

ABSTRACT

Background

Micronutrient deficiency is the most common public health nutritional problem among infants and young children in Sri Lanka. As a result, children suffer short and long-term adverse outcomes over time. Due to their rapid growth and insufficient meals with low dietary diversification, children are especially vulnerable. As a nutritional intervention to overcome this issue, MMN sachet is introduced as a point-of-use powder. It is essential to enhance compliance with MMN powder in order to optimize its effectiveness and maintain the health of infants and young children.

Objectives

The purpose of this study was to evaluate the MMN sachet's compliance and acceptance among mothers of infants and young children, and to evaluate the mothers' knowledge of macronutrients and attitudes toward the MMN program, as well as to identify certain factors associated with compliance and acceptance.

Methods

A descriptive cross-sectional community-based study was performed among mothers of infants and young children in the Nugegoda MOH area. A sample of 345 mothers were recruited to the study using cluster sampling method considering PHM's births and immunization register as the primary sampling unit. All eligible mother complying with inclusion and exclusion criteria were interweaved by the PI using an interviewer administered questionnaire which contained questions on compliance, acceptance, attitudes and knowledge on MMN supplementation. Attitudes were measured using a 5-point Likert scale while compliance was checked against the standard MMN practice. Data on child's health were extracted from child's CHDR. Using SPSS version 23, descriptive statistics and chi-square test of significance were used to analyze the data.

Results

A total of 345 mothers participated in the study with a response rate of 95%. The mean age of babies was, 17 months. Of them, 61 % were firstborns, and 64 % were cared by mothers

during the day. Out of 345 infants, 47% had a BW between 3000 and 3499g, and 78% were currently in the CHDR's "green zone." 19.1 % received vitamin supplements in addition to MMN. Mothers were mainly Sinhalese, and Buddhist (73%), with a mean age of 33 years.

Out of all 80 percent of mothers had good knowledge on micronutrients. Compliance for MMN was 50.4%. First-point acceptance for MMN was 80% while acceptance of MMN after using it for at least one month was 51%. Nearly 56% of participants had a negative attitude toward the program. Buddhism, which makes up about 40% of the mother's religion, was substantially associated with compliance ($p=0.04$) and Level of attitudes ($p 0.001$). Mothers with education levels above O/L tend to accept more, and acceptance is substantially correlated with the mother's knowledge ($p=0.009$). Mothers with monthly incomes below 75000 SLR also exhibit greater acceptance than mothers with high incomes. ($p 0.001$)

Conclusion and Recommendations

Mother's compliance is only 50% among the study population and the compliance is associated with religion, family income, and level of positive attitudes. Acceptability of MMN supplement become lower after consuming it at least for one month. Acceptability is associated with satisfactory growth of the child, mother's knowledge on micronutrients religion, ethnicity and education.

Based on the above findings it is recommended to conduct awareness programs that encompass all socio demographic strata giving special emphasis on improving mother's knowledge and positive attitudes. Improving the palatability of the MMN would also be beneficial in improving compliance.

Keywords: MMN sachet, Compliance, Acceptance, Attitude, Infant and young children