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ASSESSMENT OF HEALTH AND NUTRITIONAL STATUS UNDER THE INTEGRATED CHILD DEVELOPMENT SERVICES: in The Field Practice Area of Rural Training Health Centre, Nadayara, Travancore Medical College, Kollam-India

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ABSTRACT

Assessment of health and nutritional status was carried out in Anganwadi Children in the Field Practice Area of Rural Training Health Centre, Nadayara, Travancore Medical College, Kollam. This is a cross sectional study within community base setting. Data were collected by a pretested structured questionnaire and analyzed by applying SPSS. Undernourished children in the Anganwadis under study were 21 %. Growth pattern of these children were significantly associated with the birth weight and the episodes of diarrhea. A significant proportion of children are missing the booster doses. DPT booster (16-24 months) is only 74.1 % and DT booster (5-6 years) is only a meager of 13.6%

Key words: nutritional, status, Anganwadis, rural, health, centre, Growth-Pattern.

INTRODUCTION

Nutrition plays a vital role in physical, mental, and emotional development of children and in recent years much emphasis has been given to provide good nutrition to growing populations especially in the formative years of life. Globally, more than one- third of child deaths are attributable to under nutrition. According to the Census of India (2011), the child population (0-6 years) was 13.12% of the total population. Malnutrition is "the syndrome that results from the interaction between poor diets and disease and leads to most of the anthropometric deficits observed among children in the worlds less developed countries".[2] The prevalence of underweight children in India is among the highest in the world, and is nearly double that of Sub-Saharan Africa. The 3rd National Family Health Survey findings showed that 45% of less than 3 year old children were malnourished. To address the problem of malnutrition and the ill health of mothers and children, the Government of India had launched the Integrated Child Development Services (ICDS) program, world's largest early child development program. It was initiated in India in 1975 with the objective of improving the nutritional status of pre-school children in addition to other services. Operational research shows that there is positive impact of ICDS on child nutritional status in India. Singh et al. (1993) and Chiani et al. (1994) have found positive impact of ICDS on child nutritional status.[3,4] Considering the significant impact of ICDS on child health in India present Study was conducted to evaluate the health and nutritional status of children aged between 0-6 years registered in all the *Anganwadi* centers in the field practice area of Rural Training Health centre of Travancore Medical college Kollam, Kerala.

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MATERIALS AND METHODS

The present study is a cross sectional study conducted in the field practice area of Rural Training Health centre of Travancore Medical college Kollam. The centre is located 32 kilometers from the medical college. A total of 11 Anganwadi centres were located in the field practice area. All the children enrolled in these centres constituted the study population. Study design: - cross sectional study. Study settings – community setting. Study population - all the children enrolled under the selected Anganwadis. Data were collected by a pretested structured questionnaire and entered and analyzed by SPSS.

RESULTS

A total of 162 children participated in the study. Mean age of these children were 40.09 months with a

standard deviation of 17.560 months. Out of 162 children, 83 are males and 79 are females ie 51.23 % of children are males while 48.77% are females. A number of 84 % mothers under our study was having an educational status of high school and above. Only 5.6 % mothers are illiterate and 9.9% having primary educational status. A number of 80% of fathers are having high school education. Nearly 54 % of children are from joint family. Remaining are from nuclear families.60 % children belongs to families comes under APL category. While 40% comes under BPL category. A number of 92 % of the children were full-term babies, 7% preterm, 1% post dated. At least 73% of the total deliveries are that took place during the period of study are normal. Rests of the deliveries are done by lower segment caesarian section that is about 27% of the total. A significant proportion of children were low birth weight babies (36.4%). A significant proportion (30%) of children did not get exclusive breast feeding for six months. This may be due to working mothers, low educational status and lack of health awareness. Almost 38 % of the children under study had at least one episode of diarrhea and 24.3% of children had 2 or more episodes of diarrhea six months prior to survey. This shows improper weaning and hygiene practices among the families. A number of 34.6 % of children under study had at least one episode of ARI in last six months. A number of 22.2 % of children had more than 2 attacks six months prior to the survey. Only 2 % children have pallor. Immunization coverage among the children under study was presented in Table 1.

Table 1
Immunization coverage among the children under study

Vaccine and Dose	Coverage (%)
BCG	99.4
DPT 1	99.4
DPT 2	98.8
DPT 3	99.4
DPT (16 - 24 Month)	74.1
DT (5 – 6 Yrs)	13.6
OPV 0	99.4
OPV 1	100
OPV 2	99.4
OPV 3	98.8
OPV(16 - 24 Month)	75.3
Hepatitis B 1	97.5
Hepatitis B 2	96.3
Hepatitis B 3	96.3
Measles	93.2

It is evident from the above table that a significant proportion of children are missing the booster doses. DPT booster (16-24 months) is only 74.1 % and DT booster (5-6 years) is only a meager of 13.6%. The measles coverage of 93.2 % is also not to a satisfactory level. The children missing the DPT boosters are at high risk of developing diphtheria in early childhood. The undernourished children in the Anganwadis under study were 21 %. A number of 17 % were under weight and 4% were severely under nourished.

Growth pattern of children under study was pictured in Figure 1.

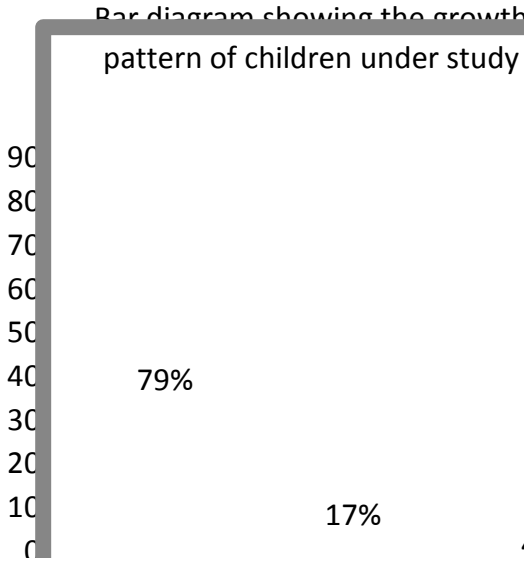

Figure 1
Growth pattern of children under study

A number of 65.4% shows normal level of socialization and while 34.6% abnormal. Nearly 6% had problem in language and communication while 94% had no problem in language and communication. Growth pattern of these children were significantly associated with the birth weight and the episodes of diarrhea. Low birth weight (Less than 2.5 kg) and any episode of diarrhea had significantly associated with under nutrition among the study sample.

Table 2
Associations between Low birth weight and current growth pattern

Parameter	Normal Weight	Under Weight	Total
Normal Birth Weight	89	14	103
Low Birth Weight	39	20	59
Total	128	34	162

Chi square value= 9.28; df= 1; *p* value = 0.002

Table 3
Associations between Episodes of diarrhea and current growth pattern

Parameter	Normal Weight	Under Weight	Total
No diarrhea	86	15	101
≥ Episode of Diarrhea	42	19	61
Total	128	34	162

Chi square value = 6.09; df = 1; *p* value = 0.014

DISCUSSION

The present study was conducted with the objective of assessing the health and nutritional of Anganwadi children of Nadayara. A total of 162 Anganwadi children were enrolled for the period of 6 months. Out of 162 children, 83 are males and 79 are females ie 51.23 % of children are males while 48.77% are females 54 % of children are from joint family. The rest is from nuclear families. A significant proportion of children were low birth weight babies (36.4%) others are normal and above normal. A number of 38 % of the children under study had at least one episode of diarrhea and 24.3% of children had 2 or more episodes of diarrhea six months prior to survey. This shows improper weaning and hygiene practices among the families. At least 34.6 % of children under study had at least one episode of ARI in last six months. A number of 22.2 % of children had more than 2 attacks six months prior to the survey).A significant proportion of children are missing the booster doses.DPT booster (16-24 months) is only 74.1 % and DT booster (5-6 years) is only a meager of 13.6%. The measles coverage of 93.2 % is also not to a satisfactory level. According to WHO-UNICEF estimates DPT 3 coverage was only 66 % whereas according to National Family Health Survey-3 the DPT - 3 coverage was 52 - 55%. Undernourished children in the anganwadis under study were 21 %. 17 % were under weight and 4% were severely under nourished. K .A George et al(2000)Report a much higher under nutrition(53.3) among the preschool children in Kerala. Growth pattern of these children were significantly associated with the birth weight and the episodes of diarrhea. Robert E Black et al (1984) also pointed out a strong reciprocal relationship between under nutrition and diarrhea.

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