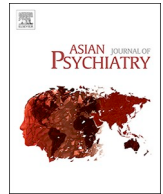




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Letter to the Editor

Yoga for infirmity in geriatric population amidst COVID-19 pandemic
 Comment on “Age and Ageism in COVID-19: Elderly mental health-care vulnerabilities and needs”


Dear Editor,

We have read the article titled “Age and Ageism in COVID-19: Elderly Mental Health-care Vulnerabilities and Needs” with great interest. In that context, we would like to share our views on the importance of Yoga and mindfulness practices in the amelioration of the many infirmities of old age.

The necessity of maintaining social and physical distancing has often led to the closure of geriatric care communities and health-care centers and has especially imposed several restrictions on this especially vulnerable segment of our population (Rajkumar, 2020). This has led to psychological distress, feeling of abandonment, and worthlessness among elderly population. Reports of increased rates of hospitalization and case-fatality rate with age, adds to the psychological apprehensions. Pre-existing comorbidities doubles the risk among older adults as suggested by several studies. As per a report, 60–80 % of geriatric population, suffers from at least one non-communicable disease (Gong et al., 2018). In addition, the elderly are predisposed to infections because of age related immunosuppression. Mind-Body practices like mindfulness, yoga, tai chi and Qi gong have been shown to relieve stress, improve self-care and inculcate positive coping strategies.

1. Yoga for elderly

Yoga is a multicomponent, mind–body medicine, comprising low intensity exercises, breath control techniques, relaxation, mindfulness and meditation (de Manincor et al., 2015). Yoga as a tool for elderly-care has been established to promote physical wellbeing by improving

muscle strength and endurance, postural stability, balance, and reduction in fatigue and the risk of falls (Kraemer and Marquez, 2009; Tulloch et al., 2018). Besides, physical well-being, enhancing positive mood states and decreasing mood disturbances like anxiety and depression are among the psychological benefits of yoga for elderly (de Manincor et al., 2015; Kraemer and Marquez, 2009), which can cause positive immunomodulation and thereby reducing the chances of respiratory tract infections (Barrett et al., 2018). A recent systematic review of randomized controlled trials shows that yoga interventions results in improvement in both health-related quality-of-life and mental well-being in people aged 60 years or above (Tulloch et al., 2018). There is also a considerable corpus of literature which suggests that with aging, older adults also report sleep disturbances, further contributing to decline in cognitive functioning. Yogic intervention appears to be therapeutically effective in improving sleep quality and enhancing cognitive function among people aged 60 years or older (Zhang et al., 2018). There are also multiple reports suggesting the favourable effect of yoga on older adults with a broad range of comorbidities including cardiovascular diseases (Chu et al., 2016), diabetes mellitus (Hewston and Deshpande, 2018), and chronic obstructive pulmonary disease (Wu et al., 2018), and other musculoskeletal diseases like osteoarthritis, chronic low back pain (Tulloch et al., 2018). Yoga practice combining physical posture, mindfulness, and meditation can be a holistic preventive and rehabilitative measure for elderly.

Yoga is cost neutral, easy-to-learn and practice, and largely a safe form of exercise. It would help that physicians treating older patients are aware of the multidimensional benefits of Yoga, especially in these trying times (Table 1).

Table 1
Findings on scientific evidence on Yoga for geriatric population.

| Author | Year | Sample Size | Practices | Major findings |
|------------------------------|------|-------------|--|--|
| de Manincor et al. (2015) | 2015 | 18 | Breath regulation, postures, relaxation, and meditation | Breath regulation and postures were considered very important for people with depression; and relaxation, breath regulation and meditation being very important for people with anxiety. |
| Tulloch et al. (2018) | 2018 | 752* | Iyengar yoga, silver (hatha) yoga, hatha yoga, yogasana yoga, viniyoga, vinyasa yoga, thai yoga | Small to moderate improvements were reported in both HRQOL and mental well-being in people aged 60+ years |
| Kraemer and Marquez (2009) | 2009 | 51 | Yoga and walking | Fatigue decreased significantly in the yoga group compared with the walking group |
| Zhang et al. (2018) | 2018 | 2539* | Tai chi, yoga, qigong and pilates | Mind-body interventions demonstrated significant benefits in cognitive performance, global cognition, executive functions, learning, memory, and language |
| Chu et al. (2016) | 2016 | 2768* | Hatha yoga, Iyengar yoga, Maharishi vedic medicine, yoga and flexibility, bikram yoga, ashtanga yoga, viniyoga stress reduction program, group-based interventions (gait and balance training, tai chi and yoga) | Yoga intervention improve cardio-metabolic health in older adults. |
| Hewston and Deshpande (2018) | 2018 | 5178* | Meditative movements (tai chi, yoga, and qigong) | Yoga was effective to reduce fear of falling and improve balance confidence in older population. |
| Wu et al. (2018) | 2018 | 1,176* | Meditative movements (tai chi, yoga, and qigong) | Meditative movement improve exercise capacity, dyspnea, health related quality of life, and lung function in COPD patients. |

* Meta-analysis.

Declaration of Competing Interest

We have no conflicts of interest to disclose.

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