Abstract 30:

Association of growth monitoring practices in the past two years with current nutritional status among Grade 1 school children in Nallur Educational Division

Dineshka VK[1], Fasrana FMF[1], Sovini R[1], Gowshika T[1], Rajanan S[1], Coonghe PAD[2], Sathiadas MG[3]

[1]*Faculty of Medicine, University of Jaffna*
[2]*Department of Community and Family Medicine, Faculty of Medicine, University of Jaffna*
[3]*Department of Paediatrics, Faculty of Medicine, University of Jaffna*

Background and objective: Nutritional status reflects a child's quality of life, and requires regular monitoring for early intervention. This study aimed to determine the association between growth monitoring practices (GMP) in the past two years and nutritional status among Grade1 school children in Nallur Educational Division, Jaffna.

Methods: A school-based descriptive cross-sectional study was conducted using single-stage cluster sampling among 512 Grade 1 students (November 2023 –February 2024). Data were collected with an interviewer-administered questionnaire, checklist, and data extraction form. Growth monitoring data from the Child Health Development Record (CHDR) were extracted for ages 37–60 months (February 2020–January 2023) and analysed using weight-for-age (WFA), height-for-age (HFA), and weight-for-height (WFH) assessments. Regular monitoring was defined as 6-8 WFA, 2-4 HFA and WFH recordings. Anthropometric measurements were directly obtained when children were 70–84 months old. Nutritional status was assessed using WHO growth references for WFA, HFA, and BMI-for-age (BAZ). The association between GMP and nutritional status was analysed using the chi-square test with SPSS 20.

Results: A total of 439 students were recruited. Undernutrition was prevalent, with 24.3% underweight, 27.6% stunted, and 14.6% wasted. Overweight or obesity were observed in 20.3%. Past nutritional status based on CHDR data showed 12.2% underweight, 6.2% stunted, 16.3% wasted, and 3.8% overweight or obese. Growth monitoring coverage was 91.1% for WFA, 83.3% for HFA, and 25.6% for WFH. Among students who were regularly monitored, 44.9% were within a normal range for WFA, 42.7% for HFA, and 64.7% for BAZ, inclusive of students who were previously under- or over-nourished and had reached the growth standards, as well as those who were already in the normal range and maintained it. Regular GMP was significantly associated with weight (p=0.001) and height (p=0.007), but not BMI (p=0.288).

Conclusions and recommendations: Malnutrition may have increased, with a higher prevalence of undernutrition and a shift to overweight and obesity. GMP was not satisfactory, particularly for WFH assessments. While regular monitoring improved weight and height, there was no significant impact on BMI possibly due to transitions between undernutrition and overweight. Strengthening GMP, especially WFH assessments, to address both undernutrition and overweight/obesity may help to promote nutritional well-being among children.

Keywords: Nutritional status, Growth monitoring, Child health, Jaffna, Sri Lanka