

ORIGINAL ARTICLE

Knowledge and Skill of Anganwadi Workers in Growth Monitoring in an Urban Slum of Central Part of Karnataka

Malatesh Undi¹, Rachana Rajashekhara Annadani², Sindhu Rajashekhara³

¹ Assistant Professor, Department of Community Medicine, Karwar Institute of Medical Sciences (KRIMS), Karwar, Uttara Kannada Karnataka, India; ² Assistant Professor, Department of Community Medicine, Karwar Institute of Medical Sciences (KRIMS), Karwar, Uttara Kannada Karnataka, India; ³ Medical Intern, Department of Community Medicine, SS Institute of Medical Sciences & Research Centre (SSIMS &RC), Davangere, Karnataka

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Corresponding Author

Corresponding Author: Dr. Rachana Rajashekhara Annadani, Assistant Professor, Dept. of Community Medicine, Karwar Institute of Medical Sciences, Karwar-581301, Uttara Kannada Karnataka, India
E Mail ID: rachana.manas@gmail.com



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Abstract

Background: In India, Anganwadi Workers (AWWs) maintain the growth record of all the under-five years' children in their area under ICDS. This task requires technical skill of proper weighing, plotting weight on growth charts, interpreting growth curve and using the growth card as a tool for educating mothers. In urban slums, their knowledge and skills are rarely assessed. **Objectives:** To assess the knowledge and skill of AWWs regarding growth monitoring of under-five years' children. **Methods:** This cross-sectional study was done in an urban slum in central part of Karnataka. After obtaining ethical clearance, data was collected from 20 AWWs and 100 under-five children using a structured questionnaire (modified and adapted from ICDS manual). Data was analyzed using MS-Excel 2010. **Results:** All AWWs correctly interpreted growth chart but 60.0% didn't know the expected weight for age or number of times a child should be weighed. 70% had inadequate skills to determine correct age of child and 30% erred while measuring the weight of child. **Conclusions:** Majority of AWW had adequate knowledge regarding growth monitoring but lacked skills in crucial steps like age determination and weighing the child. Training programme must ensure that the AWW learn and practices these skills.

Keywords

Child; Growth Charts; Knowledge; Records; Body Weight; India

Introduction

In India, the Integrated Child Development Services (ICDS) programme provides nutrition and health services for children under age of six years and pregnant and breastfeeding women, as well as preschool activities for children age three to five years. These services are provided through community-based Anganwadi Centres (AWC).

Anganwadi Workers (AWWs), who constitute the backbone of ICDS system, are responsible for taking and maintaining the growth record of all the below-five years' children in the area of their jurisdiction. The task of growth monitoring requires technical skill on the part of AWWs for proper weighing, plotting weight on growth charts, interpreting growth curve (based on New WHO Growth Standards, 2008) and

finally using the growth card as a tool for imparting education to mothers to promote child growth.(1) Malnutrition is one of the most common causes for death in under-five children. Fortunately, the onset of malnutrition, anaemia and most of the diseases can be detected if the growth is monitored regularly. Therefore assessment of nutritional status and accurate way of growth monitoring are essential. The most accurate and sensitive measure of growth is weight gain. Weight for age has been adopted as the method for assessment and improvement of nutritional status of children under the ICDS programme.(1)

The studies across the country showed that there are deficits in the growth monitoring processes in the Anganwadis that resulted in wrong interpretation of growth and nutritional status of the children.(2) In spite of the training of Anganwadi workers, their performance as well as awareness in terms of nutrition and health perspective was not satisfactory and hence an utmost need of frequent training as well as on spot training programme was strongly felt.(3,4)

However, extensive review of literature showed that there is scarcity of information about knowledge and skill of Anganwadi workers in growth monitoring in urban slums of central part of Karnataka.

Aims & Objectives

Aim: To assess the knowledge and skill of Anganwadi workers in growth monitoring of under-five years' children in selected urban slum.

Objectives:

- To assess the knowledge of Anganwadi workers regarding growth monitoring of under-five years' children in selected urban slum.
- To assess skill of Anganwadi workers in growth monitoring of under-five years' children in selected urban slum.

Material & Methods

Study Type: a descriptive cross-sectional study.

Study Population: Participants included Anganwadi workers (AWWs) in an urban slum and under-five children enrolled in Anganwadis of the study area.

Study Area: an urban slum of a district in central part of Karnataka, India.

Study Duration: four months during May to Aug 2015.

Sample Size: 20 Anganwadi Workers and 100 children. The sampling technique included complete enumeration method for Anganwadi worker

selection - 20 and simple random sampling method for children selection in an Anganwadi (5 in each Anganwadi i.e., 5x20=100 children). In each selected Anganwadi, line listing of children was done, numbered from 1 to total number of children in respective Anganwadi, copied the number on identical chits and five children among these were selected randomly using lottery method (without replacement). If the selected child was absent on the day of visit, the next random number chosen was used to select the next child.

Inclusion Criteria: Anganwadi worker with minimum of one year work experience, under-five children enrolled in their respective Anganwadis.

Exclusion Criteria: Anganwadi worker who are unwilling to participate in the study.

Strategy for collection: With prior permission from Child Development Project Officer (CDPO)/ AWW supervisors all the Anganwadi workers in the study area were contacted and briefed on the purpose of the study and assured privacy and confidentiality of the information provided by them. After obtaining their written informed consent, the data was collected using semi-structured questionnaire and observatory checklist. At each Anganwadi, weighing of five children was observed, so a total of 20 AWWs weighing 100 children were assessed. The skills of AWW in growth monitoring were tested stepwise by observing the weighing of children as per five steps of growth monitoring by using observation checklist.

Study tool: The knowledge of AWWs was assessed using pretested semi-structured questionnaire administered by interview technique. To assess the skills of AWWs, an observatory checklist was designed based on five steps for growth monitoring enlisted in the ICDS manual and used.(1) This checklist and questionnaire was pretested at five Anganwadis outside the study area before the commencement of the data collection, minor changes done and incorporated; finalised questionnaire and checklist were used to collect data.

Working Definition: The results were interpreted for each step as: Adequate skill (Yes = follows the step correctly for all children weighed) or Inadequate skill (Partial = follows the step correctly for 1-4 children and No = follows the step correctly for none of the children).

Ethical Approval: The study was approved by Institutional Ethics Review Board [Ref.No.IERB/ICMR-ST5/29-2015].

Consent: Written informed consent was obtained from all the Anganwadi Workers who were willing to participate in the study before beginning of the study.

Data Analysis – Software: Data collected was coded, entered and analysed using Microsoft Excel 2010. The results were expressed in mean, median, interquartile range, proportion, percentage and charts.

Results

Majority (85.0%) of Anganwadi workers (AWW) were educated beyond 10th standard (65% graduates & above, 20% PUC/diploma), median duration of work experience was five years (Inter Quartile Range, Q1-Q3: 5.0 - 8.25), median duration of training received was 30 days (Inter Quartile Range, Q1-Q3: 30.0 – 45.0) and 40.0% of them had received re-orientation training twice during their work period. (Table 1)

All the study participants (AWWs) knew weight for age as an important parameter for growth monitoring but 10% of them did not believe assessment of correct age is essential for growth monitoring. Majority (60.0%) of AWWs did not know the correct expected weight of child at age one and three years. 45.0% of them did not know the number of times (at least twice) a child should be weighed before recording in growth chart and majority (90.0%) of them believed only malnourished child should be weighed twice. All the AWW knew correctly the interpretation of direction of growth curves (moving upward= normal, flat = dangerous, moving downward = very dangerous) and the correct interpretation of colours in the growth (green = normal, yellow = mild/moderate malnutrition, orange=severe malnutrition). (Table 2)

Regarding uses of reorientation sessions, the AWWs felt that it refreshed their knowledge and learnt skills regarding nutrition assessment and improving growth of undernourished children, importance of breast milk and colostrum, importance of personal hygiene, food taboos of pregnant and lactating mothers, communication skills with the parents and how to motivate the society for good health, weighting skills and zero adjustment importance.

The assessment of skills of Anganwadi workers (AWW) in growth monitoring by direct observation using a checklist revealed the following stepwise:

In step1, majority of the AWWs had inadequate skills [partial (70.0% to 80.0%) or none (5.0% to 10%)] in determining correct age of the child using any of the reliable six methods. Majority of AWW did not verify/ insisted for determination of correct age which is the most important first step in growth monitoring. Only 15.0% of AWWs determined correct age using date of birth available in health centre/mother and child protection card/ birth certificate. Only 20.0% had recorded date of birth of child in the register. (Table 3)

In step 2 i.e., accurate weighing of child during preparatory stages to hang Salter scale, 40.0% AWW failed to pull down the Salter scales to ensure it is secure for weighing the baby. Majority (85.0%) of AWWs adjusted the needle of Salter scale to zero before weighing each child, but a few failed to do it (15.0%). A few also failed to make the child hold the strap in front of it (15.0%) and make sure the strap to be in front of child arm (10.0%). However, the occurrence of error was more while weighing the child: 30.0% of AWW failed to ensure that no one touched the child while weight is being read, 30.0% of AWW did not ask mother/helper to stand close by and talk to the child to prevent crying, 30.0% of AWW did not read the weight when child is calm/stopped moving and 15.0% read the weight from the sides. 10.0% AWWs failed to ensure the child feet is not touching the ground/child not holding on to anything other than straps of sling while the weight is read which resulted in erroneous weightment of child. Also, 25.0% Anganwadis did not have sufficient room for the scale to hang freely. (Table 4)

It was found that 12 (60.0%) Anganwadis did not have Salter scale for weighing the children or it was not in working condition. For weighing the children in these Anganwadis the AWWs borrowed Salter scale from neighbouring/nearby Anganwadi which had Salter scale that is in working condition. 6 (30.0%) AWWs weighed only once before recording the weight in the growth chart. The weighing was done only for children enrolled and present in Anganwadi, the children below 3 year who did not attend Anganwadi were not weighed regularly, and especially all the infants were missed from weighing (verified by observing growth chart and number of children enrolled in Anganwadi).

In step 3, majority (90.0% to 100.0%) were able to plot the weight accurately on a growth chart except for joining the gap with a dotted line when there is a gap in monthly weighing or no information available

about weight (25.0% AWWs failed to do so). (Table 5)

In step 4, all AWWs were able to correctly interpret the direction of growth curve. However, 20.0% of Anganwadis did not have the colour coded growth chart book (blue for boys, pink for girls), and the AWWs managed to record the growth in Xerox copies of these growth chart (black and white). The reason quoted by AWWs for the same was non/irregular supply of growth charts to them by the government. (Table 6)

In step 5, all AWWs determined the trend correctly and majority of them (95.0%) showed it to mother of the child, asked her what she does, listen to the mother for reasons, discussed specific action to be taken by her, praised her when appropriate and advised in a simple language. (Table 7)

Discussion

The present study assessed knowledge and skills of Anganwadi workers (AWWs) regarding growth monitoring of under-five children registered in Anganwadis of an urban slum. Majority of them were educated upto 10th standard (15%) and beyond (85%). Similar were findings of evaluation of ICDS in the state.(5) In present study, inspite of having work experience (median 5 years), a substantial number of AWWs had inadequate knowledge and skills which indicates lack of appropriate supervision and reorientation towards growth monitoring since many years. This could be possibly due to lack of focus on steps of growth monitoring during supervision/reorientation. Similar observations were made in other studies, where record keeping was not associated with her work experience but higher the education, more successful the record maintenance.(6,7) In India, AWWs attended job-training (84%), growth monitoring/ pre-school refresher courses (70-75%), joint trainings with health workers (55%) and skill training (30%). In Karnataka, 95% AWWs attended job training (42 days) and 64.4% attended refresher course training in growth monitoring (4 days).(5) In present study, AWWs received re-orientation training twice (40%) and thrice (30%). A study showed that there was significant association of knowledge with increasing frequencies of the training.(8) Majority AWWs in present study too perceived that reorientation sessions were helpful in improving their knowledge, which should be tapped as an opportunity to correct/improve their knowledge and skills.

In the present study, AWWs had inadequate knowledge regarding various aspects of growth monitoring- the number of times a child should be weighed before recording in growth chart, the correct age of child at age 1 and 3 years. This finding is in contrast to a study done by Bhasin et al. that observed 91% had correct knowledge about weight of a child at 1 and 3 years.(9) Majority of the AWWs had inadequate skills in determining correct age of the child that is similar to a study conducted by Davey et al.(8)

In the present study, majority of Anganwadis did not have Salter scale or it was not working. Similar findings were observed in GOIs evaluation report of ICDS (2011). Some AWCs were found to record incorrect weights/no weight measures of children. All this suggest that information on coverage and progress reports on nutritional standards do not represent the grassroots reality.(5) Similarly in MP, only 63.6% had functioning weighing machines and those who didn't have informed that while filling growth chart they brought machine from nearest AWCs.(6) This problem appears to be existent till date in the study area too.

Another interesting observation in present study was that AWWs weighed only the children enrolled and present in Anganwadi but missed weighing the children below 3 years especially all the infants who were enrolled and did not attend Anganwadi. This is an alarming observation, because malnutrition occurring during first two years of life tremendously impact development outcomes (cognitive development, intelligence, strength, energy and productivity).(6) This window of opportunity to screen children below 3 years is missed out in Anganwadis, which may defeat the basic purpose of ICDS.

In the present study, AWWs failed to pull down the Salter scale (40%) to ensure it is secure for weighing the baby, make the child hold the strap in front of it (15%) and make sure the strap to be in front of child arm (10%). This is not acceptable practice because failure to confirm the secured position of weighing scale may undermine the confidence of child/mother, if any mishap (fall) happens to the child itself/ sees other child falling. Majority (85%) of AWWs adjusted the needle of Salter scale to zero before weighing each child, but a few (15%) failed to do it. This was slightly better than the observations done by Chattopadhyay D, where only 60.9% adjusted the scale to zero before weighing.(4) In

present study while weight is being read, nearly one third of AWWs failed to ensure that no one touched the child or child is calm/stopped moving and 10% failed to ensure the child feet is not touching the ground or not holding on to anything other than straps of sling while the weight is read. All this lead to erroneous weighment of child and recording the same on growth charts. If this happens to the child every time it gets weighed, then the child will be mislabeled as normal/malnourished and misses the opportunity of specific actions taken. Similar were the findings of a study done by Gurukartik et al. which showed that the technical problems and poor compliance to Salter's scale resulting in wrong interpretation of growth and nutritional status of the children.(2) One fourth of Anganwadis in the present study did not have sufficient room for the scale to hang freely, which suggests for restructuring of existing Anganwadi buildings in urban slum.

Majority of AWWs were able to plot the weight accurately on a growth chart which is a good evidence of their skill in recording the weight of children. However, if the weighing is inaccurate it may be misleading because of false weights being plotted with accuracy. One fourth of AWWs failed in joining the gap with a dotted line when there is a gap in monthly weighing or no information available about weight (25.0%), which may obscure the missed weight findings.

In present study, all AWWs were able to correctly interpret the direction of growth curve which indicates their adequate skills in detection of malnutrition in children by visualising the trend of growth curve. This was better than the findings of a study done by Patil SB et al. where only 48.1% had correct knowledge regarding growth monitoring and a study by Davey et al, where 75-80% were able to interpret the growth line correctly.(8,10,11)

One fifth of Anganwadis in study area did not have the colour coded growth chart book. The reasons for this deficiency have to be found out with further studies. Even though ICDS has adopted colour coded growth charts for a better visualization, differential growth pattern of boy and girl child based on WHO growth standards, it's failing to meet its objectives because of non-availability of them. In its absence, AWW may confuse the boy to girl charts and vice versa leading to misinterpretation of growth trend of child because of using wrong chart for right child. Unavailability of Growth Charts is a problem existent across the country, in MP (2009), only 58.3% of the

AWCs had growth charts and in these centres 44.8% had inadequate number of growth charts.(6)

All AWWs determined the trend correctly and majority of them (95.0%) showed it to mother of the child, asked her what she does, listen to the mother for reasons, discussed specific action to be taken by her, praised her when appropriate and advised in a simple language. However, these finding needs to be interpreted with caution as majority of the step 5 findings were self-reported by AWW unlike other 4 steps which were observed directly. There may be inflated responses and telling that they convey the growth record findings to all mothers of children. This needs to be verified by interviewing all the mothers of children (one hundred), which could not be done in the present study because of time constraints.

Conclusion

Majority of AWWs had adequate knowledge regarding interpretation of growth curve, its trend and colour of growth charts. However, 60% of AWWs did not know the correct expected weight of child at age 1 and 3, 45% did not know the number of times a child should be weighed before recording in growth chart.

Majority of AWWs had inadequate skills in growth monitoring. Also, weighing was done only for children enrolled and present in Anganwadi and weighing was not done regularly for children below 3 years especially infants.60% of Anganwadis did not have Salter scale or it was not in working condition. 20% of Anganwadi did not have the colour coded growth chart book.

Recommendation

ICDS relies heavily on knowledge and skills of Anganwadi workers, hence corrective actions must be taken by means of regular onsite training and reorientation trainings for updating the knowledge and skills of AWW in growth monitoring. These trainings have to be strengthened in the ICDS that will lead to effective growth monitoring by AWW and guide them to take action in malnourished under-five children immediately. Regular supervisory visits by supervisors with a focus on weighment techniques shall improve the skills of AWW in weighing all the children in 0-6 year age correctly. Regular supply of growth charts in proportion to children registered to Anganwadis must be ensured by CDPO/Supervisors.

Limitation of the study

This study had few limitations: The last step (Step 5) of growth monitoring could not be verified with mothers of all the children weighed (one hundred) and were self-reported (step 5 only) by AWW and hence need to be interpreted with caution. Hawthorne effect in the study could not be avoided during skill assessment; hence growth monitoring by AWW may vary to some extent during routine working days of AWW without being observed directly by a supervisor.

Relevance of the study

Most of the existing published studies report partial assessment of knowledge and skills of Anganwadi workers without specific reference to steps of growth monitoring. This study has assessed the AWWs by direct observation (using checklist adapted from standard ICDS manual) of all five steps of growth monitoring and recordings of one hundred under-five children. This specific information adds on to the existing ICDS evaluation studies. Additionally, this study has revealed the missing information on 0-3 year children who are enrolled in Anganwadi but less frequently monitored for their growth.

Authors Contribution

MU and RRA designed the study, provided its intellectual content and concepts, searched the literature, analysed the data, wrote the manuscript, edited and reviewed the drafts. MU and SR prepared data collection tool and collected the data. SR also provided the concepts for the study, and helped in the preparation of initial draft of manuscript.

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Tables

TABLE 1 DISTRIBUTION OF STUDY PARTICIPANTS BASED ON THEIR JOB RELATED DETAILS. (N=20)

AWW job related parameter	Frequency	Percentage
Duration of work as AWW		
Mean duration	9.4 years \pm 8.2	-
Median duration	5 years (Q1:5.0 – Q3:8.25)*	-
Range	5 – 30	-
Days of training received by AWW		
Mean duration	46.5 days \pm 29.9	-
Median duration	30 days (Q1:30.0 – Q3:45.0)*	-
Range	5 – 120	-
Reorientation training received by AWW		
Once	4	20.0
Twice	8	40.0
Thrice	2	10.0
>Three times	6	30.0

Note: *Median was calculated because of skewed data; Q1-first quartile, Q3-third quartile

TABLE 2 KNOWLEDGE OF ANGANWADI WORKERS REGARDING GROWTH MONITORING OF UNDER-FIVE YEARS' CHILDREN.

Sl. No.	Knowledge Question	Correct response	Wrong response
1	Is weight for age is an important parameter for growth monitoring?	20 (100.0)	-
2	Is assessment of correct age essential for growth monitoring?	18 (90.0)	2 (10.0)
3	What is the normal expected weight of a child at age 1 year?	8 (40.0)	12 (60.0)
4	What is the normal expected weight of a child at age 3 year?	8 (40.0)	12 (60.0)
5	How many times the child is weighed before recording in growth chart?	11 (55.0)	9 (45.0)
6	If a child aged >3 years is malnourished how frequently will you weigh?	18 (90.0)	2 (10.0)
7	What do you consider if the growth curve of a child is moving upward, flat and moving downward?	20 (100.0)	-
8	What does the colours in growth chart indicates (green/yellow/orange)?	20 (100.0)	-

Note: Figures in parenthesis indicate percentage.

TABLE 3 STEP 1 OF GROWTH MONITORING OF UNDER-FIVE YEARS' CHILDREN BY AWW

STEPS OF GROWTH MONITORING		YES*	Partial**	NO***
Step 1	Determining correct age of the child	(for all children)	(some children)	(None of children)
1	Aware of all the births taking place in her area/ Date of birth (dd/mm/yy) of the child recorded in her register	4 (20.0)	16 (80.0)	-
2	Date of birth available with the health centre	3 (15.0)	16 (80.0)	1 (5.0)
3	With the help of Mother and Child Protection Card (MCPC)	3 (15.0)	15 (75.0)	2 (10.0)
4	With the help of birth certificate	3 (15.0)	15 (75.0)	2 (10.0)
5	From the mother, if she remembers the exact date of birth	3 (15.0)	15 (75.0)	2 (10.0)
6	Using a local events calendar (prepared/available)	4 (20.0)	14 (70.0)	2 (10.0)

Note: Figures in parenthesis indicate percentage; The skill of each AWW in growth monitoring was directly observed by investigator for 5 children in each anganwadi (20), hence a total of 100 children growth monitoring was observed; *Yes = all 5 children in EACH anganwadi; **Partial = 1 to 4 children; ***No = 0 children; Numbers represent number of AWWs in each column of YES/Partial/NO.

TABLE 4 STEP 2 OF GROWTH MONITORING OF UNDER-FIVE YEARS' CHILDREN BY AWW.

STEPS OF GROWTH MONITORING		YES (for all children)	Partial (some children)	NO (None of children)
Step 2	Accurate weighing of the child			
<i>A</i>	<i>Hanging the Salter Scale:</i>			
1	Place the upper hook through the hole at the top of the scale.	20 (100.0)	-	-
2	Put a rope through the upper hook of the scale and hang it from a beam or branch of a tree by tying the rope securely.	18 (90.0)	1 (5.0)	1 (5.0)
3	Make sure the dial is at <i>eye level</i> so that the weight is read correctly, and not too high from the ground, to avoid injury to the child in case of accidental fall	18 (90.0)	1 (5.0)	1 (5.0)
4	Be sure there is room for the scale to hang freely.	15 (75.0)	-	5 (25.0)
5	Pull down on the scale to make sure it is secure.	12 (60.0)	-	8 (40.0)
6	Place the lower hook on the bottom of the scale.	20 (100.0)	-	-
<i>B</i>	<i>Adjusting the Needle</i>			
1	Place the pants/infant sling on the lower hook	20 (100.0)	-	-
2	Then adjust the needle to zero ('0') the screw at the top of the scale in clock wise or anti clock wise direction.	17 (85.0)	2 (10.0)	1 (5.0)
<i>C</i>	<i>Putting The Child In The Pants</i>			
1	Remove the pants from the hook	18 (90.0)	1 (5.0)	1 (5.0)
2	Carefully place the child in the pants	18 (90.0)	2 (10.0)	-
3	Ask the child to hold the straps for support	16 (80.0)	3 (15.0)	1 (5.0)
4	Make sure the straps are in front of the Child's arms	15 (75.0)	2 (10.0)	3 (15.0)
5	Hold the child securely under the pants and place the strap of the pants on to the lower hook	17 (85.0)	2 (10.0)	1 (5.0)
<i>D</i>	<i>Weighing the Child or Infant</i>			
1	Make sure the child's feet are not touching the ground and the child is not holding on to anything, other than straps of the sling	18 (90.0)	1 (5.0)	1 (5.0)
2	No one should touch the child while the weight is being read	14 (70.0)	5 (25.0)	1 (5.0)
3	Ask the mother to stand close by and talk to the child to prevent crying	14 (70.0)	4 (20.0)	2 (10.0)
4	Read the weight when the child is calm and the needle stops moving	14 (70.0)	1 (5.0)	5 (25.0)
5	Read the weight exactly opposite the scale; Do not read the weight from the sides	17 (70.0)	2 (10.0)	1 (5.0)

Note: Figures in parenthesis indicate percentage.

TABLE 5 STEP 3 OF GROWTH MONITORING OF UNDER-FIVE YEARS' CHILDREN BY AWW.

STEPS OF GROWTH MONITORING		YES (for all children)	Partial (some children)	NO (None)
Step 3	Plotting the weight accurately on a growth chart of appropriate gender			
1	Use pink border chart for girls and blue border chart for boys.	16 (80.0)	-	4 (20.0)
2	Fill up the 'Information Box' on the left hand side of each Growth Chart before using it	19 (95.0)	1 (5.0)	-
3	Do the plotting with help of a HB pencil.	19 (95.0)	-	1 (5.0)
4	Write the month and year during which the child was born in the first white rectangle at the bottom of the first column from the left hand side	20(100.0)	-	-
5	Identify the 'month box', which identifies the present age of the child in completed weeks or months.	20(100.0)	-	-
6	Plotting has to be made at the junction of vertical line (not between vertical lines) of the identified 'month box', and line corresponding to weight.	18 (90.0)	1 (5.0)	1 (5.0)
7	Plotting has to be done on the lines for completed weeks/months. Weekly plotting will be restricted to only initial 1st month from the birth and thereafter plotting will be done on completed months.	19 (95.0)	-	1 (5.0)

8	For plotting on completed weeks, small lines drawn in the birth month need to be followed/extended upward vertically till the plotting of actual weight of the child.	19 (95.0)	-	1 (5.0)
9	Identify the horizontal line which indicates the present weight of the child to the nearest 0.1 kg e.g. 6.2 kg.	19 (95.0)	-	1 (5.0)
10	Follow this horizontal line on the 'weight axis' towards right to the point where it intersects with the line which is extended from the vertical line from the 'month box' indicating the present age of the child.	20(100.0)	-	-
11	Write the weight taken to the nearest 100 grams below the 'month box', which indicates the present age of the child.	20(100.0)	-	-
12	Put a dot on the line where the two lines intersect. Draw a circle around the dot, so as to know the position of the plotted point for weight-for-age.	20(100.0)	-	-
13	Do not plot any point in the space between the two vertical lines on a Growth Chart.	19 (95.0)	-	1 (5.0)
14	Record weight-for-age of the child by plotting a point on the Growth Chart, each time she/he is weighed.	20(100.0)	-	-
15	Connect the points plotted for two or more months/weight, with a straight line to form the Growth Curve and observe trends.	19 (95.0)	-	1 (5.0)
16	Whenever there is a gap in monthly weighing or no information available about weight then that gap in growth chart needs to be joined with a dotted line.	15 (75.0)	-	5 (25.0)

Note: Figures in parenthesis indicate percentage.

TABLE 6 STEP 4 OF GROWTH MONITORING OF UNDER-FIVE YEARS' CHILDREN BY AWW.

STEPS OF GROWTH MONITORING		YES (for all children)	Partial (some children)	NO (None of children)
Step 4	Interpreting the direction of the growth curve and recognising if the child is growing properly			
1	If the growth curve of a child is moving upward, it is considered <u>good</u> . 	20 (100.0)	-	-
2	If the growth curve of a child is flat, it is considered <u>dangerous</u> . 	20 (100.0)	-	-
3	If the growth curve of a child is moving downward, it is considered <u>very dangerous</u> . 	20 (100.0)	-	-

Note: Figures in parenthesis indicate percentage.

TABLE 7 STEP 5 OF GROWTH MONITORING OF UNDER-FIVE YEARS' CHILDREN BY AWW.

STEPS OF GROWTH MONITORING		YES (for all children)	Partial (some children)	NO (None of children)
Step 5	Interpreting the direction of the growth curve and recognising if the child is growing properly			
1	Determine the trend of the growth curve.	20(100.0)	-	-
2	Show the growth chart to the mother.	19 (95.0)	-	1 (5.0)
3	Ask what she (the mother) does.	19 (95.0)	-	1 (5.0)
4	Listen to the mother to find out what has happened to the child.	19 (95.0)	-	1 (5.0)
5	Discuss with her specific action(s) which she can take to promote growth	19 (95.0)	-	1 (5.0)
6	Asking the mother important questions and listening to her responses.	19 (95.0)	-	1 (5.0)
7	Praising her when appropriate.	19 (95.0)	-	1 (5.0)
8	Advising the mother, using simple language, and giving only relevant advice.	19 (95.0)	-	1 (5.0)
9	Checking understanding to ensure that mother has understood the advice.	19 (95.0)	-	1 (5.0)
10	Follow-up with mother to ensure and strengthen implementation of advice.	19 (95.0)	-	1 (5.0)

Note: Figures in parenthesis indicate percentage.