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Demographic characteristics and iron deficiency anemia at KalmunaiBase Hospital

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Iron Deficiency Anemia (IDA) is still a global public health concern that affects people of all ages. However, its frequency in pediatric groups is particularly a concern, given the potential forlong-term developmental and health effects. This study aimed to examine the associations between various demographic characteristics and IDA in children in Kalmunai, Sri Lanka. A cross-sectional study was conducted with 101 (according to the sample size calculator) children hospitalized at the Base Hospital Kalmunai North, Sri Lanka. The ethical approval for this study was obtained from the Ethical Review Committee of the Faculty of Health-Care Sciences, Eastern University of Sri Lanka. A 5 ml blood sample was collected from each child to measure the C-RP, Hemoglobin and serum ferritin. Hemoglobin level was used to measure the presence of IDA, and demographic factors such as age, gender, dwelling sector, mother's educational attainment, number of children in the household, birth interval, and monthly income were examined in connection with the presence of IDA. The associations between IDA and demographic characters were evaluated for significance using the Chi-square test. The total prevalence of IDA among thestudy sample was close to 8%. According to the data, there were no occurrences of IDA in the 10-14 age group of children and they had the highest mean hemoglobin levels (12.79 ± 0.9 g/dl).There was no significant difference in the frequency of IDA between male and female children. Compared to children in rural areas (11.8%), the prevalence of IDA among urban children was marginally lower (4.0%). The lowest prevalence of IDA (4.5%) was seen among children whose mothers have greater levels of education. The lowest prevalence of IDA was found in families with one kid (2.3%). The prevalence of IDA was significantly higher (at 50%) among children in families where childbirth interval was 1 year compared to those with longer intervals. Children from families with an income of less than 20,000 rupees per month were more likely to have IDA (15.6%) than those are from families with higher income levels. In summary, this research indicates that multiple demographic variables could impact the frequency of IDA among children. The results highlighted the significance of identifying susceptible individuals. It can be recommended to implement measures to treat iron deficiency anemia, particularly among children from low- income families with more children and shorter birth intervals.

Keywords: Iron Deficiency Anemia, Children, Demographic Characteristics, Hemoglobin Levels