

Multiple Sclerosis Management in Pakistan: A Call for Comprehensive Multidisciplinary Rehabilitation Strategies

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Multiple sclerosis (MS) is a chronic, disabling neurological disease that affects over 2.8 million people worldwide, with a significant burden in low- and middle-income countries (LMICs) such as Pakistan.¹ MS is characterised by physical, cognitive, and psychological impairments and profoundly impacts a patient's quality of life, mobility, and independence. Globally, MS rehabilitation has evolved from a focus on symptom management to an integrated approach that addresses physical, cognitive, and psychosocial well-being. The aim is to reduce disability, improve mobility and quality of life, and enhance community reintegration.

Building on the global understanding of MS and its evolving rehabilitation strategies, Pakistan presents a unique context where the disease's rising prevalence and distinct challenges demand a localised yet comprehensive approach to care and intervention. Pakistan faces a dual burden of infectious and non-communicable neurological diseases,² with MS emerging as a significant concern. Viral infections, smoking, and low levels of vitamin D are among the top risk factors.³ With increasing data available, there is evidence that MS in Pakistan is not as uncommon as it was previously thought and likely follows the same pattern as documented in the developed world. The prevalence of MS in Pakistan is estimated to be 5-10 cases per 100,000 people, with a higher incidence among young adults, particularly women.⁴ Despite this, the country's healthcare system remains ill-equipped to address the complex needs of MS patients. Rehabilitation services are often limited to urban centres, with a focus on acute care and physical therapy. Exercise interventions, including aerobic, and resistance training, have been shown to significantly improve balance, walking endurance, fatigue, and quality of life in people with MS.⁵

Home-based exercises, while beneficial, cannot replace the comprehensive care provided by multidisciplinary teams, where speech and swallowing therapy, bowel and bladder care, psychological support, pain management, occupational therapy, and vocational rehabilitation are important aspects of multidisciplinary teams.

Multidisciplinary rehabilitation, involving neurologists, physiotherapists, occupational therapists, psychologists, and social workers, has become the gold standard in high-income countries. However, LMICs such as Pakistan, usually have a huge population burden (240 million) and scarcity of trained neurorehabilitation professionals. Therefore, rehabilitation services for MS are either unavailable or fragmented. The insufficient rehabilitation service capacity is a significant barrier to implementing comprehensive rehabilitation protocols, potentially affecting functional improvement in patients with MS.⁶ Majority of the studies from Pakistan mainly focus on the aetiology, prevalence, types, and medical management of MS, and very few refer to the rehabilitation issues.

While global advancements in MS management have emphasised the importance of multidisciplinary rehabilitation, Pakistan is still lagging. The main emphasis is currently on medical and pharmacological management including immunomodulatory and immunosuppressive therapies.⁷ Rehabilitation services for MS are either unavailable or consist of isolated physical therapy interventions without a true comprehensive multidisciplinary rehabilitation. Each year World MS Day is celebrated on 30th of May. On World MS Day, this editorial aims to highlight the urgent need for comprehensive, multidisciplinary rehabilitation strategies tailored to the local context of Pakistan. This can significantly improve the outcomes in patients with MS in Pakistan. We are advocating for systemic changes in MS rehabilitation in Pakistan, by suggesting a set of seven recommendations that need to be adopted by the government, public sector, physicians, society, and patients living with MS.

A recent commentary highlighted the lack of impairment-based multidisciplinary rehabilitation programmes, with most interventions focusing on physical therapy alone.⁸ This approach does not address the cognitive, emotional, and social challenges faced by patients with MS. Moreover, cultural stigmas surrounding disability and mental health further worsen the barriers to effective rehabilitation. For instance, patients may

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avoid seeking psychological support and address sexual issues due to fear of social judgement, leading to untreated depression and anxiety, which are common comorbidities in MS.

The cultural context of Pakistan plays a significant role in shaping MS management and rehabilitation. Family support is often the primary source of care for MS patients, but this can also lead to over-reliance on informal caregiving, which may lack the ability needed for effective rehabilitation. This family-centred caregiving model reflects deeply held cultural values of filial responsibility and collectivism in Pakistani society, where illness management is considered a family affair rather than solely an individual responsibility.

Additionally, socioeconomic factors,⁹ such as poverty and limited access to healthcare facilities, further hinder the delivery of comprehensive rehabilitation services in Pakistan. Many families, particularly in rural areas, must travel significant distances to access specialist rehabilitation services, often at considerable financial cost. Gender norms also influence rehabilitation outcomes; as female patients may face additional barriers to accessing care outside the home or participating in rehabilitation programmes that require travel or mixed-gender settings. Addressing these challenges requires culturally sensitive interventions that integrate traditional family support systems with evidence-based rehabilitation practices.

The authors suggest that there is an urgent need to address the gaps in MS rehabilitation in Pakistan. They propose establishing multidisciplinary centres, holding team meetings, providing healthcare training, ensuring timely referrals, raising awareness, conducting local research, and fostering groups as essential steps for consideration by neurologists, public health experts, neurology societies, healthcare departments, and policymakers.

There is a need to develop specialised centres that offer comprehensive neurological care to patients with MS.¹⁰ Ideally, these centres or departments should be led by a qualified rehabilitation medicine physician and include members of a standard multidisciplinary rehabilitation team. These will include physical therapy, occupational therapy, speech therapy, psychological support, and social services.

For those patients who are admitted to the hospitals for diagnosis, medical care, and treatment plan, it is important to involve the rehabilitation team members from the start. This can be done in the form of a multidisciplinary team meeting to identify the impairments and assess the disability status of the patient. This will allow a holistic evaluation instead of focusing on medical management alone and help create a patient-specific rehabilitation programme.

The training programmes for neurologists must include a part of neurorehabilitation rotation and training. This will ensure that future neurologists understand the value and components of a multidisciplinary neurorehabilitation for patients with MS.

Patients with MS can develop multiple long-term issues despite adequate medical management that will need rehabilitation interventions. These may include pain management, spasticity management, speech and swallowing issues, bowel, and bladder management, depression, sexual issues, cognitive deficits, and musculoskeletal and balance issues. These patients must be referred to rehabilitation medicine physicians for detailed evaluation before the disability sets in.

Government, societies, and institutes should launch public awareness campaigns to reduce the stigma associated with neurological diseases such as MS and educate patients and families about the benefits of multidisciplinary rehabilitation.

Most of the research on the role of MS rehabilitation has been published from developed countries. There is a need to encourage research on the effectiveness of rehabilitation interventions in the Pakistani context to inform evidence-based practices and to create rehabilitation protocols that are contextual and culturally appropriate.

Peer support groups can be helpful for patients with MS.¹¹ Social support groups also appear to increase the adherence of participants with MS to telerehabilitation interventions.¹² Society for MS Patients in Pakistan was established in 2011 by Afroz Syed, a patient with MS from Lahore, Pakistan,¹³ to create awareness about MS and help these patients live better, healthy, and active lives. However, one organisation cannot address the needs of all patients in such a populous country. There is a need for more initiatives such as these that must be supported by the government, healthcare professionals, and the private sector.

The need for multidisciplinary rehabilitation in MS care in Pakistan is both urgent and undeniable. By addressing the gaps in current services and using the strengths of the local cultural context, we can transform the lives of MS patients and their families. On this World MS Day, let us commit to bridging the gap and building a future where every MS patient in Pakistan has access to the comprehensive care they deserve.

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FAR: Conception of the idea and writing the initial draft.

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