

sanitizers unsafely, the effectiveness of awareness programs to improve safety practices among parents should be evaluated.

912 SEROPREVALENCE OF SARS-COV-2 IN CHILDREN AND FACTORS AFFECTING THE SERO-POSITIVITY

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Aims COVID-19 infection seems to be less severe in children compared to adults. The quantitative antibody estimation against SARS-CoV-2 may help in understanding the epidemiology and pathogenesis of COVID-19 in children. Molecular and serological tests are two major types of diagnostic technologies. Reverse transcriptase-polymerase chain reaction (RT-PCR) based molecular test is the gold standard test. PCR tests cannot differentiate between infective and neutralized viruses.

Knowing the seroprevalence would help in formulating policies regarding COVID-19 vaccination in children and schooling pattern in many countries. Serological assays measuring disease-specific immunoglobulin are a mainstay of infectious disease surveillance, diagnosis, and determination of appropriate vaccine response. Aim of the study was to estimate the seroprevalence of SARS-CoV-2 and its association with clinical and demographic variables in children.

Methods This is a single-center, Cross sectional study done at tertiary care hospital in India in children upto the age of 18 years visiting the department of Paediatrics at AIIMS Patna. Informed written consent was taken and ethical clearance was given by institute ethics committee. Exclusion criteria were patients who had received convalescent plasma therapy in the last 6 months prior to the study period or those who had received vaccination for SARS-CoV-2. Primary outcome measure was seroprevalence against SARS-CoV-2 in these children.

Abstract 912 Table 1 Association of demographic and clinical features with serology status of SARS-CoV-2

Variables (N=88)	Seropositive	Seronegative	p-Value	Crude Odd's ratio (95% CI)
Gender				
Male	40(70.2)	17(29.8)	0.84	2.206 (0.893- 5.450)
Female	16(51.6)	15(48.4)		
Residence				
Rural	25(67.6)	12(32.4)	0.514	0.744 (0.306- 1.890)
Urban	31(60.8)	20(39.2)		
Socioeconomic status				
Upper class	22(73.3)	8(26.7)	0.174	1.941 (0.741-5.086)
Lower class	34(58.6)	24(41.4)		
Medication				
Corticosteroids	5(38.5)	8(61.5)	0.041*	0.294(0.087-0.994)

Results 88 pediatric patients up to the age of 18 years attending the pediatric department at AIIMS Patna were enrolled for the study. Only two patients had history of positive RT-PCR test for COVID-19 infection in the past. 63.6% (56 out of 88) had seropositive status against SARS-Cov-2. Various demographic and clinical variables described in table 1 were analysed and none of the demographic features had statistically significant association with serology status of SARS-CoV-2. Out of 88 children, 57 (64.8%) were males and 31(35.2%) were females. 58% of the children were from urban areas and

42% were from rural areas. The majority of the patients i.e 58 (65.9%) belonged to lower socioeconomic class and 30 (34.0%) belonged to upper class according to modified Kuppuswamy scale 2021. The corticosteroid therapy was received by 13 patients for various clinical indications among which 5 (38%) had seropositive status and 8(61.5%) had seronegative status against SARS-CoV-2 and the association was statistically significant with p-value of 0.041and Odd's ratio (95% CI) of 0.29 (0.087-0.994) suggesting that patients who received corticosteroid therapy had 29% lesser chances of getting seropositive status compared to those who did not receive the therapy.

Conclusion Among the participants, 63.6% were seropositive against SARS-CoV-2 while only 2.2% had history of COVID 19 RTPCR positivity in past. The patients who received corticosteroids had lesser chances of getting positive antibody status against SARS-CoV-2 infection compared to those who did not receive the same.

924 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.

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EARLY KANGAROO MOTHER CARE FOR UNSTABLE NEONATES <2000G IN A RESOURCE-LIMITED GAMBIAN HOSPITAL: INTERVENTION DURATION AND IMPLEMENTATION REALITIES

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Aims New evidence indicates that Kangaroo Mother Care (KMC) commenced immediately after delivery reduces mortality among neonates weighing 1-1.8kg.¹ In order to support the widespread implementation of KMC for these neonates it is essential to understand the delivery of KMC to unstable neonates in pragmatic low-resource hospital settings and identify any factors associated with prolonged duration.

Aim and objectives This study aimed to understand the delivery of KMC to unstable neonates weighing <2000g in a pragmatic research setting in The Gambia. The objectives were to understand:

1. The regimen of KMC delivered, including daily duration and reasons for interruption to skin-to-skin contact

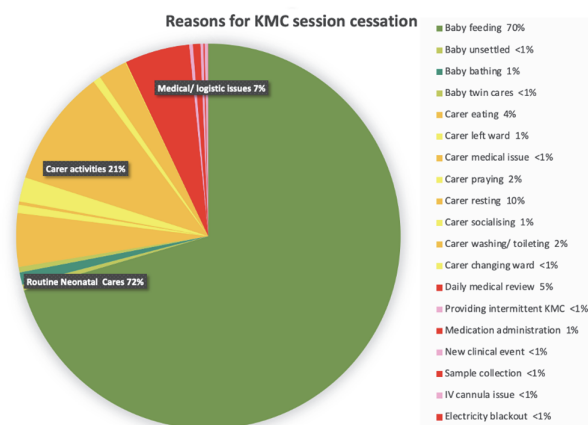
2. Factors predicting the daily duration of KMC delivered to unstable neonates

Methods This study was a secondary analysis of data from the eKMC randomised controlled trial, conducted at the only teaching hospital and level 2+ neonatal unit in The Gambia between March 2018 – May 2020. Early KMC (onset within 24h of admission) was compared to standard care for mild-moderately unstable neonates weighing <2kg and receiving oxygen, parenteral fluids and antibiotics.² A descriptive analysis of the directly-observed skin-to-skin sessions delivered to all neonates who were randomised to the intervention group and who received early KMC prior to stabilisation was completed. Univariate and multivariate regression were conducted to identify predictors of daily duration.

Results 136 neonates were eligible for inclusion, and 5797 sessions (comprising 12 292 hours of skin-to-skin contact) were

analysed (table 1). The median daily duration was 6.7 hours (IQR 4.3-8.5) via a regimen of 3 (IQR 2.6-4.2) sessions per day, with each session lasting 2h 20mins (IQR 2h-2h 40mins), for a total of 10 (IQR 5.3-16.0) days. In the immediate postpartum period when many mothers were unavailable to attend the neonatal unit, non-maternal female caregivers provided half of all first KMC sessions. 70% of sessions were interrupted in order for the caregiver to feed the baby (figure 1). Twins received almost 40% less skin-to-skin contact than singletons. No predictors of KMC duration were identified.

Figure 1: Reason for cessation of skin-to-skin sessions



Abstract 1054 Figure 1 Reason for cessation of skin-to-skin sessions

Abstract 1054 Table 1 KMC Duration and Regimen

Table 1: KMC Duration and Regimen

KMC Descriptor	Whole admission period * N = 136	First 72 hours N = 133
Total KMC hours: Median (IQR)	74.60 (36.73 – 127.23)	23.48 (14.61 – 31.28)
Total number of KMC Sessions: Median (IQR)	31.5 (15.25 – 51.5)	10.0 (6.0 – 13.0)
Number of Days KMC received: Median (IQR)	10.0 (5.25 – 16.0)	3.00 (3.00 – 3.00)
Session frequency, sessions/day: Median (IQR)	3.23 (2.62 – 4.19)	3.33 (2.42 – 4.33)
Average Session Duration, minutes: Median (IQR)	138.36 (118.36 – 161.08)	135.55 (112.63 – 175.30)
Daily duration, hours/day: Median (IQR)	6.71 (4.29 – 8.50)	7.83 (4.87 – 10.43)
≥18 hours/day: n (%)	0	0
15-18 hours/day: n (%)	1	2
12-15 hours/day: n (%)	2	12
9-12 hours/day: n (%)	28	37
6-9 hours/day: n (%)	49	40
3-6 hours/day: n (%)	40	27
<3 hours/day: n (%)	16	15

Conclusion Providing early KMC prior to stabilisation is feasible in low-resource pragmatic settings, however achieving prolonged durations >10 hours/day is challenging, with the main barriers being the early postpartum absence of mother, delivery to twins, and feeding logistics. Two major pathways to enhancing delivery of KMC to this population are 1.) assisting mothers to feed their neonates without disrupting the skin-to-skin position, and 2.) identifying and minimising barriers to delivering KMC to twins. Involving and empowering the extended family in the care of the unstable neonate, especially potential surrogate caregivers, is also of crucial importance.