

## Commentary

# FALLS AND INJURIES IN PATIENTS WITH MOVEMENT DISORDERS: EXPLORING THE MENTAL HEALTH

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## Abstract

Accidental falls in patients with Movement Disorders (MDs) present complex challenges that extend beyond the realms of traumatology and neurology. This commentary explores the findings of a recent systematic review by Homann, which found that falls and injuries in patients with diverse hyperkinetic MDs are both prevalent and serious. While the primary focus of the review is on the neurological aspects of falls, it also highlights significant connections between MDs and mental health. Predisposing factors such as cognitive decline, emotional and behavioral alterations, and psychiatric comorbidities heavily contribute to falls in this population. The consequences of falls extend beyond physical injuries, encompassing psychosocial implications such as fear of falling, reduced self-confidence, and isolation. Psychiatrists and other mental health professionals play a crucial role in the comprehensive care of these patients, addressing both the neurological and mental health aspects. This commentary emphasizes the importance of a multidisciplinary approach in acute treatment, especially in medication optimization, as well as psychoeducation and psychological support in mitigating fall-related complications. By integrating these findings into clinical practice, mental health professionals can contribute to enhanced outcomes for patients with MDs, recognizing and addressing their mental health needs in the aftermath of a potentially life-threatening, traumatizing, and often life-changing experience. *ASEAN Journal of Psychiatry, Vol. 24(S3) November, 2023;1-5.*

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## Description

Movement Disorders (MDs) are disabling neurodegenerative diseases causing either excessive (hyperkinetic) or reduced (hypokinetic) movements, unrelated to weakness or spasticity [1]. In addition to motor impairments, they also have autonomic and psychological symptoms, which can be equally disabling (Table 1). Falls in MDs-patients are prevalent and consequential, as underlined in the recent article: "Accidental Falls in Patients with Hyperkinetic Movement Disorders: A Systematic Review" [2]. While primarily focusing on neurological aspects, it also emphasizes the often-underappreciated mental

health issues associated with falls, which are discussed in this commentary.

## Mental health care considerations

MDs have a significant neuropsychiatric component, yet their primary management remains within the domain of neurologists, with limited involvement from psychiatrists (Table 2). However, when patients with MDs experience falls and injuries, it adds another layer of complexity. These individuals, already psychologically compromised, face potentially life-altering consequences. Falls, as highlighted in the review, are identified as a central factor leading to nursing home placement, especially in

the elderly and those with multiple comorbidities [2-4]. MDs-patients are particularly vulnerable, experiencing not only physical trauma but also psychological distress. However, the treatment focus in orthopaedic wards primarily revolves around physical recovery, lacking sufficient support for their psychological needs. Patients overwhelmed by the volume of their mental and

physical challenges often hesitate to seek psychological assistance.

The table provides information on the prevalence, symptoms, age of onset, gender rate, and average degree of disability of the most common neurological movement disorders. The information in the table is based on various studies and meta-analyses.

**Table 1: Characteristics of the most common neurological movement disorders.**

<b>Movement disorders</b>	<b>Prevalence (1:100,000)</b>	<b>Age of onset (yrs)</b>	<b>Gender (male:female)</b>	<b>Key symptoms</b>	<b>Disability</b>
Parkinson's Disease	400	60	1.5:1	Bradykinesia, tremors, rigidity, postural instability, cognitive impairment, depression, anxiety	Medium
Huntington's Disease	4-8	30-50	1:1	Chorea, cognitive impairment, behavioral symptoms, dystonia, tremors	Heavy
Tremor	46	68	1:1	Involuntary rhythmic movement, cognitive impairment, anxiety, depression	Mild
Dystonia	5-10	40-60	1:1	Involuntary muscle contractions, tremors, cognitive impairment, depression, anxiety	Medium
Tics	5-10	6-18	3:1	Involuntary movements and sounds, cognitive impairment, anxiety, depression	Mild
Myoclonus	13	30-50	1:1	Sudden, brief, involuntary muscle jerks, cognitive impairment, depression, anxiety	Mild
Ataxia	5-10	50-60	1:1	Loss of coordination, tremors, cognitive impairment, depression, anxiety	Medium
Restless Legs Syndrome	50-150	40-60	1:1	Unpleasant sensations in the legs, and urge to move them, depression, anxiety	Mild

**Table 2: Prevalence estimates of mental health factors in diverse neurological movement disorders.**

Movement disorder	Drowsiness	Cognitive impairment	Depression	Anxiety	Apathy	Irritability	Psychosis	Compulsive behaviors
Parkinson's disease	++++	+++++	+++	+++	+++	+++	+++	+
Huntington's disease	++++	+++++	+++	+++	+++	++++	+	++
Tremor	-	-	++	++	-	-	-	-
Dystonia	-	-	+++	++	-	-	-	-
Tics	++	++++	-	-	-	-	-	+++
Myoclonus	-	-	-	+++	-	-	-	-
Ataxia	-	-	++	-	-	-	-	-
Restless legs syndrome	++	-	++	++	-	-	-	-

**Note:** To offer a general estimate, a comprehensive literature search was conducted in PubMed, and the obtained figures were categorized using the following protocol: '+' represents 0%-19%, '++' represents 20%-39%, '+++ represents 40%-59%, '++++' represents 60%-79%, and '+++++' represents 80%-100% prevalence range. This categorization allows for a rough estimation of the prevalence rates of mental health factors associated with each movement disorder.

The prevalence figures of mental health factors in studies exhibit significant variation across different movement disorder entities, often demonstrating consistent patterns. However, within a specific movement disorder, prevalence figures may vary considerably due to differences in study populations and designs.

It has been shown that victims of accidental falls can even develop Post-Traumatic Stress Disorder (PTSD) [5]. Proactive engagement and early interventions by psychiatrists, psychologists, and social workers can significantly reduce stress levels and facilitate recovery. Several trauma-specific therapies have proven effective in supporting patients especially when applied close to the traumatizing event [6-8]. Additionally, optimal medication management becomes crucial in avoiding both under-medication and over-medication. Abrupt discontinuation or changes in MD medications pending surgical interventions can exacerbate psychological symptoms or even lead to medication-induced delirium, a potentially life-threatening condition [9,10]. Close monitoring by psychiatrists can help detect and address medication interactions and deliriant stages to prevent further deterioration and reduce hospital stay and mortality [11].

Medium and long-term mental care for MD-patients should address the challenges of adapting to new lifestyles and managing remaining disabilities from injuries. Reduced mobility, social isolation, and avoidance behaviors are typical consequences that need to be diagnosed and managed by healthcare professionals [12]. Cognitive behavioral therapy, possibly in combination with medication, may be indicated. Providing psychoeducation to patients and their caregivers about fall prevention strategies, managing fear of falling, and enhancing self-confidence can positively affect patients' quality of life. Additionally, facilitating support groups or therapy sessions that address the psychosocial consequences of falls can help reduce isolation and improve overall mental well-being.

Furthermore, secondary prevention plays an essential role in mitigating fall risks in MD-patients. As highlighted in the review, many fall risk factors have origins in mental health conditions, such as cognitive decline, reduced wakefulness, and emotional and behavioral alterations. [2] To prevent fall recurrence, healthcare professionals can identify and address these factors, including comorbid conditions like depression, anxiety, and fear of falling. By treating mental health conditions and creating a

safer environment, fall victims' outcomes and quality of life can be improved [13].

## Conclusion

In conclusion, high prevalence of falls in MDs is a complex challenge that requires a multidisciplinary approach. While the reviewed article primarily focuses on the neurological and traumatological aspects, it emphasizes the crucial psychiatric implications that should be considered to optimize patient care and outcomes. Psychiatrists and other mental health

care professionals possess the necessary expertise to manage acute complications, reduce risk factors, and mitigate the sequelae following falls and injuries. Their engagement early in the clinical treatment as part of a multidisciplinary team is essential, as well as their ability to provide the patient with long-term psychological treatment, assist the adaptation to new circumstances, and prevent or mitigate the effects of PTSD. Incomplete data, as noted in the review, underscores the need for further research, particularly regarding the mental health implications of trauma in MDs-patients.

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