A video session of produced by the Welfare And Medical Service Agency (WAM) Grant – Disclosing the Takizawa Method training currently taking place, and past

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This video session demonstrates the practical method, which joint seminar presentations showed in maintaining physical function and overcoming disability.

It is hoped that the simple implementation of the Takizawa method of rehabilitation will improve medical care, which has often been shown to be inefficient.

First, we will describe the inefficiencies in the United States, Japan and our research showed. Next, I will show the present situation of effective rehabilitation, the rehabilitation of 30% of the bedridden elderly who regained their gait, and the scene of exercises performed.

The point of inefficiency

USA Case
“the OIG estimated that “for the 12-month period ended June 30, 1998, Medicare paid ORFs, in the six states reviewed, $173 million for unallowable or highly questionable ORF services. During this period, a total of $263 million was paid for ORF services in these six states. The ORFs in these six states received about 50% of all Medicare ORF payments nationwide during CY 1997.” The 200 claims reviewed by the OIG contained 1,475 units of physical therapy, occupational therapy, and speech pathology services. Of these, 108 (54%) containing 843 units of service (54.7% of the services) “were found to involve unallowable or highly questionable services.”

There have been many reports showing the unreasonableness of billing for rehabilitation care, including the above.

JAPAN Case
In Japan, the number of elderly needing care has increased even as everyone receives the necessary or expected rehab care covered by national health insurance. The number of elderly requiring long-term care has increased significantly from 2.18 million in 2000 to 9.9% (22.04 million elderly), and from 6.72 million to 18.9% (35.64 million elderly) in 2020, the incidence doubling in proportion. The number of physiotherapists involved in rehabilitation treatment increased from 24,027 to 125,372, the introduction of medical equipment, and the sophistication of team medicine, but this did not reflect. Even considering the rate of increase in the number of elderly during this period, the current system's inefficiency is evident.

Our study
Dr. Kunihiko Fukui, a rehabilitation physician who pioneered rehabilitation medicine in
Japan, and Dr. Tetsuhiko Kimura, Director of the National Rehabilitation Hospital for Persons with Disabilities, and the author as co-authors reported that the effects of the Neuromuscular facilitation by physical therapists.

We disclosed that it could not be expected to effectively rehabilitate the elderly, even if the present state of affairs is continued.

The basis for this is the following research.

“When comparing the results of the typical technique of neuromuscular facilitation technique (FT) and the traditional technique (TT) (muscular power reinforcement, range of motion (ROM) ex. and Motion Training), there are very few effective results deriving from them.

The investigation of 36 pieces articles on rehabilitation has been done by the joint guideline committee 1). The committee consists of 5 academies, the Japanese Society of Neurology, the Japanese Stroke Society, the Japan Neurosurgical Society, the Japanese Society of Neurological Therapeutics and The Japanese Association of Rehabilitation Medicine and 3 research groups of the Ministry of Health, Labor and Welfare, the cerebral infarction, intracerebral bleeding, and subarachnoid bleeding. The investigation was based on the evidence they collected over 30 years, from 1960-1990.

In respect to activities of daily living (ADL) and walking ability are made a standard for comparison; the following points are raised in these papers that described the differences of the effects of FT and TT.

(i) The Bobath method and the PNF method didn’t show a difference from the TT method. (Dickstein et al) 2)

(ii) The group which had done the Rood and Bobath methods didn’t show any difference from the group which had done the TT method. (Logigian et al). 3)

(iii) No difference was seen when PNF and the Brunnstrome method were added to the TT group. (Stern et al) 4)

(iv) A significant difference in the improvements of walking and hand function didn’t show even if Neurodevelopmental exercise (Davis) was performed in rotation by five-week shift. (Wagenaar et al) 5)

As a result, there’s no substantiation to be considered in the improvement of the quality of movement by FT.”

**Bad Evaluation of Our Study**

When we do not use the term "direct rehabilitation medicine reform" in our research, we have frequently received scientific research grants from Keio University, Yokohama National University, and the Biophilia Institute. However, when applying to the Health and Welfare Research Grant as the proposal with advocating rehabilitation medical reform directly, for example, I received a score of "1".

In this regard, an official of the Health and Welfare Research Institute, who was my friend
said that he had never seen a research grant application with a score of 1.

These are the facts and situations in our rehab medicine study and our evaluation of our research up to 2019.

**Changing Evaluation**

Expectations from all over the world are rising for our research since 2019.

First of all, our research was incorporated as a long workshop at the 2019 ISPRM Kobe Congress. The workshop summarized the presentations since the first ISPRM Congress in 2000, such as the fact "30% of the patients regained ambulation after being bedridden", and clarified our methods and results.

Besides, we have been conducting fNIRS and fMRI studies on brain function. And we discussed the idea that these effects may be due to a proliferation of neural stem cells in the brain and compensatory neurotransmitter reconstruction by gathering at the site of injury.

The Polish Academy of Sciences (PAN) and the Japan Society for the Promotion of Science (JSPS) have recognized our research's progress so far. We will be able to hold a selected joint seminar by them in November 2020. The report will be published in English and Japanese.

As the above description, the project had received a critical evaluation, but it changed now, and expectations are high from all over the world. The video session will introduce the actual practice of rehabilitation medical treatment.