



M-Care Project Meeting Rome, March 23 th 2015

An innovative proposal in complex disability management

Cassarino Salvatore A.

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M-Care Project

It is a translational Project involving different competencies and expertises matured in different areas to share, to improve, to transmit all strategies, methods, techniques to design and carry out an innovative concept of caring disability person to progressive supersede a obsolete point of view focused on dependency with a new interdependency and *nested* caring in area of complex disabilities



Multiple Sclerosis

- **Multiple Sclerosis (MS), the most common neurological disease of young adults is a disabling demyelinating inflammatory, thought to be an autoimmune disorder, disease of the Central Nervous System (CNS) with subsequent destruction of myelin, oligodendrocytes and axon**



Functional impairments

- **normal walking,**
- **poor balance,**
- **muscle weakness**
- **fatigue**
- **result from axonal degeneration and conduction block but the exact aetiology of MS remain unknown.**

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MS fatigue

- **MS fatigue (a common symptom in MS observed since the initial description of this disease) is experienced in different forms**
- **It is interfering significantly with daily activity life (DAL) at work and at home**
- **cognitive fatigue (reduced attention, memory and information processing) have also been reported.**



Depression Suicides

- **Over 50% of MS patients experience depression, high risk of suicides, sometimes developed from the initial MS diagnosis and the realization that the disease may progress to permanent disability.**



Exercise training in MS

For many years patients with MS had been advised not to participate in physical training but during the last decade it has been shown that worsening of the number and/or intensity of sensory symptoms which is experienced by more than 40% of MS patients after exercise is temporal and will be normalized within an hour after exercise cessation.



Exercise training in MS

Additionally, physical exercise may yield potentially adaptive immune-modulating effects.

repeated physical exercise may foster neuroplasticity, affecting neurotrophic and neuroprotective mechanisms.

Most MS patients remain physically inactive and information regarding choice, dose and effects of specific exercise programs is sparse



Outcomes

Individualized exercise in MS can promote many important outcomes, such as improved:

cardiorespiratory,

muscle function,

depression

fatigue

toward promotion of health and quality of life.



comorbidities

- **Exercise is considered helpful in managing common symptoms and promoting wellness, for reducing the risk of comorbidities such as obesity, heart disease, diabetes and osteoporosis.**

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Quality of life

- **Exercise training seems to positively influence quality of life as assessed by SF 36, Multiple Sclerosis Quality of Life (MSQOL), Hamburg Quality of Life questionnaire for MS (HAQUAMS).**



Becks Depression Inventory

- **Improvements have been found in items regarding vitality, social functioning, mood, energy, fatigue, anger, sexual function and depression monitored by Becks Depression Inventory.**



non-judgemental attitude

Recently, such programs have successfully been implemented in combination with mindfulness based interventions.

The term mindfulness is rooted in Buddhist philosophy.

Its key element is the attempt to focus on the present moment experience while maintaining an open, non-judgemental attitude

J.M Burscha et al.

Mindfulness-based intervention in Multiple Sclerosis: beneficial effects on balance, coordination, fatigue and depression

BMC Neurol. 2014; 14, 165



benefits

mindfulness training was shown to yield beneficial effects in a variety of conditions including chronic pain, fibromyalgia, psoriasis, as well as depressive and eating disorders, and to attenuate maladaptive cognitive patterns.

Further studies indicate that mindfulness training may yield adaptive neurophysiologic effects, including altered immune functioning.



Attention motivation

- **Bishop et al. defined an attentional and a motivational component.**
 - **According to the authors, self-regulated attention involves focusing on experience in the here and now.**
 - **The resulting ability to sustain attention and switch its focus intentionally is assumed to enable non-elaborative awareness.**
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Breath

Since attentional resources are limited, non-elaborative awareness increases access to information on current experience, as attentional capacity is not allocated to further elaborative processing

In mindfulness exercises, commonly the breath is used as an object of orientation to return back to the present moment experience

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avoidant behavior

The second component, implies a curious and accepting attitude towards the stream of consciousness.

This observant, non-judging perspective and the open receptivity to new experience are assumed to reduce avoidant behaviour patterns

Moreover, body awareness and emotional awareness are fostered

Tai Chi Chuan

- **Tai Qj Quan (TCC) is an ancient chinese martial art into over a period of time is evolved into a slow and gentle form of low-to-moderate low impact and velocity exercise.**





The basic of TCC consists in a continuous series of graceful movements so that the body is constantly shifting from foot to foot with a lower centre of gravity (CG) with knees and hips held in soft flexion.



Body and Mind

- **During the TCC performance, deep breathing and internal concentration are constantly required to achieve the harmony between body and mind.**





depression

TCC, has a positive effect in reducing depressive symptoms compared no treatment in older patients with depression

TCC is equally effective in reducing all categories of depressive symptoms, included somatic, psychological, other symptoms related to interpersonal relation, and others again associated with well-being.



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PSYCHOSOCIAL

- **It has been shown that a long term TCC is helpful to achieve a major self-confidence, reduce anxiety and ameliorate his ability to establish valid interpersonal relationships.**



mindfulness and exercise

- **To date, there are only few structured interventions which incorporate both, physical and mindfulness exercises for MS patients.**
- **Tai Chi may be particularly suited to integrate physical and mindfulness training in MS.**



























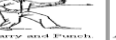



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Switch attention

it is necessary to constantly switch attention between exteroception (observing the instructor and the own body) and interoception (bodily sensations involving proprioception, balance, breathing).

During exercises, attention is also directed at the Tai Chi principles too

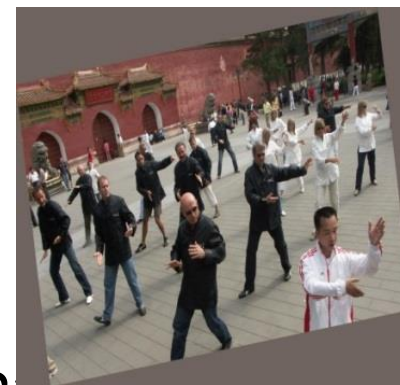
 Starting	 Parting the Wild Horse's Mane 2 times	 White Crane Spreads Its Wings 2 times	 Devil Kick and Push 2 times	 Drawing the Clouds/Lifting the Heavens 2 times	 Populate Monkey 4 times	 Hold the Ball, Ward Off 2 times
 Climb the Bird's Tail	 Kick on Back	 Open up and Push Forward the Hands 2 times, right hand	 Single Whip	 Cloud Hands 2 times	 Single Whip again Right Foot on Horse	 Eight Heel Kick
 Step Through	 Turn	 Left Heel Kick	 Snake Creeps Through the Grass	 Stand on the Leg Repeat on Right side	 Shuttle Back and Forth 2 times	 Heel of Palm of the Hand 2 times
 Push Through the Ball	 Turn	 Right Back Fist	 Fairy and Punch	 Apparent Closing	 Cross Hands	 Close



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Respect

- **The perpetual aim in Tai Chi practice is a friendly attitude towards oneself and others, respecting the own person and the own abilities, without judgement or competition.**
- **Non-elaborative awareness is a prerequisite to stay on track while playing the form.**



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arising emotions

- **Awareness is developed by consciously observing and accepting arising emotions during Tai Chi practice (e.g. fear of embarrassment, fear of falling, self-criticism, motivational issues).**
- **Tai Chi has been shown to yield health benefits in various clinical conditions including Parkinson's Disease, Fibromyalgia, chronic stroke, and peripheral neuropathy**





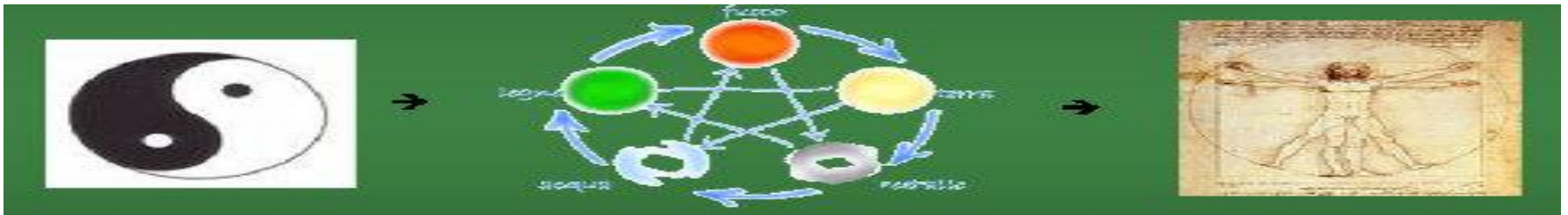
Principles

- **Mutual care**
- **Interdependency**
- **Respect**
- **Open attitude**
- **No judgement**
- **Tolerance**
- **No competition**



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**Thanks
Mulțumesc
Dziękuję
Paldies
Grazie**



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