

Chen-Chia Yang\*, Shu-Ya Chan, Hong-Ji Lo, Yueh-Ling Hsieh. Six-year Follow-up of Hippotherapy on Gross Motor Function in a Child with Hypotonic Quadriplegic Cerebral Palsy . The 22<sup>nd</sup> International Conference On Health Promotion Hospitals & Health Services. April 21-26, 2014, Barcelona, Spain. Poster presentation

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# CLINICAL HEALTH PROMOTION

Research & Best Practice for patients, staff and community

## The 22<sup>nd</sup> International Conference on Health Promoting Hospitals & Health Services



Changing hospital & health service  
culture to better promote health

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Spain  
Abstract Book



**Editorial Office**

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The International Network of Health Promoting  
Hospitals and Health Services  
The South-eastern European Health Network

## Program

### Monday, April 21, 2014

09:00-17:00  
HPH Summer School

### Tuesday, April 22, 2014

09:00-12:00  
HPH Summer School

13:00-17:00  
HPH Coordinators Workshop

### Wednesday, April 23, 2014

09:00-16:00  
General Assembly for HPH Network and Taskforce coordinators -  
upon invitation only

09:00-15:30  
Proposal of ENSH Module on Tobacco Control in Health Care  
Services

16:00-17:00  
Meeting of the HPH Governance Board Upon invitation only!

18:00-18:30  
Formal Opening

18:30-20:00  
Plenary 1 - Opening Lectures: Introduction to the conference

20:00-22:00  
Welcome Reception

### Thursday, April 24, 2014

09:00-10:30  
Plenary 2 - Health literacy: an emerging concept for more patient-  
oriented healthcare

10:30-11:00  
Coffee, tea, refreshments

11:00-12:30  
Parallel oral sessions 1 from papers received & symposia by HPH  
task forces & conference workshops

12:30-13:30  
Lunch

13:30-15:00  
Parallel oral sessions 2 from papers received & symposia by HPH  
task forces & conference workshops

15:00-15:30  
Poster presentations 1 from papers received

15:15-15:45  
Mini oral sessions 1 from papers received

15:30-16:00  
Coffee, tea, refreshments

16:00-17:30  
Plenary 3 - Enhancing the health environment for  
professionals: Developing a more salutogenic culture for  
healthcare staff

19:30-22:00  
Conference dinner

### Friday, April 25, 2014

09:00-10:30  
Plenary 4 - Better health care responses to communities  
through a culture of cooperation

10:30-11:00  
Coffee, tea, refreshments

11:00-12:30  
Parallel oral sessions 3 from papers received & symposia  
task forces & conference workshops

12:30-13:30  
Lunch

13:30-15:00  
Parallel oral sessions 4 from papers received & symposia  
task forces & conference workshops

15:00-15:30  
Poster presentations 2 from papers received

15:15-15:45  
Mini oral sessions 2 from papers received

15:30-16:00  
Coffee, tea, refreshments

16:00-17:00  
Plenary 5 - Take-home-messages: How can we make  
change happen?

17:00-18:00  
Farewell refreshments

### Saturday, April 26, 2014

09:00-12:00  
HPH Newcomers Workshop



origins of our patients are intense care units of the medical centers(73.9%). There were 2 patients admitted for the respite care. The outcomes of our patients are as follows : stays in our PRCW :7, went home: 7, transferred to the medical centers:5 ; death: 4.

#### Conclusions

Our PRCW can enhance the utility of intense care unit and also lessen the economic and mental loads of their families. This also reflected in the policies of the department of health of Taipei city government, to help those who need help, to respect the life of every citizen and to take care of the minorities.

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### Six-year Follow-up of Hippotherapy on Gross Motor Function in a Child with Hypotonic Quadriplegic Cerebral Palsy

**YANG Chen-Chia, CHAN Shu-Ya, LO Hong-Ji, HSIEH Yueh-Ling**

#### Introduction

Hippotherapy has been shown to produce beneficial effects by improving the motor function in children with spastic cerebral palsy (CP). However, its long-term therapeutic effects for children with hypotonic CP have not been thoroughly examined.

#### Purpose/Methods

The purpose of this report is to document the 6-year longitudinal changes of gross motor function in a 5-year-old girl with generalized hypotonic CP and global delay in development treated with a long-term hippotherapy regimen. She received a 15-minute intervention twice a week for six years with special treatment positions, sitting backwards, prone propped and sitting forwards on horseback. Gross Motor Function Measure (GMFM-88) and certain functional GMFM items evaluated on the horseback (GMFM-h) were followed up every 3 months.

#### Results

There was sustained improvement in gross motor function every year after hippotherapy. Her GMFM scores increased in dimensions A (from 21 to 42) and B (from 0 to 21) and the increment percentage of total GMFM-h scores also achieved 80% after 6-year hippotherapy.

#### Conclusions

According to the case report of this 6-year follow-up, we suggest that hippotherapy might enhance and maintain the gross motor performance and functional ability in quadriplegic hypotonic CP.

#### Comments



Hippotherapy may provide an alternative treatment strategy that utilizes horse movement as the primary part of an exercise intervention for CP individuals with hypotonia and a variety of disabilities.

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### The Immediate Influences of Hippotherapy on Dynamic Sitting Balance in Para-equestrian Athletes With Cerebral Palsy

**YANG Chen-Chia, HSIEH Yueh-Ling**

#### Introduction

Hippotherapy is an equine activity that uses the horse to assist with various types of therapy, either physical, occupational or speech language therapy. Hippotherapy collaborated with Para equestrian training program can further advance equestrian skills of Para riders. However, its therapeutic effects on balance control in sitting for Para-equestrian athletes with cerebral palsy (CP) have not been thoroughly examined.

#### Purpose/Methods

The study aimed to examine the immediate changes of sitting balance in Para-equestrian riders after a session of hippotherapy. Para-equestrian riders (male, ranged from 12-18 years old) with spastic diplegic CP (GMFCS Level III) who experienced in International Para-equestrian competitions were recruited for assessing their sitting balance. The modified functional reach tests obtained reach distances and corresponding center of pressure (COP) excursion of forward, rightward, and leftward reach before and after 30-minute hippotherapy were examined. Reach distance was obtained by tape measure and COP excursion was measured using Zebris FDM-S system.

#### Results

After a session of hippotherapy, all riders revealed an increase in the value of reach distance in all directions. Average increase in distances for forward, rightward, and leftward reach were 9.1, 1.2, and 7.1 mm. The change of distance for forward and leftward reach was considered as moderate to large (effect size = 0.75 and 0.96). Moreover, increase in the value of COP excursions was observed only in three riders for forward (8.1 mm of average increase) and leftward reach (12.1 mm of average increase) and in all for rightward reach (14.8 mm of average increase). However, the changes in COP excursions for all directions were considered as small (effect size ranged from 0.23 to 0.36). Nevertheless, inspection of the COP time series revealed an improved smoothness of trajectories and curve shape immediately after hippotherapy.

#### Conclusions