought and language in schizophrenia. *Br J Psychiatry* .2002; 181: 326 – 330.
7. Koziol LF Lutz JT. From movement to thought: the development of executive function .*ApplNeuropsycholChild* .2013; 2: 104 – 115.
8. Ayer A;Yalınçetin B;Aydınlı E;Sevilmiş Ş;Ulaş H;Binbay T;AkdedeB B;Alptekin K; (n.d.). Formal thought disorder in first-episode psychosis. *Comprehensive psychiatry*. <https://pubmed.ncbi.nlm.nih.gov/27565775/>
9. Person, Neal, P., & Stolar, G. (2013, September 5). Cognitive characterization and therapy of negative symptoms and formal. Taylor & Francis. <https://www.taylorfrancis.com/chapters/edit/10.4324/9780203832677-11/cognitive-characterization-therapy-negative-symptoms-formal-thought-disorder-neal-stolar-paul-grant>
10. K;, B. E. B. B. (n.d.). Neurocognitive and linguistic correlates of positive and negative formal thought disorder: A meta-analysis. *Schizophrenia research*. <https://pubmed.ncbi.nlm.nih.gov/31153670/>
11. Yalincetin B; Bora E; Binbay T; Ulas H; Akdede BB; Alptekin K; (n.d.). Formal thought disorder in schizophrenia and bipolar disorder: A systematic review and meta-analysis. *Schizophrenia research*. <https://pubmed.ncbi.nlm.nih.gov/28017494/>
12. Sadock, B. J., Sadock, V. A., Ruiz, P., & Kaplan, H. I. (2017). Kaplan and Sadock's comprehensive textbook of psychiatry (10th ed.). Wolters Kluwer.