## Practice and attitude towards COVID-19 vaccine booster dose in vaccinated undergraduate students in the Colombo district: a cross-sectional survey

S. Sneha, M.N.F. Nazreen, J.K.A.K. Perera, D.N.N. Weerasooriya, K.P.N. Ranatunga, W.A.S.Sathsara, P.D.V.M Perera

**Introduction and Objectives**: The Covid-19 vaccine booster doses are additionally recommended to broaden the immunological response. This study was conducted to assess the practice and attitudes of vaccinated undergraduates towards booster doses of COVID-19 vaccines in the Colombo district.

**Methods**: An online questionnaire was distributed from the 21<sup>st</sup> of March 2023 to the 27<sup>th</sup> of April 2023 as a Google form in all three languages among 385 vaccinated undergraduates in the Colombo district. The participants were voluntarily recruited through convenient sampling from both government and private universities of different faculties. The sample size was calculated for a descriptive cross-sectional study of an unknown population. The minimum sample size was 384, calculated using Open-EPI with a 95% Confidence Interval, 50% of the distribution and a margin of error of 5%. Data were analysed using SPSS.

**Results**: A total of 385 undergraduates [females, (n=200, 51.9%); males, (n=185, 48.1%)] aged 20 – 30 years were included in the study. From the population, 221 (57.4%) participants were from private universities while 164 (42.6%) were from a state university. Although responses were received from different faculties, the highest number of respondents were from the Faculty of Health Sciences (n=195; 50.6%) and the Faculty of Medicine (n=107; 27.8%). Among the total participants (n=385), most respondents (51.4%) had good knowledge while 40.5% had a neutral attitude toward the COVID-19 booster vaccine. The majority of the participants (n=204; 53%) did not receive a booster dose while 181 (47%) received a booster dose. Of the 204 (53%) booster hesitance participants, 41 (11%) took the first dose, and 163 (42%) received the 1<sup>st</sup> and 2<sup>nd</sup> doses of the COVID-19 vaccine. The 53% of the population who had not been vaccinated with the 3<sup>rd</sup> booster gave the following reasons for hesitancy: fear of side effects (50.2%), an attitude that getting the first two doses are enough to protect from the infection (26.2%), getting infected with COVID-19 after getting previous vaccination doses (10.1%), having a chronic illness (7.2%), and the thought that the 3<sup>rd</sup> booster was not effective (6.3%).

**Conclusions**: Although a high number of undergraduates received a single dose of the COVID-19 vaccine, a considerable proportion had an unfavorable attitude toward the 3<sup>rd</sup> COVID-19 booster dose. One of the major reasons identified for booster hesitancy was the fear of side effects of the vaccine.

**Keywords**: Covid-19, Vaccine, Booster, Booster Hesitancy.

<sup>&</sup>lt;sup>1</sup>Department of Biomedical Science, Faculty of Health Sciences, KAATSU International University.