OP 1

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

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Introduction and Objectives: Nutritional status reflects children's quality of life and requires regular monitoring for early intervention. While previous studies have mainly focused on short term benefits, limited evidence exists on its long-term associations with child nutritional outcomes. The study was conducted during a period of economic instability, when GMP and nutritional status were likely to be affected. The study aimed to determine the association between GMP in the past two years and nutritional status among Grade 1 children in the 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 using an interviewer-administered questionnaire, checklist for anthropometric measurements, and data extraction form. GMP data were extracted from Child Health Development Records (CHDR) 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). Regular monitoring was defined separately for WFA (6–8 recordings), HFA (2–4 recordings) and WFH (2–4 recordings) and associations were tested for each indicator individually. Anthropometric measurements were taken at 70–84 months during the study period

and assessed using WHO standards for WFA, HFA, and BMI-for-age (BAZ). Socio demographic data were collected, but not adjusted for in the analysis. Indicator-specific exclusions were made for incomplete data. Associations were analysed using chi-square test in SPSS. Ethical clearance was obtained.

Results: A total of 439 students were recruited, yielding a response rate of 85.74%. Mean age was 77.14 months (standard deviation - 3.516) with 57.6% (n=253) males and 42.4% (n=186) females. GMP coverage was high for WFA (91.1%), and for HFA (83.3%), but low for WFH (25.6%). However, when assessed for regularity, only a smaller proportion met the required monitoring frequency for each indicator. CHDR data showed 12.2% underweight, 6.2% stunted, 16.3% wasted, and 3.8% overweight/obese. Currently, under nutrition was prevalent with 24.3% underweight, 27.6% stunted, and 14.6% wasted. Overweight/obesity was seen in 20.3%. Among regularly monitored children, 44.9% for WFA, 42.7% for HFA, and 64.7% for BAZ either maintained normal status or transitioned from malnutrition to normal status. Regular GMP was significantly associated with WFA (p=0.001) and HFA (p=0.007), but not with BAZ (p=0.288).

Conclusions: GMP was not satisfactory, particularly for WFH assessments. Regular GMP was significantly associated with better WFA and HFA outcomes but not BAZ. The observed higher prevalence of under nutrition alongside rising overweight and obesity compared to CHDR records requires further exploration. Despite the low coverage and the lack of statistical association, many children showed favourable transition in BMI status with regular monitoring. These findings highlight the importance of strengthening WFH assessments to improve overall nutritional outcomes.