

Clinical Features of Catatonia
(Numbers indicate item on Bush-Francis Catatonia Rating Scale)¹

2

Immobility - Incapable of being moved

Stupor - Lack of critical cognitive function and level of consciousness. Sufferer is almost entirely unresponsive and only responds to base stimuli such as pain.

3

Mutism – Inability to speak

4

Staring - Prolonged gaze or fixed look

14

Withdrawal – Refuses to eat or drink and/or make eye contact

5

Catalepsy - Characterized by muscular rigidity and fixity of posture regardless of external stimuli. Decreased sensitivity to pain. Different than: *Cataplexy*, which is a sudden and transient episode of loss of muscle tone, often triggered by emotions

Posturing – Classically: involuntary flexion or extension of the arms and legs, indicating severe brain injury (Decorticate, Decerebrate) – in catatonia essentially the same as Catalepsy

11

Rigidity - An increase in muscle tone that causes resistance to passive movement throughout the whole range of motion

13

Waxy Flexibility – decreased response to stimuli and a tendency to remain in an immobile posture. If one were to move the arm of someone with waxy flexibility, they would keep their arm where one moved it until it was moved again, as if it were made from wax.

16

Automatic obedience - an exaggerated co-operation with an examiner's request, as if the patient were an automaton, robotically obeying a command. The patient complies with any and all suggestions, even those a normal person would usually refuse. With physical movements, this is called:

17

Mitgehen - "go along with..." (German) - very slight pressure leads to movement in any direction, also called the "anglepoise" effect or "anglepoise lamp sign". This is done despite instructions that the patient resist the pressure

12

Negativism - is a behavior in which a patient resists all attempts to move him, or ignores all requests or commands to move. Motiveless resistance to instructions or attempts to move/examine patient, when specific called:

18

Gegenhalten - phenomenon in which the subject opposes all passive movements with the same degree of force as applied by the examiner.

9

Mannerisms - A gesture that becomes abnormal through exaggeration or repetition (hopping, or walking tip-toe) – odd, peculiar, purposeless.

6.

Grimacing - A sharp contortion of the face expressive of pain, contempt, or disgust

8

Stereotypy - is a repetitive or ritualistic movement, posture, or utterance. Stereotypies may be simple movements such as body rocking, or complex, such as self-caressing, crossing and uncrossing of legs, and marching in place.

20

Grasp reflex – a "frontal release sign" that has been linked with catatonia

1

Excitement - A series of unintentional and *purposeless* motions. This includes pacing around a room, wringing one's hands, pulling off clothing and putting it back on and other similar actions. Not attributable to goal directed behavior.

15.

Impulsivity - Inclination of an individual to initiate behavior without adequate forethought

22

Combativeness - Eager or disposed to fight; belligerent

7

Echophenomenia – *Echolalia*, repeating other person's words or statements; *Echopraxia*, imitating other person's actions; *Palilaia*, repeating patient's own statements

10

Verbigeration - Obsessive repetition of meaningless words and phrases

21

Perseveration – Repeatedly returns to same topic, or persists with movement

19

Ambitendency - A tendency to act in opposite ways or directions. Patient appears stuck and indecisive.

23

Autonomic instability – Temperature, BP, pulse, diaphoresis, respiratory rate

1. Bush G, Fink M, Petrides G, Dowling F, Francis A. Catatonia, I: rating scale and standardized examination. *Acta Psychiatr Scand.* 1996; 93(2): 129-136.

	Procedure	Examines
1	Observe patient while trying to engage in a conversation	Activity level Abnormal movements Abnormal speech.
2	Examiner scratches head in exaggerated manner	Echopraxia
3	Examine arm for cogwheeling. Attempt to reposition, instructing patient to "keep your arm loose" - move arm with alternating lighter and heavier force.	Negativism Waxy flexibility Gegenhalten
4	Ask patient to extend arm. Place one finger beneath hand and try to raise slowly after stating, "Do NOT let me raise your arm".	Mitsgehen
5	Extend hand stating "Do NOT shake my hand".	Ambitendence
6	Reach into pocket and state, "Stick out your tongue, I want to stick a pin in it".	Automatic obedience
7	Check for grasp reflex.	Grasp reflex
8	Check chart for reports of previous 24-hour period. In particular check for oral intake, vital signs, and any incidents.	
9	Attempt to observe patient indirectly, at least for a brief period, each day.	

Treatment:

- Lorazepam is initially prescribed at 3-4mg day.
- One-time test dose of 2mg can be administered IM/IV
- If well tolerated and catatonia does not resolve in two days, the dosage may be doubled, and increased progressively to 8-16mg a day.
- If after a few days, catatonia does not show signs of resolving, or does so transiently with each dosing, ECT becomes a prime consideration.
- Patients with chronic illness and persistent catatonic features are also less likely to respond to benzodiazepines, making ECT the principal treatment.
- Presence of excitement and peculiar behaviors often compel the prescription of antipsychotic medications.
- These medicines should be avoided because they have been reported as precipitating the malignant form of catatonia.

Fink M, Taylor MA. The Catatonic Syndrome, Forgotten but Not Gone. *Arch Gen Psychiatry*. 2009; 66(11): 1173-1177.

Fink M, Taylor MA. *Catatonia: A Clinician's Guide to Diagnosis and Treatment* Cambridge, England: Cambridge University Press; 2003.

BUSH-FRANCIS CATATONIA RATING SCALE

Use presence or absence of items 1-14 for screening
Use the 0-3 scale for items 1-23 to rate severity

<p>1. Echolocation: Echolalic hyperactivity, sustained under direct which is apparently non-propositional. Not to be confused with echolalia or goal directed repetition.</p> <p>0 = Absent 1 = Excessive imitation 2 = Constant imitation, hyperbolic without real periods 3 = Full-blown echolalic echolalia, evidence repeated under activity</p>	<p>2. Immutability/stereotyped: Extreme hypocoactivity; immobility, mutuality responsive to stimuli</p> <p>0 = Absent 1 = Gaze abnormally still, may blink but rarely 2 = Visually no fixation with external world 3 = Stupor, non-reactive to painful stimuli</p>
<p>3. Mutability: Verbal/uncertain or mutuality responsive</p> <p>0 = Absent 1 = Verbally unresponsive to majority of questions; incomprehensible behavior 2 = Speeches less than 20 words/5 min 3 = No speech</p>	<p>4. Startle: Fixed gaze, little or no visual scanning of environment, decreased blinking.</p> <p>0 = Absent 1 = Poor eye contact, repeatedly gazes less than 20 seconds between shifting of attention; decreased blinking 2 = Gaze held longer than 20 seconds, occasionally shifts attention 3 = Fixed gaze, non-reactive</p>
<p>5. Posturing/calabery: Spontaneous maintenance of posture(s), including movements (e.g. sitting or standing for long periods without reading).</p> <p>0 = Absent 1 = Less than 1 minute 2 = More than one minute less than 15 minutes 3 = More than 15 minutes</p>	<p>6. Maintenance of cold facial expressions: Maintenance of cold facial expressions.</p> <p>0 = Absent 1 = Less than 10 seconds 2 = Less than 1 minute 3 = More than 1 minute</p>
<p>7. Echopraxia/echolalia: Imitation of examiner's movements/verbal.</p> <p>0 = Imitating of examiner's movements/verbal 1 = Occasional 2 = Frequent 3 = Constant</p>	<p>8. Stereotypy: Repetitive, non-goal-directed motor activity (e.g. finger-flick; repeatedly head-bobbing, pulling or rubbing stuff, "obscure" and "bored" in and out in rhythm).</p> <p>0 = Absent 1 = Occasional 2 = Frequent 3 = Constant</p>
<p>9. Incontinentia: Overt, purposeful movements (flapping or waving limbs), saluting gestures by or exaggerated caricatures of mundane movements; abnormally incontinent in act itself.</p> <p>0 = Absent 1 = Occasional 2 = Frequent 3 = Constant</p>	<p>10. Verbalization: Repetition of phrases or sentences (like a scratchboard record).</p> <p>0 = Absent 1 = Occasional 2 = Frequent 3 = Constant</p>
<p>11. Rigidity: Maintenance of a rigid posture despite efforts to be moved, include if cog-wheeling or tremor present.</p> <p>0 = Absent 1 = Mild 2 = Moderate 3 = Severe, cannot be reproduced</p>	<p>12. Involuntary: Apparently reflexive reactions to instructions or attempts to move/examine patient. Contrary behavior, does exact opposite of instruction.</p> <p>0 = Absent 1 = Mild 2 = Moderate 3 = Severe</p>
<p>13. Waxy flexibility: Difficulty repositioning of neck, patient offers initial resistance before allowing himself to be repositioned, similar to that of a bending saw.</p> <p>0 = Absent 1 = Mild 2 = Moderate 3 = Present</p>	<p>14. Withdrawal: Refusal to eat, drink and/or make eye contact.</p> <p>0 = Absent 1 = Mild 2 = Moderate 3 = Severe</p>

BUSH-FRANCIS CATATONIA RATING SCALE (CONT.)

<p>15. Inappetence: Patient suddenly engages in inappropriate behavior (e.g. runs down hallway, makes noise or talks off-chord) without provocation. Affective state can give no or only a hazy explanation.</p> <p>0 = Absent 1 = Occasional 2 = Frequent 3 = Constant or not predictable</p>	<p>16. Automatic outbursts: Espontaneous cooperation with examiner's request or spontaneous completion of movement/repetition.</p> <p>0 = Absent 1 = Occasional 2 = Frequent 3 = Constant</p>
<p>17. Alligations: "Anger/panic" arm raising in response to light pressure of finger, despite instruction to the contrary.</p> <p>0 = Absent 1 = Present</p>	<p>18. Generalization: Resistance to passive movement which is proportional to strength of the stimulus, appears automatic rather than willful.</p> <p>0 = Absent 1 = Present</p>
<p>19. Amblyocopy: Patient appears oculically "stuck" in involuntary, local movement.</p> <p>0 = Absent 1 = Present</p>	<p>20. Grasp reflex: Per neurological exam</p> <p>0 = Absent 1 = Present</p>
<p>21. Pseudo-asthma: Frequently returns to same topic or phrase with intonation.</p> <p>0 = Absent 1 = Present</p>	<p>22. Convulsiveness: Usually in an unforced manner, will, no or only a hazy explanation</p> <p>0 = Absent 1 = Occasionally strikes out, low potential for injury 2 = Frequently strikes out, moderate potential for injury 3 = Strikes danger to others</p>
<p>23. Autonomic abnormality: Circulation, temperature, BP, pulse, respiratory rate, diaphoresis.</p> <p>0 = Absent 1 = Abnormality of two parameters 2 = Abnormality of three parameters 3 = Abnormality of four or more parameters</p>	<p>TOTAL:</p>