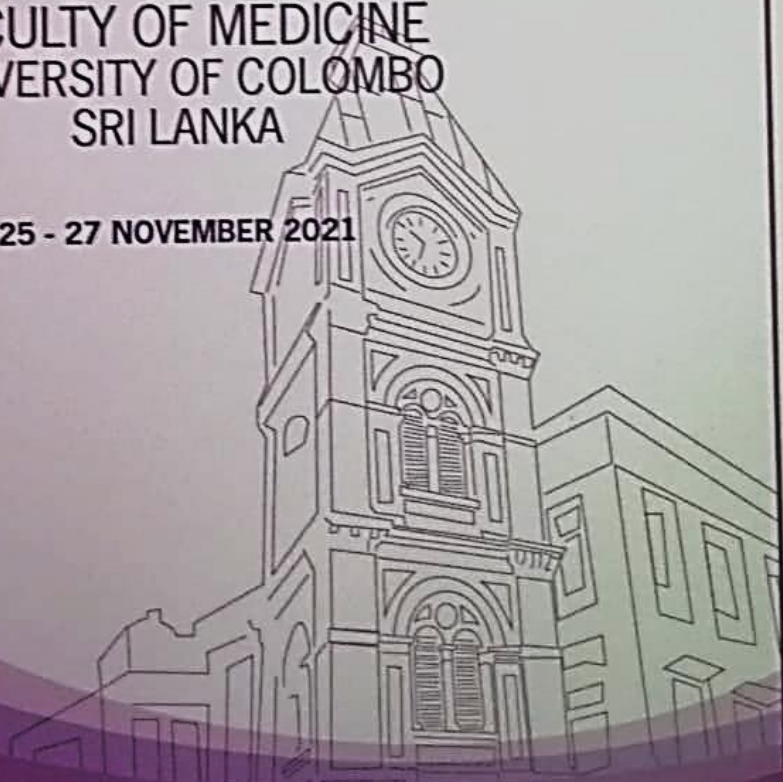


**"NCD AND COVID 19: TACKLING TWO PANDEMICS THROUGH COLLABORATIVE RESEARCH"**

## **COLOMBO MEDICAL CONGRESS 2021**

**FACULTY OF MEDICINE  
UNIVERSITY OF COLOMBO  
SRI LANKA**

**25 - 27 NOVEMBER 2021**



**PP-03: Respiratory function in healthy long-term meditators: a systematic review**

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**Introduction:** Given its prominent role in formal meditation and centrality in the body's physiological processes, respiration has been an important target of study in meditation research. Whether distinctive respiratory function changes occur in long-term meditators (LTMs) as a consequence of their long-term meditation (LTM) practice remains unclear. Evidence on benefits of meditation on respiratory function would be invaluable in developing meditation interventions for those with compromised respiratory function.

**Methods:** A systematic search of PubMed, MEDLINE, CENTRAL and Google Scholar electronic databases was performed from the first available date until August 31<sup>st</sup>, 2021. Search included "long-term meditation" and keywords related to respiratory function (respiratory/ pulmonary/lung function and spirometry). Controlled trials, observational studies explored on respiratory function of healthy LTMs and published in English were included. Two independent reviewers selected the studies, extracted the data and assessed the quality of evidence. This review followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

**Results:** Nine studies involving 443 participants that met the eligibility criteria were included. The majority of the included studies looked at the rate of respiration (RR) and reported decreased RR in LTMs during meditation relative to baseline and decreased baseline RR compared to age-sex matched controls. Decreased baseline RR among healthy LTMs was associated with greater practice experience and intensive retreat practice experience. Vital capacity, tidal volume and breath holding were significantly higher in LTMs. No studies reported on spirometry parameters in LTMs.

**Conclusions:** Long-term meditation is associated with better respiratory function in healthy individuals, with improvement in some respiratory function parameters with greater practice experience amplifying the effect. Further studies are recommended to discover the effect of LTM on respiratory function in association with specifics of meditation (type of meditation, frequency, practice experience etc.)

**Keywords:** long-term meditation, healthy long-term meditators, respiratory function, pulmonary function