



International Journal of Allied Medical Sciences and Clinical Research (IJAMSCR)

ISSN:2347-6567

IJAMSCR /Volume 8 / Issue 2 / Apr - Jun - 2020
www.ijamscr.com

Research article

Medical research

Covid-19 lockdown, a major risk factor prevailing to physical inactivity and musculoskeletal disorders: short communication

Manashi Dey^{1*}, Akhil Mathew²

^{1*}Course Coordinator, Institute of Physiotherapy, Vydehi Institute of Medical Sciences & Research Centre, Bangalore

²MPT, CMATT. Assistant Professor - Physiotherapy, MIAP.

*Corresponding Author: Manashi Dey

Since December 2019, an outbreak of novel corona virus disease was reported in Wuhan, China, which has subsequently affected more than 150 countries worldwide and is battling against this virus, trying best to curb the spread as much as possible. The ongoing outbreak has been declared by WHO as Pandemic, a global public health emergency and is leaving no stone unturned to control the pandemic, awaiting a vaccine for cure [1, 2]. There exist a dearth of literature that can guide researchers to study the impact of pandemic on physical and mental health of people worldwide [1, 2].

Several countries are successfully fighting with the pandemic by taking strict measures like nationwide lockdown or by cordoning off the areas that were suspected of having risk of community spread. Strict measures were expected to flatten the “curve”. Indians were exposed to lockdown situation partially, and this helped in preparing mentally for the nationwide lockdown, and the announcement did not come as a shocker like other countries. Doctors and psychologists do suggest that, the ongoing situation of lockdown is not only a social problem, but it is also taking a toll on people’s mental health and physical fitness. Physical inactivity, increased amount of stress and technological dependency will be a risk factor for various musculoskeletal disorders during lockdown.

Such occurrences affect individuals and society on many levels, causing disruptions [3, 4].

Arguably, staying home, while a safe measure, may have unintended consequences such as reduced physical activity, increased sedentary behaviors or potential worsening of chronic health conditions. Smartphone and Internet dependency has been increased beyond expectations as many countries and networks considered increasing bandwidth. Work from Home and many other quarantine based activities aided to this situation. Increased smartphone usage and internet dependency will interrupt the momentum which can affect our productivity, and has negative impact on health. Most of the musculoskeletal disorders are caused by repeated use of the system, resulting in damage to the muscle fibers, tone and posture. Recent studies have estimated a prevalence of 35% for neck pain and musculoskeletal injuries associated with chronic smartphone use. It can also cause significant alterations in upper cervical posture, continuous mechanical stress on the tendons, muscles, and perimetric tissue, which may induce ‘Visual Display Terminal’ syndrome (VDTs) [5, 6].

According to Burnett and O’Sullivan et al, adapting an incorrect posture for a long period of time can lead to a lowering in the function of neck and back muscles, triggering pain in the regions. It is evident that using smart phone in sitting posture

for a long time can trigger musculoskeletal disorders. The static and asymmetric position adopted may also be a potential risk factor. Work from Home for a long period can increase postural repositioning errors as the set up is not ergonomically compatible. The cervical load increases from about 10 pounds in the neutral position to 60 pounds at 60degrees. Therefore, the excessive cervical load of a more flexed posture might cause considerable damage to the tissues subsequently predisposing to cranio cervical dysfunction and pain [8]. Majority of symptoms are associated with an adapted poor posture. Physical inactivity, existing comorbid conditions and increased stress level will be a potential risk factor apart from poor posture. Human-device interaction-rest patterns also may be an important factor in the development of musculoskeletal complaints [7, 8, 9].

Lockdown has proven to be effective in controlling the spread globally and the ongoing

process may continue with relaxation till the curve flattens. There is a strong health rationale for continuing physical activity in the home to stay healthy and maintain immune system function in the current precarious situation [9]. Individuals should consider maintaining physical fitness, global postural awareness and reeducation, mental health, which do prevent musculoskeletal complications. Tele rehabilitation or guided group interventions (online) can be considered by physiotherapists and should be cost effective. A better physical-mental health with good life style and food habits aid to herd immunity and also for effective antibody production, post immunization or recovery [9]. Every individual is responsible for the effective control of infection by physical distancing, personal hygiene and by better physical-mental wellness. Physiotherapists are having a vital role in building up the physical capacity of survivors as well as the quarantined and locked down populations across the globe.

REFERENCE

- [1]. Wu F, Zhao S, Yu B, et al. A new coronavirus associated with human respiratory disease in China. Nature 2020. published online DOI: 10.1038/s41586-020-2008-3.
- [2]. Dr. U T Ifthikar Ali, Akhil Mathew, Shikha Fathima. Role of physiotherapy in improving respiratory and functional outcomes among COVID-19 survivors - Short communication. Int J of Allied Med Sci and Clin Res 8(1), 2020, 83-84. https://www.ijamscr.com/sites/default/files/articles/IJAMSCR-20-116_83-84.pdf
- [3]. Gopalkrishna Barkur et al. Sentiment Analysis of Nationwide Lockdown due to COVID 19 Outbreak: Evidence from India, Asian J Psychiatr. 12, 2020, 102089.
- [4]. Jyoti Peshave et al, Covid-19 lockdown- A blessing or curse, *CLIO An Annual Interdisciplinary Journal of History*, 6(1), 2020.
- [5]. ShikhaFathima, Jaya P. Effect of chronic smartphone use on upper extremity muscle activity and pain threshold. Int J of Allied Med Sci and Clin Res 8(1), 2020, 85-90. https://www.ijamscr.com/sites/default/files/articles/IJAMSCR-20-115_85-90.pdf
- [6]. Neupane S, Ali U, Mathew A. Text Neck Syndrome - Systematic Review. Imperial J Interdiscipl Res. 3(7), 2017, 141-8.
- [7]. O'Sullivan PB, Dankaerts W, Burnett AF, Farrell GT, Jefford E, Naylor CS, et al. Effect of different upright sitting postures on spinal-pelvic curvature and trunk muscle activation in a pain-free population. Spine 31(19), 2006, E707-12.
- [8]. Kim GY, Ahn CS, Jeon HW, Lee CR. Effects of the use of smartphones on pain and muscle fatigue in the upper extremity. J. Phys. Ther. 24(12), 2012, 255-8.
- [9]. Chen P, Mao L, Nassis GP, Harmer P, Ainsworth BE, Li F. Coronavirus disease (COVID-19): The need to maintain regular physical activity while taking precautions. J Sport Health Sci 9, 2020, 103-4.

How to cite this article: Manashi Dey, Akhil Mathew. Covid-19 lockdown, a major risk factor prevailing to physical inactivity and musculoskeletal disorders: short communication. Int J of Allied Med Sci and Clin Res 2020; 8(2): 164-165.

Source of Support: Nil. **Conflict of Interest:** None declared.