Tai Chi As A Treatment Intervention For Patients With Parkinson's Disease

PTA 236 Seminar II Presentation
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An Ancient Practice
A New Way to Reduce Falls

Using Tai Chi for Patient with Parkinson’s
Greatest Need for Physical Therapy

One of the largest groups of people treated by physical therapists are people with Parkinson's Disease (Dittmer, L. 2011).
Parkinson’s Disease and Falls

- 66% of individuals with Parkinson’s Disease reporting at least 1 fall in 4 months
- 46% will experience recurrent falls (Canning et al. 2009)
Consequences of Falls

Individuals with Parkinson’s Disease fall frequently with devastating consequences (Canning et al. 2009)

- Hip fracture/joint replacement
- Losing ADLs abilities
- Reduce social involvement
- Depression
Causes of Falls

Symptoms of patients with PD include:

- Tremor
- Shaking
- Stiffness
- Poor balance
- Gait freezing
What is Parkinson’s Disease

- A degenerative, neurological disease damaging an area of the brain stem
- The loss of dopamine, a chemical that carries signals between the nerves in the brain causes the damage
Typical Fall Prevention Therapy for Parkinson’s Disease

Exercises focusing on:

• Balance training
• Resistance training
• Strength training
• Gait training
Tai Chi Benefits Parkinson’s


“... found that the regular practice of modified tai chi movements was more beneficial for people with Parkinson's than either stretching or weight-resistance training on a number of measures. “
Tai Chi Used to Reduced Falls

Researchers say, “Tai Chi, the Chinese exercise regimen based on slow, rhythmic body movements, can improve balance and reduce falls in people with mild to moderate Parkinson's disease.”

Read more:
http://www.ctv.ca/CTVNews/Health/20120209/tai-chi-falls-parkinsons-120109/#ixzz1oMbylvQN/
Tai Chi Therapy Study

• 195 individuals with Parkinson’s Disease were randomly divided into 3 groups.
  – One group practiced Tai Chi,
  – one group practiced stretching, and
  – one group practiced resistance training
Duration of Study

All members of each group participated in:

• one 60 minute session
• twice a week for 24 weeks.
Study Results

After the 6 months participants in the Tai Chi group reported:

- **less** falls than those in the “stretching” group.
- there was no reported difference in the number of falls between the tai chi group and the “resistance training” group.
Results (continued)

- The **primary outcomes** were changes from baseline in the limits-of-stability test
  - maximum excursion and
  - directional control;

- Improvement difference between the Tai Chi and stretching group from baseline, was 5.55%
  - 95% confidence interval improvement
  - directional control 95% improvement
Results (continued)

• The Tai Chi group also performed better than the stretching group in all secondary outcomes:
  – **Secondary outcomes** included:
    • measures of gait and strength,
    • scores on functional-reach and
    • timed up-and-go tests,
Conclusions

• Tai Chi training appears to:
  – reduce balance impairments
  – improved functional capacity and reduced falls
What is Tai Chi?

- Developed in China over 5000 years ago
- A series of silent, fluid, seamless slow motion movements
Popularity

- Currently, over 200 million people in China practice Tai Chi daily
- Millions of people in the Western world practice Tai Chi to gain its practical benefits
The Benefits of Tai Chi

- Improves circulation
- Improves flexibility
- Improves balance and coordination
- Builds muscle strength and stamina
- Improves posture and biomechanics
- Reduces risk of falls
- Enhances flow of energy
- Improves stress management
The goals of Tai Chi therapy

– Improving balance when walking
– Preventing contractures
– Improving posture & overall stability
– helping the patients to perform activities of daily (ADLs)
Tai Chi for Physical Therapy

– Practice Tai Chi movements and variations specifically used for developing balance and co-ordination

– Integrate Tai Chi into an overall treatment plan for functional gains

– Customize Tai Chi movements & progressions to individual patients needs
Using tai Chi in Physical Therapy

– Knowing Tai Chi is not enough
– Attend special training such as:
  • Therapeutic Tai Chi Continuing Education Workshop
Tai Chi Classes

- Places you will most likely find classes or workshops
  - On the web
    - Search for Physical Therapy tai chi training
    - http://starfarmtaiji.com/PTherapy/
References


