



Aging with Disability: What Should We Pay Attention to?

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Despite our attention to population aging in recent decades, aging in people with long-term medical disabilities has been overlooked. People living with long-term disabilities have various problems associated with premature aging as their biological age is higher than their chronological age.¹⁾ Given the high prevalence of chronic diseases in people with disabilities, the presence of frailty and geriatric diseases needs to be identified before advanced age.^{2,3)} Since the United Nation's declaration of the Healthy Ageing Decade (2020–2030), worldwide concerns have increased regarding healthy aging policies for older populations.^{4,5)} Considering these concerns, we should be aware of the urgent need to establish a healthy aging strategy for people with aging and disability.

People with congenital or acquired disabilities in childhood and early adulthood, such as cerebral palsy, spinal cord injury, and poliomyelitis, experience a variety of problems throughout their lives. As they age, ordinary functional decline due to natural aging is superimposed on pre-existing dysfunction, creating various late effects.^{6,7)} “Late effects” is a concept referring to all new health problems deriving from the chronic impairment associated with existing impairment and disability. Chronic pain and dysfunction caused by stiffness and deformity often exacerbate pre-existing disabilities in middle and old age. Degenerative changes in the spine and joints due to abnormal repetitive motions and improper posture occur early in life, leading to functional decline. Secondary disorders related to medical and musculoskeletal complications involved in long-term disability, such as osteoporosis, osteoarthritis, fractures, obesity, and sarcopenia, are a major health threat later in life.³⁾ Efforts to prevent or alleviate the morbidity of late effects and worsening of existing disabilities are the key task to ensure the right to access the highest attainable standard of health for people with disabilities. Therefore, a continuous systemic response is urgently required.

Age-related functional decline among people with disabilities is a chronic and complex problem that is challenging to manage. Ide-

ally, reversible factors could be identified and addressed appropriately as early as possible; however, the complexity of aging with disabilities makes it difficult for long-term survivors with disabilities to receive appropriate medical care.^{1,3)} Regarding individual chief complaints and symptoms, most healthcare professionals provide a piecemeal approach and symptomatic resolution of individual problems. Consequently, these patients often do not receive appropriate care that fits their needs and suits their problems. For example, surgical or nonsurgical treatments offered for secondary musculoskeletal problems are sometimes ineffective or lead to unexpected adverse effects on functional consequences. Thus, the treatment and management of these problems are of concern because they cannot be resolved by fragmented clinical treatment.

How can we improve on these situations? In recent years, we have increasingly recognized the influence of lifestyle, behavioral, and biological risk factors on the initial impairment, which influences the development of secondary or late effects. Successful aging with long-term disabilities has been discussed in a unique context, i.e., a complex construct comprising several interrelating domains including psychological resiliency and adaptation, autonomy, social connectedness, and the availability of appropriate and accessible healthcare.¹⁾ The overarching view of disability entwined with aging is essential. A paradigm shift has emphasized the “life-course perspective.” Indeed, the life experience of people with disabilities must be considered based on this life-course perspective.⁸⁾ For example, the median age of the polio survivor population has already exceeded 60 years in Korea.⁷⁾ Thus, our focus should now be on the interaction between aging and the effects of longstanding preexisting disabilities. From the life-course perspective of polio survivors, the development of secondary disorders, their aggravation, and limited function in connection with these disorders, all of which are predictable with aging, have become a serious threat to the health of these survivors. Thus, a comprehen-

sive, integrated approach and intervention to overcome and prevent these late effects in people with disabilities have emerged as a new paradigm.

From the perspective of geriatric rehabilitation, it is important not only to provide rehabilitative treatments according to the care needs in the acute and subacute recovery phases but also to detect various late effects or worsening of physical disabilities as early as possible, to implement appropriate interventions, and to monitor the outcome periodically for people with disabilities who are experiencing a functional decline in middle and old age. The primary healthcare system for people with disabilities, which has been implemented as a pilot project for the past 3 years since the Act on Guarantee of Right to Health and Access to Medical Services for People with Disability came into force in Korea in 2017, is expected to play a significant role in the age-related issues of people with disabilities.⁹⁾ This is a system in which general healthcare and specific management for their impairment and disability work together to reflect the types and levels of disability, while also considering the clinical features and needs of people with disabilities living in the community. The attention of primary care physicians to the life course of people with severe disabilities and the provision of medical treatment and healthcare management in the community would help to solve problems related to aging with disability and simultaneously improve the primary healthcare system throughout the community, a win-win approach and the starting point of healthy aging for people with disabilities.

However, the currently implemented pilot project for people with disabilities has limitations, such as the absence of a link between general healthcare and disability management and a lack of collaboration with community resources. Meanwhile, in 2018, the Regional Health and Medical Centers for people with disabilities were established as a multidisciplinary workforce, such as physicians, nurses, social workers, and therapists, to serve as a link between community healthcare and social care systems for the medical and healthcare management of people with disabilities living in the community. It is time to prepare a healthy aging strategy for aging with disability by utilizing the multidisciplinary capabilities of the Regional Health and Medical Centers and facilitating communication and collaboration among healthcare and social care providers for people with disabilities.

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CONFLICT OF INTEREST

The author claims no conflicts of interest.

REFERENCES

1. Molton IR, Yorkston KM. Growing older with a physical disability: a special application of the successful aging paradigm. *J Gerontol B Psychol Sci Soc Sci* 2017;72:290-9.
2. World Health Organization. Disability and health [Internet]. Geneva, Switzerland: World Health Organization; c2022 [cited 2022 Jun 23]. Available from: <https://www.who.int/news-room/fact-sheets/detail/disability-and-health>.
3. Klingbeil H, Baer HR, Wilson PE. Aging with a disability. *Arch Phys Med Rehabil* 2004;85(7 Suppl 3):S68-73.
4. Lim JY. Challenges and opportunities toward the decade of healthy ageing in the post-pandemic era. *Ann Geriatr Med Res* 2021;25:63-4.
5. Lloyd-Sherlock P, Kalache A, Kirkwood T, McKee M, Prince M. WHO's proposal for a decade of healthy ageing. *Lancet* 2019;394:2152-3.
6. Cosgrove JL, Alexander MA, Kitts EL, Swan BE, Klein MJ, Bauer RE. Late effects of poliomyelitis. *Arch Phys Med Rehabil* 1987;68:4-7.
7. Bang H, Suh JH, Lee SY, Kim K, Yang EJ, Jung SH, et al. Post-polio syndrome and risk factors in Korean polio survivors: a baseline survey by telephone interview. *Ann Rehabil Med* 2014;38:637-47.
8. Maynard FM. Managing the late effects of polio from a life-course perspective. *Ann NY Acad Sci* 1995;753:354-60.
9. Shin DS, Choi YJ. A pilot study of team-based primary health care for people with disabilities in South Korea. *J Interprof Care* 2019;33:129-32.

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