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Yoga and Physiotherapy: Physioyoga for health

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Abstract

Yoga and physical therapy are two different disciples of healthcare and rehabilitation sciences which benefit their clients in their own way. One works on providing a complete surrender of mind and body to have a holistic approach towards one's own self, while the other provides an evidence based research combined with extensive training and clinical experience to provide a functional rehabilitation to its patients. Both treat a patient at physical as well as at some psychological level. A combination of the best of these therapies, in the form of physioyoga is the new holistic approach which utilizes the best of these therapies to treat various health problems.

Keywords: Yoga, physiotherapy, physio yoga

Introduction

Understanding Yoga

Yoga is an ancient Indian art form which have been used since centuries due to its benefitting effects on mind, body and soul. The term "yoga" means unity or oneness. It is derived from a Sanskrit word 'Yuj' which in spiritual terms means union of the individual consciousness with the universal consciousness. Earlier thought to be a domain of saints and priests today it is known world over and practised by millions of people due to its various health benefits. It is said to provide a complete harmony of physical, mental, psychological, emotional and spiritual wellbeing for an individual. In yoga sutra, Maharishi patanjali has defined yoga as "Atha yoga anushasanam" i.e. yoga is a form of discipline. It is a combination of various meditation techniques and exercises or poses called as "Asanas" which are done in a systematic, synchronised form with focus on the breathing techniques. The Sanskrit word for discipline is 'Anushasanam'. Here 'Anu' means atom and 'Sashanam' means to govern. Since an atom is the smallest particle which cannot be seen by anybody but it still exists or is potent, similarly the concept of discipline in yoga is a process in which it is learned how to govern the unknown and unseen aspects of oneself. Some define it as union of an individual with supreme consciousness. This is said to be helpful in relaxing a disturbed mind along with promoting physical health [1]. There are four types of yoga which are Karma yoga (right attitude towards work), Jnana yoga (pursuing right knowledge), Bhakti yoga (devotion), Raja yoga (mastering the mind). These are associated with four paths of self sacrifice, self surrender, self analysis and self control. The nature of all yoga practises is psycho-physiological. Those practises which involve more of meditation influence the psychological aspect of an individual and those which have more emphasis on physical aspects such as suryanamaskar, pranayam, mudras, asanas, bandhas and shat kriya influence the physiological aspects of human beings [2]. Today's world is full of stress and its related co morbidities which are affecting every aspect of human life. Yoga is an effective way to counter such kind of stress without any medication or complex medical procedures. Therefore, it has no side effects as seen with regular use of pharmacological drugs. In simple words yoga treats a person physically and mentally by enriching his thoughts, making way for a more positive energy in his life and individual self by removing negative energy from his mind and body as a whole. Research also shows it has benefited people of all ages and races across the world [3]. There are various published studies which have shown the benefitting effects of yoga on various systems of body [4,5]. The various Kriyas lead to a balance between the endocrine and nervous system which results in increased mind and body control. It further calms a person, relaxes him and refresh him which leads to a good health and harmony.

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Understanding physical therapy

Physical therapy on the other hand is physical medicine and rehabilitation specialty that reduces impairments and promotes mobility, function, and quality of life. It involves examination, diagnosis, prognosis, and physical intervention which involve manual therapy and various modalities. It is carried out by physical therapists or physiotherapists. It is widely used world over for making an individual functionally independent and pain free. Professionals in this field have a detailed knowledge about the human body and its various systems along with a good knowledge about the human anatomy, physiology, exercise physiology, biomechanics and kinesiology, neuro and behavioural science, clinical pathology, clinical electrophysiology, geriatric, orthopedic, neurology, sports, women's health, pediatric, palliative care, psychology and research to name a few. It involves treating a problem by physical means and reducing the reliance on medications. This is done by making the patient aware of his limitations and then to try to overcome those limitations and providing functional independence by removing those factors which prevent him or her to achieve his functional best. It is practiced by licensed health care professionals after they have many years and thousands of hours of extensive training, knowledge and clinical experience to achieve the expertise to make a proper assessment, diagnosis and treat a variety of dysfunctions, disease symptoms, disabilities and imbalances. They also use specialized manual skills in addition to a variety of other methods as part of their treatment intervention. The main areas a physiotherapist in rehabilitation gets involved are:

- To focus on illnesses or injuries that limit a persons ability to move and do his normal functional activities such as post fracture stiffness, rehabilitation after a stroke, working with children with special needs such as cerebral palsy for their constructive inclusion into the society. Treatments focus mainly on improving gross and fine motor skills, balance and coordination, strength and endurance as well as cognitive and sensory integration.
- They function in outpatient clinical setting to treat post-operative orthopedic procedures, fractures, acute sports injuries, arthritis, sprains, strains, back and neck pain, spinal conditions, and amputations.
- Orthopedic specialization involves joint and spinal mobilization and manipulation along with therapeutic exercise, muscular reeducation, electrical muscular stimulation for facilitating muscle action and use of cryotherapy and electrotherapy modalities for recovery. Any problem involving muscle, bone, ligaments or tendons can be treated efficiently by a physical therapist.
- Helping an athlete return to field after an injury and also working on strategies to improve his functional capabilities, in his movement assessment to improve his playing technique by preventing injury chances and proper athletic training.
- Improving the balance and gait problems after spinal cord injury and in geriatric population, decreasing the debilitating effects of a prolonged bed rest or a sedentary lifestyle by developing muscular strength and endurance along with flexibility, relaxing the sore and tensed muscles by various relaxation techniques and reducing pain.
- They also address women health issues involving osteoporosis, reproductive system, antenatal and postnatal fitness, pelvic pain and pelvic floor dysfunction

by treating incontinence.

- Even in the field of oncology they are an indispensable part of the medical and rehabilitation team to help patients achieve independence to optimize their quality of life, regardless of their life expectancy.
- They help in reducing the muscle tone or tension in the muscles to relax them and reduce pain hence they help a patient in relieving stress and relaxing his body and eventually his mind too, finally building his confidence and willpower to fight his impairment and return in the society.

Hence Physical Therapy is a well respected health care profession that uses evidence-based treatment methods to help clients restore and maintain optimal movement and function, as well as provide education on health maintenance and injury prevention.

Physioyoga

Yoga or physical therapy each have their own respective ways of providing therapeutic treatments or therapies to their patients or followers. Each has its own benefits when provided or used appropriately. Today is an era of multidisciplinary rehab science, which just do not rely on one therapeutic approach for treating any illness or disorder but involves a combination of the best therapeutic options available for achieving the desired benefits for a patient. Physioyoga also called as yoga physical therapy is a new approach of rehabilitation therapy which combines the two professions i.e. physio therapy and yoga therapy. A combination of these two results in a more holistic and fulfilling experience in a rehabilitation process. It is neither yoga nor physical therapy alone, but a meticulously chosen protocol suiting the individual needs and targeted towards the specific direction aiming for disease prevention or treatment. It involves the best of both the therapies. It has its basis in the common practices in both the therapies which are used to treat certain illness. This approach makes a patient more actively involved in his own healing process rather than just going for more passive way of getting his problem treated by any therapist. This allows for a better and more holistic approach to the whole process.

The way physical therapy involves stimulating muscular and neural structures by mobilization techniques, similarly several yoga postures too lead to self mobilization of the same structures. The mckenzie technique in physiotherapy and the cobra asana in yoga are quite similar and both are useful in pain relief for both low back and cervical region ^[6]. The shavasana is similar to the Jacobson's progressive relaxation techniques that are used for complete relaxation. Various types of breathing techniques like abdominal breathing, pursed lip breathing, huffing or cuffing that are taught to bed bound patients for clearing the airways and nasal passages are similar to breathing techniques in yoga such as pranayama which focus on the way and extent of breathing. There is also research work that have particularly shown the benefitting effects of yoga postures for scoliosis correction, pelvic mal-alignments, postural reeducation which is an important part of rehab science, for injury prevention by increasing flexibility and even increasing range of motion ^[7, 8, 9, 10]. Recent surge in lifestyle diseases like diabetes and hypertension are dealt with physical rehabilitation by encouraging people to be more physically active and adopting healthy daily habits like regular walking, eating adequately by taking care of the calories one consumes or taking a group exercise class of any form which requires physical activity. Yoga therapy has also

been found to be effective in reducing the blood glucose levels in people with diabetes and improving their general health ^[11]. Some RCTs have shown the benefitting effects of yoga along with physical therapy on orthopedic conditions of knee osteoarthritis and the quality of life. Of patients ^[12]. Similarly both the therapies are used effectively to treat problems of obesity and psychological distress ^[13].

Physical therapists deal with various acute and chronic problems, some of which require a good mental strength and determination on the part of the patient to fit in his daily life as before. Usually these cases are post fractures or patients on prolonged bed rests, paralysis cases, amputations, spinal injuries etc., which can take a toll on patients mental health and break his confidence, developing hopelessness and eventually depression. A surgeon can fix a fracture while a physio makes a person walk again. Surgery can correct an athlete's torn ligament or tendon but a physio makes a person play again. Since a rehabilitation therapy requires a patient to spend comparatively more time with the physical therapist, patients develop a bond of trust with them. It is very important for a rehab therapist to encourage his patient positively towards his recovery. Since most of the yogic practices are mind centric, yoga can be of great help in these cases, where it is more important to treat a problem mentally first than physically. Yoga has been practiced as a preventive medicine since ancient times and its very beneficial in the management of psychosomatic disorders.

Conclusion

Practicing physioyoga could be of great benefit for the physical therapists who want to treat their patients in a more holistic way. While yoga encourages one to focus on achieving the best possible by developing a strong mind and fit body, it is also important to be knowing when to stop at the right time. Over exertion could lead to injury and pain. A physical therapist practicing yoga should be well aware of the various yoga asanas with their benefits and limitations on various body systems. For this, it is also important for them to be formally trained as a yoga instructor. These exercises should be tailored as per the condition of the patient or modified accordingly to give the best of the therapy, at the same time preventing any unwanted injury.¹⁴ Especially in group exercise settings individual attention should be paid to each participant while exercises are done, as doing a wrong move could actually exacerbate the present problem. The main aim of any health care provider is to work in the best interest of their patients. If a meticulously chosen protocol of yoga and physical therapy can benefit them more than these therapies given alone, then why not go with it. As is correctly said "Well Begun Is Half Done".

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