Rehabilitation Medicine in a Small Clinic: Effort of a private clinic with small inpatient facility in a province of Japan

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Abstract

Dyna Rehabilitation Clinic is a small clinic located in Tochigi (Japan) with a capacity of 19 patients, serving as the core facility in providing borderless and seamless care in medicine, rehabilitation medicine, and long-term care; from inpatient rehabilitation for recovering patients to home-visit medical services and long-term care, including terminal care. In Japan, the managing physician of an authorized clinic with small inpatient facilities lives within the clinic's property or in the land adjacent to it and attends the inpatients while responding to local medical needs on a 24-hour basis, reflecting local climate, communities, and culture. Unlike a large-scale hospital, a clinic with a small-scale inpatient facilities specialized in rehabilitation with close links to local communities can still survive as a business and contribute to local society — Dyna Rehabilitation Clinic is a good example. Patients vary in their diseases, complications, age, family structure, living environment, financial status, sense of values, and the lives they lead. It is impossible to meet all such needs with one standard rehabilitation scheme — but, clinics with small inpatient facilities, such as Dyna Rehabilitation Clinic, can provide more treatment more flexibly, and fill in the gap.

Key words Rehabilitation, Clinic with inpatient facilities, Long-term care insurance, Close links with the community

Introduction

Dyna Rehabilitation Clinic (hereinafter referred to as the Clinic) is a clinic*2 with small-scale inpatient facilities (hereinafter to as sm-clinic), located in Ohtawara City, Tochigi, Japan, which has a population of 78,000. The city, composed of urban areas, agricultural land and mountainous areas, is situated at the south of Nasu mountain-range, and about 21% of its population is comprised of senior residents above 65. About 300 m away from the Clinic is Ohtawara Red Cross Hospital, which is an emergency hospital with approximately 500 beds. When I first opened the Clinic 13 years ago, there were no inpatient facilities in it. But 8 years ago, the clinic was moved to its current location and re-opened with 19 inpatient beds, and has been serving ever since as core facilities in providing borderless and seamless care in medicine, rehabilitation medicine, and long-term care — from inpatient rehabilitation for recovering patients to home-visit medical services, long-term care, and terminal care as well. This paper describes my experience and the current status of the Clinic, focusing on the rehabilitation services offered by an sm-clinic along with specific figures. I hope that this paper will serve as a reference to physiatrists who wish to open their own Clinic.

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*2 The Medical Care Act of Japan defines a *clinic* as a medical institution with less than 20 inpatient beds (including those with no beds), whereas a *hospital* is defined as a medical institution with 20 or more inpatient beds.

Current Status Surrounding the Clinics With Small Inpatient Facilities Specialized in Rehabilitation Medicine

Since 1891, an sm-clinic had to maintain 9 or less inpatient beds to be acknowledged as so. In 1948 when society was unable to build sufficient hospitals to meet the needs, sm-clinics were institutionalized as temporary inpatient facilities with 19 or less inpatient beds in order to differentiate them from hospitals with 20 or more beds. At an sm-clinic, the managing physician lives in or near the property and responds to local medical needs on a 24-hour basis, serving as the origin of community medicine in Japan by reflecting local climate, communities and culture. Yet, it was difficult for such clinics to survive in business because the payment system for medical services has been kept low. In 1970, there were 29,841 sm-clinics in Japan; the number dropped to 10,707 as of June 30, 2010, which was 635 less than the same month of the previous year and fell by 41 compared to the month before.

When the Japanese Ministry of Health, Labour and Welfare (MHLW) conducted a survey on all 10,262 hospitals and maternity clinics in Japan regarding how many physicians were felt to be required as of June 1, 2010, it was revealed that 1.14 times more physicians were considered to be required to fulfill their needs. According to the data sorted by field of medicine, rehabilitation was ranked the highest with 1.29. This survey suggests that there is a shortage of physicians working at hospitals. Since the number of physicians who have their own practice with emphasis on rehabilitation medicine is small, the actual need for physiatrists is probably even greater than this survey suggests.

Background From Opening My Own Clinic to the Present

As mentioned previously, the business climate for sm-clinics is harsh, and the number of such clinics is falling. I opened a new sm-clinic specialized in rehabilitation medicine, and I would like to explain its background. I had no particular ambition or aspiration before opening my own practice. My wife, who is also a physician specialized in rehabilitation, and we were raising our 4 children, and we opened our own practice with no inpatient beds, hoping to make use of our specialization. Since opening the Clinic, systems relating to rehabilitation medicine and long-term care have rapidly changed. I made efforts to adjust to such changing systems, searching for what I could do and what I wanted to achieve. Consequently, I opened an sm-clinic, which developed into multi-function facilities that is closely linked with the local community, providing various services not only in rehabilitation medicine but also in long-term care.

I graduated from medical school in 1985 and worked for 5 years at a hospital near the site of the Clinic that I was to open. I opened the Clinic in May of 1998, which had no inpatient beds. Before starting my own clinic, I studied abroad for about a year and a half in USA, but felt unsuited to researching in a laboratory or working in a hospital. So, after 2 years of being abroad, I came back to Japan and opened my own clinic at the age of 39—and, I am in my 50's now.

Treating outpatients alone is not enough to stabilize the business, so I also started to offer home-visit medical care, which provides higher medical payments. Together with financial support from my parents, I had 30 million yen in total as capital for opening my own clinic (approx. 353,000 USD; 1 USD = 85 yen). I bought an old clinic that was no longer used, refurbished it, and obtained approval as a physical therapy Class III clinic of the time, which required only 1 physical therapist. That is how I started—a small clinic with no inpatient facilities. However, this type of rehabilitation facilities did not provide sufficient medical payments, and I could not even maintain the cost of hiring the physical therapist. But as the number of patients receiving home-visit medical care, home-visit nursing, and home-visit rehabilitation increased, my business also stabilized.

Two years later in 2000, the long-term care system and convalescent-phase rehabilitation ward system began in Japan. This year, I established a medical corporation, rented and refurbished a warehouse, and expanded the business to other areas such as day care rehabilitation services, long-term home-care assistant services, and home-visit long-term care. I also started to prepare for opening a convalescent-phase rehabilitation ward after I learned from the authorities that an sm-clinics could open one, too, thinking it would be a sound decision for the business.

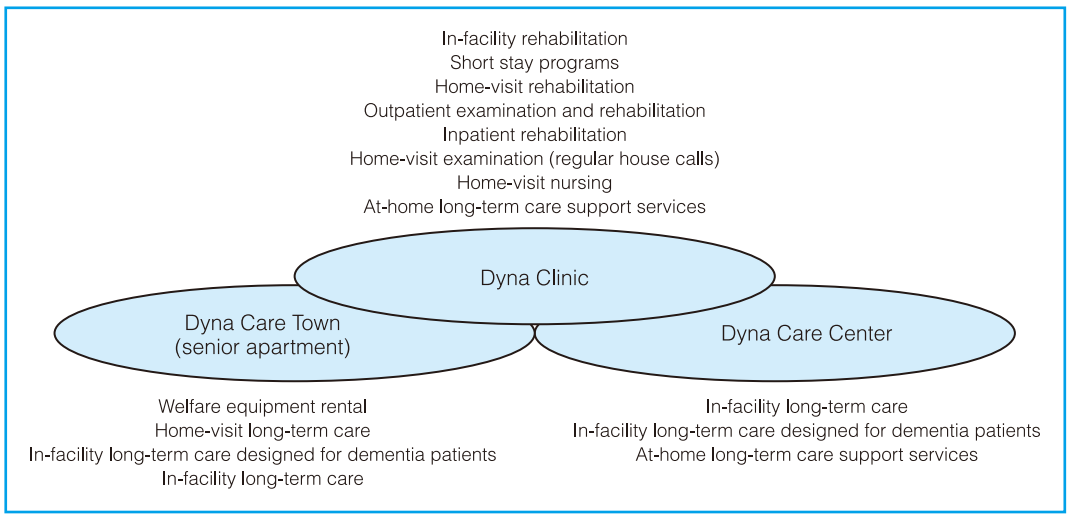

Fig. 1 Services provided by the medical corporation Dyna (Tochigi, Japan)

A new 3-floor building for the Clinic, which included short-stay facilities for patients who require long-term care, was finally completed in 2003 after spending 400 million yen (4.7 million USD). However, my request for approval as a convalescent-phase rehabilitation ward was denied, and I felt quite lost at one point. But I switched my business strategy from relying on inpatient rehabilitation to providing comprehensive services, by focusing on inpatient rehabilitation and also providing long-term care services, and started as a general sm-clinic. I also established an affiliated company at about the same time, bought an apartment building with 55 units through auction, and started to run a rental apartment for senior citizens. Long-term care facilities for in-facility services were opened at the first floor of the apartment building, and the business was expanded to include leased apartments and the provision of medical and long-term care.

Since then, healthcare systems including medical and long-term care and their fee payment schedules have been revised. There are now home-nursing stations to help the care givers at homes, and in-facility long-term care services specifically designed for dementia patients are available. I have been flexibly adjusting to the changes in the systems, responding to the local supply and demand in medical and long-term care.

Facilities and the Resource Line-up

I have 3 places of business, and they provide various types of services; including rehabilitation for recovering patients, preparing inpatients for hospital discharge, maintaining or improving conditions after discharge, adjusting to everyday living, terminal care, and attending on deathbeds. My business is not big but it is capable of offering various medical, rehabilitation, and long-term care services on its own, swiftly and flexibly (**Fig. 1**).

The rehabilitation facility standard of the Clinic is the same as a convalescent-phase rehabilitation ward; Class I musculoskeletal rehabilitation services (1 unit per 20 min, 175 points) and Class I cerebrovascular and other diseases (1 unit per 20 min, 245 points). The Clinic started with 8 staff members, and the total number of staff is 144 as of the end of September 2011. Occupation-wise, there are 2 physicians, 10 physical therapists, 6 occupational therapists, 2 speech and language therapists, 29 nurses, 8 staff specialized in long-term care at home, 54 staff specialized in long-term care, 12 staff to prepare meals including 1 nutritionist, 13 office clerks, 6 staff to provide transportation, 1 masseur, and 1 system engineer.

Inpatient beds are almost always occupied, and there is even a waiting list. The rehabilitation

service is offered 365 days throughout the year with no days off, which is good for inpatients. But, it is also for good for financial reasons since the basic hospitalization fee is low (in the Clinic; 1,003 points for 7 days or less, 903 points for 14 days or less, 733 points for 30 days or less, and 653 points for 31 days or longer) and skipping rehabilitation is not really an option. For each regular rehabilitation hospitals, the basic hospitalization fee without any surcharge provides at least 1,720 points to the hospital, including medical examinations and prescribed medicine. In my case for an sm-clinic, the basic hospital fee is set unreasonably low. Even more, many rehabilitation inpatients need assistance when going to the rest room or eating, requiring careful care.

After leaving the Clinic, outpatient, day-care rehabilitation, or home-visit rehabilitation services are offered to a patient depending on his/her wishes and needs. Home-visit rehabilitation services covered under the long-term care insurance policy are dispatched from the home-nursing station. The rate is 8,300 yen (98 USD) for every 30 to 60 minutes, which is expensive. However, it is not necessarily profitable considering the cost of labor and transportation for the staff hired when making round trips. The ratio of labor cost to the total is high in the rehabilitation-related business, and every department has to operate effectively while considering profitability in order to stay in business.

On the contrary, home medical care, including regular home-visits (making regular house calls to examine patients at their residence based on medical management plans) and non-regular home-visits (making house calls at patients' requests, often for emergencies), can be profitable with unstinting effort. The Clinic is authorized as a home medical care support clinic, and we provide home medical care 24 hours a day 365 days a year. In the month of October 2010 alone, 328 regular home-visits were made for 169 patients in addition to 32 non-regular home-visits. The number of people who were tended to their deathbed was 10 in 2008, 19 in 2009, and 20 in 2010. At the same time, because of the serious responsibility of responding to urgent house calls at night, the physician has to be prepared to give up drinking alcohol and keep his/her mobile phone to hand at all times, which are significant burdens.

Because one medical corporation is providing both medical care and long-term care, both are offered seamlessly for patients, allowing swift response to deterioration of the general health condition or physical function after being released from the Clinic. Information on general health or family relationships is available from the attending staff members as needed, and we can provide various medical services and long-term care in a coordinated manner to support the patients' lives at home. For that reason, many patients who use our home-visit medical care services also take advantage of our long-term care services as well.

Characteristics of the Inpatients

An evaluation of the patients who were admitted or released from the Clinic in the period of May 30, 2010, through June 1, 2011, showed that 187 patients (average age: 79 years old) left the Clinic during this period, and all either lived in Ohtawara City or the adjacent cities or had relatives in those cities. Of those 187, 19 were hospitalized mainly due to non-rehabilitation reasons such as lower back pain or fever, and 168 were hospitalized for the purpose of rehabilitation. Of the rehabilitation-purpose patients, 120 patients were transferred patients from Ohtawara Red Cross Hospital, 11 were from other hospitals, 1 was from another sm-clinic, and 36 originally lived at home. Disuse syndrome was observed in 78 patients, 57 had femoral neck fracture, and 33 suffered stroke. Many were elderly with existing complications such as internal diseases, cerebrovascular diseases, and bone and joint diseases, who developed disuse syndrome due to aging, after experiencing a fall at home, or after being admitted to a hospital for a disease such as pneumonia and were transferred to the Clinic. The average length of hospitalization was 44.5 days, which is considerably fewer days than the average stay for convalescent-phase rehabilitation ward patients.

The functional independence measure (FIM) is an international assessment method that gives points from 1 (=requiring complete assistance) to 7 (=requiring no assistance) for 18 categories of activities of daily living, with the possible maximum score of 126 points. According to the FIM evaluation, the average score of those patients was 73.4 when admitted and 86.9 when discharged. This increase of 13.5 points, which equals 0.302 points per day, is comparable to the

success of the convalescent-phase rehabilitation ward. The average score of the MMSE (mini-mental state examination; maximum score 30 points) was 19.1 when admitted and 20.6 when discharged, suggesting that many patients had decreased cognitive ability and that their scores slightly increased.

The patients had a high home return rate upon discharge: 136 patients went home, 21 were transferred to a hospital due to sudden change in condition such as complications, 8 moved to long-term care health facilities for the elderly, and 3 went to senior communal residence. In terms of the long-term care insurance eligibility status of the 86 people who used our at-home long-term care assistance service when leaving the Clinic, 2 patients required Class II assistance, 8 patients required Class I long-term care, 17 required Class II long-term care, 23 required Class III long-term care, 21 required Class IV long-term care, and 15 required Class V long-term care. The long-term care services they used were: long-term care and welfare equipment rental, 44; in-facility long-term care, 39; in-facility rehabilitation, 34; short-stay, 24; home-visit long-term care, 21; home visit nursing care, 11; home-visit rehabilitation, 1; and home-visit bathing service, 1.

Conclusion

With the revision of the Medical Care Act, the hospitalization duration limit of 48 hours for sm-clinics was abolished from January 2007, and sm-clinics were added to the standard bed number system under the medical care planning of MHLW. The number of sm-clinics has been decreasing year after year because the medical payment schedule was set low for inpatients, and yet, sm-clinics are now also regulated under the basic bed number system. There was no real increase in the Fiscal 2008 medical payment schedule revision. Although the Fiscal 2010 revision provided a minor rise, it is insufficient, and the number of sm-clinics continues to fall.

At the Clinic, I try to minimize hospitalization but there is a waiting list for those who wish to receive inpatient rehabilitation, and accommodating their wish is becoming an issue. Unlike a large-scale hospital, an sm-clinic specialized in rehabilitation can develop close links with the lives and culture of the community, contribute to society, and stay in business—based on the physicians unstinting efforts. The business model of my Clinic is a good example. However, a physiatrist with good clinical and management skills and willingness still finds it difficult to open his/her own practice. I hope the system will be revised to allow such physicians to start their own practices.

Although it initially started in order to stabilize corporate management, providing both rehabilitation medicine and home medical care allowed my practice to become involved in the patients' actual lives all the way to the deathbed, allowing the patients to take full advantage of rehabilitation medicine in their lives—rather than having to accept the temporary rehabilitation goals of the provider. The medical payment schedule defines the term *rehabilitation* as "aims to recover the normal abilities." In that sense, rehabilitation that involves treating the deteriorating condition of a patient to the point of the deathbed is not true *rehabilitation* per se. But I believe rehabilitation medicine can and does contribute to better human life all the way to the deathbed.

A rehabilitation system that links acute care to convalescent care is being prepared at present; however, a rehabilitation system and methodology from the maintenance-phase to the deathbed has not been established yet. Patients vary in their diseases, complications, age, family structure, living environment, financial status, the lives they lead, and their sense of values. It is impossible to meet all such needs with one standard rehabilitation scheme through EMB or clinical pathways, but clinics with small inpatient facilities such as Dyna Rehabilitation Clinic, can provide more flexible treatment. I am still groping in the dark as to how to become involved with rehabilitation from the convalescent-phase to the deathbed as a physician and as a rehabilitation specialist. But I intend to continue to till the field of rehabilitation medicine in the wilderness of my home town in a province of Japan, believing that it is my destiny to do what I can to the best of my ability.

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