



Original Article:

Status of Growth Monitoring in Anganwadi Centres of a Primary Health Centre, Thirubhuvanai, Puducherry

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Abstract: Purpose: To assess the status of growth monitoring activities and difficulties faced by anganwadi workers (AWWs) at the anganwadi centres (AWCs). **Methodology:** A survey was conducted among AWWs under a rural Primary Health Centre. Structured observations on weight measurement were made using a check list. Secondary data on record keeping and maintenance was collected. **Findings:** Study participants (n=20) had a 24 (\pm 10.25) years of experience in Integrated Child Development Services and underwent training once in two years. For advising mothers of malnourished children, deworming and immunization was not mentioned by majority AWWs. In AWCs, children less than 6 month were weighed on bathroom scale and not by Salter's scale. Unclothing the child before weighing was practiced by only 10% AWWs. Nonfunctional weighing machine was the major problem reported by AWWs. **Conclusion:** There were gaps in the growth monitoring activities in AWCs of a PHC, Thirubhuvanai which needs to be tackled.

Key Words: Growth monitoring; Anganwadi workers; Puducherry.

Introduction:

Integrated Child Development Service (ICDS) is the largest government run child nutrition program in the world. The program has been in action for last 38 years with an aim to decrease the childhood malnutrition.¹ The program is executed through dedicated cadre of female workers named

Anganwadi workers (AWWs), who are chosen from the local community and given 4 months training in health, nutrition and child-care. She is in charge of an Anganwadi centre (AWCs) and is supervised by a Supervisor called Mukhyasevika. The actual implementation of ICDS has shown positive impact on health and nutrition of children.² The growth monitoring of children is one of the important strategies to check child under-nutrition. There have been reports of deficits in coverage and service provision of ICDS services to unacceptable extent.³ The growth monitoring conducted by AWWs for children up to 72 months is an important tool to monitor the progress and impact of ICDS measures. In order to explore the status of growth monitoring in AWCs in a Primary Health Centre (PHC) of Pondicherry a study was undertaken with the following objectives.

1. To assess the knowledge and practices of Anganwadi workers (AWWs) of growth monitoring activities in the AWCs.
2. To study the difficulties faced by AWWs in growth monitoring activity.

Material and Methods

Study setting: : The primary health care system in Pondicherry includes 12 urban and 15 rural PHCs.⁴ A rural PHC at Thirubhuvanai, which comes under service area of Department of Community Medicine, SMVMCH was selected. This PHC serves a population of 34,108 and has Infant Mortality Rate and Maternal Mortality Rate of

22/1000 live births and 18/10000 live births respectively in year 2012.⁵

Data collection method: A cross sectional survey was conducted among all AWWs (n=21) under Thirubhuvanai PHC during September-October 2012. A trained postgraduate from Department of Community Medicine visited AWCs during working hours (10.00 am to 1.00 pm) and interviewed AWWs. The knowledge component of AWWs was assessed using a pre tested semi-structured questionnaire. It specifically covered information related to socio-demographic details of AWW, experience and trainings in ICDS, and recitation of advices to be given to malnourished children. Interpretations of the pre plotted growth charts showing normal, decreased/static growth and over nutrition by AWWs were evaluated.

Second part of assessment focused on practices with regard to growth monitoring at AWCs. Structured observations on weight measurement were made using a check list based on Integrated management of Neonatal and Childhood illnesses (IMNCI) protocols. Secondary data on record keeping and maintenance was collected. Growth charts for the current year were examined for correct plotting of weight measurements and completeness. An open ended question was asked to explore the perceived difficulties in carrying out growth monitoring activities.

Analysis: The data was analysed using SPSS software (version 16.0; SPSS, Chicago, ILLUSA). The descriptive analysis was computed for data. Continuous and categorical data are presented as mean (\pm SD) and percentage respectively.

Results

Out of 21 AWWs in the field care area, 20 could be contacted. Study participants (n=20) had a mean age of 43 (\pm 8.08) years, were educated minimum up to class XII. The mean years of experience of working in ICDS was 24 (\pm 10.25) years. On an average, AWWs underwent refresher course / in-service training once in two years. AWCs catered to child population of 64 (\pm 14.7) per centre. The proportion of enrolled children of less than 1 year, 1 to 3 years, and 3 to 6 years were 30.6%, 41.8% and 27.6% respectively.

Knowledge: All the Anganwadi workers knew that growth monitoring is done to assess malnutrition and is mandatory to be done for all children. About 75% knew recent illnesses (like acute respiratory and diarrheal disease etc.) could also be assessed. All of them knew the normal birth weight of a baby but not the normal height at birth.

Practices: In all the AWCs, all children including less than 6 month were weighed on bathroom weighing scale with mother carrying the baby. Later the mother is weighed separately and the difference was taken as the weight of the child. The bathroom weighing scale was available in all the centres and was in working condition. Seventy five percent of AWWs placed the weighing machine on a horizontal surface and adjusted to zero before weighing. All the AWWs viewed the weighing scale at proper position. None of them supported the child while weighing. However, only 10% of them unclothed the child before weighing. In almost half cases, parents were not informed about the child's nutritional status. Ninety five percent of AWW entered and updated the growth chart immediately after monitoring. Growth charts were appropriately interpreted by all.

Regarding actions taken for malnourished children, 90% of AWWs reported to give specific health education advice to mother.(Table 1) Use of nutritious powder, vegetable intake and regular breastfeeding to mothers of children less than 6 months were frequently emphasized nutritional advices. Inclusion of locally available foods (e.g. ragi and pulses) was less highlighted. Surprisingly, 70% of the participants did not mention deworming and 60% did not mention about immunization. Similarly improving sanitary practices at

household was advocated by few AWWs. All AWWs advised parents against formula feeds and feeding with bottle. AWWs also advised regarding spacing of pregnancy and family planning to mothers.

Table 1: Responses of anganwadi workers (n=20) for advices given to mother of malnourished children

Nutritional advices*	n (%)	Non nutritional advices*	n (%)
Nutritious powder	19 (90)	Hand washing	17 (85)
Vegetables	18 (90)	Immunization	8 (40)
Regular breast feeding	17 (85)	Deworming	6 (30)
Egg	16 (80)	Toilet use	5 (25)
Milk	15 (75)	Boiled water	2 (10)
Fruits	14 (70)	Referral	2 (10)
AWC food on holidays	11 (55)	Nail trimming	1 (5)
Fish	9 (45)	-	-
Pulses	8 (40)	-	-
High calorie diet	4 (20)	-	-
Dates	3 (15)	-	-
Ragi porridge	1 (5)	-	-

*Multiple responses

Problems Faced: While conducting growth monitoring AWWs reported to face various difficulties as follows: Maintenance and repair of weighing machine (50%), compliance of mother's to advices (20%) and less frequent refresher training (10%). With the parental preference of enrolling the child to kinder garden, AWWs have reported difficulties with regular availability of children (10%) in AWCs.

Few AWWs reported that it is common feeling among mothers that supplying cooked food (as was practice till last year) was better than nutritious powder. The reason for such opinion was occasional supply of poor quality of nutritional supplement (powder infested with maggots). One important concern was uncertainty of diet consumption by targeted children. There were reports of non satisfaction of caretakers on quality of supplements and so were fed to the livestock or consumed by adult family members.

Discussion

In the present study, AWW's knowledge and practices with regard to growth monitoring in rural PHC of Pondicherry was assessed. The AWWs were well experienced and received pre placement training before joining. They knew the importance and implications of growth monitoring for children. Regarding practices in all AWCs, children less than 6 month were weighed on bathroom weighing scale. This was not in line with ICDS guidelines which states to use Salter weighing for better accuracy.

Majority of respondents conducted weight measurements with child fully dressed. Informing parents about the child's nutritional status was not practiced universally. The recitation of advices to be given to mothers of malnourished children was not uniformly observed. Some important advices like deworming and immunization of the child were not enlisted by AWWs. The IMNCI has emphasized on addition of oil or ghee increases calorific value [MoHFW 2006].⁷ Among study subjects, only one in five AWWs advised high calorie diet to children. Interpretation of growth charts was done appropriately. AWWs faced problem with weighing machine

maintenance and repair, noncompliance of mothers to advices and training (10%).

Despite having long experience, AWWs failed to recite important health messages given to mothers of malnourished children. This may be due to less frequency of refresher's training AWWs receive. The frequency of in service trainings needs to be increased for updating knowledge domain of AWWs. The growth monitoring at centres should be monitored by supervisors routinely to identify and correct any shortcomings in the process. Early signs of malnutrition, hygiene practices at household level, sanitation, feeding recommendations and family planning methods need to be strongly emphasized while educating the mother. A checklist on health messages may be provided to AWWs for not to miss important advices.

The problem of compliance of mothers can be solved to some extent by the local self help groups (SHGs). A study from rural Wardha, India has shown that involving SHGs in creating health awareness augmented the utilization of supplementary services. The partnership with SHGs further helped in improving beneficiaries' awareness on locally available nutritious foods and reduced the use of formula feeds and bottle feeds in the community.^{8,9} Also, record keeping added to the work load of AWWs which led to neglect of their primary functions.¹⁰

Decentralization of the food supplementation with local cooking helps to satisfy the beneficiaries in terms of quality and acceptance.¹¹ AWWs cited similar opinion as centrally supplied supplementary food was not satisfactory in quality and at times was fed to other family members and in worst cases by cattle but not to the intended beneficiaries. Similar findings on inadequate quality have been reported from Kerala.¹² The non satisfaction regarding supplementary nutrition sometime has resulted in dissatisfaction among parents of overall ICDS services.

Following standard protocols of growth monitoring is prerequisite for the monitoring the progress of ICDS program. Such practice also acts as a platform for good communication between mothers and health workers and to increase community participation.⁶ But we noticed deficits in the growth monitoring processes in the rural PHC of Pondicherry. The training and constructive supervision of AWWs is the need of the hour.

In summary, there were gaps in the status of growth monitoring activities in AWCs at PHC, Thirubhuvanai which needs to be promptly addressed. The need of accurate growth monitoring should be emphasized to all health workers. It is recommended that regular workshops for ICDS staff to improve and strengthen the knowledge and practices on growth monitoring should be conducted. In addition, provision and maintenance of logistic support for anthropometric assessment should be strictly ensured.

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