

Sister Kenny and the Origins of Rehabilitation: Lessons for Modern PMR Practice

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Abstract

Sister Elizabeth Kenny was a pioneering figure in the management of poliomyelitis who challenged the prevailing practice of immobilization in the early twentieth century. Through her emphasis on pain relief, early mobilization, and functional recovery, she introduced principles that resemble modern rehabilitation approaches. Despite resistance from the medical establishment, her methods gained recognition and contributed to a shift in clinical practice. This article revisits her contributions and examines their relevance to contemporary Physical Medicine and Rehabilitation (PMR), highlighting lessons in clinical reasoning, patient-centred care, and innovation in rehabilitation practice.

Introduction

Medical practice evolves through cycles of acceptance and resistance. Innovations that challenge established norms often encounter scepticism, particularly when proposed by individuals outside traditional medical hierarchies. Sister Elizabeth Kenny's approach to poliomyelitis management represents one such turning point in the history of rehabilitation^{2,3}.

At a time when immobilization was considered standard care for poliomyelitis, Kenny advocated for an alternative approach centred on pain relief, muscle re-education, and early mobilization^{2,4}. Her work, though controversial, contributed to a shift toward principles that align closely with modern PMR practice.

Beyond its historical significance, her work also illustrates how clinical insight and patient-centred observation can drive therapeutic innovation, even in the absence of formal scientific validation³. This makes her contributions particularly relevant in rehabilitation medicine, where individualized care and functional outcomes often guide practice.

Historical Context: Poliomyelitis and Conventional Management

In the early twentieth century, poliomyelitis was a major public health concern with no effective treatment³. The prevailing medical approach emphasized immobilization of affected limbs, based on the belief that rest would prevent further damage^{3,4}.

However, this approach often resulted in persistent muscle stiffness, contractures, and long-term disability⁴. These limitations highlighted the need for alternative approaches and set the stage for innovation.

In retrospect, these complications reflect the consequences of prolonged disuse and lack of active rehabilitation, concepts that are now well understood in modern musculoskeletal and neurological care. The limitations of immobilization in polio management parallel similar challenges seen today in prolonged bed rest and critical illness-related deconditioning.

The Kenny Approach

Sister Kenny, an informally trained nurse from rural Australia, developed her approach based on clinical observation^{2,3}. She observed that patients with poliomyelitis experienced significant pain and muscle spasm².

Her treatment approach included:

1. Application of hot moist packs
2. Early mobilization
3. Muscle re-education through active movement

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This differed from conventional practice by emphasizing functional recovery and patient response rather than rigid immobilization⁴. Importantly, her approach prioritized restoration of movement over structural protection, reflecting an early understanding of functional rehabilitation. This shift from passive care to active engagement remains a cornerstone of contemporary rehabilitation strategies.

Relevance to Modern PMR Practice

Many principles underlying the Kenny method are now integral to contemporary rehabilitation:

1. Early Mobilization

Prevention of contractures and deconditioning through early movement⁴

2. Pain-Guided Therapy

Addressing pain and spasm to facilitate participation in rehabilitation

3. Functional Restoration

Focus on independence and meaningful activity

4. Patient-Centred Care

Individualized treatment guided by patient response. These principles are now widely applied across rehabilitation settings, including stroke and critical illness recovery³. Early mobilization is now routinely emphasized to reduce complications associated with prolonged immobility and deconditioning. Similarly, the emphasis on patient participation and restoration of function rather than passive care continues to influence modern rehabilitation approaches. These concepts remain central to activity-based and goal-oriented rehabilitation programs used in current clinical practice.

Lessons for Rehabilitation Practice

This historical perspective offers important lessons:

- Innovation may arise outside traditional academic pathways
- Clinical observation remains valuable in developing therapeutic approaches
- Resistance to new ideas is a recurring feature of medical progress (3)
- Functional outcomes should remain central to patient care

Additionally, the story of Sister Kenny highlights the importance of interdisciplinary collaboration and adaptability in clinical practice. Rehabilitation medicine often requires integration of multiple therapeutic approaches, and openness to evolving methods remains essential for improving patient outcomes.

Discussion

Sister Kenny's contribution extends beyond poliomyelitis management. Her emphasis on movement, function, and patient experience anticipated key principles of modern rehabilitation^{3,4}. While not all aspects of her method were scientifically validated, her work helped shift attention toward active rehabilitation and functional recovery⁴. Her story also highlights the importance of questioning established practices and integrating clinical insight with evolving evidence.

From a contemporary perspective, her work can be seen as an early challenge to rigid, protocol-driven care. Modern rehabilitation increasingly recognizes the need for individualized, adaptive approaches that respond to patient variability rather than relying solely on standardized protocols.

Conclusion

Sister Kenny's work represents an important chapter in the evolution of rehabilitation medicine. Her emphasis on early mobilization, pain management, and functional recovery continues to resonate with contemporary PMR practice.

Revisiting her contributions underscores the importance of open-mindedness, clinical observation, and patient-centred care in advancing rehabilitation.

Her legacy also serves as a reminder that meaningful advances in medicine often emerge from challenging established norms and rethinking conventional approaches in light of patient-centred outcomes.

Disclosure

This article is adapted and expanded from a previously published narrative on Sister Kenny in Hektoen International (2021), with substantial modification and additional focus on rehabilitation practice¹.

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