

ABSTRACT

Given the relatively high standard of living in Barbados, indicated by the per capita income of U.S. \$3,500, level of education and health care, and the activities of the National Nutrition Centre since 1972, it was felt that the prevalence of malnutrition (8.8%) reported in the 1981 National Health and Nutrition Survey was still relatively high. It was, therefore, decided to determine the prevalence of malnutrition in a clinic and factors associated with the nutritional status of the children.

Weights and ages of all children 6 - 42 months of age on clinic records were noted. Then the parents or guardians of 104 children (52 malnourished or index and 52 normal or comparison) attending the clinic were interviewed. Anthropometric measurements (weight, height and head circumference) of the 104 children were taken; and information from both their clinic records and their mothers' maternity records was noted.

In the index group 22 (46%) mothers were employed compared with 40 (77%) in the comparison group, a difference that was statistically significant. There were 20 and 39 houses in the index group with piped water in the house and in a poor state of disrepair respectively compared with 37 and 49 in the comparison group, differences that were significant at the 1% and 5% level respectively. The comparison group had significantly more households with gas stove (50), kitchen appliances

(31), telephone (30) and refrigerators (42), than the index group: gas stove (41), kitchen appliances (18), telephone (19) and refrigerator (31).

In the study 22 children in the index group compared with all 52 children in the comparison group were receiving correctly made-up milk formula. In the index group 16 and 22 of the children compared with 34 and 5 in the comparison group were receiving their first solid food too early and too late respectively; these differences were statistically significant. In the present diet significantly larger numbers of children in the comparison group were receiving milk and cereal, 38 and 32 children respectively, than in the index group, 25 and 21 children. However significantly more children (18) in the index group were receiving bush teas than the comparison group, 2 children.

In the index group 21, children had low birth weights (i.e. 2500 g) compared with 1 child in the comparison group. Similarly, more children (34) in the index group than the comparison group (21) were ill; and 23.1% of the index sick children had 3 or more episodes compared with 3.8% in the comparison group. All these differences were significant at $P < 0.001$.

In addition to those factors already mentioned, there are a number of other factors thought to be associated with poor nutritional status but which were not found to be so in this study. For example,

there was no difference in the level of educational attainment of mothers in the index group (19 primary, 33 post-primary) and the comparison group (19 primary, 33 post-primary). Further, both groups had a similar family size: index 6.7 and comparison 6.3 (cf page 54, Table 3.16). Other factors not associated were presence of male head (50.0% index, 63.5% comparison); working male head and mothers' age and union status (cf page 62 Table 3.15). Yet it should be noted that there was a tendency for the comparison group to have higher values than the index group.

It was concluded that:

- (1) the socioeconomic or standard of living conditions in the comparison group were better than those of the index groups indicated by mother's employment, mean household income, crowding, better housing and household amenities such as gas stove, refrigerator and telephone.
- (2) feeding practices in the comparison group were generally better than in the index group as indicated by dilution of milk formula, age first solid foods were given and receiving cereals and milk in their diet
- (3) Children who are sick and have frequent episodes of illnesses are more likely to have low nutritional status; and

- (4) children with normal birth weights are more likely to have better nutrition status (cf. page 86 - Table 3.39).