



NEWS BULLETIN 物理治療 PHYSIOTHERAPY 資訊

Volume 21 No.
MAY 2017 to JUN 2017

3

Content

Editorial

Ivan YEUNG,
George WONG
P.1

Experience Sharing: Brain Health Exercise Class

Robin TSIM,
Angel LI,
Mandy LAI
P.2

Exercise in Older Adults with Mild Cognitive Impairment

Donald S. LIPARDO,
Dr. William W. N. TSANG
P.5

CPD News

HKPA
P.6

Management of Older Adults with Mild Cognitive Impairment (MCI): the Role of Physical Activity and Physiotherapists

Wayne CHAN
P.7

Legal Column

Bronco BUT
P.11

NGO Corner

Thomas KWOK,
Harry LEE,
Agatha LEUNG
P.12

PA Diary

HKPA
P.13

Theme of the Coming Issue

Bariatric Surgery

Editorial *Mild Cognitive Impairment*

Ivan YEUNG and George WONG

Our ageing population is known to be facing various cognitive problems. Increasing trend of elderly people are diagnosed to have Mild Cognitive Impairment (MCI), which is different from dementia. Physiotherapist, as one of the medical professionals, does not give our senior citizen with MCI the cold shoulder. Indeed we play a role in their intervention with our specialized knowledge and expertise in exercise training and physical activities.

Robin TSIM, Angel LI and Mandy LAI from Our Lady of Maryknoll Hospital (OLMH) are keen to share with us their pilot multi-component exercise program, which included cognitive-targeted exercise, dual-task training, muscle strength training and aerobic exercise for the elderly with MCI, in collaboration with their Geriatric and Medicine Department. They will show us how they enhanced cognitive and physical functions of patients with MCI by cultivating exercise habit, promoting exercise compliance and enhancing self-empowerment for managing own health

Donald LIPARDO and Dr. William TSANG, from PolyU bring us a fruitful introduction of MCI in older adults and the benefit of physical exercise to them. We will have a glimpse at the difference between MCI and dementia and the global prevalence rate among the older adults. We will be shown the beneficial effect of the physical exercise to the cognitive and physical functions of older adults with MCI in the previous studies. We will learn about cognitive obstacles and the way to address these difficulties. The authors' recommendation of exercise to these older adults will be motivating.

Wayne CHAN from Chi Lin Nunnery Elderly Service shares with us the essence of early screening and the effect of Physical Activity to the elderly with MCI. We will be shown the potential mechanism of the neuro-protective effect of physical activity, updated appropriate screening tools for MCI, research studies of effect of physical activities on cognitive functions, and hence the implication to practising physiotherapists.

Iron sharpens iron...are you ready?

Experience Sharing: Brain Health Exercise Class

Robin TSIM, Angel LI and Mandy LAI

Physiotherapists, Our Lady of Maryknoll Hospital

Background:

In view of the aging population in Hong Kong, the number of new cases diagnosed with Mild Cognitive Impairment (MCI) and dementia will be expected to increase continually. To provide evidence-based intervention, a multi-component exercise program including cognitive-targeted exercise (brain-gym exercise activity), dual-task training, muscle strength training and aerobic exercise will be organised for the elderly with MCI by the Physiotherapy Department in collaboration with the Geriatric and Medicine Department at Our Lady of Maryknoll Hospital (OLMH).

Purpose of program:

The pilot program aimed to determine the effectiveness in enhancing cognitive and physical functions of patients with mild cognitive impairment by cultivating exercise habit, promoting exercise compliance and enhancing self-empowerment for managing own health.

Methodology:

The program was conducted between 29 December 2014 to 24 January 2017. Each program consisted of 8 sessions. Subjects would join the exercise program once per week in the 1-6th week. The 7th session would be on 8th week and the 8th session would be on the 16th week. Duration of the each class was 90 minutes. The baseline assessment would be conducted in the 1st session. Reassessments would be conducted in the 7th session, and the 8th session and 1-year post intervention. Chinese Mini-Mental State Examination (CMMSE), normal gait speed (10-meter walking test), dual task gait speed (10-meter walking test with naming) and dual task gait speed (10-meter walking test with calculation) and International Physical Activity Questionnaire (IPAQ) (short self-administered format) were the outcome measures.

Patients aged 60 or above diagnosed with MCI by Geriatrician and having sedentary lifestyle (self-report of less than 150 minutes of moderate intensity exercise (3 - < 6 METS) per week in the last 6 months) were included in the study. Patients with unstable cardiac disease, significant cerebrovascular disease, musculoskeletal impairment, presence of medical conditions with significant psychiatric, neurologic or metabolic sequel and poor vision or severe hearing impairment or not able to follow verbal instruction were excluded.

Results:

Totally 10 patients (Male: 5; Female: 5) completed the program, age was between 67 to 84 with mean age 77.5. For the 1-year post intervention, two patients did not show up in the reassessment and one did not attend the reassessment due to newly diagnosed with lung cancer and brain metastasis.

	16-week program	1-year post intervention
	Improvement (%) compared with baseline	Improvement (%) compared with baseline
CMMSE	60%	43%
Normal gait speed	80%	57%
Gait speed with naming	80%	57%
Gait speed with calculation	60%	57%
IPAQ score	50%	29%

(Continued on Page 3)

Discussion:

Among the elderly, only 7 of 10 showed up in the 1-year post intervention reassessment. From this pilot program, the majority of the elderly showed an improvement in all aspects of outcome measures (CMMSE, gait speed, dual task gait speed with naming, dual task gait speed with calculation and IPAQ score) at the end of 16-week program. However, it was difficult to maintain the improvement after one year due to low exercise motivation and compliance without close supervision and guidance.

From the result, one subject showed improvement in all aspects of the result at the end of 16-week program. Though she had fair exercise motivation, she had satisfactory home exercise compliance under supervision of her domestic helper. She would go to the park for at least 30-minute walking exercise almost daily and had cycling exercise at home. However, her CMMSE score was increased from 22 at baseline to 25 at the end of 16-week program but dropped to 18 after one year. She had improvement in all kind of gait speed tests after one year. Her IPAQ score was 1782 MET-min/week at baseline and increased to 2639 MET-min/week at the end of 16-week but decreased to 2079 MET-min/week after one year. Her daughter revealed that stronger exercising atmosphere was noted in the family during active class period. Exercise motivation and compliance were decreased after the program. This might be the reason why her CMMSE and IPAQ score were decreased after one year. The daughter had suggested the class should be run continually so as to maintain patient's exercise motivation and compliance.

Another subject had poor motivation and home exercise compliance. She had joined the day care center at non-government organization (NGO) weekly in-between our program. This would increase her physical activity per week and her IPAQ score had increased significantly at the 16-week and her CMMSE result was also improved (CMMSE score was increased from 21 to 26 and slightly dropped to 24 after 1 year).

The CMMSE score of the patients at the end of 16-week ranged from 14 to 26 (median: 21.6). For a

subject, the baseline CMMSE score was 14 while the score was improved to 17 at the 16-week. Although her home exercise compliance was low and her IPAQ score was no change after the 16-week program, she claimed that she would go to the market at least 30-minute daily. Eight subjects recruited with CMMSE score were above 20 at the baseline. Their CMMSE result could be maintained or improved at the end of the 16-week program. However, four of them showed a decline in CMMSE score after one year which might be due to a reduction in physical activity after the 16-week program.

Older adults with MCI have been found to exhibit greater decline in memory function than in other cognitive functions, relative to healthy older adults ¹. A meta-analysis of aerobic exercise and neurocognitive performance revealed that interventions combining aerobic exercise and strength training improved attention, processing speed and working memory to a greater extent than aerobic exercise alone ². The prevalence of slowed gait speed is obvious when working memory is challenged in older adults with MCI ³, which supported that gait is not entirely automatic, but instead requires attentional input ⁴⁻⁵. Physical performance is particularly challenged when older adults are asked to concurrently perform a cognitive task, revealing that allocation of attention is necessary in older adults with and without cognitive impairment ⁶. Associations between physical performance and cognitive function have been reported in previous studies in the areas of gait speed, balance, and fall risk in older adults with MCI ⁷⁻⁸. Our multicomponent exercise program with MCI subjects revealed that no matter the baseline CMMSE score was, the CMMSE score could be maintained or improved if patients performed moderate-intensity exercise weekly. According to the American College of Sports Medicine (ACSM), moderate intensity exercise, physical activities for older adults should accumulate at least 30 minutes or up to 60 minutes (for greater benefit) per day in bouts of at least 10 minutes each to total 150-300 minutes per week or at least 20-30 minutes per day of more vigorous intensity, physical activities to total 75-100 minutes per week or an equivalent combination of moderate and

(Continued on Page 4)

vigorous intensity, physical activities. Walking is the most common type of activity that does not impose excessive orthopedic stress on the elderly ⁹. Therefore, it could be explained that though two subjects had fairly low or low home exercise compliance, their CMMSE score were improved or similar at the end of the 16-week program as they maintained at least 30-minute walking exercise daily.

Conclusion:

To conclude, majority of subjects could maintain or improve their CMMSE score, normal gait speed, gait speed with naming and gait speed with calculation and only half of the participants showed improvement in IPAQ score at the end of the 16-week brain health exercise program. Only few subjects could maintain their CMMSE score after 1 year post-intervention. From the program, it is shown that exercise motivation and compliance at home was a crucial factor in influencing the result. In this patient group, family support and high exercise motivation and compliance were important in implementing the program. According to the patient's satisfaction survey at 16-week, majority of subjects revealed that the exercise class had a positive effect on them (improvement in memory, functional level and encouragement in developing exercise habit). Physiotherapist could increase the frequency of tel-monitoring for the patients so as to remind and encourage them to follow the home exercise program. It might be better to collaborate with NGO to provide brain health exercise class continually in the community as this group of elderly needs more coaching in exercise. Future research on the association with cognitive function and physical activity with larger sample size should be studied in sedentary older people with MCI together with more family support.

References

1. Petersen RC, Smith GE, Waring SC, Ivnik RJ, Tangalos EG, et al. (1999) Mild cognitive impairment: clinical characterization and outcome. *Arch Neurol* 56: 303–308.
2. Smith PJ, Blumenthal JA, Hoffman BM, Cooper H, Strauman TA, et al. (2010) Aerobic exercise and neurocognitive performance: a meta-analytic review of randomized controlled trials. *Psychosom Med* 72: 239–252.
3. Montero-Odasso M, Bergman H, Phillips NA. Dual-tasking and gait in people with mild cognitive impairment: the effect of working memory. *BMC Geriatr*. 2009; 9:4
4. Sheridan PL, Hausdorff JM. The role of higher-level cognitive function in gait: executive dysfunction contributes to fall risk in Alzheimer's disease. *Dement Geriatr Cogn Disord*. 2007;24:125–137.
5. Sheridan PL, Solomont J, Kowall N, Hausdorff JM. Influence of executive function on locomotor function: divided attention increases gait variability in Alzheimer's disease. *J Am Geriatr Soc*. 2003;51: 1633–1637.
6. Kelly VE, Schragger MA, Price R, et al. Ageassociated effects of a concurrent cognitive task on gait speed and stability during narrow-base walking. *J Gerontol A Biol Sci Med Sci*. 2008;63:1329–1334.
7. Liu-Ambrose TY, Ashe MC, Graf P, et al. Increased risk of falling in older community-dwelling women with mild cognitive impairment. *Phys Ther*. 2008; 88:1482–1491.
8. Eggermont LH, Gavett BE, Volkers KM, et al. Lower-extremity function in cognitively healthy aging, mild cognitive impairment, and Alzheimer's disease. *Arch Phys Med Rehabil*. 2010;91:584–588.
9. Linda SP, Ross A, Deborah R, et al. ACSM's guidelines for exercise testing and prescription. 9th Edition. Lippincott Williams & Wilkins. 2014; 208-209.



Figure 1: Aerobic exercise using equipment



Figure 2: Graduation photos with patients & caregivers

Exercise in Older Adults with Mild Cognitive Impairment

Donald S. LIPARDO, PT, PhD candidate; **William W. N. TSANG**, PT, PhD
Department of Rehabilitation Sciences, The Hong Kong Polytechnic University

Participation in regular exercise has been proven to be beneficial in the geriatric population by reducing the physiologic effects of inactive lifestyle, increasing active life expectancy, retarding the progression of chronic diseases, enhancing psychological well-being and improving cognitive abilities [1]. Older persons should, therefore, engage in regular physical activity, including those with mild cognitive impairment.

Mild Cognitive Impairment (MCI) is the intermediary state of cognitive decline between intact cognitive functioning in old age and the deterioration due to dementia [2]. In MCI, the level of cognitive function is lower compared to that expected for one's actual age and educational level. However, in spite of this condition, those with MCI are still able to perform their basic Activities of Daily Living (ADLs) independently. This is the main difference of MCI from dementia, whereby ADLs are greatly affected due to severe cognitive dysfunction [2,3].

For persons aged 70 and above, the global prevalence rate of MCI ranges from 14–18% [4]. In Hong Kong, a prevalence rate of 8.5% for very mild dementia, and 8.9% for mild dementia was reported in a household survey among 737 community-dwelling Chinese older persons aged 70 years or above [5]. The number of older adults with MCI is predicted to rise as the geriatric population continues to increase [6].

For older adults with MCI, participation in exercise programmes is also proven to be advantageous. Cognitive function was significantly improved by engaging in aerobic exercise (walking, dancing, jogging, Tai Chi) at 60–80% maximum heart rate or >3 metabolic equivalents [7], and in progressive resistance training (chest press, leg press, seated row, standing hip abduction, knee extension) using pneumatic machines at high intensity [8]. Postural balance was significantly increased after receiving training on 24-style Tai Chi [9]. Gait speed was also significantly improved after a multicomponent exercise program (combination of aerobic exercise,

endurance, walking, strengthening, balance training and gait training) for 6 months [10].

When engaging in exercise, older adults with MCI may experience a few cognitive obstacles such as difficulties in learning novel exercise routines and recalling how to perform them properly [11], even if they have participated in identical regimens with similar adherence previously [12]. Given these cognitive hindrances, physiotherapists, who design and supervise exercise programmes for older adults with MCI, need to assess initially the baseline cognitive function in order to establish the training capabilities of these older adults, and then, adjust accordingly their approach in prescribing exercises [12].

In general, these cognitive obstacles may be addressed by breaking down the complex exercise routines into smaller and simpler manageable chunks and practised repetitively and sequentially with cues every session [11]. Specifically, the following strategies may be employed based on the work of Logsdon et al (2009) [11]:

1. Simply written materials should be made available along with memory aids for home exercise.
2. The use of stick figures may not be helpful and could be confusing for them. A written description of the exercises is more useful.
3. A large-print version of the exercise instructions is recommended to accommodate participants with visual problems.
4. The use of body weight instead of elastic bands or free weights for resistance may be simpler and safer.
5. Exercises should be properly sequenced such that all exercises in sitting are done first before shifting to standing in order to minimise confusion when transitioning from sitting to standing.
6. Reduction of the initial number of exercise repetitions from six to three is recommended to

(Continued on Page 6)

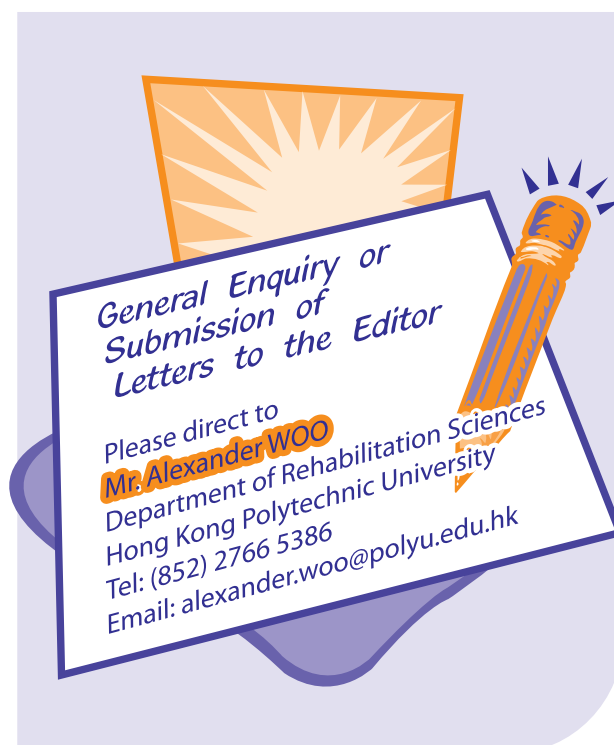
reduce the risk of muscle soreness or injury to participants who had been inactive for a long period of time.

7. The exercise is increased by one repetition every week once the participants are deemed stronger.

In summary, engagement in regular exercise is highly recommended to older persons with mild cognitive impairment. Exercise prescription for this target population must be specifically designed, putting their cognitive needs in consideration, to achieve physical and physiologic goals [12].

References

1. Chodzko-Zajko WJ, Proctor DN, Fiatarone Singh MA, et al: American College of Sports Medicine position stand. Exercise and physical activity for older adults. *Med Sci Sports Exerc* 2009;41:1510-30.
2. Petersen RC, Caracciolo B, Brayne C, et al: Mild cognitive impairment: A concept in evolution. *J Intern Med* 2014;275.
3. Gauthier S, Reisberg B, Zaudig M, et al: Mild cognitive impairment. *Lancet* 2006;367.
4. Petersen RC, Roberts RO, Knopman DS, et al: Mild cognitive impairment: Ten years later. *Arch Neurol* 2009;66:1447-55.
5. Lam LC, Tam CW, Lui VW, et al: Prevalence of very mild and mild dementia in community-dwelling older Chinese people in Hong Kong. *Int Psychogeriatr* 2008;20:135-48.
6. Ritchie K: Mild cognitive impairment: An epidemiological perspective. *Dialogues Clin Neurosci* 2004;6:401-08.
7. Zheng G, Xia R, Zhou W, et al: Aerobic exercise ameliorates cognitive function in older adults with mild cognitive impairment: A systematic review and meta-analysis of randomised controlled trials. *Br J Sports Med* 2016;50:1443.
8. Fiatarone Singh MA, Gates N, Saigal N, et al: The Study of Mental and Resistance Training (SMART) study: resistance training and/or cognitive training in mild cognitive impairment: A randomized, double-blind, double-sham controlled trial. *JAMDA* 2014;15:873-80.
9. Lam LC, Chau RC, Wong BM, et al: Interim follow-up of a randomized controlled trial comparing Chinese style mind-body (Tai Chi) and stretching exercises on cognitive function in subjects at risk of progressive cognitive decline. *Int J Geriatr Psychiatry* 2011;26:733-40.
10. Makizako H, Doi T, Shimada H, et al: Does a multicomponent exercise program improve dual-task performance in amnesic mild cognitive impairment? A randomized controlled trial. *Aging Clin Exp Res* 2012;24:640-6.
11. Logsdon RG, McCurry SM, Pike KC, et al: Making physical activity accessible to older adults with memory loss: A feasibility study. *Gerontologist* 2009;49(Suppl 1):S94-S99.
12. Uemura K, Shimada H, Makizako H, et al: Cognitive function affects trainability for physical performance in exercise intervention among older adults with mild cognitive impairment. *Clin Interv Aging* 2013;8:97-102.



CPD News

**Enquiry of CPD News
and Activities
Please Visit**

[http://www.hongkongpa.com.hk/
cpd/doc/CPD%20All.xls](http://www.hongkongpa.com.hk/cpd/doc/CPD%20All.xls)

Management of Older Adults with Mild Cognitive Impairment (MCI): the Role of Physical Activity and Physiotherapists

Wayne CHAN

Physiotherapist, Chi Lin Nunnery Elderly Service

Introduction

Mild Cognitive Impairment (MCI) is defined as cognitive dysfunction characterized as significant memory impairment but preserved daily functioning ¹. 14 to 18% of older adults aged 70 or above have MCI ². MCI is a transitional phase between healthy ageing and dementia (Figure 1). Up to one-tenth of them develop dementia each year ². The incidence of people with MCI in developing dementia is greater than normal adults. To deal with this growing epidemic, effective and efficient assessments and treatments have to be determined.

Early identification and intervention has its clinical implications. People with MCI have been found to be more likely to have neuropsychiatric symptoms, such as apathy, irritability and agitation ³. From the patient perspectives, people with MCI believe that they are less mobile and energetic than they used to be, and have multiple psychosomatic complaints ⁴. Recent literature has also shown that their cognitive function and related symptoms can be improved over time. Therefore, there is a growing interest in identifying and treating people with MCI before any functional impairment becomes evident.

Physical activity (PA) and exercise training have been found to be possibly effective in preventing cognitive decline in people with MCI and early dementia ⁵. Physiotherapist, who are specialist for promoting active ageing in older adults, has a key role in applying effective assessment tools and designing interventions in order to, not only help individual patients to enhance their physical capacity and cognitive function, but also minimize the potential burden towards local health care system and the entire society.

Potential Mechanism of the Neuro-protective Effect of Physical Activity

Increased PA has been found effective in preserving neuronal function at biological levels in cognitively normal subjects (Table 1). PA increases the activity of a number of neurotrophic and vascular growth factors which promote neurogenesis and angiogenesis. PA also

diminishes risk factors for vascular disease and improves cerebral blood flow. Improved insulin resistance may increase synaptic plasticity and energy metabolism. Increased number of mitochondria in neurons may also promote energy supply to hippocampus.

In addition to biological changes, increased PA (or aerobic capacity) has been shown to be associated with larger volume of grey and white matters in the brain. Further, some cross-sectional and longitudinal cohort studies have shown that both moderate- and high-intensity PA are associated with reduced risk in developing MCI, dementia and cognitive decline in older adults. Therefore, increased PA may be associated with better cognition and delayed development of cognitive decline.

Screening for MCI

Traditional screening tools, such as Mini-Mental State Examination (MMSE), Abbreviated Mental Test (AMT) and Montreal Cognitive Assessment (MoCA) have been widely implemented to identify people with dementia. These tools, however, were designed to detect significant cognitive impairment, which may not be sensitive enough to identify subtle changes in cognition found in people with MCI. A newer generation of screening tools needs to be created.

MCI can be easily detected using a 5-item questionnaire on memory complaints ⁶. People with potential MCI are asked whether they (1) forget where things are placed; (2) are unable to recall names of good friends; (3) are unable to follow and recall conversations, (4) complain about memory problems; and (5) believe that they are worse than their counterparts. A score of 3 or above indicates possible MCI or early dementia.

Another tool to detect MCI is the Chinese Abbreviated Mild Cognitive Impairment Test (CAMCI) ⁷. It comprises of an animal verbal fluency and a 10-minute delayed word recall tests. A cut-off point of 15/16 was found to be highly sensitive in predicting MCI or early Alzheimer's disease. The tool was also found to be able to predict dementia after 2 years using the same cut-off point.

(Continued on Page 8)

A more comprehensive screening tool is the Chinese-Cantonese Addenbrooke's Cognitive Examination Revised (C-ACER) ⁸. It consists of 5 cognitive domains, including memory, executive function, language, visuospatial function and attention/orientation. A cut-off score of 79/80 was determined to be able to differentiate MCI from normal adults.

Evidence-based Physical Activity Interventions for MCI

A number of studies have been done to investigate what interventions improve cognitive function in people with MCI. While cognitive training has been consistently shown to be effective, the effects of PA tend to be modest which require further investigation ⁹. Although the evidence is not strong at the moment, we are still able to identify some studies which demonstrated positive findings.

Moderate intensity PA intervention has been shown effective in delaying cognitive decline. In a study, people with subjective memory complaint or objective diagnosis of MCI were randomized to a 24-week home-based intervention ¹⁰. Participants were asked to perform three 50-minute sessions of PA each week. They could choose walking or other forms of exercise, such as strength training, based on their preference and exercise levels. A newsletter was mailed to the participants periodically as a reminder of the key messages of the program. They were also given a workbook which included information on exercise, goal setting, time management and safety issues. Participants were found to have improved cognition at the end of the program at 6 months, and the effects sustained at 18 months. The study, however, demonstrated no significant change in depressive symptoms and quality of life.

In another study using a multi-component exercise program as the intervention, people with MCI participated in biweekly 90-minute exercise for 6 months ¹¹. The exercise intervention consisted of aerobic, muscle strengthening, postural balance, dual-task training and outdoor walking. Participants were also instructed to perform home-based muscle strengthening and walking exercise daily. Although the study found no significant improvement in participants in general, the subgroup analysis shown that participants with amnesic MCI had improved general cognitive function and logical memory, and reduced whole brain cortical atrophy.

The effects of resistance and aerobic exercise training on cognition have also been investigated individually ¹². Participants were randomized to resistance training, aerobic training or balance and tone training (control group). Those in resistance training performed 6-8 repetitions for 2 sets for each exercise. Pneumatic air pressurized systems and free weights were used in the training. Progression was made when the participants were able to complete 2 sets of exercise in great form. Those in the aerobic program practiced outdoor walking, which started at 40% of heart rate reserve and progressed to 70-80%. Those in balance and tone training received simple stretching, balance exercise and relaxation techniques. All participants practiced exercise for 60 minutes twice per week. The results showed that the resistance group had significant improvement in attention and associative memory performance, while the aerobic group had better general physical function, including balance control, mobility and functional movement.

As a conclusion, there are some studies showing that PA and exercise training has positive effects on cognition. However, in view of the huge variation in the design of interventions, we could not conclude which type, intensity, duration and frequency of exercise training is the most suitable one for improving cognition, and whether compliance is one of the mediators leading to better results yet ¹³. Further studies are required to make a concrete conclusion on what the most effective PA intervention is and how the PA intervention should be implemented.

Implication to Physiotherapists

Physiotherapists have to be capable to identify those who are at risk of developing MCI by applying screening tools precisely and timely. We need to know how to refer the patients at risk to appropriate health care personnel when further investigation is needed to make an accurate diagnosis after screening. We also need to implement effective interventions for people with MCI to promote their cognition and physical capacity, and reduce related signs and symptoms.

PA is probably an effective intervention based on current understanding, and it can be as simple as home-based walking exercise. As more evidence continues to emerge, we will be better equipped in helping people with MCI.

(Continued on Page 9)

<ul style="list-style-type: none"> ↑ insulin-like growth factor ↑ brain-derived neurotrophic growth factor 	<ul style="list-style-type: none"> ↑ neurogenesis
<ul style="list-style-type: none"> ↑ insulin-like growth factor ↑ vascular endothelial growth factor 	<ul style="list-style-type: none"> ↑ angiogenesis
<ul style="list-style-type: none"> ↑ brain-derived neurotrophic growth factor 	<ul style="list-style-type: none"> ↑ synaptic plasticity ↑ dendritic spine density
<ul style="list-style-type: none"> ↓ obesity ↓ blood pressure ↓ cholesterol ↓ insulin resistance 	<ul style="list-style-type: none"> ↓ small vessel ischemic disease (e.g. stroke) ↓ white matter lesions
<ul style="list-style-type: none"> ↓ insulin resistance 	<ul style="list-style-type: none"> ↑ energy supply to neurons ↓ oxidation and other metabolic insult to neurons
<ul style="list-style-type: none"> ↑ antioxidative enzymes (superoxide dismutase, catalase, glutathione peroxide) 	<ul style="list-style-type: none"> ↑ free radical damage to neurons
<ul style="list-style-type: none"> ↑ cerebral perfusion ↓ hippocampal mitochondria 	<ul style="list-style-type: none"> ↑ energy supply to hippocampus

Table 1. Possible mechanism of increased physical activity in preserving neuronal function ¹⁴.

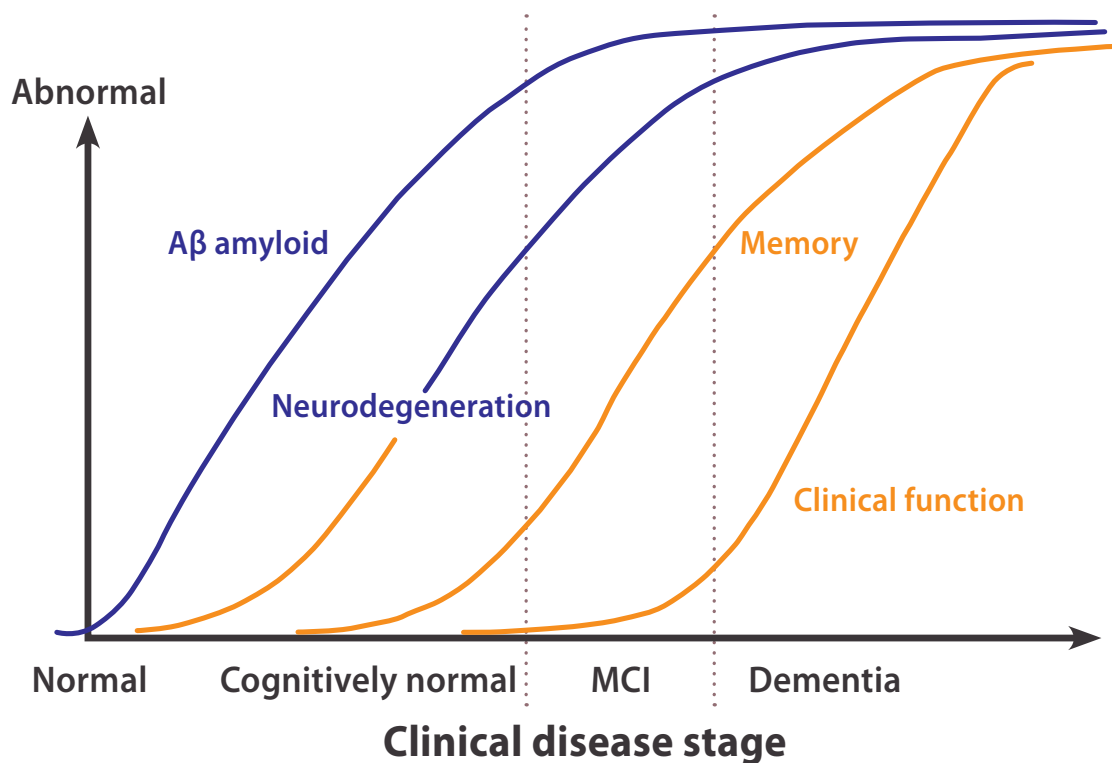


Figure 1. Neuropathological process of the development of Alzheimer's disease ¹.

(Continued on Page 10)

References

- Petersen RC, Knopman DS, Boeve BF, et al. Mild cognitive impairment: Ten years later. *Arch Neurol*. 2011;66(12):1447-1455. doi:10.1001/archneurol.2009.266.Mild.
- Mitchell AJ, Shiri-Feshki M. Rate of progression of mild cognitive impairment to dementia - Meta-analysis of 41 robust inception cohort studies. *Acta Psychiatr Scand*. 2009;119(4):252-265. doi:10.1111/j.1600-0447.2008.01326.x.
- Chan W-MW-C, Lam LC-W, Tam CW-C, et al. Prevalence of neuropsychiatric symptoms in chinese older persons with mild cognitive impairment-a population-based study. *Am J Geriatr Psychiatry*. 2010;18(10):948-954. doi:10.1097/JGP.0b013e3181d69467.
- Banningh LJW, Vernooij-Dassen M, Rikkert MO, Teunisse JP. Mild cognitive impairment: Coping with an uncertain label. *Int J Geriatr Psychiatry*. 2008;23(2):148-154. doi:10.1002/gps.1855.
- Heyn P, Abreu BC, Ottenbacher KJ. The effects of exercise training on elderly persons with cognitive impairment and dementia: A meta-analysis. *Arch Phys Med Rehabil*. 2004;85(10):1694-1704. doi:10.1016/j.apmr.2004.03.019.
- Lam LCW, Lui VWC, Tam CWC, Chiu HFK. Subjective memory complaints in Chinese subjects with mild cognitive impairment and early Alzheimer's disease. *Int J Geriatr Psychiatry*. 2005;20(9):876-882. <http://www.ekg.org.hk/eKGLinkSolver?http://search.ebscohost.com/login.aspx?direct=true&db=cin20&AN=106439530&site=eds-live>.
- Lam LCW, Tam CWC, Lui VWC, et al. Screening of mild cognitive impairment in Chinese older adults - A multistage validation of the Chinese abbreviated mild cognitive impairment test. *Neuroepidemiology*. 2008;30(1):6-12. doi:10.1159/000113300.
- Wong LL, Chan CC, Leung JL, et al. A validation study of the Chinese-Cantonese Addenbrooke's cognitive Examination Revised (C-ACER). *Neuropsychiatr Dis Treat*. 2013;9:731-737. doi:10.2147/NDT.S45477.
- Gates N, Singh MAF, Sachdev PS, Valenzuela M. The effect of exercise training on cognitive function in older adults with mild cognitive impairment: A meta-analysis of randomized controlled trials. *Am J Geriatr Psychiatry*. 2013. doi:10.1016/j.jagp.2013.02.018.
- Lautenschlager N, Cox K, Flicker L, et al. Effect of Physical Activity on Cognitive Function in Older Adults at Risk for Alzheimer Disease. *JAMA*. 2008;300(9):1027-1037. doi:10.1001/jama.295.5.487.
- Suzuki T, Shimada H, Makizako H, et al. A Randomized Controlled Trial of Multicomponent Exercise in Older Adults with Mild Cognitive Impairment. *PLoS One*. 2013;8(4). doi:10.1371/journal.pone.0061483.
- Nagamatsu LS, Handy TC, Hsu LC. Resistance Training Promotes Cognitive and Functional Brain Plasticity in Seniors With Probable Mild Cognitive Impairment. *Arch Intern Med*. 2015;172(8):2013-2015.
- Öhman H, Savikko N, Strandberg TE, Pitkälä KH. Effect of physical exercise on cognitive performance in older adults with mild cognitive impairment or dementia: A systematic review. *Dement Geriatr Cogn Disord*. 2014;38:347-365. doi:10.1159/000365388.
- Barber SE, Clegg AP, Young JB. Is there a role for physical activity in preventing cognitive decline in people with mild cognitive impairment? *Age Ageing*. 2012;41(1):5-8. doi:10.1093/ageing/afr138.

Advertise Health-Related Products

Bronco BUT
Honorary Legal Advisor of HKPA

Assumed Scenario

Andrea was a Part 1a registered physiotherapist and member of Hong Kong Physiotherapy Association. She studied physiotherapy in Canada. During her pursuit for Master Degree, she had done a research project on how mattress could be an effective treatment option for patients with chronic low pain. After having obtained the physiotherapy qualification, she had practised physiotherapy in Vancouver for over 10 years. In the course of her practice of physiotherapy in Vancouver, she specialised in treating neck pain and low back pain. She had partnered with a health-related products company to promote their products including mattress to the general public.

Recently, Andrea moved back to Hong Kong and was planning to set up her own physiotherapy clinic. She was considering of approaching health-related products companies in Hong Kong with a view of entering into business partnership of promoting health-related products. Her idea was that she would be interviewed by a magazine and in the course of the interview, she would endorse a health related-products which was a specially designed mattress which claimed to relieve low back pain. The magazine would publish an editorial article which would also include her physiotherapy service as well as her endorsement of the effectiveness of the specially designed mattress in relieving low back pain.

Andrea's uncle, Peter was also a physiotherapist who received physiotherapy training in Hong Kong. Peter told Andrea that he was concerned that Andrea's business idea might put her at risk of violating the Physiotherapy Code of Practice. He advised Andrea to ask a lawyer friend for advice.

Code of Practice

The Physiotherapists Board has promulgated the Code of Practice for physiotherapists to observe and follow. The purpose of the Code is to provide guidance for conduct and relationships in carrying out the professional responsibilities consistent

with the professional obligations of the profession.

A registered physiotherapist should observe the basic ethical principles outlined in Part I of the Code; understand the meaning of "unprofessional conduct" explained in Part II; and be aware of the conviction and forms of professional misconduct detailed in Part III which may lead to disciplinary proceedings.

A person who contravenes any part of the Code of Practice may be subject to inquiries held by the Board but the fact that any matters not mentioned in the Code, shall not preclude the Board from judging a person to have acted in an unprofessional or improper manner by reference to those matters.

Section 6 of Part III of the Code of Practice

Section 6.3 concerns with a magazine in which a physiotherapist publishes his/her service information in a magazine. He must ensure that his professional capacity is not made use of to advertise health-related products/services and reasonable steps are taken to prevent the publication of his service information in a manner which may reasonably regarded as suggesting his endorsement of health-related products/services, such as publication in close proximity to advertisements for health-related products/services.

Discussion

It was Andrea's original idea to use her physiotherapy qualification and experience to endorse the specially designed health-related product – mattress. Her intended act fell within the ambit of the prohibition of the Code of Conduct. Should she proceed as planned, she will run the risk of contravening the Code of Practice.

Physiotherapists should make sure that they are fully conversant with the Code of Practice and double check the Code of Practice so as not to put themselves at risk of contravening the Code of Practice.

Career in NGO

Thomas KWOK, Harry LEE & Agatha LEUNG
Physiotherapists, Tung Wah Groups of Hospitals

As a Non-Governmental Organization (NGO) and reputed as “the most trust-worthy charitable organization” in Hong Kong, Tung Wah Groups of Hospitals (TWGHs) strives to provide a comprehensive spectrum of high quality care services to match the ever changing needs of the local community. This article will highlight the elderly, rehabilitation and special services provided by TWGHs Community Services Division.

For elderly care services, TWGHs provides residential and community-based services to support elders to lead a fulfilling life with dignity and happiness. We operate 26 Elderly Homes providing holistic rehabilitation services in a “Continuum of care” model. Our Shuen Wan Complex for the Elderly is the largest elderly services complex in Hong Kong. To support needy elders and their families and achieve the “Ageing in Place” objective, we also operate 26 Community based Services Centres including Day Care Centre for the Elderly and Enhanced Home and Community Care Services.



Figure 1. Hydrotherapy pool of TWGHs JCRC

In rehabilitation services, we have been very active in developing rehabilitation services to promote and provide services for the development of the physical, mental and social capabilities of disabled adults for full participation of their social life. We offer spectrum of residential and rehabilitation services to service users such as day training and vocational rehabilitation. Our Jockey Club Rehabilitation Complex (JCRC) is the largest scale rehabilitation services centre in Hong Kong. Moreover, we also provide support to family members with community education programmes for enhancing public acceptance on integration of disabled adults into community.



Figure 2. PT Gym room of TWGHs JCRC

Apart from services for elders and persons with disabilities, we have 3 specialized self-financed Centres providing holistic healthcare and wellness services to enhance the physical, psychologically and spiritual well being of all ages in the community. Moreover, we also operate 6 support centres with 2 outreach services team to support the learning and development of children aged 2-6 with special needs through provision of early intervention with support to carers and schools. We also collaborate with the Hospital Authority and provide services for the “Integrated Discharge Support Program for Elderly Patients” and the “Patient empowerment Program” to enhance the support of needy elders and their carers, and reduce the risk of unplanned re-admission to hospital.



Figure 3. PT Treatment room of TWGHs Ko Wong Mo Ching Memorial Holistic Healthcare Centre

TWGHs highly values capacity building to sustain excellence in service provision, we provide staff training sponsorships, overseas study trips and vast opportunities for professional learning and development. Indeed, in addition to a core competence in managing the Physiotherapy service needs for our clients, Physiotherapists in NGOs need to be self-motivated, dynamic and contributive in the multi-disciplinary team. Often we need to play important and, at times, steering roles in our service settings, for examples, to provide advice on occupational safety and health issues, to improvise and manage a range of programs, contribute towards the engineering of service development, etc. The Social Welfare sector can indeed offer a lot of learning opportunities for Physiotherapists.

Geriatrics Specialty Group

Health Qigong Ba Duan Jin Rehabilitation Instructor Training Course

HKPA

Date : 30 September 2016 - 9 December 2016 (Total: 16.5 hours)

Venue : Activity Centre, Grace Nursing Home

Geriatrics Specialty Group (GSG) had organized "Health Qigong Ba Duan Jin Rehabilitation Instructor Training Course" (健身氣功八段錦復康導師證書課程), in order to equip this skill to our physiotherapist colleagues.

The course was delivered by Ms. TIN Siu Ping, coach of Health Qigong Association of Hong Kong, China (中國香港健身氣功總會). Sixteen physiotherapist colleagues had completed the course. Instructor certificate were issued at the end of this course.



Group photo after issue of certificate

Geriatrics Specialty Group

Dance Exercise Demonstration for Golden Age Foundation Expo & Submit 2017

HKPA

Date : 21 January 2017

Venue : Hong Kong Convention and Exhibition Centre

Hong Kong Physiotherapy Association (HKPA) was invited by Professor Geoffrey LIEU to design and demonstrate dance exercise in "Golden Age Foundation Expo & Submit 2017", so as to promote exercise for "Golden Age". GSG designed a 2-minute dance exercise, "Get moving 黃金操". It was demonstrated by GSG Ex-com, Ms. Angela LEE, Ms. Polly LO and physiotherapist volunteers from Pok Oi Hospital.



Group photo after the dance exercise demonstration



Dance exercise "Get moving 黃金操" demonstration

Geriatrics Specialty Group

Metro Radio Show “原來生活好快樂”

HKPA

Date : 21 March 2017

Venue : Whampoa Metro Radio Studio

HKPA was invited by Mrs. Rebecca YUNG, the founder and chair of Golden Age Foundation, to be the guest speaker on their regular Metro Radio show “原來生活好快樂”. The show is co-hosted by Metro Radio DJ and Mrs. YUNG, and talks about topics relating to the “Golden Age”.

Mr. Steven CHEUNG, chairman of GSG, represented HKPA and shared opinions on exercise and activities for the “Golden Age”.



Photo with Mrs. Rebecca YUNG and Metro Radio DJ after the radio show recording

NEW



Hong Kong Physiotherapy Journal
Online Submission
Is now available at
<http://ees.elsevier.com/hkpj/>
Please visit the website

For enquiry, please contact Prof. Marco PANG
 Tel: 2766 7156
 Dept of Rehabilitation Sciences
 Hong Kong Polytechnic University
 Email: Marco.Pang@polyu.edu.hk

**Change of Address
or Loss of Contact**

Please direct to
 Mr. CHAU KA Wai, Daniel
 Tel: 3506 2609
 Email: kwchau@hongkongpa.com.hk



Paediatric Respiratory Certificate Course

Module 4 - Workshop on Airway Clearance Techniques and Exercise Testing

HKPA

Date : 1 April 2017
Venue : Physiotherapy Department, G/F, Block P, United Christian Hospital
Speakers : Ms. Horsanna CHIU, Ms. Maria CHEUNG and Ms. YUEN-bing Ho

The workshop "Airway Clearance Techniques and Exercise" is the 4th session of the Paediatric Respiratory Certificate Course organized by the Paediatric Specialty Group. We are very privileged to have experienced physiotherapists, Ms. Horsanna CHIU from United Christian Hospital, Ms. Maria CHEUNG and Ms. YUEN-bing Ho from Hong Kong Children Hospital, to share with us updated skills, knowledge and clinical application of airway clearance techniques and paediatric exercise testing. More than 30 participants joined this workshop.

On top of theory and knowledge sharing, we arranged practical session for participants to trial use various airway clearance devices, including the more advanced equipment like mechanical insufflation/exsufflation machine and high-frequency chest wall oscillation machine. There was also practicum on clinical maximal and sub-maximal exercise tests using simple equipment like heart rate monitor, step platform and treadmill to perform standardized protocols. This workshop is an ambitious attempt to cover a wide spectrum of physiotherapy practice in airway clearance and cardiopulmonary exercise testing. We hope the workshop helps to consolidate our practice in various clinical settings for optimal patient benefits.



Figure 1: Participant is trying and have a feel of the high-frequency chest wall oscillation machine



Figure 2: Participants practicing the Fitkids Treadmill test



Figure 3: Group photo with speakers and participants

Joint Seminar of Musculoskeletal Specialty Group (MSG) and Occupational Safety, Health and Rehabilitation Specialty Group (OSHRSG)

Ergomotor Intervention for People with Work-related Neck-Shoulder Pain

HKPA

Date : 24 April 2017
Venue : ST522, The Hong Kong Polytechnic University
Speakers : Dr. Grace SZETO, Dr. Sharon TSANG and Dr. Billy SO

This was the first time the MSG and the OSHRSG worked together to organize a seminar. Conventional physiotherapy intervention is found to be effective in treating work-related neck-shoulder pain. Nevertheless, the carryover effect is still in doubt and the recurrence rate is still high. The concept of “Ergomotor Intervention” was introduced in this workshop to tackle these two issues. In the seminar, Grace, Sharon and Billy shared their innovative studies and profound results. Through the interactive presentation, lively demonstration and active participation, about 40 participants did reflect some new insights in treating those work-related musculoskeletal disorders in their coming daily practice.

With the success of this seminar, further collaboration of MSG and OSHRSG will be explored in the future.



Fig 1. Presentation of Souvenir to Grace, Sharon and Billy



Fig 2 and 3. Interactive Presentation by Grace and Sharon

Rehabilitation Technology Specialty Group

MSK Ultrasound Imaging in Sports Medicine

HKPA

Date : 28 April to 1 May 2017
Venue : Physiotherapy Centre, Hong Kong Sanatorium & Hospital
Speakers : Mr. Robert LAUS, Mr. Christopher MYERS and Dr. Lorenzo MASCI

This was the first workshop held by RTSG since RTSG was launched. Diagnostic ultrasound imaging is getting more popular nowadays. The aim of the course was to facilitate more colleagues for integrating diagnostic ultrasound into clinical practice. Twenty-two colleagues from different specialties participated in the course and enjoyed a lot of hands-on practice under close supervision.

Owing to limited seats, in order to maximize the coverage our profession, the first hour of the workshop was opened to include more colleagues. This one-hour session allowed colleagues understand more about the role of ultrasound imaging in clinical assessment.

With the positive feedback of the course, RTSG will further explore for the similar topic and other advanced technology to introduce to our physiotherapist colleagues.



Diploma in Acupuncture and Moxibustion (physiotherapy) 2017 Autumn

物理治療秋季針灸學文憑課程2017(VE171011)

Course Characteristics:

特色	好處
師資優良(陳國正中醫師本身是物理治療師,教授以中西結合,並針對物理治療師臨床常見病例作重点教授)。本課程早在2006年已經被認可為培訓物理治療師之針灸文憑課程,是本地培訓物理治療師針灸最早之課程。	本課程之講師均擁有二十年之針灸及中西結合治療經驗物理治療師及中醫師教授。
課程內容會以正宗針灸知識及技術為基礎,使學員掌握以中西結合之醫術;課程亦會講解如何把所學的針灸知識以合乎法規管要求,在物理治療各種適應症	由於內容以正宗針灸為基礎,學員不但能掌握中西結合之治療,完成本課程更有助將來進修針灸學碩士;
課程之內容及學時均參照物理治療學會針刺認可資格之要求	確保修畢課程之物理治療師能以正宗針灸技術運用於臨床上
本課程以全面、實用及豐富臨床為主要特色。	專題講解如何運用manual therapy 或針灸治療Bell's palsy, trigger finger, stroke, parkinsonism, 婦科病(如經痛)及各種痛症等等

內容:

第一部份:

- 1) 中醫學基礎課程
- 2) 中醫診斷學課程
- 3) 針灸學課程

日期: 11/10/17至14/12/18
(逢星期三晚上7時至10時)

第二部份:

針灸手法學; 常見物理治療病案及專題講座

日期: 21/2/18至25/7/18 (逢星期三晚上7時至10時)

1) 針灸手法學

(各式補瀉手法; 頭針及耳針操作;
拔罐操作; 括痧操作; 取穴思路)

2) 常見物理治療病案及專題講座

(常見物理治療病案 (Stroke, Bell's Palsy, Trigger finger, back and neck pain, peripheral joint pain, trigeminal nerve pain, cerebral palsy, frozen shoulder,))

第三部份:

臨床實習

日期: 1/8/18至12/9/18
(逢星期三晚上7時至10時)
(獨立運用針灸方法處理真實病人)

講師:

陳國正 (註冊中醫、註冊物理治療師、中國認可針灸師)

- 英國威爾斯大學痛症醫學碩士
- 香港中文大學中西結合醫學學區研究所專業顧問(名譽)
- 香港大學醫學院針灸學碩士
- 香港理工大學物理治療專業文憑
- 香港大學中醫學院中醫全科學士
- 東華三院痛症及復康名譽顧問

全期學費: \$20000

6月30日前報讀為\$18000

名額: 30 額滿即止

對象: 對針灸有興趣之人士

CPD Points: 15

Venue: 九龍旺角彌敦道625&639號雅蘭中心辦公樓

一期12樓1208室(鄰近旺角港鐵站E1出口)

以上上課日期、時間、地點及講師可能有所更改, 將另行通知。 除了本學院取消課程外, 其他情況概不退回已繳學費。

報名方法請參照 1. 請填妥以下報名表格, 連同劃線支票(抬頭請註明 CHAN KWOK CHING) 寄交九龍觀塘巧明街117號港貿中心3樓303室。
報名表格及須知 2. 如報名人數不足, 本公司有權取消課程, 並將會另行通知受影響學員。

學員姓名		職業	
聯絡地址		工作機構	
針灸學歷及主辦單位			
課程編號		總費用	
電郵地址		支票號碼	
聯絡電話		日期	

Hong Kong Disneyland - Career with a Difference

Hong Kong Disneyland delivers world-class service and lifetime memories for our Guests. As a Cast Member, you will be an important part of the Disney Show. Working at Hong Kong Disneyland offers you the opportunity to participate in comprehensive training and experience excellent career development opportunities.

Interested in a career with a difference? Join us now!

Position Title

Athletic Trainer (Req ID 397368BR)

Responsibilities

- Develop physical health and stamina related programs for Cast Members
- Provide exercise, stretching and conditioning instruction to Cast Members
- Provide physiotherapy to Cast Members as needed
- Give recovery advice on related injuries
- Provide basic first aid to related injuries
- Help maintain injury database and provide guidance to the Management Team

Requirements

- Bachelor degree in Physiotherapy or related discipline
- Previous experience in Physiotherapy, Entertainment, Operations or Sport related industry is an advantage
- Basic first aid skill required
- Self-starter with demonstrated ability to give direction, instruct and motivate front line Cast Member and manage multiple priorities
- Outgoing, empathetic with excellent interpersonal and communication skills
- Fluent in both English and Cantonese

For Applications

1. Submit your online application at <http://hkdl.disneycareers.com/> or
2. Email your application with resume to hkdldr@disney.com or
3. Simply scan the QR code



Disclaimer

All materials published in the Hong Kong Physiotherapy Association (HKPA) News Bulletin represent the opinions of the authors of the articles. The materials do not reflect the official views or policy of HKPA.

Product and course information are supplied by manufacturers and service providers. Product described and publication of an advertisement in HKPA News Bulletin should not be construed as having the endorsement of HKPA.

HKPA assume no responsibility for any injury and / or damage to persons or property arising from any use or execution of any methods, treatments, therapy, instructions, and ideas contained in the News Bulletin. Due to the rapid advances in medicine and rehabilitation, independent judgment of diagnosis and treatment method should be made.

Advertisement

Please direct to

Mr. Alexander WOO

Department of Rehabilitation Sciences

Hong Kong Polytechnic University

Tel : (852) 2766 5386

Email : alexander.woo@polyu.edu.hk

Vice-President

(Research & Publication)

Prof. PANG Yiu Chung, Marco
Department of Rehabilitation Sciences
Hong Kong Polytechnic University
Tel: (852) 2766 7156
Email: Marco.Pang@polyu.edu.hk

EDITORIAL BOARD

Chief Editor

Mr. WOO Chuen Hau, Alexander
Dept of RS, PolyU Tel: 2766 5386

Marketing Editor

Dr. HO Sau Tat Leo
Queen Elizabeth Hospital Tel: 3506 2447

Special Column Editor

Mr. LEE Ka Man, Harry
TWGHS Jockey Club Rehab Centre..... Tel: 2870 9122
Mr. TSOI Chi Wai, Louis
MacLehose Medical Rehab Centre..... Tel: 2872 7125

Professional Development Editor

Ms. WONG Ngar Chi, Caroline
Prince of Wales Hospital Tel: 2632 3237
Mr. WONG Hoi Hei, Chris
Queen Elizabeth Hospital..... Tel: 3506 7947

Internal Affair Editor

Ms. NG Oi Yee, Christine
West Kowloon General Outpatient Department
KWC FM&PHC..... Tel: 2150 7214

Dr. LAM Man Hin, Freddy
Dept of Medicine and Therapeutics,
CUHK Tel: 2252 8859

Webpage Editor

Mr. YEUNG Ngai Chung, Ivan
Yan Chai Hospital Tel: 2417 8217

Mr. WONG Kwok Cheong, George
Private Practice Tel: 6299 3788

Ms. CHIANG Kam Ha Wendy
Prince of Wales Hospital..... Tel: 2632 3237

English Advisors

Ms. CHU Heather
Ms. FUNG Yuen Fan, Natalie
Mr. HON Maurice
Ms. NGAN Pui Shan
..... Tel: 2766 7156

CORRESPONDENCE OF HKPA EXECUTIVE COMMITTEE MEMBERS (2015-2017)

President

Ms. POON Yee Hung, Priscilla
Physiotherapy Department,
Tuen Mun Hospital Tel: 3767 7461

Vice-President (Professional Development)

Dr. CHAU Mei Wa, Rosanna
Physiotherapy Department,
Kowloon Hospital..... Tel: 3129 7123

Vice-President (External Affairs)

Mr. LAI Wai Kin, Charles
Physiotherapy Department,
Shatin Hospital Tel: 2636 7549

Vice-President (Research & Publication)

Prof. PANG Yiu Chung, Marco
Dept of RS, PolyU Tel: 2766 7156

Honorary Secretary

Ms. SUEN Mei Yee Anna Bella
Physiotherapy Department,
Tuen Mun Hospital Tel: 3767 1037

Associate Secretary

Mr. WAN Sung, Sam
Physiotherapy Department,
Tuen Mun Hospital Tel: 3767 1037

Senior Manager (Membership)

Mr. CHAU Ka Wai, Daniel
Physiotherapy Department,
Queen Elizabeth Hospital..... Tel: 3506 2609

Associate Membership Secretaries

Mr. NG Yiu Pan, Nelson
The Tsung Tsin Mission of
Hong Kong Social Service..... Tel: 2657 5522

Mr. LO Kai Fai, Vincent
Physiotherapy Department,
Queen Elizabeth Hospital..... Tel: 5278 2938

Mr. CHU Ka Ho, Tommy
Physiotherapy Department,
Queen Elizabeth Hospital..... Tel: 3506 6218

Honorary Treasurer

Dr. CHAN Chi Ming, Andy
Physiotherapy Department,
Queen Elizabeth Hospital..... Tel: 3506 2603

Financial Manager

Mr. KWOK Chun Fai, Anthony
Physiotherapy Department,
Hong Kong Buddhist Hospital Tel: 2339 6237

Manager (Professional Development – CPD)

Ms. MAK Man Yu, Mandy
Physiotherapy Department,
Tuen Mun Hospital Tel: 2468 5210

Senior Manager (Information Technology)

Mr. MA Fat Chuen, Brian
Physiotherapy Department,
Tuen Mun Hospital Tel: 2468 5216

Information Technology Manager

Mr. KWOK Man Kit, Thomas
Christian Family Service Centre.....

Senior Project Managers

Ms. LAM Lam, Priscilla
Physiotherapy Department,
David Trench Rehabilitation Centre... Tel: 2517 8105
..... 2517 8103

Mr. WOO Chuen Hau, Alexander
Dept of RS, PolyU Tel: 2766 5386

Mr. NGAI Chi Wing, Gorman
Private Practice

Project Managers

Mr. LEUNG Ka Lun, Kenneth
Physiotherapy Department,
Kowloon Hospital..... Tel: 3129 7136

Mr. CHEUNG Kim Keung, Dennis
Hong Kong Baptist Hospital..... Tel: 2339 8483

The Editor welcomes letters, articles and other contributions from readers. The Editor reserves the right to make cuts to articles as necessary. ©Hong Kong Physiotherapy Association Limited