

Supplementary Table 1: Explanation of various motor and movement disorder: DSM symptoms of catatonia

M: Motoric immobility, including catalepsy, waxy flexibility, and stupor
 E: Extreme agitation
 E: Extreme negativism, including negativism and mutism
 P: PSMG (Posturing, Stereotypies, Mannerism, and Grimacing)
 E: Echophenomenon, including echolalia and echopraxia

Supplementary Table 2: Explanation of various motor and movement disorder: Non-DSM symptoms of catatonia

Observed

Combativeness: Usually in an undirected manner, with no or only a facile explanation afterward.
 Impulsivity: Patient suddenly engages in inappropriate behavior (e.g., runs down the hallway, starts screaming, or takes off clothes) without provocation. Afterward, can give no or only a facile explanation.
 Perseveration: The senseless repetition of a previously requested movement, that is the repetition of a response after withdrawal of the stimulus. Special variants include palilalia (the perseverated word is repeated with increasing frequency) and logoclonia (perseveration of the last syllable of the last word).
 Psychological pillow: The subject holds their head a few inches above the floor/bed while lying on their back
 Starring: Fixed gaze, little or no visual scanning of the environment, and decreased blinking.
 Verbigeration: Repetition of phrases or sentences.
 Withdrawal: Refusal to eat, drink, and make eye contact.

Examined

Ambitendency: Patient appears “motorically stuck” in indecisive, hesitant movement.
 Forced grasping: The offered hand is repeatedly grasped and shaken, despite requests not to do so. Seen in frontal lobe lesions.
 Automatic obedience: Exaggerated cooperation with examiner’s request or spontaneous continuation of movement requested.
 Autonomic abnormality: Abnormality of body temperature (fever), blood pressure, pulse, respiratory rate, inappropriate sweating, and flushing
 Gegenhalten: Resistance to movement, which is proportional to the strength of the stimulus, appears automatic rather than willful.
 Mitgehen: “Anglepoise lamp” arm raising in response to light pressure of finger despite instructions to the contrary.
 Rigidity: Maintenance of a rigid posture despite efforts to be moved, excluded if cog-wheeling or tremor present.

Supplementary Table 3: Explanation of various motor and movement disorder: Hypokinetic motor disorders

Bradykinesia: This is an umbrella term to cover the spectrum of bradykinesia, hypokinesia, and akinesia. Bradykinesia means slowing of movement, hypokinesia means decrease in amplitude of movement and akinesia means lack of movement.
 Rigidity: This is characterized by an increase in muscle tone that is especially noted during slow and passive motion. Rigidity is not velocity-dependent and, as such, does not exhibit the “clasp-knife” phenomenon.
 Postural instability=Difficulty in maintaining balance and stability while standing or during movements. (cf Ataxia, which is difficulty in coordination; cf Cataplexy, which is a brief loss of muscle tone without loss of consciousness, triggered by sudden emotion and associated with Narcolepsy.)
 Apraxia: Are inability to perform simple motor tasks despite adequate motor strength. Further classified into ideomotor, ideational, orofacial, dressing, and constructional.

Supplementary Table 4: Explanation of various motor and movement disorder: Hyperkinetic motor disorders**Spectrum of chorea**

Athetosis: Slow writhing, continuous involuntary movements that affect the limbs

Chorea: A quick, irregular, semi-purposive, and predominantly distal involuntary movement.

Ballismus: Large amplitude movements involving the proximal part of the limb causing flinging and flailing movements.

Tics: Rapid, repetitive, jerky stereotyped movements (motor tics), or vocalization (vocal tics). They may be temporarily suppressible by willpower and may be simple or complex. Complex tics may appear like compulsive behaviors.

Myoclonus: Sudden, brief, and shock-like jerks are caused by muscular contraction (positive myoclonus) or inhibition (negative myoclonus, such as asterixis).

Tremor: A rhythmical, involuntary oscillatory movement of a body part, subdivided into whether the problem occurs at rest, with posture, on action, or with intention.

Dystonia: Both agonist and antagonist muscles of a body region contract simultaneously to produce a twisted posture of the limb, neck, or trunk.

Akathisia: subjective feeling of muscular tension secondary to antipsychotic or other medication, which can cause restlessness, pacing, repeated sitting and standing; can be mistaken for psychotic agitation

Dyskinesia: restless movements of tongue, mouth, and facial muscles, for example, tardive dyskinesia

Ataxia: Failure of muscle coordination.

Supplementary Table 5: Explanation of various motor and movement disorder: Sleep-related motor disorders**Dyssomnia**

Periodic limb movement disorder: This is a sleep disorder mainly affecting the legs characterized by repetitive, involuntary, rhythmic movements during sleep, which occur every 20–40 s, often disrupting sleep and leading to daytime sleepiness.

Restless leg syndrome: Also known as Willis-Ekbom disease, is an urge to move the legs, usually accompanied by uncomfortable sensations, such as tingling, crawling, or aching, which primarily occurs at rest, relieved by movement, and worsens in the evening or at night.

Nocturnal eating syndrome: Recurrent episodes of eating and drinking during the night after awakening from sleep, with a sense of loss of control overeating behavior during these episodes and awareness and memory of the nighttime eating episodes. (cf Sleep-related eating disorder where the person is partially awake and unknowingly engages in eating during sleep, and has no recollection upon awakening.)

Parasomnia

Arousal disorders arise during non-REM sleep and include recurrent episodes of incomplete awakening from sleep, from which the person is difficult to awake from, has limited dream recall, and amnesia for the episode. Confusional arousal, sleepwalking, and night terrors are arousal disorders. Confusional arousal as the name suggests is confused awakening from sleep without any out-of-bed behavior. Sleepwalking includes out of bed behaviors. Sleep terror includes abrupt onset with intense fear and autonomic hyperactivity. Sleep-wake transition disorders include rhythmic movement disorder, sleep starts, and nocturnal leg cramps. Rhythmic movement disorder involves repetitive, stereotyped, and rhythmic movements (head banging, body rocking, leg banging, or other repetitive actions) that occur during sleep or while falling asleep and involve large muscle groups. Sleep starts are short, non-periodic, and intense myoclonic jerks of the large axial muscles, which are considered to be normal phenomena as a person falls asleep. Nocturnal leg cramps are sudden and painful muscle contractions that occur during sleep or while falling asleep. These cramps primarily affect the calf muscles and last from a few seconds to several minutes and are relieved by stretching.

REM sleep behavior disorder: Normally, during REM sleep, the body experiences muscle paralysis to prevent physical movement.

However, individuals with REM behavior disorder do not have this paralysis, allowing them to act out their dreams with vocal sounds and sudden, sometimes violent, arm and leg movements. This behavior is also known as dream-enacting behavior. Rapid eye movement sleep behaviour disorder are associated with tauopathies.

Nightmare disorder includes rapid awakening from REM sleep, with well-remembered dreams with threatening content.

Supplementary Table 6: Explanation of various motor disorders and movement disorders: Motor disorders associated with epilepsy

Frontal lobe seizures originating from the primary motor are associated with tonic or tonic-clonic movements of the contralateral side. As the seizure activity involves more anterior structures, the associated motor symptoms become more complex. Seizures arising from supplementary motor areas may cause asymmetric posturing, deviation of the eyes, vocalizations, and automatisms. Anterior frontal seizures are even more complex and hypermotor (finger snapping, cycling, and rocking of the pelvis)

Temporal lobe seizures may be associated with automatisms, such as lip smacking, chewing, swallowing, picking at clothes, or fumbling movements. Motor arrest, also known as “freezing,” is another motor semiological feature seen in temporal lobe seizures. The spread of seizure activity to contiguous frontal lobe areas may cause motor manifestations, as described above.

As both the parietal and occipital lobes are mainly associated with sensory functions, seizures in this region do not manifest florid motor symptoms. Motor symptoms associated with the parietal lobe include looking to one side due to unilateral agnosia during a seizure, slow rotation of the body to the side of the lesion, and dystonic posturing of the contralateral upper limb. Motor symptoms of occipital lobe seizures may include nystagmus or deviation of the eyes.

Gelastic seizures are a type of epileptic seizure characterized by sudden and uncontrollable bouts of laughter.

Non-epileptic seizures can look like true seizures, but do not arise from abnormal seizure activity in the brain.

The postictal period is defined as 72 h following a seizure. Postictal anxiety, depression, and neurovegetative symptoms can manifest with motor symptoms.