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The Knowledge of Physiotherapists about Therapeutic Effects of Yoga in Neurological Diseases

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Abstract

Some studies have proven that CAM methods have positive effects on the mental and psychological health, as well as on motor, emotional and cognitive deficits in patients with neurological diseases. Yoga has been widely used for health promotion and disease prevention and as a possible treatment modality for neurological disorders. Patients with Parkinson disease, Multiple Sclerosis and post-stroke patients want to include CAM in their treatment, but to prove its effects is needed evaluation of condition, which can be done by medical staff practioners. The purpose of our research was to estimate the knowledge of the physiotherapists about the effects of yoga in patients with neurological diseases.

Material and Method: The 40 students of physiotherapy were interviewed to assess the knowledge, and its level was assessing with score from low, middle, high and very high.

Results: Students have a very high knowledge for conventional medicine, but low for the effects of yoga in neurological diseases.

Discussion: There are not many randomized and controlled studies, but yoga can improve mental and physical health with improvement of quality of life.

Conclusion: There are some positive effects of Yoga on improvement of the quality of life in patients with PD, MS and Stroke In the future, it is necessary to organize training for the treatment of certain diseases with Yoga.

Keywords: Knowledge; Neurological Disease;Yoga

Introduction

Some studies have proven that CAM methods have positive effects on the mental and psychological health, and motor, emotional and cognitive deficits in patients with neurological diseases [1]. Yoga is an Indian method that unifies physical exercises, breathing techniques, meditation and a healthy lifestyle. It helps to improve physical and mental health, flexibility, stability, strength, appearance, concentration and mood [2]. Numerous studies have been performed to validate the application of yoga exercises as a complementary alternative treatment modality in various neurological disorders. Parkinson's Disease (PD) is a degenerative brain disorder that is caused by nerve cell degeneration in a region of the brain that controls voluntary movement. The symptoms include tremors, a shuffling walk, muscle stiffness, stooped posture, and a mask-like, expressionless face. Other non-motor symptoms include depression, dementia and cognitive impairment. Yoga is an effective way for PD sufferers to increase flexibility and decrease the rigidity associated with PD. Researcher shows that the benefits of yoga on movements are improved strength, flexibility, balance, overall fitness and quality of life [3,4].

Multiple Sclerosis (MS) is an unpredictable, often disabling disease of central nervous system that disrupts the flow of the information within the brain, and between the brain and body. MS is an autoimmune demyelinating disease of the central nervous system. Yoga is relatively inexpensive, generally safe, and may potentially improve multiple sclerosis symptoms [5]. MS clinical trial found

that yoga decreased fatigue, anxiety, depression, bladder function, pain, spasticity, weakness and walking [6].These conditions may secondarily worsen disability and quality of life but yoga practice can slow them [7].

Previous research shows that yoga offers relief from a long list of medical ailments by doing just that, alleviating both mind and body from stress. Studies have found that yoga may help teens recover from eating disorders, reduce depression, anxiety and irregular heartbeat in heart patients [8]. Regular yoga practice is also associated with improvements in heart disease risk factors like high blood pressure, high cholesterol, hardening of the arteries and inflammation [9].

The new study suggests that it may also help stroke survivors reduce disability by boosting their coordination and strength[10]. Yoga on post stroke patients has follow improvements: physical strength, range of motion, gait, balance, quality of life, energy, concentration, confidence, and stress [11]. The purpose of our research was to estimate the knowledge of the physiotherapists about the effects of yoga in patients with neurological diseases.

Materials and Methods

In our study were included 40 physiotherapists from third year of university studies, which have a basic knowledge for neurology and rehabilitation of PD, MS and Stroke, with passed exams of these scientific disciplines. For assessment of their knowledge for the effect of the yoga in these diseases, we compose a question mark that includes three parts: general information about the age and the sex, assessment of knowledge for the disease by conventional medicine and assessment of knowledge for the effect of Yoga in these neurological diseases and their application.

We made the obtained data and assessment in both nominal and percentage values as a score of positive answers 0-25%s, minimum knowledge, medium 26-50%, 51-75% high knowledge and 76-100% very high knowledge.

Results

From total interviewed students, a larger proportion were female (60%), but this has no meaning, because data were collected by email in voluntary way. The most of them 70% were on age of 22. The result is showing in (Table 1).

Sex/age	22 years	23 years	25 years	Total	%
Male	12	4	0	16	40
Female	16	4	4	24	60
Total	28	8	4	40	100
%	70	20	10	100	

Table1: Personal Data of Interview Students.

The assessment of knowledge of the basic principles for the treatment and rehabilitation for these three neurological diseases is shown in (Table 2).

Question	PD	MS	Stroke
1	40	32	40
2	40	26	40
3	40	20	34
4	18	12	40
5	24	0	40
Total	162	90	194
%	81	45	97
Score max.200	Very High	Medium	Very High

Table 2: Knowledge of Conventional Treatment for PD, MS and Stroke.

The biggest deficit in knowledge is for MS, in relation to individual questions 4 and 5, or for the etiology of the disease and the personal contact with people from the different disease in the process of rehabilitation. assessment of knowledge about Yoga as an alternative method is shown in (Table 3).

Question	Positive	%
1.What is yoga?	40	100
2. Where is the yoga coming from?	36	86
3. What is the main purpose of the yoga?	28	70
4. With which thing we have to be careful during performing yoga?	26	65
5. Did you have ever visited a course for yoga?	4	10
6. Did you have ever studied for yoga like a CAM method in some subjects?	26	65
7. Did you have ever performed a yoga during practice education?	0	0
8. For which disease the yoga can be use?	12	30
Total points	172	54

Table 3: Knowlege for Yoga like CAM Method.

The knowledge of physiotherapist students about Yoga is 54% or middle score.Knowledge about application of Yoga for neurological diseases is shown in (Table 4).

Question	PD	MS	Stroke
1. Did the yoga had an effect in the disease?	8	8	4
2.Did they knew the effect of the yoga in some disease?	4	0	0
3. Have they visited some education about the yoga with some of these diseases?	4	0	0
4. Have they used some yoga eservice for patients with some of these diseases?	0	0	0

5. Did they knew the effects of the yoga for these diseases (PD, MS, Stroke)?	12	0	0
Total score 200	28	8	4
%	14	4	2
Knowledge	Low	Low	Low

Table 4: Knowledge of Application of Yoga in PD, MS and Stroke.

The total knowledge about conventional medicine and CAM methods in percentage by each disease is showing in (Table 5)and (Figure 1).

Treatment/disease	PD	MS	Stroke
Conventional medicine	81	45	97
CAM-Yoga	14	4	2

Table 5: Compilation of Knowledge.

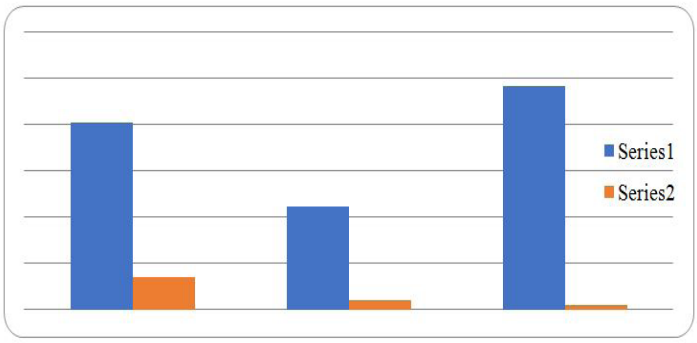

Figure1: Compilation of Knowledge.

Discussion

Complementary and Alternative Medicine (CAM) includes all practices and ideas that are self-defined by their users in order to prevent or treat disease or promote health and well-being. About 50% of people in developed countries use some form of complementary and alternative medicine, especially the pray for health [12].Meditation has great potential for preventing cognitive and memory decline because of its stress reducing effects.

Yoga is one of the most common CAM therapies used in the US in 2002 wereyoga (5.1% -6.1%), and meditation (7.6%), but it is not usually method of treatment in our society.Yoga practice helps to the patients with neurological diseases to reduce muscle spasm, atrophy, tremor and related disorders in movement and balance and reduced range of motion. Studies show that the benefits of the yoga are related with movement disorders: improved strength, flexibility, balance, stamina and improved overall quality of life [13,14].

The application of CAM methods in Parkinson's disease is 54% in this condition, until to all older people move to 52%. Also 39% of patients used at least one method, and there is no difference in terms of race and gender. The results suggest that yoga may improve aspects of QOL and physiological functions in stages 1-2 PD. Future larger studies are needed to confirm and extend findings of the effects of yoga in PD [15].

Potential effects of the application of yoga exercises are mostly expressed on non-motor symptoms, especially depression and quality of life in patients with PD. Before you decide to be on treatment with a yoga exercises, it is necessary to assess, as in previous treatments, the level of disease, age, medication and dominant non-motor symptoms, how long lasts the illness, the social and the physical activity or had the patient episodes of falling. The next step is the exercises. All measurements and scales are made before treatment, at 6 and 12 weeks of treatment [16].

Another study is focused on the impact of yoga on physical function and psychological well-being in people with Parkinson's disease. Preliminary data suggest that yoga resulted in modest improvements in functional mobility, balance and strength of the lower limbs in people with PD. Yoga improves posture, postural stability, and balance in movement, flexibility in the upper and lower body; reduces rigidity and the inactivity in these patients drastically decline. Salient evidence also showed positive results in the mood and the sleep, and showed benefits of the yoga for self-efficacy and social support [17].

One bout of exercise can be helpful in improving mood in people with MS and the manner of exercise may not be important to improve the overall symptoms of acute mood. However, different modes of exercise can be effective in improving different energy [18]. Comparing different types of yoga (for example, Hatha, Vinyasa, yin, etc.) helps to identify their style, which are used for different levels of disability, and may be particularly useful for people with MS [19,20].

Finally, it is important to say that the yoga is useful when is used from several weeks to several months, and there is little effect if it is used as long-term method in the fight with the symptoms of MS. The results of the specific researched studies suggest that the yoga can have a positive impact on physical functions and quality of life to people with mild to moderate MS. The techniques of yoga, as a complementary method for improving the symptoms of MS, are acceptable, even if it is necessary to conduct more research in various societies [21].

A recent survey showed that 46% of patients with stroke, where as a consequence occurs Stroke, is using some form of complementary alternative medicine such as herbal medicines, acupuncture or chiropractic. The effect of yoga exercises on the orientation, balance, mobility, depression, anxiety, and the quality of the life before and after 10 days.21 Patients do not have significant improvements in motor activity, but significant improvements in quality of life and reduced anxiety and depression, improved balance and orientation, improved breathing, increased energy, improved mental alertness and focus, improved sleep, improved

management of difficult emotions and mood, and increase motivation for further treatment [22,23]. In the strategy of WHO, in the field of TCM (Traditional Chinese Medicine) are the following guidelines for the implementation of TM in the health systems of the Member States in WHO:

- CAM and other TM should be implemented by medical officers with minimum secondary education.
- The application should be controlled by the health system of each origin country, with a license for that job.
- Education is conducted by proven experts with university education by levels of health workers [24].

In Republic of Macedonia was adopted a law for the implementation and application of CAM methods by the Ministry of health in January 2015 [25].The Ministry of education has no legal framework for implementing the training of CAM in all levels of education.

Conclusion

There are some studies with positive effects of Yoga on improve of the quality of life in patients with PD, MS and Stroke. In our health care system is permissible application of Yoga as an alternative method. Following the commitments and objectives of the WHO, in the future it is necessary to organize training for the treatment of certain diseases with Yoga exercise in order to improve the health and quality of life to patients, together with conventional methods.

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