Abstract of Master's Dissertation

Course	Tropical Medicine	Name	Rhanee Lota Salvado
Thesis Title	Epidemiological and clinical characteristics of pediatric patients with confirmed COVID-19 infection in a tertiary referral hospital in Manila, Philippines		

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Background: As the COVID-19 pandemic continues, more people of all ages are getting infected and reinfected. Studies are limited on pediatric COVID-19 in low- and middle-income countries, particularly in Southeast Asian nations such the Philippines.

Objectives: To determine the epidemiological and clinical features of pediatric patients with confirmed COVID-19 infection in a tertiary infectious disease referral hospital in Manila, Philippines.

Methods: This retrospective cross-sectional study reviewed data on pediatric COVID-19 patients ages 0 to 18 years and admitted to San Lazaro Hospital from January 25, 2020 to January 25, 2022. Demographic data and clinical characteristics obtained from COVID-19 case investigation forms were summarized and compared between severe and non-severe cases. Risk factors for disease severity and mortality were analyzed.

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Results: Out of 115 patients, 64% were males. There were 87 patients (75.7%) with asymptomatic, mild, or moderate disease, and 28 cases (24.3%) with severe or critical illness. The median age of all patients was 10 years (interquartile range: 4-15 years). The majority of patients (40.9%) were adolescents ages 13 to 18 years. Patients with severe or critical illness were more likely to experience difficulty of breathing (55.2% vs 44.8%, $p < 0.001$), and have a longer hospital stay (11 days vs 8 days, $p = 0.043$). Among all patients, 48.7% had at least one underlying disease; and common infectious co-morbidities were tuberculosis (17.4%), dengue (12.2%), and HIV (4.3%). Having tuberculosis ($p = 0.008$) or at least one co-morbidity ($p < 0.001$) was associated with disease severity. Ten patients (8.7%) died; and mortality was higher among those with severe or critical illness (80% vs 20%, $p < 0.001$). Sepsis and having at least one co-morbidity were associated with mortality, with *p*-values of 0.020 and 0.007, respectively.

Conclusion: Children of all ages remain susceptible to COVID-19 infection, and usually present with mild or moderate symptoms. Many adolescents are affected, highlighting the value of COVID-19 vaccination in this age group. Understanding the clinical features of COVID-19 in Filipino children is essential to identifying and optimally managing those at highest risk of disease.

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