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## ***Brief Reports***

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### **Assessment of Knowledge and Skills About Growth Monitoring Amongst Medical Officers, Child Development Project Officers and Multi Purpose Workers**

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Growth monitoring is a preventive strategy to identify those children with growth • problems before malnutrition occurs. Growth is an indicator of a healthy child just as growth faltering is an early indicator of health and nutrition problems. Regular weighing of children however, has no direct benefit by itself, but must be coupled with appropriate activities by families, health practitioners and the community(1). The concept Of growth monitoring(GM) is frequently misunderstood and is confused with periodic nutritional assessment(2). "

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The present study was conducted to assess the knowledge and skills of Medical Officers(MO), Child Development Officer (CDPO) and Multi Purpose Workers(MPW) about Growth Monitoring (GM) before initiating a realistic and action-oriented training course in GM for them.

#### **Material and Methods**

The study was conducted in the ICDS blocks in Haryana State about 50 km from Delhi. Thirty four MPW's with matriculate qualifications who were working in the ICDS project for more than 10 years, and who had received inservice training from time to time in Maternal and Child Health including GM were selected for this study. The 48 CDPOs selected were graduates and were working in the scheme for more than 4 years, and had also undergone 3 months pre-placement training in which GM was taught to them in detail. Similarly, 24 MOs who were working in the ICDS scheme for more than 3 years and had received training in GM during their MBBS course constituted the study population.

A pretested, open-ended questionnaire was administered to each, MOs, CDPOs and MPWs. Interview technique was used to assess the knowledge about growth monitoring. The study subjects were shown a set of 6 growth charts with filled-in data and were asked to interpret growth chart readings to assess their skills in GM. The per cent accuracy in interpretation of growth chart was analysed.

#### **Results**

The knowledge about general guidelines of growth monitoring amongst different functionaries is shown in *Table I*. The knowledge about utility of growth monitor-

**TABLE I-Knowledge About Guidelines of Growth Monitoring**

Question	Correct response		
	MOs	CDPOs	MPW
	No. (n=24)	No. (n=48)	No. (n=34)
1. Assessment of age is essential for GM.	18 (75)	43 (90)	24 (70.6)
2. Optimally nourished children should also be weighed every month	21 (87.5)	40 (83)	32 (94.1)
3. Severely malnourished children should be weighed every month	14 (58.0)	41 (85)	54 (100)
4. Children below 3 years should be weighed every month	19 (79.3)	40 (83)	30 (82.2)
5. Children above 3 years should be weighed at every 3 month	13 (54)	32 (67)	10 (29.0)
6. Weight is most sensitive to acute PEM	20 (83.3)	43 (90)	20 (58.8)

Figures in parenthesis indicate percentages.

**TABLE II-Knowledge About Utility of Growth Monitoring**

Question	Correct response		
	MOs	CDPOs	MPW
	No. (n=24)	No. (n=48)	No. (n=34)
1. GM helps in early detection of growth retardation	23 (95.8)	45 (94)	34 (100)
2. Flattened GC indicated no weight gain	20 (83.3)	41 (84)	25 (73.5)
3. Flattened GC indicates at risk' children	16 (66.0)	20 (42)	18 (52.9)
4. Descending G indicates decline in nutritional status	22 (91.6)	44 (92)	32 (94.1)
5. Growth retardation and illness correlated in growth chart	22 (92.6)	41 (85)	34 (100)
6. GM helps in categorizing children in different grades of PEM	18 (75)	40 (83)	34 (100)

Figures in parentheses indicate percentages.

**TABLE III-Interrelationship Between Adequate Nutrition Intake and Growth**

Question	Correct response					
	MO's		CDPO's		MPW's	
	No.		No.	No.		
	(n=24)		(n=48)		(n=34)	
1. Adequate food is essential for ascending GC	24	(100)	39	(81)	34	(100)
2. Flattened GC indicates inadequate food intake over prolonged duration	23	(95.8)	44	(92)	28	(82.3)
3. Children taking inadequate food have flattened or descending GC	23	(95.8)	43	(90)	22	(64.7)

Figures in parenthesis indicate percentages.

ing is shown in *Table II*. *Table III* shows the knowledge of functionaries about inter-relationship between adequate nutrition and growth. All MOs, MPWs and 81% CDPOs mentioned correctly that adequate food is essential for ascending growth curve (GC). A total 95% of MOs, 92% CDPOs and 82% MPWs had correct knowledge that flattened GC indicates inadequate food intake over a prolonged duration.

A total of 95% of MOs, 27% CDPOs and 100% MPWs could correctly interpret that the flattened GC after the attack of measles indicates growth faltering due to infection. About 96% of MOs, 83 % CDPOs and 100% of MPW's could interpret correctly that descending GC indicates decline in nutritional status.

### Discussion

Earlier studies have reported that GM was conducted essentially for detection of PEM rather than its prevention(5,6). It was encouraging to note that in the present study majority of MOs, CDPOs and MPWs knew the rationale of GM and were able to interpret data on growth charts correctly.

The majority of CDPOs and MPWs had adequate knowledge about guidelines of GM. This may be due to detailed teaching about GM during their pre-placement training. However, MOs had inadequate knowledge of the same. The percentages of MOs who did not know that assessment of age is essential for GM, malnourished children should be weighed every month, and that children above 3 years should be weighed every 3 months was 25,42 and 46 %, respectively. It was heartening to note that most of the MOs, CDPOs and MPWs had correct knowledge that the flattened growth curve indicates 'at risk' child and no weight gain.

Most of the MOs, CDPOs and MPWs could interpret growth chart data correctly probably due to intensive repeated and action oriented inservice training in GM received by them.

Majority of MO had inadequate knowledge about GM. They need to be trained as health component of ICDS programme (health check-up, GM, immunization, nutrition health and referral) is supervised by the MO.

The incorrect knowledge about GM

guidelines can make all GM activities futile. The inservice training of functionaries is, therefore, essential to update their knowledge.

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## Rota Virus Diarrhea Among Infants and Children at Tirupati

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Acute diarrheal diseases are the major cause of childhood morbidity and mortality all over the world, more so in developing countries(1). Rota virus is an important etiological agent of serious diarrheal illness in infants and young children below the age of 2 years and this virus is well known to

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have a worldwide distribution<sup>(2)</sup>). Rota viruses cause an estimated 140 million cases of gastroenteritis in infants and children and one million deaths worldwide each year(3). According to various studies from India(4), and abroad(5) the prevalence of Rota virus infection varies from 15-70%. Patients with rota virus diarrhea shed the virus in high concentration during the initial period of illness and the viruses can be identified in fecal samples by standard diagnostic techniques<sup>(6)</sup>).

In the light of the above, the present study was undertaken to know the prevalence of rota virus infection among infants and children suffering from diarrhea at this place.

#### Materials and Methods

A total of 170 children in the age group of 0-24 months who attended the Pediatric Department of SVRR Hospital, Tirupati, during the period from June to September, 1991 with acute diarrhea constituted the study