NUTRITIONAL INTERVENTION AND ITS IMPACT ON THE HEIGHT OF CHILDREN AMONG THE B40 GROUP IN SELANGOR

Mohammad Farhan, R[1], Nur Farah Hiza, KA[1] , Farah Nur Imanina, MS[1], Muhammad Adil, ZA[1], Norhasniza, Y[2], Farah Zulaikha, AZ[1], Anis Farisha, NA[1], Siti Mariah, M[3]

[1]Department of Community Medicine, Kulliyyah of Medicine, International Islamic University Malaysia

[2]Nutrition Department, Klinik Kesihatan Kuala Lumpur

[3]Pejabat Ahli Majlis Mesyuarat Kerajaan Negeri Selangor, Bangunan Sultan Salahuddin Abdul Aziz Shah

INTRODUCTION

A number of children suffer from malnutrition with visible stunting due various factors such as food insecurity and household income. The address of nutritional intervention promotes healthier outcomes especially engagement through population with greater risks, those with low income of B40 group in Selangor being the most populous state, thus accelerating health policy makers in making differences in public health strategies. Nutritional status is a significant measure for the anthropometric development of the children population. Therefore, this study aims to measure the impact of nutritional intervention on the height of children aged 1 to 6 years old among the B40 group in Selangor.

METHODOLOGY

A cross-sectional study was done in the Selangor state from June 2022 until October 2022 involving 500 children aged 1 to 6 years old that were randomly selected among the B40 group. A nutritional intervention that involved the supply of specialised formula milk totalling 2kg and 30 tablets of multivitamin with lysin were given for each month. Nutritional counselling was also given. The height was measured using the SECA (portable stadiometer) model 213 (SECA, Jerman) and monitored using the WHO AthroPlus software. The results are categorised into moderately stunted and severely stunted defined by the World Health Organization height-for-age Z score. Descriptive data was analysed using the IBM SPSS version 25.

RESULTS

There were equal numbers of gender (50%) and the majority of the respondents were aged 3 years old. For all ages, the baseline height showed 15.0% were moderately stunted and 3.3% were severely stunted. For each month, there was an increase in the mean of height where the highest is during the 2nd month which is 1.89m, followed by 0.63m, 0.53m and 0.48m on the 3rd, 4th and 5th month, respectively. The 5th month has the lowest number of moderately stunted children (5.0%) compared to the 1st month.

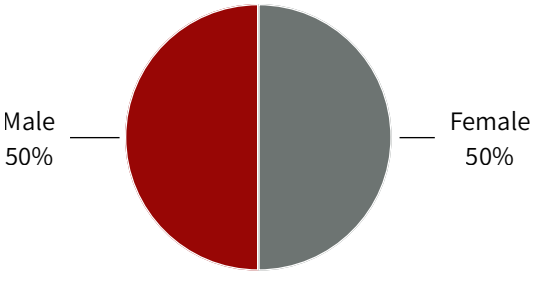

Fig. 1 Total respondents based on gender

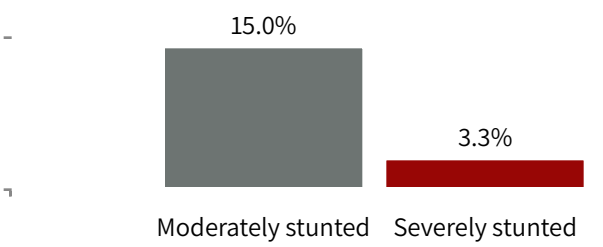

Fig. 2 Total of respondents who are moderately and severely stunted at baseline

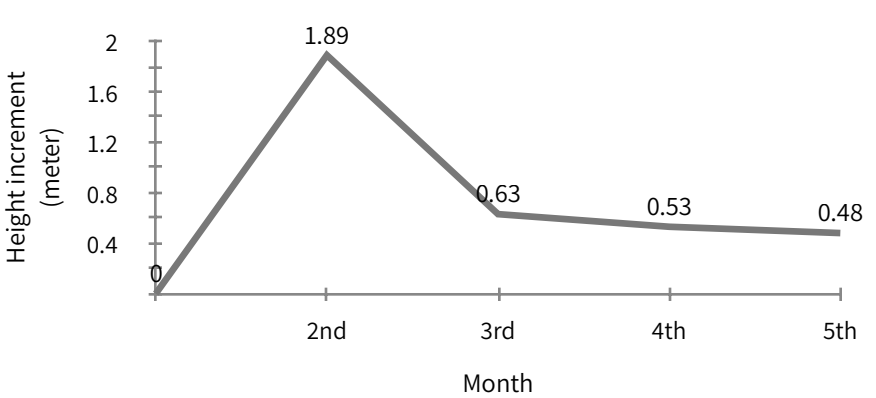

Fig. 3 Mean height increment for each month

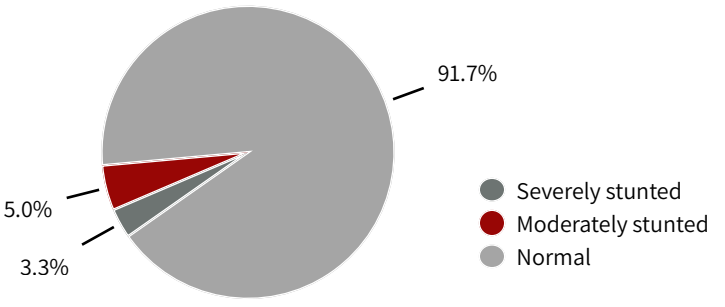

Fig. 4 Total number of respondents that is severely stunted, moderately stunted and has normal height by the 5th month

DISCUSSION

By giving nutrient supplementation, it helps to improve the height of these children. Initially, children may develop stunting not as easily as being underweight. Stunting needed more attention compared to other undernutrition anthropometric; underweight and wasting as each varies in severity, speed and onset of its retardation.

REFERENCES

Institute for Public Health (IPH), National Institutes of Health, Ministry of Health Malaysia, 2020. National Health and Morbidity Survey (NHMS) 2019: Vol. I: NCDs - Non-Communicable Disease: Risk Factors and other Health Problems

Guideline: assessing and managing children at primary health-care facilities to prevent overweight and obesity in the context of the double burden of malnutrition. Updates for the Integrated Management of Childhood Illness (IMCI). Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO