

The impact of neuromuscular diseases on quality of life: Current challenges and future directions.

Gbolahan Kokori*

Department of Medicine and Surgery, University of Ilorin, Nigeria

Introduction

Neuromuscular diseases (NMDs) encompass a range of disorders that affect the peripheral nervous system, muscles, or the neuromuscular junction, leading to progressive muscle weakness, impaired mobility, and, in many cases, significant disability [1]. The impact of NMDs on quality of life (QoL) is profound, as these conditions often lead to physical limitations, chronic pain, fatigue, and respiratory complications [2]. Individuals affected by NMDs face difficulties in performing daily activities, maintaining employment, and achieving personal and social milestones, which can result in psychological distress, including anxiety and depression [3].

The decline in motor function due to NMDs can severely restrict independence, making tasks such as walking, dressing, or even breathing without assistance a challenge [4]. These limitations are not only physical but also emotional, as patients often grapple with feelings of frustration, helplessness, and social isolation. For caregivers and family members, the burden of care can also be significant, contributing to their own stress and reduced well-being [5].

A major challenge in addressing NMDs is the lack of effective treatments or cures for many of these conditions. Therapies tend to focus on symptom management, such as physiotherapy to maintain mobility, respiratory support for breathing difficulties, and medication to control muscle spasms or pain [6]. While these interventions can improve aspects of life, they rarely stop disease progression. The unpredictability of disease progression further complicates life planning for patients, who may face sudden declines in health [7].

In recent years, advances in genetic therapies and personalized medicine offer hope for more effective interventions. Gene therapies aimed at correcting or replacing defective genes are being explored for conditions like spinal muscular atrophy (SMA) and Duchenne muscular dystrophy (DMD). These treatments could potentially halt or reverse the disease course, improving QoL dramatically. However, the high cost and limited accessibility of these emerging therapies remain barriers [8].

Looking forward, future directions in research should prioritize improving accessibility to new therapies, developing more effective treatments that slow disease progression, and

enhancing early diagnosis [9]. Additionally, integrating mental health support as part of standard care for patients and their families is critical, as psychological well-being is intricately linked to overall QoL. With continued advancements in research, there is hope that the next generation of treatments will address not only the physical but also the emotional and social challenges faced by those living with NMDs [10].

Conclusion

Neuromuscular diseases have a profound impact on the quality of life for patients and their families, affecting physical abilities, emotional well-being, and social participation. Current challenges stem from limited treatment options that mainly focus on managing symptoms rather than halting disease progression. While advancements in genetic therapies and personalized medicine offer promising avenues for future interventions, barriers such as high costs and accessibility remain significant. Moving forward, it is essential to focus on developing more effective treatments, improving access to these therapies, and incorporating comprehensive mental health support into patient care.

References

1. Burns TM, Graham CD, Rose MR, et al. Quality of life and measures of quality of life in patients with neuromuscular disorders. *Muscle Nerve*. 2012;46(1):9-25.
2. Geller G, Harrison KL, Rushton CH. Ethical challenges in the care of children and families affected by life-limiting neuromuscular diseases. *J Dev Behav Pediatr*. 2012;33(7):548-61.
3. Vincent KA, Carr AJ, Walburn J, et al. Construction and validation of a quality of life questionnaire for neuromuscular disease (INQoL). *Neurology*. 2007;68(13):1051-7.
4. Eiser C, Morse R. The measurement of quality of life in children: past and future perspectives. *Journal of Developmental & Behavioral Pediatrics*. 2001;22(4):248-56.
5. Cavazza M, Kodra Y, Armeni P, et al. Social/economic costs and health-related quality of life in patients with Duchenne muscular dystrophy in Europe. *Eur J Health Econ*. 2016;17:19-29.

*Correspondence to: Gbolahan Kokori, Department of Medicine and Surgery, University of Ilorin, Nigeria. E-mail: gkokori@ng.co

Received: 22-Aug-2024, Manuscript No. JNNR-24-150905; Editor assigned: 23-Aug-2024, Pre QC No. JNNR-24-150905(PQ); Reviewed: 06-Sep-2024, QC No. JNNR-24-150905; Revised: 11-Sep-2024, Manuscript No. JNNR-24-150905(R); Published: 18-Sep-2024, DOI: 10.35841/ajjnnr-9.5.225

6. Mah JK, Thannhauser JE, Kolski H, et al. Parental stress and quality of life in children with neuromuscular disease. *Pediatr Neurol.* 2008;39(2):102-7.
7. Vaidya S, Boes S. Measuring quality of life in children with spinal muscular atrophy: a systematic literature review. *Qual Life Res.* 2018;27:3087-94.
8. Leary R, Oyewole AO, Bushby K, et al. Translational research in europe for the assessment and treatment for Neuromuscular Disorders (TREAT-NMD). *Neuropediatrics.* 2017;48(04):211-20.
9. Silva JP, Júnior JB, Dos Santos EL, et al. Quality of life and functional independence in amyotrophic lateral sclerosis: A systematic review. *Neurosci Biobehav Rev.* 2020;111:1-1.
10. Weaver MS, Hanna R, Hetzel S, et al. A prospective, crossover survey study of child-and proxy-reported quality of life according to spinal muscular atrophy type and medical interventions. *J Child Neurol.* 2020;35(5):322-30.