

Chapter 7

Conclusion: Solutions to Develop Rehabilitation Systems

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Chapter 7

Conclusion: Solutions to Develop Rehabilitation Systems

7.1. Problems in Providing Rehabilitation in the Study Countries

Cambodia, Lao PDR, and Viet Nam share problems in developing rehabilitation systems for nervous system diseases: (i) insufficient understanding by doctors of the need for rehabilitation of patients with nervous system diseases, (ii) lack of incentives for hospitals to invest in rehabilitation, (iii) shortage of rehabilitation staff, (iv) lack of knowledge and skills of rehabilitation staff because of insufficient education, and (v) lack of integrated and seamless services. Poor understanding by patients of the need for rehabilitation is another problem.

Insufficient understanding by doctors of the need for rehabilitation of patients with nervous system diseases. In Japan, doctors examine patients to determine the need for rehabilitation before it is provided. Then, specialised staff members receive orders (prescriptions) to start rehabilitating patients. For an inpatient, various professionals such as nurses and care staff need to help in rehabilitation. As in Japan, rehabilitation in hospitals in the study countries may be provided only after a doctor issues a prescription. Because many doctors poorly understand the need for rehabilitation, however, initial prescriptions were not issued to patients in the departments of neurosurgery and neurology in national hospitals where we conducted the study in Viet Nam and Lao PDR. Even after our intervention publicised the necessity of rehabilitation, determining whether a patient was a candidate for rehabilitation was difficult. Doctors needed to be trained, but the hospitals had a rigid hierarchy, causing difficulties in changing the system and in imparting to doctors a sense of the importance of rehabilitation.

Lack of incentives for hospitals to invest in rehabilitation. National hospitals offer rehabilitation at a low price: US\$2 per session in Cambodia, US\$3.50 in Viet Nam, and US\$3.50 in Lao PDR. These hospitals, therefore, earn a limited income from rehabilitation. National hospitals in Cambodia and Viet Nam adopted a self-supporting accounting system rather than relying on government budgets. Even if they understand the need for rehabilitation, investing in low-profit rehabilitation services is difficult for hospitals.

Shortage of rehabilitation staff. Rehabilitation staff (PTs, OTs, and STs) salaries are low, averaging US\$200–US\$300 a month. Even when emerging countries develop rapidly, rehabilitation staff salaries remain low; few are willing to become rehabilitation professionals. Excellent human resources move to better-paying industries.

Lack of rehabilitation staff's knowledge and skills because of insufficient education. Rehabilitation personnel in the study countries have limited knowledge and skills. For example, to resume motor functions after brain injury through rehabilitation, the patient needs to have neurological processes – motor learning – within the brain. Kinesiotherapy

focuses on movement using appropriate methods. Few facilities, however, provide rehabilitation to patients with nervous system diseases. Even if they provide it, the main procedure is physiotherapy, such as electrical stimulation therapy and heat therapy, and passive intervention that places patients in the dorsal position and consists mainly of massage or articular movement. Passive intervention does not affect motor learning. Rehabilitation staff in the study countries did not know that cognitive disorder is a symptom of higher cortical dysfunction, although it greatly affects the QOL of patients with cerebrovascular disease. The lack of knowledge and skills is the result of scarce learning resources on rehabilitation. In Cambodia and Viet Nam, vocational schools use textbooks translated from old books written in English, which results in a lack of quality learning materials.

Lack of integrated and seamless services. Rehabilitation services are classified into acute-phase rehabilitation (start immediately after disease onset); recovery-phase rehabilitation (start after the condition becomes stable, to recover functions from sequela); and chronic-phase rehabilitation (to maintain function). Treatment goals and strategies should be tailored to individuals throughout all stages, from preclinical to recovery to acute phases, so that patients can recover their maximum functions and smoothly reintegrated into society. KNI has established four facilities in Hachioji City, Tokyo, to provide integrated services, from prevention at the preclinical stage to acute-phase treatment immediately after disease onset, recovery-phase rehabilitation, and follow-up at home to patients with stroke. We introduced an electronic clinical recording system, which has access points at all four facilities to ensure smooth sharing of client information. We regularly reshuffle staff members amongst the four facilities to ease staff members' understanding of the importance of integrated healthcare. This model is possible because KNI adopts an integrated management system that oversees all hospitals covering patients in all stages. Even in Japan, only a few hospitals have developed such a system. In Cambodia, we could not find a hospital that could accommodate patients who needed recovery-phase rehabilitation. In Lao PDR and Viet Nam, rehabilitation centres can receive patients who need recovery-phase rehabilitation, but limited patient information is shared between acute-phase hospitals and recovery-phase hospitals. The importance of integrated and seamless provision of services is not well understood in the study countries.

7.2. Possible Solutions to Problems of Providing Rehabilitation

7.2.1. Sunrise Japan Hospital as a Model Solution

Sunrise Japan Hospital in Cambodia can suggest solutions to problems of providing rehabilitation. The hospital has more than 20 Japanese medical staff members –doctors, nurses, and rehabilitation personnel. They are involved in hospital operations and are training more than 120 local staff members. All professional staff should understand the need for rehabilitation, and doctors must explain it to patients. Then doctors may issue rehabilitation prescriptions. The hospital has high demand for rehabilitation and physical therapy contributes substantial revenue to the hospital. The monthly salary of a

rehabilitation staff member is as high as US\$400, which can attract excellent human resources.

Staff training is crucially important. Before the hospital opened, about 70 Cambodian staff members were sent to Japan to learn rehabilitation and hospital management with support from JICA. They received practical training at a KNI hospital then learned from Japanese staff members in Cambodia.

The hospital treats patients in the acute phase, but the whole staff, not only PTs but also other professionals, provide comprehensive rehabilitation. Comprehensive rehabilitation programmes should be developed, considering each patient's daily life, from the early stage to after discharge, including outpatient and/or home-visit rehabilitation. Based on this, integrated and seamless services can be systematically provided.

The hospital charges the equivalent of US\$40 per session, whether performed by a Cambodian or Japanese therapist. It is not a bargain in Cambodia, but the slots for rehabilitation sessions are almost fully booked 2 months ahead. This means the hospital has made known the effect and importance of rehabilitation and has won the Cambodian people's trust as an institution that can solve the five issues listed in section 7.1.

7.2.2. Other Improvements Resulting from the Kitahara Group's Activities in Lao PDR and Viet Nam

In Viet Nam, the rehabilitation knowledge of doctors at the Viet Duc University Hospital has greatly improved to 'satisfactory' thanks to strong support from the hospital. This success was the result of their considerable knowledge of acute-phase medical care, which they already had before our activities started.

Our support is not limited to rehabilitation activities. We supported bed management. Many patients could not leave the hospital because of mismanaged admission and discharge of patients. If hospitals have many in-patients who no longer need acute-phase treatment, the hospitals may fail to accept unpredictable emergency patients who need in-patient care. We advised the hospitals to establish a good bed management system under which they can reasonably determine which patients still need in-patient care and which no longer do. The hospitalisation period was optimised and only patients who need in-patient care, including surgical operations, are accommodated. The bed-turnover ratio has improved and the hospital is earning more than it did before our support. Improved hospital management can help develop the rehabilitation-providing system.

7.2.3. Necessity of a Multifaceted Approach

The whole healthcare system must be reformed if rehabilitation system is to be radically improved. We must pay attention to the hierarchical system of medical professionals, which is often led by medical doctors. Governments are deeply involved in developing the healthcare system in any country, including policies on establishing rehabilitation provision or training of rehabilitation human resources. A single approach – for example, an education project to train PTs – is not enough; a combined approach, including medical doctors and government officials in the discussion, is crucial.

When the Kitahara Group opened a clinic in 2012 providing only rehabilitation services, few patients came. When the Sunrise Japan Hospital opened in 2016, it saw a rapidly growing number of clients needing rehabilitation. The emergency facility of Sunrise Japan Hospital contributed to this success. To improve rehabilitation in the study countries, hospitals must organise integrated teams of healthcare experts, executive personnel, doctors, nurses, and rehabilitation staff.