

The Rehabilitation Training Program for Stroke Specialty in Vietnam, 2017-2019

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Abstract

Stroke rehabilitation has been a growing specialty in most hospitals and healthcare facilities in Vietnam since 2016. The healthcare program for post-stroke patients has remained a challenge. There was a lack of awareness of the importance of post-stroke rehabilitation. There was a need for education of standard knowledge, skills, and abilities in stroke rehabilitation specialty for doctors and nurses. The specialty training program for nurses and doctors has been projected by the World Stroke Organization and the Austrian government from 2017 to 2019. Through 3 years of specialty supported program, the awareness and practical skills of doctor and nurse participants have been improved and changed positively in their knowledge, skills, and abilities. This study aimed to highlight the results of the specialty training program of post-stroke rehabilitation in Vietnam.

Keywords: Stroke • Post-stroke rehabilitation • AVANT program.

Introduction

Stroke is the first leading cause of disability and the third leading cause of death and is considered an economic burden worldwide 1. Due to the brain nerve cells are damaged, stroke survivors are often affected heavily, including paralysis, difficulty swallowing/talking, balance problems, dizziness, memory loss, etc.

Vietnam is a developing country with a high rate of stroke incidence, about 200,000 patients per year suffer strokes, with a 50% mortality and only 10% of patients showing complete rehabilitation and return to normal life after stroke 2.

The demand to return to society and work is high in stroke patients. Stroke rehabilitation plays an important role in stroke survivors. There is a lack of rehabilitation training programs, the stroke rehabilitation program still has been a neglected problem in Vietnam.

Since 2019, Vietnam Stroke Association (VNSA) and the World Stroke Organization (WSO) have cooperated in supporting and strengthening the stroke issues in Vietnam. Understanding of the needs of training for stroke staffs, there were two projects of education and training program that focused on stroke knowledge and skills of rehabilitation. The first project was the ABC Education Program Stroke Management in 2009 and the second project was Austrian Vietnamese Advancement Neurorehabilitation Treatment (AVANT) in 2016. Through those training programs, Vietnam has increased the number of qualified doctors and therapists in the field of rehabilitation services. This study aimed to present the benefit and significant results of the AVANT training program on stroke rehabilitation in Vietnam between 2017 and 2019.

Subjects and Methods

This study was a descriptive study which described the significant results of the training program with different courses, place, and time. The method of this course training is the "train the trainer" approach. To help and train rehabilitation staff for Vietnam, the VNS and WSO proposed three

subjects: training the core trainers staffs, the core trainers train the trainees by transferring knowledge and developing the healthcare professionals in hospitals with a stroke unit, trainees sharing and training for caregivers of stroke survivors. The VNSA and WSO have organized various courses from 2017 to 2019. The training courses were divided into 4 levels, including level A+, level A, level A1, and level B. The level A+ was for core trainers, the level A and A1 were included for healthcare professionals, the level B was for caregivers. The course level A+ was in Austria, and the course level A, level A1, and level B were in Vietnam. The illustration of the AVANT training program was presented in chart 1.

Results

The Training Courses

In total, there was a total of 122 courses organized in 2017-2019, in which the number course level A+ was 5 courses, the course level B was 73 courses, and the course level A and A1 were 18 and 26, respectively. The number of training courses was shown in table 1.

Table 1. Number of training courses in the AVANT program in 2017-2019.

Level / Year	Level A+	Level A	Level A1	Level B
2017	2	10	0	3
2018	2	8	11	23
2019	1	0	25	46
Total	5	18	26	73

The course level A+ was for core trainers who were Vietnamese doctors and therapists selected from national central hospitals. All the courses for the core trainers were in 3 weeks for each course and placed in Salzburg, Austria. Dr. Andreas Winkler - President of the Austrian Society of Clinical Research in Neuro-rehabilitation and Professor Bernhard Iglseder were the major lecturers in these courses. Besides, some skilled therapists were invited to share their skills (Figure 1).

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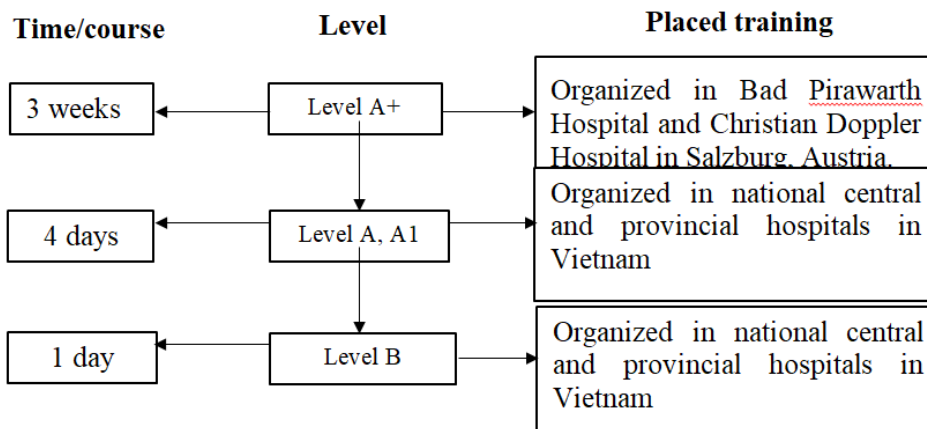


Figure 1. The organization of the AVANT training program.

The book "Exercises for neurorehabilitation" written by Dr. Andreas Winkler and Prof. Bernhard Iglseider was delivered free to the core trainers. There was a total of 32 core trainers trained from 2017 to 2019. After completing the training courses in Austria, those core trainers came back to Vietnam to organize training courses level A and level A1 to spread the standardized and systematized knowledge on neurorehabilitation for health professionals and patients' caregivers in Vietnam.

The course level A and level A1 were for healthcare professionals. Participants in these courses were doctors and therapists working in the field of stroke, neurology, rehabilitation sent from 64 provincial hospitals in Vietnam. There was a total of 44 courses level A and level A1. The participants have trained knowledge and skills on the position of injuries, the method of early rehabilitation, early mobilization, exercises for daily activities, sensory exercises.

The course level A and level A1 was significantly useful for participants working in the field of stroke in 64 provincial hospitals. There were about 3000 doctors and therapists who participated from 2017 to 2019. All participants became the trainees after successfully doing a post-test and to be issued a certificate by the VNS AND WSO. After the course level A and level A1, the trainees were required to organize a course to sharing and educating the caregivers in their hospitals and other places.

There was a total of 73 courses level B for 4000 caregivers and patient's families in 64 provincial hospitals in Vietnam in 2017-2019. The caregivers received > 20,000 booklets "Essential Exercises for Neurorehabilitation after stroke" and practical DVDs. The course level B was a significant effect on stroke caregivers and patient's families. They understood the importance of rehabilitation as well as how to help stroke survivors in daily life and patients' recovery.

The value of AVANT training course in 2017-2019

The value of the AVANT training program was evaluated based on a large number of doctors and therapists working in the field of stroke participated in the course. There were 3000 doctors and therapists and 4000 caregivers who have trained in this program in 2017 - 2019. Additionally, the training courses brought the benefit of achieved knowledge which made a change of awareness to trained participants on rehabilitation and improvement of the hospital with a stroke unit. This resulted in a new establishment of a specialized department of stroke or stroke unit. Especially, some hospitals have developed a stroke unit into a stroke center that including both stroke interventional unit and the stroke rehabilitation unit. For example, Phutho provincial general hospital has established a stroke center in September 2019. This plays an important role to develop intensively the field of stroke in Vietnam in the future.

Discussion

There was still a lack of training program for stroke rehabilitation for Vietnamese doctors and therapists even though stroke was a big problem for patients in Vietnam. With the support of WSO, the AVANT training program for stroke for Vietnamese doctors and therapists has started from 2017 to 2019. During the 3 years of the training program, for the best results the program has provided a total of 122 courses divided into 4 level courses organized in Austria and Vietnam. The method of the training program was training the trainers and training the trainees. Participants of the training courses were doctors and therapists working in the field of stroke in national central and provincial hospitals from 64 provinces in Vietnam. This program has trained 3000 doctors and therapists and 4000 caregivers. Through those training courses, the program has brought the benefit of achieved knowledge on stroke rehabilitation and improvement of hospitals with a stroke unit. It has also resulted in stroke centers in some hospitals that including stroke rehabilitation unit and stroke interventional unit. Importantly, stroke therapists and doctors have known that rehabilitation should start during a patient's initial hospital stay. The recovery process as early as possible can increase the chance of regaining affected brain and body function. It can start before or immediately after surgical intervention. This awareness plays an important role to have a plan to train and help stroke survivors to do stroke exercises.

Conclusion

This is the first study that presented an evaluation of the positive results of the AVANT rehabilitation program from 2017 to 2019 in Vietnam. The training program has been provided for doctors and therapists the good knowledge and practical skills of post-stroke rehabilitation. This is a beneficial and effective program. Such program activities should be regularly organized in Vietnam in the future.

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Author Contributions

Prof. Nguyen Van Thong and Dr. Nguyen Huy Ngoc were responsible for the study conception and design. Prof. Nguyen Van Thong performed the data collection. Dr. Nguyen Huy Ngoc and Dr. Nguyen Quang An were

responsible for the drafting of the manuscript. Prof. Nguyen Van Thong made critical revisions to the paper for important intellectual content.

Disclaimer

This was the highlighted result of 3 years of training.

Conflicting Interests

None

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