Mental health and well-being in Phelan-McDermid syndrome

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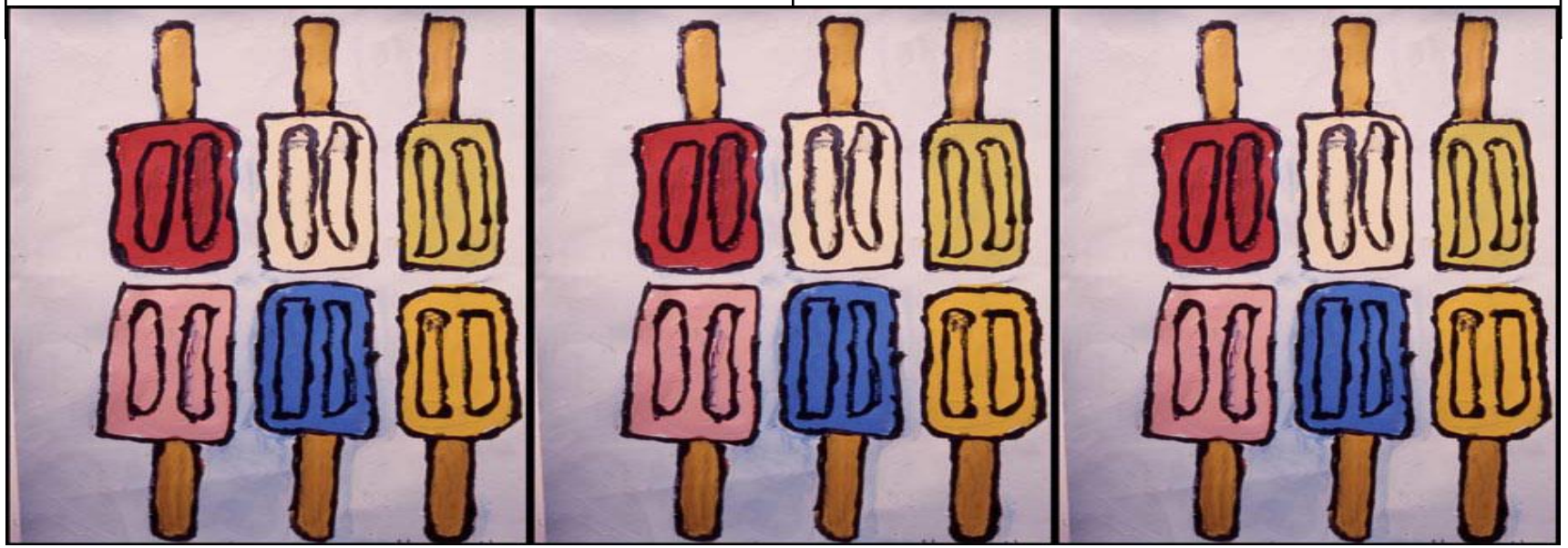
Disclosure

Conflict of interest	None

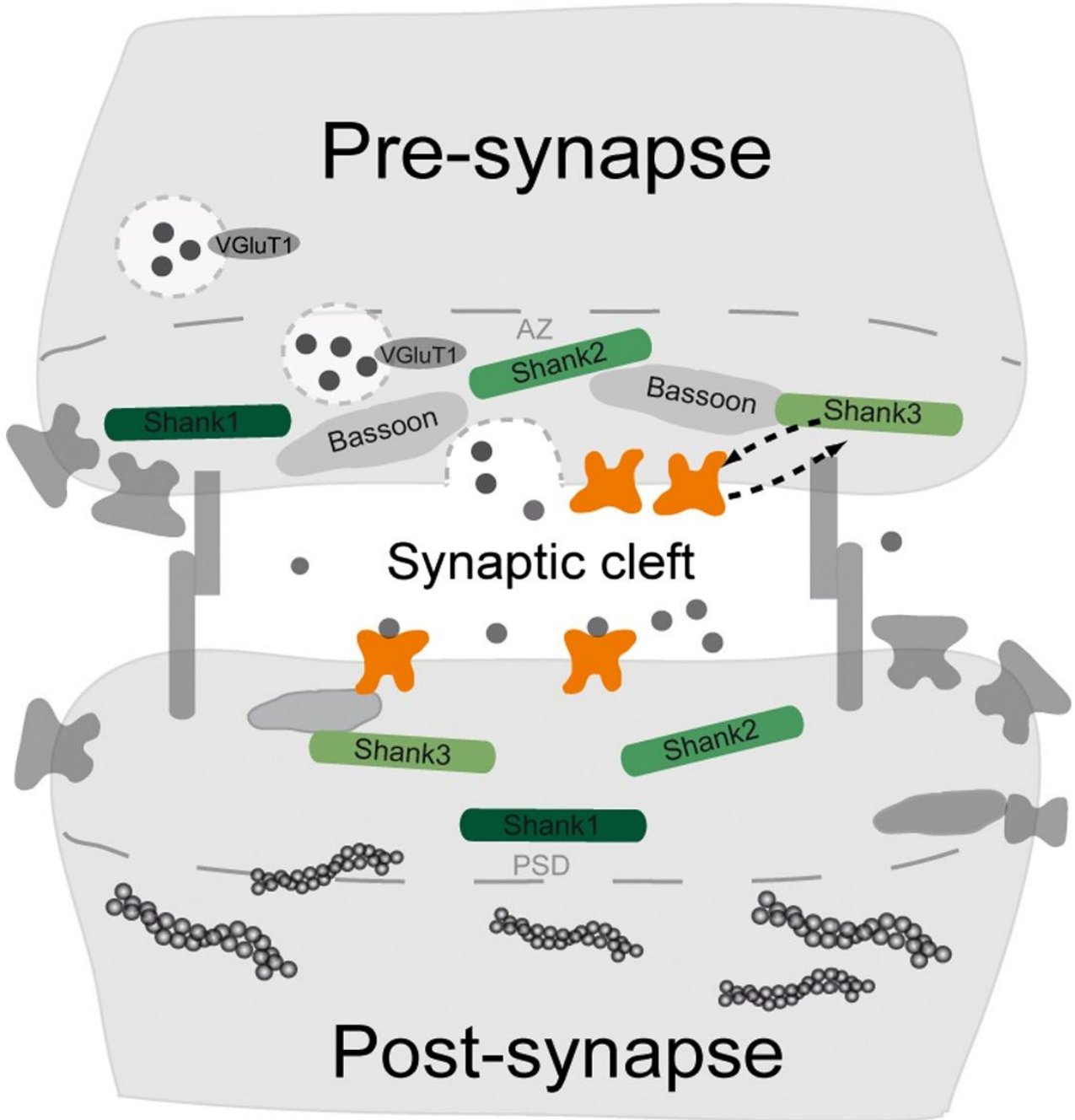


Inge van Balkom, May 4, 2024

Glückwunsch!

Phelan-McDermid Syndrome is a rare genetic syndrome

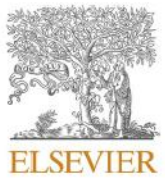
- Deletion affecting SHANK3 or a pathogenic variant of SHANK3
- Developmental delay
- Moderate to profound intellectual disability
- Marked speech impairment
- Variable clinical presentations: wide range of comorbidities and behaviors



SHANK3 protein is important in establishing connections (synapses) between nerve cells

Parental worries: global survey

- Total: 587 surveys from 35 countries
- Most frequently experienced problems:
  - Speech/communication (97%)
  - Intellectual disability (95%)
  - Behavioral problems (71%)
- Prevalence of epilepsy, lymphoedema, and psychiatric problems increased with age



Parental perspectives on Phelan-McDermid syndrome: Results of a worldwide survey

Annemiek M. Landlust [a,b,1,*], Sylvia A. Koza [b,1], Maya Carbin [c], Margreet Walinga [b], Sandra Robert [d], Jennifer Cooke [e], Klea Vyshka [f], the European Phelan-McDermid syndrome consortium, Ingrid D.C. van Balkom [a,g], Conny van Ravenswaaij-Arts [a,b]

The big questions

1) How common is neuropsychiatric illness in PMS?

2) What does it look like and what triggers it?

3) How can we prevent or treat it?

Symptoms that could be considered psychiatric are part of the baseline for some people with PMS

- Disrupted sleep
- Restlessness, climbing, roaming, jumping
- Trouble focusing
- Agression
- Echolalia
- Shouting or yelping
- Repeating or compulsive behaviors
- Pica
- Head-banging and other forms of self-injury

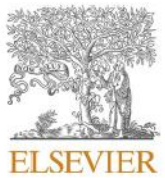
Any behavioral problem should always be considered within the context

- Context of family and environment
- Context of the individual’s level of cognitive, social and emotional development

Neuropsychiatric problems in PMS are common

Neuropsychiatric problems in PMS onset in puberty:

- Mood disturbances
- Loss of skills after onset of psychiatric disturbance in 66%
- Catatonia in 53%



Consensus recommendations on mental health issues in Phelan-McDermid syndrome

Ingrid D.C. van Balkom [a,b,*], Monica Burdeus-Olavarrieta [c,d], Jennifer Cooke [e], A. Graciela de Cuba [a], Alison Turner [f], European Phelan-McDermid Syndrome consortium [g], Annick Vogels [h], Anna Maruani [i,j]

Baseline

- Establish clear picture of baseline
- Psychiatric symptoms may be part of baseline
- Short films (mobile phones)
- Note changes over time

Language delay and/or absent speech are among the most common characteristics

- Both expressive and receptive communicative abilities affected
- Impairments in expressive language are highly likely to contribute to communication problems and may lead to challenging behavior

Intellectual disability ranges from moderate to profound

- Mouthing or chewing of objects
- Decreased pain perception
- Difficulties attaining adaptive and daily living skills

Diagnosing autism in PMS can be challenging

- Establish whether frequency and intensity of autism symptoms go beyond what would be expected given the individual's developmental level
- Presentation of autism symptoms in PMS may be different to that of autistic individuals without PMS

Sensory dysfunction occurs in several domains for patients with PMS

- Reduced pain perception, heat regulation disorder, changed sensitivity, hearing and vision impairment
- Aggressive behavior may be linked to sensory dysfunction, as well as agitation (but underlying mood cycling can also be cause)

Regression is defined as a prolonged loss of skills previously acquired

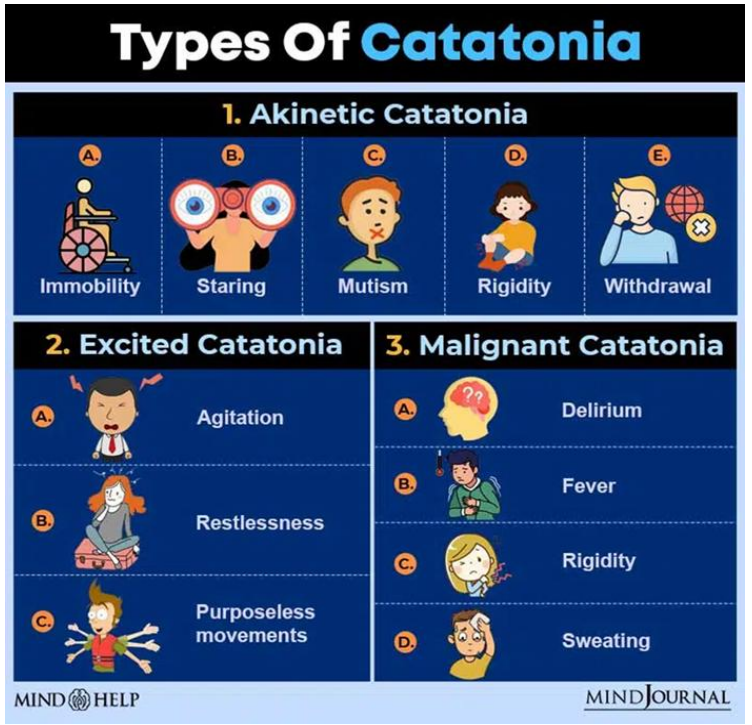
- Progressive loss of skills often seen in adolescence/early adulthood
- Loss of speech, motor, communicative, and social interaction skills
- Regressive episodes have sometimes been reported in co-occurrence with bipolar disorder or mood cycling symptoms
- Impacts daily life

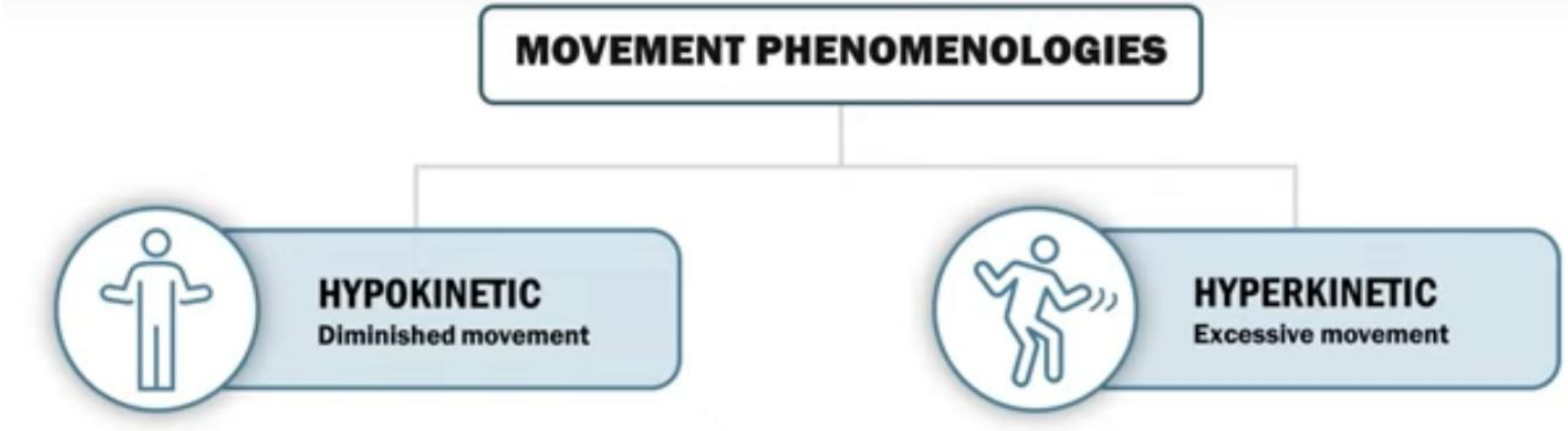
Behaviors suggestive of hyperactivity and attention deficit are commonly reported

- Motor restlessness, impulsivity and distraction
- Changes in behavior should be monitored overtime with a mind to what is typical and within a routine
- Restlessness or agitated behavior may be caused by underlying mood disorder

Catatonia is characterized by behavioral, affective and motor disturbances

- Difficulty starting/stopping (speech, movement, behaviors)
- Treatment is important to avoid life-threatening complications
- Risk of autonomic instability with hyperthermia, intense excitement, rigidity and delirium
- Triggers: after stressful life events e.g. moving residence, after physical illness





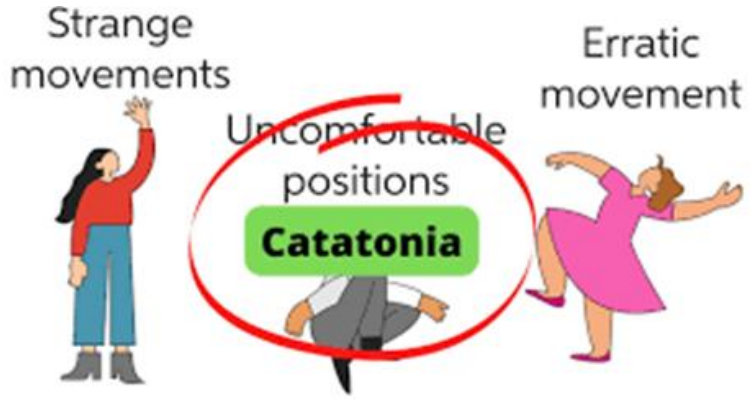
Stupor
Slowed movement
Rigidity, posturing

Tremor
(Hyper) active movements
Agitation

Excited/hyperkinetic catatonia

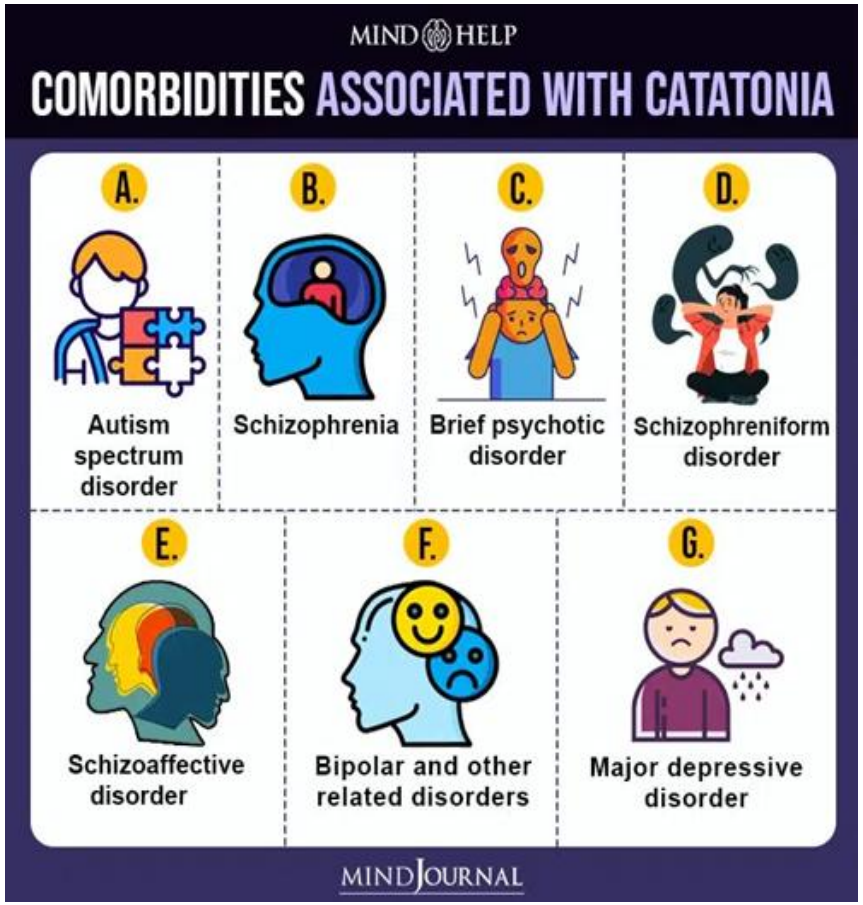
Many doctors will never have heard of it or seen it, can be hard to distinguish from severe mania. Often begins during mania, with:

- Restlessness, pacing and new oppositional behavior
- Unclear speech, trouble managing saliva, drooling, holding food in mouth or refusing food
- Behavioral and physical rigidity
- New repeating of words & phrases (own or other people's)
- Frequent brief and unproductive trips to bathroom
- Tremor
- Flushing: red blotches on chest, face and neck, and white/purple mottling of hands
- Can include psychotic symptoms



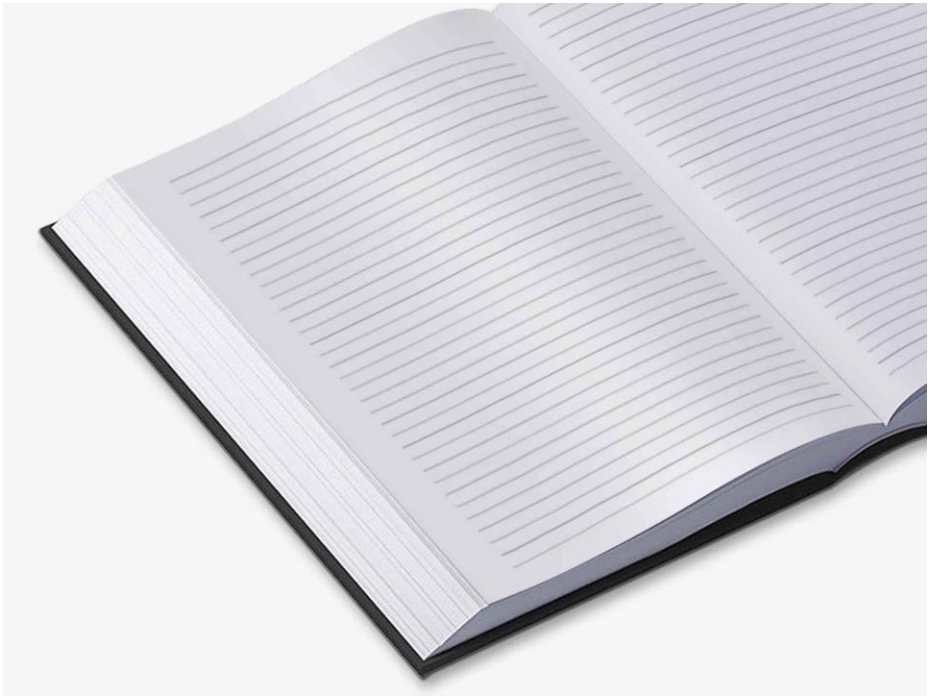
Catatonia treatment

- Treat underlying disorder
- Prevent complications
- Discontinue antipsychotics
- Benzodiazepines
- ECT



A comprehensive diagnostic formulation is needed

- Consider factors that influence mental health
- Understand the individual within their context
- Ensure appropriate assessments and ongoing monitoring



Rule out any underlying medical issues for psychiatric or behavioral presentations

- Periodic physical assessments

Mental health, development and behavior not only impact the individual

- Also affect their immediate context of family, living arrangement, and caregivers
- Parental stress, especially stress concerning the future
- Understanding discrepancy between developmental level and chronological age, and how this may impact worrying behaviors is important

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Thank you for your attention