



ORIGINAL RESEARCH PAPER

Physiotherapy

THE IMPORTANCE OF TELEHEALTH TECHNOLOGIES AND OTHER NOVICE PHYSIOTHERAPEUTIC TECHNIQUES IN MAINTENANCE OF A GOOD MENTAL HEALTH AMIDST THE COVID 19 PANDEMIC: A SHORT COMMUNICATION.

KEY WORDS: COVID-19, Mental Health, Physiotherapy, Telehealth

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ABSTRACT

Amidst the unfortunate pandemic of COVID-19, most of the healthcare is rightly devoted towards the prevention of the further spread of the disease and the cure of the ones who are already infested with the virus. But we may also see that there are a lot of people who may be suffering from subclinical mental illnesses which if not addressed in the early stages will cause enormous problems in ones functioning. Thus the aim of this short communications article is to just highlight a few physiotherapeutic techniques which can be employed to prevent and cure the mental distress caused by the current situation, with the help of technological advances.

Mental health is defined by World Health Organization (WHO) as a dynamic state of internal equilibrium which enables individuals to use their abilities in harmony with universal values of society. Basic cognitive and social skills; ability to recognize, express and modulate one's own emotions, as well as empathize with others; flexibility and ability to cope with adverse life events and function in social roles; and harmonious relationship between body and mind represent important components of mental health which contribute, to varying degrees, to the state of internal equilibrium.^[1] Good mental health as explained by the World Health Organization (WHO) is related to mental and psychological well-being.^[1] It is highly essential that every individual should be physically as well as mentally healthy in order to function appropriately.

The WHO defines health promotion as "the process of enabling people to increase control over, and to improve their health"^[2] Similarly, good mental health promotion is defined as "the enhancement of the capacity of individuals, families, groups or communities to strengthen or support positive emotional, cognitive and related experiences."^[3]

Amidst the unfortunate pandemic of COVID-19 the healthcare has to be focussed on prevention of the spread of virus and cure for the ones who have already been infested with the virus. With the ongoing safety precautions put across by the authorities like lockdown in various countries across the world to prevent the further spread of the disease, it becomes necessary for the citizens to be mentally fit and positive as they continue to stay at home. A lot of people tend to suffer from anxiety, depression, mood fluctuation disorders etc especially after they hear about the various news coming across from different sources, also thinking about the possible outcomes and prognosis of the pandemic. Unfortunately there is still a lack of awareness of the importance of social distancing and the situation among certain citizens who are not cooperating with and abiding by the government and administrative bodies and tend to venture out of the house unnecessarily.

As responsible citizens all we can do is maintain social distancing, stay at home, use masks when required, wash hands with soaps and sanitizers, take care of our individual mental and physical health and thereby help the government to smoothen the process of containment of the disease. So it becomes essential in order to enlist certain methods which can be therapeutic as well as recreational and yet be very well done by staying within ones house.

It must begin with planning ones day in a proper manner. Make an elaborate schedule of how one can make oneself productive staying at home itself. Set a timetable of what needs to be done throughout. Indulge in hobbies which one couldn't make time for during their busy work lives and those which can be pursued within ones house eg painting, craft work, dancing, singing, reading etc.

Telehealth is the delivery of health-related services and information via telecommunications technologies. Telehealth is an expansion of telemedicine, and unlike telemedicine (which more narrowly focuses on the curative aspect) it encompasses preventive, promotive and curative aspects.^[4] The public can avail various educational, rehabilitative and fitness related services on the authenticated forums so that they can be updated on the correct information and at the same time devote their time productively.^[5] The concerned health care professional may be contacted over the suitable teleportals if possible to discuss whatever mental problems one is undergoing, if physical meeting isn't possible. One could seek appropriate medical and therapeutic guidance over this medium and thus be able to keep oneself free from any mental issue.

As far as the therapeutic part is concerned, exercises are the best sources of generating ones endorphins and enkephalins. One must simply put on light music and indulge in light exercises every day. It works through physiological and biochemical mechanisms, including endorphins, mitochondria, mammalian target of rapamycin, neurotransmitters and the hypothalamic-pituitary-adrenal axis, and via the thermogenic hypothesis. In addition, psychological mechanisms influence the effects of exercise on mood states, as suggested by both the distraction hypothesis and the self-efficacy hypothesis.^[6] Emerging evidence also supports the mental and cognitive-enhancing benefits of resistance exercise, suggesting that muscle strengthening activities should be incorporated in a well-rounded exercise routine.^[7] Chart the graded exercises session from 20-60 minutes based on prior fitness level. Consult a physical therapist or a fitness trainer who has assessed you prior, for a tailor made protocol. Always divide the exercises sessions into a proper warmup, aerobic and cool down phase. Exercise intensity may be based on age group, gender and presence of any comorbidity. Resistance training could be modified using water bottles instead of dumbbells. Weight cuffs could be made of specific weight of uncooked grains stitched inside piece of cloth. Like wisetherabands could me made our of elastic belts in old pants. Thus we can

modify whatever is available at our homes to the best.

Relaxed deep breathing exercises are the best form of exercises for cool down as well as for relaxation. One must simply sit cross legged with back supported or on the chair with feet supported on the ground and just indulge in deep breathing in a calm environment if possible. Just feel the air entering and leaving the chest. One must concentrate to feel the mechanics of respiration. It is known to cause an increased parasympathetic activity and a decreased sympathetic activity hence helps in curbing any anxiety whatsoever.^[8]

Relaxation Exercises are next in the list.^[9] One must simply lie down in their couch or on the floor mat in their homes and leave themselves lifeless, with no tension in any of the muscles, be it forehead, shoulder, trunk or feet. Listen to the soft music, recorded story, or focus on the sound of the surroundings with eyes closed and relaxed and get a feel of all that is happening in your immediate environment.

Yoga was found to be as effective as relaxation in reducing stress, anxiety and improving health status on seven domains of the SF-36.^[9] One must indulge in safe yogic postures depending on if one suffers from any particular co morbidity with due consultation from a therapist or a certified yoga practitioner. Simple yoga postures like vajrasana, sukhasana, paschimotanasana, naukasana, utkatasana, gomukhasana, bhujangasana, shavasana, tadasana etc can be practiced along with pranayams.

Cognitive techniques (cognitive restructuring, problem solving and cognitive functional training), behavioural (relaxation, pacing and graded exercise therapy and behavioural activation), supportive, educational and other techniques such as (bio) feedback, movement and body awareness and relapse prevention for children and adults are other aspects of this treatment^[10] Attention over a problem caused more worry and anxiety than distraction.^[10] The details of the same are mentioned in Figure 1.

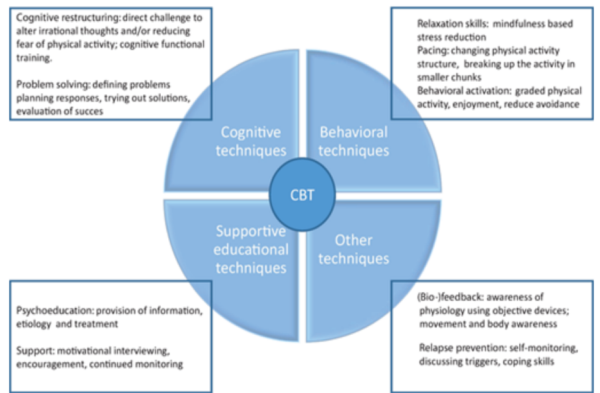


Figure 1: Various aspects of cognitive behavioural techniques^[10]

Another such technique is dance therapy which has recently gained a lot of momentum in rehabilitating people suffering from mental illness.^[12] It has shown relatively positive results and hence can be used. A group of relatives and friends can connect to a person on an online video calling podium who can lead the dance session, not necessarily be a dance therapist. It can be done using extremely simple steps and minimal exertion with music and the dance steps can be custom made based on target population.

For whoever can afford and have the virtual reality Nintendo games at home, they could use those. It gives the sense of being in a different environment especially the devices with head gear. It has shown a lot of superior results in attention deficit disorders and works on distraction hypothesis^[13] It has

known to work well in post traumatic stress disorders as well.^[14]

Thus it can be concluded that there a lot of things that can be done staying at home itself to keep oneself physically and mentally fit. In the times of such crisis it is of utmost importance that one takes care of themselves and thus help to hasten the process of the containment of the disease.

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