



## SITUATION ANALYSIS OF REHABILITATION SERVICES TO SUPPORT THE NATIONAL DISABILITY AND REHABILITATION PLAN IN THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

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**Objective:** In 2013, the Democratic People's Republic of Korea (DPRK) signed the United Nations Convention on the Rights of Persons with Disabilities (UN-CRPD). Since the concept of rehabilitation services in the DPRK did not meet international standards, the government, through the Korean Federation for Protection of the Disabled (KFPD) and Munsu Rehabilitation Hospital (MRH), set up a technical consultation with external experts.

**Methods:** Two rounds of consultations were performed, in August 2016 and March 2017, with available methodology, as used in previous consultation processes, but excluding site visits. The consultations started by collecting available data and holding workshops with representatives from the KFPD and the MRH. The results are listed as recommendations for the improvement of health-related rehabilitation services in the DPRK. The results were further developed by KFPD into a draft National Strategy and Action Plan on Comprehensive Rehabilitation (NSAP-CR) 2017–2020. The draft was discussed with external experts for further improvement prior to discussion with the government.

**Results and discussion:** Overall, the consultation processes was successful, despite the limitation of not making site visits. Recent developments in the DPRK include ratification of the UN-CRPD in December 2016. The authors hope that the NSAP-CR can be implemented successfully, leading to improved quality of life for people with disabilities in the DPRK.

**Key words:** rehabilitation service; situation analysis; rehabilitation advisory teams; national disability; health and rehabilitation plan; rehabilitation professions.

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The Democratic People's Republic of Korea (DPRK) is located in the Korean peninsula in east Asia. It shares land borders with the Republic of Korea in the south and China and Russia in the north. The DPRK has sea borders with Japan through the Sea of

Japan in the east and with China through the Yellow Sea and Korean Bay in the west. The capital of DPRK is Pyongyang.

According to the 2014 census carried out by the DPRK Ministry of Public Health, the population was 24,895,000, with the following age distribution: 0–15 years, 20.8%; 16–30 years, 65.9%; and 60–90 years, 13.3%. The sex distribution for this population was 48.74% male and 51.26% female, with distribution being 61% rural and 39% urban (1).

The gross domestic product (GDP) in 2013, based on purchasing power parity per capita, was 1,004 USD, with an economic growth rate of 5.9% annually in the period between 2009 and 2013 (1).

Common causes of death are non-communicable diseases (NCDs), including stroke, lung disease, coronary heart disease, and cancer (1). Major risk factors are smoking and excessive alcohol consumption. All of these factors could also lead to an increase in disability rates.

In 2013, the DPRK made a strong commitment to improving the situation of people with disabilities by signing the United Nations Convention on the Rights of Persons with Disabilities (UN-CRPD) (2). Meanwhile, there is an increasing need for integration of people with disabilities into society and, based on the information available regarding rehabilitation services (e.g. professionals and service delivery), which includes a lack of comprehensive rehabilitation services, there is an urgent need to strengthen related rehabilitation services in the DPRK. Therefore, a technical consultation with external consultants was performed in August 2016 and March 2017, with support from Handicap International, the Korean Federation for the Protection of the Disabled (KFPD), and Munsu Rehabilitation Hospital (MRH).

### METHODS

The technical consultation was performed as described by Gutenbrunner & Nugraha. (3), excluding site visits, and holding discussions with only 2 representatives, 1 from each of the following organizations: KFPD and Mun Su. The stages of the consultation were:

- Review accessible documents and data about health and disability, health system, policies and services, using the Rehabilitation Service Assessment Tool (RSAT) (4) (in August 2016).
- Discuss the results of the review in a workshop and prepare models (in August 2016).
- Develop draft recommendations based on the principles of the World Report on Disability (WRD) (5).
- National Strategy and Action Plan on Comprehensive Rehabilitation (NSAPCR) (in March 2017).

## RESULTS

Main findings of the situation analysis based on the RSAT:

- At the time of the first consultation process (August 2016), the DPRK had signed, but not yet ratified, the UN-CRPD.
- The common causes of death in the DPRK are NCDs, such as stroke, lung disease, coronary heart disease and cancer. Smoking and excessive alcohol consumption are risk factors for many diseases. Based on this information, the need to improve rehabilitation services in the DPRK is urgent and highly relevant.
- There is agreement at government level, among clinicians, and NGOs that the rehabilitation system needs improvement, including a better common understanding of disability, a modern structure of the rehabilitation workforce with a higher level of training, and increased capacity rehabilitation services.
- Responsibilities for disability and rehabilitation in the DPRK are mostly viewed from the health perspective, and are lacking in terms of the social perspective. The understanding of disability and rehabilitation in the DPRK is based on the outdated WHO definition, the International Classification of Impairments, Diseases, and Handicaps (ICIDH), which launched in 1980. The new definition is based on the International Classification of Functioning, Disability and Health (ICF) (6). According to the latter document, disability is defined as an interaction of a person with a health condition and the environment. Use of the new definition highlights deficits in disability data collection and planning of rehabilitation services, as well as individual disability assessment and goal-setting, and thus alters the rehabilitation outcomes.
- Rehabilitation professionals in the DPRK are not trained in accordance with international standards. This is evident, as the description of professions, training curricula and accreditation criteria differ significantly from international standards. The number of rehabilitation professionals is insufficient (e.g. there is a low number of Physical and Rehabilitation

Medicine (PRM) doctors, and no clear concept of, and distinction between, the role of physiotherapist (PT) and occupational therapist (OT)).

- Available rehabilitation professionals in the country are PRM physicians, PTs, OTs, nurses, and Prosthetics and Orthotics (P&Os). There are no speech and language therapists.
- There are some rehabilitation services, but there is no systematic plan for rehabilitation services in acute, post-acute and long-term settings. Some rehabilitation units (*sanatoria*) deliver rehabilitation services using a traditional approach (Koryo medicine), and some modern rehabilitation units have been established. However, these units are single models that are not representative of the overall healthcare system. This leads to significant deficits in rehabilitation care.
- Most rehabilitation services are provided by the sanatoria, but with no clear concept regarding the service itself, including a lack of multi-professional teamwork in the sanatorium centres. Most rehabilitation professionals who work in sanatoria are PTs and OTs.
- Instead of rehabilitation, the term "sanatorium" is used as one of health strategies together with preventive, curative, supportive. This lead to misunderstanding the purpose.

### Recommendations

The recommendations listed below, based on core principles of the WRD (5) and UNCRPD (2) were developed during the consultation and discussed with KFPD representatives and a PRM physician from the DPRK.

1. For disability and rehabilitation policy, legislation, and data collection, it is crucial to translate and adapt international definitions (e.g. "functioning", "disability") and tools (e.g. ICF Core Sets) into Korean and adapt them to the situation in the DPRK.
2. In order to improve the quality of national disability statistics and compare them with international data, an ICF-based survey (WHO's Model Disability Survey) should be implemented.
3. As rehabilitation is 1 of 4 main health strategies, it requires services within different sectors of the health.
4. Since rehabilitation also concerns other life areas, such as social support, education and justice, strong coordination between government ministries is indispensable (optimally as an inter-ministerial coordination committee at a high level of responsibility).

5. For mid-term planning of rehabilitation services a sound database on the epidemiology of disability (including a registry of chronic diseases and mental health) and the need for rehabilitation must be established, using international (ICF-based) tools (Model Disability Surveys).
6. A registry of existing of rehabilitation facilities (including quantity: number of institutions and beds; and quality) must be established to provide a sound basis for planning service provision to meet the needs of persons with disabilities (including those with chronic health conditions).
7. Health-related rehabilitation services must be implemented at all levels of healthcare (primary, secondary, tertiary) and for all phases of healthcare (acute, post-acute, long-term). Many rehabilitation services already exist as sanatoria; therefore a transition plan should be developed. The primary healthcare sector must take a stronger role in long-term rehabilitation and as an entry point for specialized rehabilitation services.
8. In order to establish a highly qualified rehabilitation workforce in accordance with international definitions, nomenclature and curricula of rehabilitation professions and a new accreditation system should be implemented according to the WHO classification of health workers (medical doctors, therapists, nurses, social workers, psychotherapists and others). A transition plan is also required.
9. A system for supplementary, compulsory and continuous education of physicians currently practicing in rehabilitation should be set up, after first identifying the clinical-practical needs and goals (clinical topics) regarding the current situation in the country, using external expertise (e.g. the *International Society of Physical and Rehabilitation Medicine; ISPRM*).
10. A return-to-work policy should be implemented as one of the main goals and results of rehabilitation interventions. Functional aspects of disability should be based on the ICF, return-to-work or workplace adaptation.

## DISCUSSION, RECENT DEVELOPMENTS AND CONCLUSION

By reflecting on UNCRPD Article 26 about habilitation and rehabilitation, the government of the DPRK, through KFPD has realized the importance of making improvements in rehabilitation as an integral part of health systems, which should be implemented at all levels. Thus, KFPD, accompanied by PRM physician, undertook consultation with external experts (the cur-

rent authors) to propose a national strategy of comprehensive rehabilitation to the government.

The methodology for the consultation process was clearly defined by Gutenbrunner et al. in 2017 (3), and should include data collection, site visits, development of recommendations, and stakeholder dialogues to enable prioritization. However, some of these steps, e.g. site visits, could not be followed in the DPRK.

During the development process, in the period between the first and second consultations, the DPRK made some improvements, including ratification of the UNCRPD in December 2016. This was a significant achievement, which led to the next level of improvement in the situation regarding disability and rehabilitation-related topics in the country. Meanwhile, one of recommendations was to collect data with regard to rehabilitation professionals, rehabilitation service providers and provision. KFPD had already implemented this project, and brought these data to the second consultation.

During the second consultation process, the data on rehabilitation services, collected using the RSAT (4), and the list of recommendations, drawn up during the first consultation process, were used to develop a draft of the National Strategy and Action Plan on Comprehensive Rehabilitation (NSAPCR) in the DPRK 2017–2020. The NSAPCR was discussed with the external experts. Finally, advice was given on improvement of this document. The NSAPCR was subsequently presented to a high-level UN meeting in New York in May 2017.

The consultation process has several limitations, as mentioned above; for example, a workshop with only 2 representatives, 1 from each of the following organizations: KFPD and Mun Su and no site visits by the advisory team to the country.

In conclusion, although the consultation process had a different approach from previous consultation processes in Egypt (7) and Ukraine (8), the goal of developing a draft of the NSAPCR for the DPRK was met successfully. The authors hope that this NSAPCR can be implemented in order to improve the life situation of people with disabilities in the DPRK.

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