

## Original Research Article

# Awareness and satisfaction of mothers of under six children residing in the urban field practice area of Burdwan Medical College and Hospital regarding the services rendered by Anganwadi centers: a cross sectional study

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## ABSTRACT

**Background:** Integrated child development services (ICDS) is the foremost symbol of India's commitment to her children. The present study was done to assess the awareness of mothers of under six children residing in the urban field practice area regarding the services rendered by the Anganwadi Centres (AWC), to find out the satisfaction of mothers of under six children regarding quality of care received and to ascertain the availability of infrastructure and logistics of AWCs catering to the urban field practice area.

**Methods:** A cross-sectional descriptive study was done at Alamganj, Purba Bardhaman, from October 2015 to December 2015 among mothers of under six children and AWCs located there. Mothers were interviewed, with the use of a predesigned and pretested schedule for assessing awareness and satisfaction of beneficiaries and predesigned, pretested check lists for infrastructure and logistics availability. The study was done after getting ethical approval. Data were analysed by SPSS 20.

**Results:** Out of 3 AWCs 2 were pucca and 1 kutcha-pucca with poor sanitary facility. All the mothers were within 19-30 years age group. Immunization, nutrition and health education services were known to 98.2% mother. Only 57.1% and 48.2% mothers were aware of PSE and health check-up respectively. 73.3% mother preferred cooked food and rest raw food, 78.6% mothers were satisfied with amount of food and 71.4% were satisfied with quality. Bad taste and improper cooking were main reason behind non-acceptability.

**Conclusions:** Findings of the study were better than earlier studies but still there were much scope for improvement in infrastructure, training and supervision.

**Keywords:** Mothers, Under six children, Awareness, Satisfaction, ICDS, Anganwadi centers

## INTRODUCTION

Integrated child development services (ICDS) scheme represents one of the world's largest and most unique programmes for early childhood development. ICDS is the foremost symbol of India's commitment to her

children– India's response to the challenge of providing pre-school education on one hand and breaking the vicious cycle of malnutrition, morbidity, reduced learning capacity and mortality, on the other. Main services of ICDS are supplementary nutrition of under six years' children, pregnant and nursing mothers and adolescent

girls, immunization, referral services, health education, non-formal preschool education and health check-ups.<sup>1</sup>

But still there is a gap in the services provided by the ICDS scheme. Three decades of ICDS – An appraisal by National Institute of Public Cooperation and Child Development (NIPCCD 2006) showed that around 59 per cent Anganwadi centers (AWC) studied had no toilet facility and in 17% AWCs this facility was found to be unsatisfactory, around 75% of AWCs had pucca buildings, 44 per cent AWCs covered under the study were found to be lacking PSE kits. Disruption of supplementary nutrition was noticed on an average on 46.31 days and major reason causing disruption was reported as running out of stock. About 36.5% mothers reported that their new born babies had not been weighed and 37 per cent Anganwadi workers (AWW) reported non-availability of materials/aids for Nutrition and Health Education (NHED).<sup>1</sup>

A study done by The National Council of Applied Economic Research (NCAER 2009) revealed that only 49% eligible couples were registered in ICDS, around 78% of women (pregnant and lactating) and 42% of adolescent girls registered, actually received services. Overall 42.5% of sampled AWCs had their own building, 17.4% were in rented buildings, 17.3% were located in primary schools and other 22.9% were running from the residence of AWW/AWH house, Panchayat or community buildings. Only 69% AWCs had drinking water supply and 69% of the sampled AWCs had baby weighing scales.<sup>2</sup>

A cross sectional study was done in Urban ICDS Block, Aurangabad from June 2006 to June 2007 and the results showed that AWCs were providing NFPSE (40%), nutrition and health education (100%), supplementary nutrition, immunization camps (60.71%). Health check-ups were not conducted. More than 50% of AWCs had the required infrastructure, 55% of AWWs had maintained records properly; iron tablets and vitamin A syrup were not available in any AWC for the last 7-8 months.<sup>3</sup>

A study was conducted at Gujarat from April 2012 to March 2013 in 46 AWCs from rural and 14 AWCs from urban. The results showed that 88.3%, 91.7% & 86.7% of pregnant mother, lactating mother & adolescents received supplementary nutrition respectively. Only 25% AWCs were providing hot cooked food (HCF) to 3 to 6 years children. Less than half of the AWCs were providing ready to eat (RTE) food to 6 months to 3 years children (48.3%), pregnant (46.7%) and lactating (46.7%) mothers, and adolescents (45.0%). Total 38.3% AWCs reported shortage of SN supply, more in rural (41.3%) compared to urban (28.6%) area. Various problems were reported by anganwadi workers related to SN like lack of storage facility, non-availability of separate kitchen, poor quality of food, irregular supply, inadequate supply, and fuel problem.<sup>4</sup>

Any program on early childhood care and education can succeed only when mothers are also brought within its ambit because it is the mother who nurtures the child right from the time of conception. So awareness, involvement and participation of mothers and their satisfaction plays a key role in successful implementation of ICDS.<sup>5,6</sup>

Few studies have been done on awareness and satisfaction of mothers of under six children and availability of infrastructure and logistics in urban AWCs. With this background the present study was done in the urban field practice area of the Community Medicine department of Burdwan Medical College and Hospital to assess the awareness of mothers of under six children residing in the urban field practice area regarding the services rendered by the AWCs, to find out the satisfaction of mothers of under six children regarding quality of care received and to ascertain the availability of infrastructure and logistics of AWCs catering to the urban field practice area.

## METHODS

A cross-sectional descriptive study was done at Alamganj, ward no 22, urban field practice area of department of community medicine of Burdwan Medical College & Hospital, Purba Burdwan from October 2015 to December 2015 among Mother of under six children residing in the urban field practice area and AWW centers located within the urban field practice area (Alamganj) of Burdwan Medical College. Inclusion criteria: All the Mothers of under six children who were permanent resident of Alamganj were eligible for the study. All Angan Wadi centers located within the Urban field practice area (Alamganj) of Burdwan Medical College were also included. All three Anganwadi centers from which the beneficiaries received services was assessed for availability of infrastructure and logistics. Exclusion criteria: Seriously ill and unwilling participants were excluded from the study. Complete enumeration was done. Around 70 mothers were approached to participate. But due to lack of time 14 mothers refused to participate. During the study period around 56 mothers were interviewed. Data were collected by interviewing the subjects with the use of predesigned pretested schedule for assessing awareness and satisfaction of beneficiaries and predesigned pretested check lists for infrastructure and logistics availability. The study was conducted after getting approval from Institutional Ethics Committee.

Data were coded and entered into MS-Excel sheet. Statistical analysis was done by Statistical package for the social services (SPSS) version 20. Descriptive statistics were used.

## RESULTS

This study revealed that most of mothers (50%) belonged to 23 to 26 year of age group. Minimum age of study

subjects was 19 years and maximum was 30 years. Mean age is 23.88 (SD 2.69). Most of the study subjects were Hindu (78.6%) and rest were Muslim (21.4%) by religion. Most of study subjects were just literate (4 8.2%) and belonged to lower-middle class (64.3%) according to Modified B.G. Prasad scale, September 2015 (Table 1).

**Table 1: Socio-demographic characteristics of mothers (n=56).**

Characteristics	No. of mothers (%)
<b>Age in years</b>	
19-22	20 (35.7)
23-26	28 (50.0)
27-30	8 (14.3)
Total	56 (100)
<b>Religion</b>	
Hindu	44 (78.6)
Muslim	12 (21.4)
Total	56 (100)
<b>Education</b>	
Just literate	27 (48.2)
Primary	23 (41.1)
Secondary	06 (10.7)
Total	56 (100)
<b>Socio-economic status (SES)*</b>	
Upper class	0 (0)
Upper middle class	0 (0)
Middle class	2 (3.6)
Lower middle class	36 (64.3)
Lower class	18 (32.1)
Total	56 (100)

\*Modified B. G. Prasad scale September 2015.

**Table 2: Awareness among the mothers of the child beneficiaries regarding functioning of ICDS.\***

Services	No. of mother aware about services (%)
<b>Open regularly</b>	46 (82.2)
<b>Supplementary nutrition</b>	55 (98.2)
<b>Immunization services</b>	55 (98.2)
<b>Health check up</b>	42 (75)
<b>Non-formal Preschool education</b>	32 (57.1)
<b>Referral services</b>	27 (48.2)
<b>Health &amp; nutrition education</b>	55 (98.2)

\*Table contains multiple response.

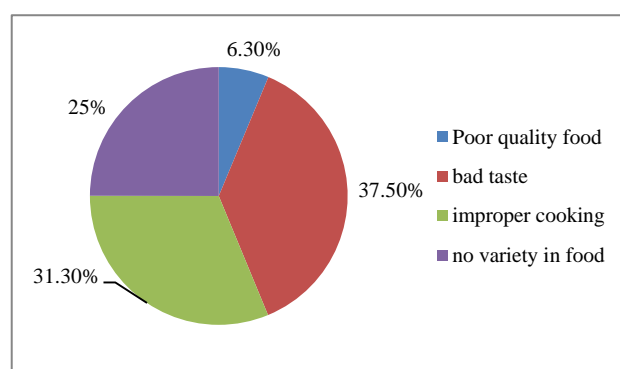
Around 82.2% mothers opined that AWCs were opened regularly. Overall 98.2% mothers were aware about Immunization services, Supplementary nutrition (SNP) and Health & nutrition education services of AWCs. Almost 75% mothers were aware about health check up services of AWCs. Provision of non-formal Preschool

education at AWCs was known to 57.1% of mothers (Table 2).

**Table 3: Opinion of mothers of the child beneficiaries regarding services of ICDS.\***

Services	No. of mother received services (%)
<b>Growth chart discussed</b>	30 (53.6)
<b>Benefitted from preschool education</b>	32 (57.1)
<b>Received advice regarding child feeding</b>	31 (55.4)
<b>Friendly behavior of AWWs</b>	44 (78.6)
<b>Adequate amount of food in supplementary nutrition</b>	44 (78.6)
<b>Acceptable quality food in supplementary nutrition</b>	40 (71.4)
<b>Preference of cooked food over Raw food</b>	41 (73.3%)

\*Table contains multiple response.



**Figure 1: Reason for dissatisfaction of mothers of beneficiaries regarding the quality of food (n=16).**

Behaviour of AWWs was friendly and amount of food in SNP were adequate according to 78.6% mothers. Quality of food was acceptable according to 71.4% mothers and 73.3% mothers preferred cooked food over raw food. Bad taste (37.5%), improper cooking (31.3%), no variety in food (25%) and poor quality of food (6.3%) were the reason for dissatisfaction of mothers (Figure 1). Only 55.4% mothers received advice regarding child feeding and 57.1% mothers opined that non-formal preschool education service was beneficial to their children. Only 53.6% mothers opined that AWWs discussed growth chart of their children with them (Table 3).

Regarding infrastructure only 33.3% AWC had facility of sanitary toilet and cross ventilation, 66.67% AWCs had pucca building and only 33.3% AWCs were situated in government buildings. All the AWCs had electricity; timed tap water supply, smoke nuisance and no AWCs were equipped with fan, piped water supply and separate space for cooking (Table 4).

**Table 4: Availability of infrastructures at AWCs of Alamganj (n=3).**

Type of facility	No AWCs with available facility (%)
Fan	0 (0)
Electricity	3 (100)
Timed tap water	3 (100)
Piped water	0 (0)
Sanitary toilet	1 (33.33)
Smoke nuisance	3 (100)
Separate space for cooking	0 (0)
Cross ventilation	1 (33.33)
Pucca building	2 (66.67)
Government building	1 (33.33)

**Table 5: Availability of logistics at AWCs of Alamganj (n=3).**

Type of logistics	No AWCs with available facility (%)
Register for record	3 (100)
Weighing scale adult	3 (100)
Salter weighing scale	0 (0)
Infantometer	3 (100)
Height measuring scale	3 (100)
Growth chart	2 (66.67)
Pre-school education material	3 (100)
Iron and folic acid tablet	3 (100)
Vitamin A syrup	1 (33.33)

Register for record, adult weighing scale, infantometer, height measuring scale, non-formal pre-school education material and Iron and folic acid tablet were available in all AWCs. Growth chart was present in 66.67% AWCs and vitamin A oil was available in 33.33% AWCs. Salter weighing scale was not available in any AWC (Table 5).

## DISCUSSION

The study revealed that most of the mothers (98.2%) were aware about immunisation services, supplementary nutrition and health and nutrition education services of AWCs, 75% mothers were aware about health check-up services, 57.1% about non formal preschool education and only 48.2% mothers were aware about referral services. A study by Biswas et al revealed that 78.3% mothers were aware about supplementary nutrition and only 21.7% and 31.1% mothers knew about preschool education and growth monitoring respectively.<sup>5</sup>

According to 78.6% mothers amount of food in SNP were adequate and 71.4% mothers were satisfied with the quality of food and almost 73.3% mothers preferred cooked food over raw food. Similar result was found in a study by Biswas et al which revealed 88% mothers opined that quantity of SNP were adequate and 72.7%

mothers opined that the quality was acceptable, almost 60% mothers preferred cooked food over raw food and ready to eat food.<sup>5</sup> Child feeding advice was given to 55.4% mothers and 53.6% mothers opined that AWWs discussed growth chart of their children with them. These proportions were higher compared to the study, done by Biswas et al in September 2007, which revealed that 20.8% mothers were given child feeding advice and growth chart was discussed with only 12.5% of the mothers.<sup>5</sup> This may be because of improved training and sensitisation of the AWWs over time.

A study done by The National Council of Applied Economic Research (NCAER 2009) revealed that only 69% AWCs had drinking water supply and 69% of the sampled AWCs had baby weighing scales, whereas the present study revealed that all the AWCs had electricity, timed tap water supply. Register for record, adult weighing scale, infantometer, height measuring scale, non-formal pre-school education material and Iron and folic acid tablet were available in all AWCs. But Salter weighing scale was not available in any AWC. A study by Madhavi et al in 2009 revealed that 80% AWCs were without electricity.<sup>2,6</sup>

## CONCLUSION

The study findings revealed that awareness and satisfaction of mothers and some services provided by the AWWs improved compared to earlier studies but still there were much scope for improvement.

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