

## IMPACT OF COVID 19 ON THE EDUCATION AND HEALTH OF SCHOOLING CHILDREN IN SRI LANKA; A MULTI-PROVINCIAL STUDY

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**Aims** COVID-19 is one of the most devastating pandemics faced by humans during the 21st century. In compliance with the global effort to control and prevent COVID -19, most schools in Sri Lanka remained closed for approximately one year. Remote learning was introduced as an alternative to school-based education; however, the facilities for remote learning were not be available to many children. The aim of the current study was to assess the impact of extended school closure on the education and health of schooling children in four selected provinces in Sri Lanka.

**Methods** This prospective multi-provincial observational cross-sectional study was conducted among children living in Western, Southern, Northern and Eastern provinces of Sri Lanka. All children who were between the ages of 8 and 14 years and who had been schooling on regular basis before extended school closure were recruited by randomised sampling. Required sample size for the study was 608 (Power- 0.8, Significance-  $p < 0.05$ ). All data were collected using a pre-tested structured data collection sheet by trained medical graduates. Data were analysed in SPSS 17.0.

**Results** Out of 609 children (Western - 168, Northern - 168, Eastern - 169, Southern - 104), 315 were female children (51.72%). The majority of mothers (532, 87.3%) and fathers (551, 90.5%) had received education at least up to secondary school. Only 519 children (85.2%) were participating in school based virtual education due to either unavailability of internet devices or access. The majority of those children at home received help from the mothers (321, 61.8%). Children attended lessons using mobile phones (389, 63.9%), laptops (243, 39.9%), desktop computers (14, 2.3%), tablets (47, 7.7%) and television (34, 5.6%). Wi-fi access was available to only 257 children (42.2%) and others used mobile data. The majority of parents (419, 68.8%) reported that online education was not cost effective compared to onsite education and

the majority of parents in all 4 provinces disagreed with fact that their children gained enough knowledge with virtual education. Reported benefits of virtual education were better time management (362,59.4%), increased interest in virtual education (309,50.7%), and improved virtual communication skills (366,60.1%). Reported negative effects included more sedentary life style (294,48.3%), increased weight gain (340,55.8%), increased screen-time (448,73.6%), missing school friends (279,45.8%) and frustration in children (225,36.9%). Physical symptoms that were more commonly seen during the period of virtual education were headache (225,36.9%) and abdominal pain (101,16.6%). Eleven were exposed to home violence and two children were exposed to sexual abuse during the period of prolonged home stay.

**Conclusion** Virtual education was not cost-effective compared onsite education for the majority of parents. Further, children were deprived of education due to unavailability of internet devices and access. The perceived negative effects were sedentary life style, increased weight gain, increased screen-time, missing school friends and frustration in children. The perceived positive effects were better time management, increased interest in virtual education, improved virtual communication skills.