

Effect of Suryanamaskar on functioning of Attentional Network among healthy adults

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Suryanamaskar or Sun salutation is an ancient Indian method of offering prayers to the rising sun in the morning with a series of physical postures with regulated breathing aiming at range of physical, mental and spiritual benefits. The present study examines the effect of Suryanamaskar on attentional network among normal healthy participant. Thirty healthy participants (Age_{range} = 20 - 27 years; M_{age} = 24.30 years, SD = 1.76) were taken from the Shiva Yog and Research Welfare Foundation, Varanasi. The participants were given the training of suryanamaskar regularly for 60-days (30 min/day). The attentional network performance measure of the participants was obtained before and after the suryanamaskar training sessions. Results showed that suryanamaskar practice improved attentional network performance of the participants. The finding also suggests the beneficial effect of suryanamaskar on attention network in terms of increase in alerting effect and executive control effect..

Keywords: Suryanamaskar, alerting, orienting, executive control

Suryanamaskar or Sun salutation is an effective yoga technique which incorporates awareness, breath regulation, relaxation and physical activities. Suryanamaskar is an ancient Indian technique of prayer to the rising sun in the morning along with regulated breathing and a series of physical postures. Suryanamaskar is an effective and graceful combination of twelve positions which, relieves stiffness, revitalizes the body, purifies subtle energy channels and refreshes the mind when performed sequentially. Though the impacts of Suryanamaskar have been described in scriptures extensively, but there is a growing need to understand its other cognitive benefits.

The 12 asanas link the physical basis of Suryanamaskar in a dynamically performed series. These asanas are performed in such a way that they alternately stretch the spine backward and forward. A full round of Suryanamaskar consists of 2 sets of all combinations of poses with a change in the second set to moving the opposite leg first through the series (see Appendix-1 for detail). Physical activity of any form followed by supine rest can influence attentional processes. Suryanamaskar has been reported

earlier as physical exercise which shows its beneficial effects in improving the executive function (Chavhan, 2013), and influences the attentional span is well documented (Kondam, et. al., 2015). Suryanamaskar is useful in achieving concentration (Dalvi, 2012). It improves significantly both the physical and cognitive functioning areas (Daspute, 2005). The Suryanamaskar practice was found to be effective on the levels of emotional maturity and psychological wellbeing.

In an earlier study, it was speculated that Suryanamaskar can be an ideal aerobic exercise as it involves both static stretching and slow dynamic component of exercise with optimal stress on the cardiorespiratory system. Apart from physical health and physiological rest, an improved attentional process and cognitive function determines the scholastic performance on executive functioning (Chavhan, 2013).

Telles et al. (1993) observed the effect of yogic practices on school children in two groups and found a significant change in attention span and memory in the practice group after a ten days study. In another study, Batra et al. (2003) observed 322 children and found that the