

Evaluation of Vitamin A Prophylaxis Programme in Dharwad Taluka

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Abstract : An Investigation pertaining to Evaluation of vitamin A Prophylaxis Programme was carried out in rural areas of Dharwad taluka. An attempt was made to assess the knowledge of functionaries who were operating the prophylaxis programme and to evaluate on-going prophylaxis programme in selected three PHCs. The results revealed that the medical officer had better knowledge scores (83.30%) followed by DHO (77.71%) and ANSs (63.30%) with respect to vitamin A prophylaxis programme. All functionaries had well conceived knowledge about the objective of the programme, dosage, frequency, method and place of distribution. On the contrary, none of them had knowledge about the exact year of implementation of the vitamin A prophylaxis programme and cost of vitamin A doses.

Introduction

Vitamin A deficiency (VAD) is a major public health problem in our country affecting particularly the preschoolers. According to epidemiological data, 124 million preschool children worldwide are estimated to be vitamin A deficient (Humphrey *et al.*, 1992) and annually 30,000 to 40,000 children may be losing their eye sight due to VAD (Reddy and Vijayaraghavan, 1995). In recent years although there has been some decline in the prevalence of blinding malnutrition, milder forms of the deficiency are still wide spread in poor community.

In view of the seriousness of the problem, the Government of India initiated a National Programme during 1970 for prevention of nutritional blindness based on the results of studies carried out at the National Institution of Nutrition (NIN). The programme involves administration of a massive oral dose of vitamin A in oil (200,000 IU) once in every six months to all the children (Vijayaraghavan and Pralhad, 1982) between the ages of one to three years. In rural areas, the programme is implemented

through the peripheral workers of the Primary Health Centre (PHC) under the supervision of the Medical Officers. Vitamin A requirement for the programme is made available to the Health Department by the Department of Family Welfare, Government of India. The ultimate success of such a programme can be judged by evaluating the intervention implemented at frequent intervals. Hence, the present study was formulated to evaluate the on going vitamin A prophylaxis programme at Dharwad taluka, both at administrative and beneficiaries level.

Material and Methods

List of PHCs in Dharwad taluka were procured from the District Health Office (DHO) Dharwad. Out of existing seven PHCs located in rural areas, three PHCs viz., Mugad, Amminabhavi and Garag and two sub centres from each PHCs which were working regularly as per rules and regulations set up by District Health Office, Government of Karnataka were randomly selected for evaluation purpose.

The objective of operational evaluation was to ascertain whether the peripheral workers

actually administering vitamin A to children were following the guidelines given by the Department of Family Welfare, Government of India and to identify problems if any in the implementation of the programme. For this purpose District Health Office and three PHCs were visited for following detailed background information:

- * Objectives, functions, services and benefits
- * Assessment of adequate supply of vitamin A
- * Extent of coverage
- * Place of feeding and method of distribution
- * Community acceptance and their reactions and
- * Awareness about objectiveness of the programme among the functionaries

The information was collected from the Auxiliary Nurse Midwives (ANM) who are peripheral workers actually involved in the distribution of vitamin A. District Health Officer and Medical Officer of PHCs who supervise the programme were also interviewed. The distribution of Vitamin A was also ascertained from the parents / elders of the beneficiaries. The responses were quantified, classified, tabulated and expressed as means and percentages.

Results and Discussion

Vitamin A prophylaxis programme for the prevention of nutritional blindness in children was initiated in Dharwad taluka during 1978. Children aged nine month to three years receive retinol palmitate (orange flavoured concentrate in arachis oil which is supplied in 100 ml bottle) at six monthly intervals. The specified dosage has been one lakh IU for children less than one year old and two lacks IU for children between one to three years of age.

The District Health Officer is charged with transporting vitamin A supplies to rural areas. In Dharwad taluka the programme is implemented through the PHC and subcentres under the supervision of medical officers of the PHC. The ANM is responsible for administering the concentrate to children at door steps (Sommer, 1982).

Table 1 provides the data on the percentage of functionaries who had knowledge on various aspects of prophylaxis programme. In general, medical officers had better knowledge score followed by District Health Officers and ANMs. In spite of having direct contact with beneficiaries ANMs had less knowledge because they distributed the vitamin just for the sake of their duty and not because of its nutritional significance. The functionaries had well conceived knowledge about the objective of the programme, dosages, frequency, method and place of distribution, because of prescription provided on the bottles and also may be due to routine duties performed by them over a period of time.

It was interesting to note that all the functionaries opined that the mothers accepted the programme, but felt only few mothers had knowledge about this programme. It was surprising to note that none of the functionaries had knowledge about exact year of implementation of Nutritional vitamin A Prophylaxis Programme and cost of vitamin A doses for each child. None of them faced any perceivable problem during storage, transportation and distribution of vitamin A to target group.

About 83.30, 66.60 and 25.50 per cent of ANMs from Mugad, Garag and Amminabhavi PHCs, respectively and all the medical officers and DHO answered correctly regarding the

Table 1. Knowledge regarding prophylaxis programme among functionaries

Knowledge score	Functionaries				
	District Health Officer (%)	Medical Officer (%)	Mugad (%)	Amminabhavi (%)	Garag (%)
Objective of the programme					
To prevent Nutritional blindness	100	100	100	100	100
Place of distribution					
House of house method	100	100	100	100	100
Anganwadi	100	100	100	100	100
Acceptance of the programme by mother					
Fully accepted	100	100	100	100	100
Year of implementation					
1970-71	0	0	0	0	0
Wrong years	100	-	66.60	66.60	71.42
Do not know	-	100	33.30	33.30	28.51
Cost for each dose (200,000 IU of vit-A)					
Less than USS 0.02	0	0	0	0	0
Do not know	100	100	100	100	100
Problem faced during Transportation, storage and distribution					
Do not faced any problems	100	100	100	100	100
Financial assistance state and central government					
Wrong answers	-	-	-	-	-
UNICEF and other agencies	-	-	14.28	16.70	35.00
Do not know	-	-	-	67.80	-
Supply of vitamin A					
Adequate supply	100	100	83.33	83.10	87.50
Not adequate	-	-	22.77	22.90	22.50
Method of storage					
Protect from direct sunlight	100	100	33.30	80.00	75.00
Do not know	-	-	66.70	2.00	25.00
Coverage of children					
All children between 9-36 months	100	100	48.00	50.00	51.00
Depending on the supply	-	-	52.00	50.00	49.00
Problem faced by children after administration of vitamin A dose					
None	100	-	33.30	33.30	-
Vomitting and diarrhoea	-	100	66.60	66.60	100

financial assistance by central and state government.

When functionaries were questioned about the supply of vitamin A, majority of ANMs from Mugad (83.33%) Garag (87.50%) and Amminabhavi (93.10%) stated that the supply depends on number of children covered under the programme. According to them the quantity of vitamin A supplied was adequate. Among the functionaries about 80, 75 and 33 per cent of ANMs Amminabhavi, Garag and Mugad PHC, respectively opined that the common method of storage was to protect from direct sunlight, hence stored in cool places.

Record maintenance in all the centre was poor and hence it was not possible to determine the proportion of children covered in successive rounds. However, when asked about the coverage almost half of the functionaries communicated every child from nine months to three years was covered in their respective areas and during each successive rounds 400-600 children (once in six months / each ANM) were covered.

Almost all the ANMs from Garag PHC and an equal per cent (66.60%) of ANMs from Mugad and Amminabhavi PHC reported that one or two children out of every 100 children suffered from vomiting after administration. However, rest of them did not face any such problem.

References

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From the clinical survey it was clear there was evidence of reduction of bitot spot's as a result of massive dose of vitamin A as compared to National average (0.55% against 0.70% of National average of 1995). This shows that the programme had beneficial effect on children in project area. However, vitamin A deficiency still stands as a public health problem (prevalence 70.5% considered as significant health problem) because of poor coverage, this could be attributed directly to the workers not strictly adhering to the guidelines like distributing the drug at doorstep instead of centralised place and inclusion of older children not actually eligible under the programme. The investigation also threw light on poor coverage due to parents being not available in the place at the time of distribution, the lack of education, knowledge and awareness about prophylaxis programme among the parents. Hence, the coverage would have been better in the place where the ANMs wants to administer the vitamin A and they made greater efforts to explain to the community about the objective and utility of the programme.

In general, the record maintenance was found very poor as a result the monitoring had become almost impossible. Supply of detailed instructions including clear guidelines will help the workers in properly implementing the programme (Vijayaraghavan and Prahlad, 1982).

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