





Short Communication

## A Pragmatic Classification of Motor Abnormalities Seen in Clinical Psychiatric Practice

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### ABSTRACT

This manuscript presents a pragmatic classification of motor abnormalities commonly observed in psychiatric practice. The classification is divided into quantitative and qualitative categories, with a focus on motor underactivity and overactivity. The quantitative category includes symptoms such as retardation, hyperactivity, obsessive slowness, and agitation. The qualitative category explores catatonic symptoms, including motoric immobility, extreme agitation, extreme negativism, posturing, and echo phenomenon. In addition, non-catatonic/neurological motor abnormalities are discussed, such as hypokinetic and hyperkinetic symptoms. The manuscript also highlights related concepts, including La-belle indifference. This classification provides a valuable framework for understanding and diagnosing motor abnormalities in psychiatric practice.

**Keywords:** Movement disorder, Motor disorder, Classification

### INTRODUCTION

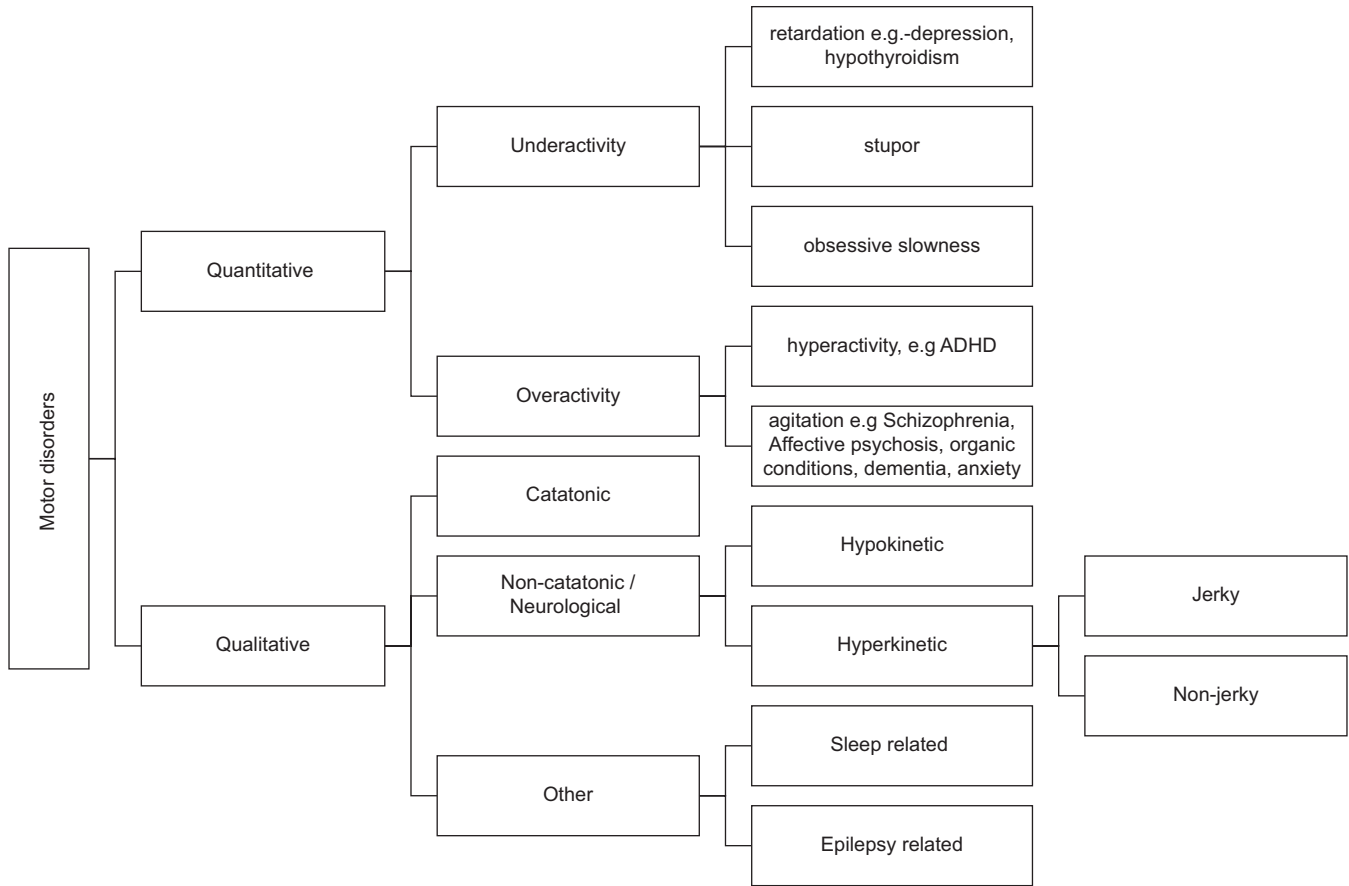
Motor abnormalities are commonly observed in psychiatric practice and can provide valuable insights into the underlying conditions.<sup>[1]</sup> This article presents a pragmatic classification of motor abnormalities, categorizing them into quantitative and qualitative abnormalities [Figure 1].<sup>[2]</sup> The classification aims to provide a broad framework for understanding and identifying these abnormalities in clinical practice and an aide-memoir for the trainee.

### DISCUSSION

#### Quantitative abnormalities

Quantitative abnormalities refer to variations in the level of motor activity. They can be further classified into underactivity and overactivity. Underactivity includes retardation, obsessive slowness, and stupor. *Retardation* refers to slowness in the initiation, execution, and completion of actions. *Obsessive slowness* is characterized by slowness secondary to repeated doubts and compulsive rituals. *Stupor* is a state of markedly slowed motor activity, often to the point of immobility and seeming unawareness of surroundings.

Overactivity includes hyperactivity and agitation. *Hyperactivity* is characterized by increased motor activity numerous and quick movements and gestures, but with a specific purpose.



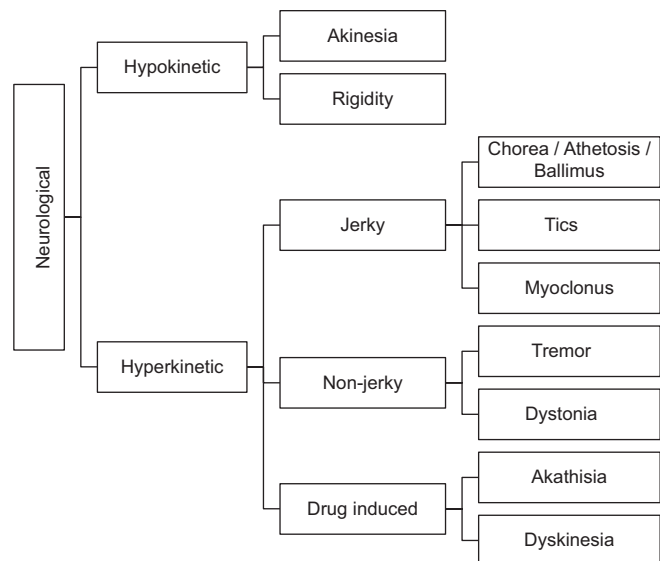
**Figure 1:** General scheme for classification of motor disorders.

*Agitation* refers to excessive motor activity and restlessness without a specific purpose. It may manifest as drumming the fingers, rubbing the hands, getting up and sitting down nonstop, or scratching the head.

**Qualitative abnormalities**

Qualitative abnormalities involve specific patterns of motor behavior and can be further categorized into catatonic, non-catatonic, and other abnormalities. Catatonic abnormalities are characterized by a range of motor symptoms and can be assessed using the Diagnostic and Statistical Manual (DSM) criteria.<sup>[3]</sup> DSM-5 notes 12 symptoms out of which three are required for diagnosis. The MEEPE mnemonic may be used to remember the symptoms [Supplementary Table 1].<sup>[3]</sup> However, there are several other symptoms of catatonia which can be named non-DSM symptoms. These non-DSM symptoms are described according to the Bush-Francis scale [Supplementary Table 2].<sup>[4]</sup>

Apart from catatonic abnormalities, there are other motor abnormalities that can be observed in psychiatric practice. These abnormalities have a neurological basis and can be classified into hypokinetic and hyperkinetic categories [Figure 2].<sup>[5]</sup> Hypokinetic abnormalities are



**Figure 2:** Classification of non-catatonic/neurological motor abnormalities.

characterized by reduced movement and include symptoms such as bradykinesia, rigidity, postural instability (seen in parkinsonism), and apraxia [Supplementary Table 3].<sup>[5]</sup>

Hyperkinetic abnormalities involve excessive and abnormal movements and are further clinically differentiated as jerky or non-jerky.<sup>[6]</sup> Hyperkinetic abnormalities include symptoms such as tremors, chorea/athetosis/ballismus, tics, dystonia, myoclonus, akathisia, dyskinesia, and ataxia [Supplementary Table 4].<sup>[5,7]</sup>

In addition to the above categories, there are motor abnormalities that are related to sleep disorders and epilepsy. Sleep-related motor abnormalities can manifest as dyssomnias or parasomnias [Supplementary Table 5].<sup>[8,9]</sup> Dyssomnias are a broad category of sleep disorders that involve difficulties with falling asleep, staying asleep, or excessive sleepiness. Parasomnias are a category of sleep disorders that involve abnormal behaviors, movements, emotions, perceptions, or dreams that occur during sleep or the transition between wakefulness and sleep. Whereas motor abnormalities are not pathognomonic of epilepsy, several motor symptoms can be associated with epilepsy. Depending on the specific seizure type, these abnormalities can present as various types of motor movements [Supplementary Table 6].<sup>[10-12]</sup> Astasia-abasia is an inability to stand or walk normally, even though normal leg movements can be performed in a sitting or lying down position. The gait is bizarre and does not suggest a specific organic lesion as seen in conversion disorder. *La-belle indifference* refers to a lack of psychological distress or concern about physical symptoms or disabilities, even when they are significant.

## CONCLUSION

It is important to note that the classification presented here provides a broad framework for understanding motor abnormalities in psychiatric practice. There may be some overlap between the quantitative and qualitative categories, and certain symptoms can be classified into multiple categories. In addition, abnormal facial expressions and abnormal eye movements are considered part of the description of appearance. The purpose of this classification is to provide a useful tool for beginners in the field and to facilitate the identification and understanding of motor abnormalities in clinical practice.

This article presents a pragmatic classification of motor abnormalities seen in psychiatric practice, which can serve as a valuable tool for clinicians in understanding and identifying motor abnormalities in their clinical practice.

## Ethical approval

Institutional Review Board approval is not required.

## Declaration of patient consent

Patient consent was not required as there are no patients in this study.

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Nil.

## Conflicts of interest

There are no conflicts of interest.

## Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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