



PERCEIVED QUALITY OF CARE AND BENEFICIARY CHARACTERISTICS IN ANGANWADI CENTERS IN A BOROUGH OF KOLKATA

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ABSTRACT **BACKGROUND** – ICDS programme, the largest of its kind in the world, has been rendering services to the children, mothers and adolescents since 1975. But still there remains a long way to go to achieve its intended objectives. Quality of care has been an issue worth pondering since the inception of the programme which has been compounded upon by the poor monitoring and lackluster performance of the programme.

OBJECTIVES - To find out the socio-demographic and economic conditions of mothers of children from 6 months to 6 years of age visiting the ICDS centers and to assess the quality of care as perceived by the mothers of clients and to determine its covariates.

METHODOLOGY – The study was conducted in all the 51 ICDS centers in Borough no.-14 of Kolkata Municipal Corporation. From each center 5 beneficiaries were chosen randomly seeing the previous year monthly attendance and 255 mothers of beneficiaries were interviewed during their exit by a structured schedule about their sociodemographic conditions and their perceived quality of care from the ICDS centers.

RESULTS - The mean satisfaction score attained was 19.55 ± 2.838. 64.3% of the beneficiaries were satisfied with the quality of care. Quality of care among mothers of clients was unsatisfactory in mothers of higher age and satisfactory in mothers having higher per-capita income with significant odds after adjustment.

CONCLUSION - Kolkata being an urban agglomeration pushes the awareness levels to prodigious heights and thus the quality of care becomes enhanced comparably to other places in West Bengal.

KEYWORDS : Anganwadi, ICDS centers, borough, quality of care, beneficiaries.

INTRODUCTION:--

ICDS is a unique early childhood development programme aimed at addressing health, nutrition and the development needs of young children, pregnant and nursing mothers holistically since 1975. The programme is specifically designed to reach disadvantaged and low income groups, for effective disparity reduction.¹

Through the years, ICDS has expanded remarkably and today it covers around 7.6 million expectant and nursing mothers and over 36 million children less than six years of age² through 13.40 lakh operational AWCs nationwide.¹ ICDS services include immunization, health check-up and referral, child growth monitoring, nutrition and health education for women, supplementary feeding for children and pregnant and lactating mothers, pre-school education for children aged 3-6 years and adolescent girls' nutrition, health, awareness, and skill development.² ICDS has the potential not only to improve the nutrition status of children and women, but also to break the lifecycle of malnutrition by improving health and nutrition of pregnant women and adolescent girls.²

So even after hastily launching the programme³, the performance—barring a few states — has been more lacklustre than indicative of a serious effort to eradicate the evils that are severely detrimental to the development of the Indian children.⁴ However, strong public resentment combined with judicial following up has made some major advancements in making the national and state governments to take immediate measures to streamline the delivery of this centrally important programme.⁵

In West Bengal there has been very little discussion concerning the status of children under six and the ICDS programme⁶. Given the demographic composition of West Bengal in general (where the majority come from underdog background) and the partial extent of the ICDS programme the voices capable of influencing the delivery system never considered this to pay any attention, let alone hollering around the issue.⁷

Even after having such an evolved system of governance in Kolkata, there is a lack of monitoring of the ICDS programme in an KMC area where it ought to be all the more. In such an existing scenario, doubts

also spawn regarding the quality of care provided by the Anganwadi centers that has an influence on the characteristics of people it caters to. Thus with this insatiable desire, the current study was undertaken to find out the socio-demographic and economic conditions of mothers of children from 6 months to 6 years of age visiting the ICDS centers and to assess the quality of care as perceived by the mothers of clients and to determine its covariates.

MATERIALS AND METHODS:--

This was an institution-based, cross-sectional study. The study was conducted in all the 51 ICDS centers in Borough 14 (Behala West) of Kolkata Municipal Corporation which come under the Behala ICDS Project. The Kolkata Municipal Corporation, or KMC, has 15 boroughs, which together encompass 141 wards. The Borough is an administrative division and each borough has a committee of councillors, each of whom is elected to represent a ward.

The data was collected for one year from 255 mothers of beneficiary children from 6 months - 6 years of age catered to by the Anganwadi centers. Only those mothers were included who were willing to participate in the study and those who gave consent. Considering the last year monthly attendance of 52 in each center, 10% of the beneficiaries were decided to be interviewed from each center. So a total of 255 beneficiaries were interviewed.

Visit to the center for collection of information was done. The purpose of the study was explained to mothers and written informed consent was sought from the subjects included in the study. Every beneficiary was given a number as per his/her sitting arrangement. Then using random number table method, 5 numbers were selected randomly and mothers of only those clients were interviewed during exit from the center. A pre-designed and pre-tested, structured schedule for interviewing mothers was used which gathered information on socio-economic and demographic background and their satisfaction level for the services received. The schedule used for the study was constructed keeping in mind the environment of the ICDS centers; and the intellectual capacity of the mothers of the clients. Validity and semantic equivalence were taken care of while preparing the schedule. Pretesting of schedule was done in 4 ICDS centers around Urban Health Center, Chetla and on 5 beneficiaries from each center similar

to study population.

To assess the performance in a more compact way, a numerical score based assessment was planned and responses were assigned a suitable score as per researcher's choice and checked and corroborated by three experts. Maximum and minimum scores of satisfaction were calculated and classified into three satisfaction levels.

Statistical analysis - The data were analyzed using SPSS (statistical package for social sciences) software version 20 to obtain the results. Descriptive statistics were used for the basic frequencies. Bivariate analysis was performed to ascertain the relationship of dependent variable with other independent variables. All the variables that were found to be significant in bivariate analysis and had a chance of biological plausibility were entered into a multivariable logistic model by enter method.

RESULTS:--

Most of the mothers (43.53%) were in the age group of 24-29 years. The mean age of the mothers was 25.21 4.2 years. 82.4% were Hindus, 66.7% were of General caste, 29.4% had education upto primary level, 89% were housewives and the mean PCI was Rs. 1302.74 110.26. (table 1)

All the mothers said that the Anganwadi workers weighed their children and the nutritional status of their children was at least once discussed with them. 49% of the mothers said that the quality of food provided was good. 98% of the mothers were satisfied with their behavior. 74.5% of the mothers were satisfied with the timings of the Anganwadi centers and 86.3% of the mothers were satisfied with the working of the Anganwadi centers. (table 2).

The mean satisfaction score attained was 19.55 2.838. 64.3% of the beneficiaries were satisfied with the quality of care and 5.9% of the beneficiaries were not satisfied with the quality of care (table 3).

Logistic regression analyses showed that quality of care among mothers of clients was unsatisfactory in those mothers of higher age and satisfactory in those mothers having higher per-capita income with significant odds. Multivariate analysis confirmed the same relationship after adjustment with other variables. (table 4).

DISCUSSION:--

The present study was done for a period of 1 year among the Anganwadi centers in Borough number 14 of KMC in which all the 51 ICDS centers of this Borough were studied by census method.

The findings substantiated with a number of studies⁸⁻¹⁵ with regards to age distribution, religion, occupation, literacy and socio-economic status. Since this study was conducted in an urban area so teenage mothers were rare, which was quite different from the studies conducted in rural settings. This also shows that even after 67 years of independence, female education in India is not up to the mark with sizeable number of illiterates. Most of the mothers belonged to lower-socioeconomic strata showing that still the services of ICDS are availed by the poor.

The findings on mother's response of weighing their children were more or less supported by two studies^{11,14}. But in a study¹³, a much lower percentage was observed. In the present study weighing of children fell under a regular function of Anganwadi worker so they performed it well. Half of the mothers perceived the quality and quantity of food to be average that had coherence with some studies^{11, 14, 16,17}. This was probably because the mothers here were relatively aware and so they could properly evaluate the quality of the food items. Most of the studies in which the quality was high were conducted in rural settings so it is quite possible that the mothers were satisfied with even an average quality of food materials and so they reported the quality as good. About half of the mothers said that Anganwadi workers visited their house for advice, majority said that the advice given to them on nutrition and feeding was useful and most of them said that the advice on common health issues to them were useful that was supported by two studies^{13,18} and contradicted by two^{11,19}.

The findings on satisfaction level were supported by some studies^{12,16,18-21} and were dissimilar to some other studies^{11,22,23}. The satisfaction was not too high as there were many mothers who were aware of the quality so they were not so satisfied. Whereas on the other hand there were mothers who were ignorant and were content with whatever they

received from the centers so they rated the services as good. Also there was a dread among the mothers about the workers becoming mindful of the responses given which might have been a reason for their positive response.

The quality of care among mothers of clients was satisfactory in those mothers of lower age and having higher per-capita income contrary to a study²⁴. This may be because mothers of lower age were ill-informed and less knowledgeable about the services and so were content with whatever they received. Also mothers having higher PCI were less oblivious about the services thus replied affirmative with whatsoever asked.

This study had certain limitations. This study was conducted in an urban setting limiting its projection. A longitudinal study could have elicited more elaborately whether the services could have had any impact on the society to which it caters to. The associations analyzed could not be considered as causal associations due to the cross-sectional nature. Exit interview of the beneficiaries may have been misleading in a few aspects as due to anxiousness, diffidence, peer influence, fear of the circumstances and apprehension of any harmful consequences following their statements which go against the likings of the AWWs. This might have led to deletion, suppression or even distortion of facts expressed by the beneficiaries during their interview by the researcher. Analysis with a control/comparison group like those living in non-ICDS areas or non-beneficiaries living in ICDS would have given much better picture of the performance of the Anganwadi centers.

Nevertheless this study provided a useful insight into the quality of care as perceived by the mothers who are the prime judgment makers and who decide the success or failure of the services. Kolkata area has been untouched previously by studies on this arena so this may be considered a novel approach to the same. Also a sizeable number has been covered which may add up to the validity of the study. Thus, ICDS Scheme in Kolkata presented an exemplary picture of the services and the beneficiaries seemed content with the services provided in the centers. Kolkata being an urban agglomeration pushes the awareness levels to prodigious heights which force the Anganwadi workers to perform better in spite of their not up to mark training and knowledge. Thus the quality of care becomes enhanced. This study may help in waking up the concerned authorities to cogitate about the cause of our mothers and ameliorate the suffering of its denizens especially of the mother and the child, thus turning it into an advanced, healthy and a productive nation.

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CONFLICTS OF INTEREST:-- none

CONTRIBUTION OF AUTHORS:-- SM conceptualized the study and its methodology, prepared the questionnaire and the protocol, got clearance from the IEC, got permission from the CDPO, did the data collection, entered the data, performed the analysis, prepared the manuscript. AD helped in preparation of the questionnaire and protocol, in analysis and did the proof correction of the manuscript.

Table 1 – Distribution of the mothers of clients according to their socio-demographic characteristics (n=255)

VARIABLES	FREQUENCY	PERCENTAGE
AGE GROUPS		
18-23 years	95	37.3
24-29 years	111	43.5
30-35 years	49	19.2
RELIGION		
Hindu	210	82.3
Muslim	44	17.3
Christian	1	0.4
CASTE		
SC	29	11.3
ST	3	1.2
OBC	53	20.8
General	170	66.7
EDUCATION		
Illiterate	27	10.6
Just literate	10	3.9
Primary school	75	29.4
Middle school	69	27.1

Secondary	40	15.7
Higher-secondary	21	8.2
Diploma	3	1.2
Graduate	8	3.1
Post-graduate and above	2	0.8
OCCUPATION		
Housewife	227	89
Skilled labour	7	2.7
Unskilled labour	9	3.5
Office staff	1	0.4
Professional	3	1.2
Semi-professional	1	0.4
Self-employed	4	1.6
Cultivator	2	0.8
Farmer	1	0.4
PER-CAPITA INCOME		
<773	16	6.3
773-1546	137	53.7
1547-2577	74	29
2578-5155	26	10.2
>5156	2	0.8

Table 2 – Distribution of client's mothers according to their response/perception regarding the quality of care provided (n=255)

VARIABLES	RESPONSES	FREQUENCY N (%)
Weighing of child and its frequency	<once a month	35 (13.7)
	≥once a month	220 (86.3)
	Does not weigh	0 (0)
Discussion of nutritional status of child	Yes	255 (100)
	No	0 (0)
Quality of food	Bad	11 (4.3)
	Acceptable	119 (46.7)
	Good	125 (49)
Quantity of food	Inadequate	0 (0)
	Just Adequate	80 (31.4)
	Adequate	175 (68.6)
House visit ever done	Yes	135 (52.9)
	No	120 (47.1)
The information on nutrition and feeding	Useful	205 (80.4)
	Not useful	50 (19.6)
The information on common health issues of child	Useful	170 (66.7)
	Not useful	85 (33.3)
Attitude of AWW towards children	Harsh	0 (0)
	Indifferent	30 (11.8)
	Kind	225 (88.2)
Opening of AWC in your location	Regularly	250 (98)
	Irregularly	5 (2)
Presence of AWW in the center	Always	250 (98)
	Sometimes	5 (2)
	Never	0 (0)
Frequency of non-formal pre-school education	Regularly	210 (82.4)
	Irregularly	40 (15.7)
	Not at all	5 (2)
Frequency of mother's day meeting	Monthly or more	150 (58.8)
	Infrequently	75 (29.4)
	Not held	30 (11.8)
Information given on mother's day meeting	Useful	216 (84.7)
	Not useful	39 (15.3)
Satisfaction with behavior of AWW	Satisfied	250 (98)
	Not satisfied	5 (2)
Satisfaction with timing of AWC	Satisfied	190 (74.5)
	Not satisfied	65 (25.5)
Satisfaction with working of AWC	Satisfied	220 (86.3)
	Not satisfied	35 (13.7)

Table 3 – Distribution of mothers of clients according to the quality of care scores (n=255)

CATEGORIES	SCORE (OUT OF 23)	FREQUENCY	PERCENTAGE
Poor quality	10-14	15	5.9
Average quality	15-19	76	29.8
Good quality	20-23	164	64.3

Table 4 – Univariable and multivariable logistic regression of quality of care with the socio-demographic profile of the mothers of clients (n=255)

VARIABLES	QUALITY OF CARE SCORE N (%)		TOTAL N (%)	OR (95% CI)	AOR (95% CI)
	Unsatisfactory (<21)	Satisfactory (≥21)			
Age (in years)					
≤ median (25)	77 (49.4)	79 (50.6)	156 (61.2)	1	1
>median (25)	62 (62.6)	37 (37.4)	99 (38.8)	0.58(0.35-0.97)*	0.57(0.34-0.97)*
Religion					
Muslim	28 (62.2)	17 (37.8)	45 (17.6)	1	1
Hindu	111 (52.9)	99 (47.1)	210 (82.4)	1.47(0.76-2.84)	1.41(0.72-2.78)
Education					
Illiterate	12 (44.4)	15 (55.6)	27 (10.6)	1	1
Literate	127 (55.7)	101 (44.3)	228 (89.4)	0.64(0.29-1.42)	0.54(0.24-1.25)
Occupation					
Unemployed	125 (55.1)	102 (44.9)	227 (89)	1	1
Employed	14 (50)	14 (50)	28 (11)	1.23(0.56-2.69)	1.32(0.58-2.99)
PCI (in Rs./month)					
≤median (1333)	81 (60.4)	53 (39.6)	134 (52.5)	1	1
>median (1333)	58 (47.9)	63 (52.1)	121 (47.5)	1.66(1.01-2.73)*	1.68(1.01-2.80)*

*significant at p<0.05.

REFERENCES:--

1. ICDS Mission – the broad framework for implementation, Ministry of Women and Child Development, Government of India, Dec. 3, 2013.
2. Evaluation Report on Integrated Child Development Services, PEO Report no.218, Vol.1, Programme Evaluation Organization, Planning Commission, Government of India, New Delhi, March 2011.
3. Regional Consultation on the Status of the Young Child, Centre for Women's Development Studies, FORCES, Ranchi, Jharkhand, March 12-13, 2008.
4. Citizens' Initiative for the Rights of Children Under Six, Focus On Children Under Six (FOCUS) Report, New Delhi, 2006.
5. Public interest litigation (PIL) on right to food (Peoples' Union of Civil Liberties vs. the Union of India and Others, Civil Writ Petition 196 of 2001), Supreme Court, 2001.
6. Sen A., Introduction to the Pratichi Education Report I, TLM Books, New Delhi, 2002.
7. Kumar R., Sen S., The ICDS Programme in West Bengal: Scopes and Challenges, a Report. Pratichi (India) Trust, 2006.
8. Sobha I., Welfare services for women and children, Dept. of Women's Studies, Sri Padmavati Mahila Viswa Vidyalayam, Tirupati, p 212, 2003.
9. Performance appraisal of ICDS and non-ICDS districts: in the states of Maharashtra and Madhya Pradesh: a final report, Midstream Marketing and Research Pvt. Ltd. (MMR), New Delhi, 2005.
10. Presentation of Nutrition survey: endline survey of World Bank assisted ICDS-II projects in Chhattisgarh, Indian Institute of Development Management, Bhopal, p 40, 2003.
11. Ram Prabhakar V. et al, A cross-sectional study on client satisfaction of Anganwadi centres ICDS scheme in a slum of Kolkata, Natl. J Community Med, 5(1), p 88-92, 2014.
12. Nagaraja G.M. et al, Irregularity in Availing Anganwadi Services by Children of Kolar District, Karnataka State, International Journal of Humanities and Social Science Invention, Volume 3 Issue 2, p 48-51, Feb. 2014.
13. Evaluation Report on ICDS, Jammu & Kashmir, Programme Evaluation Organisation, Planning Commission, Government of India, Feb. 2009.
14. Evaluation study of ICDS programme in Meghalaya, Martin Luther Christian University, Shillong, Meghalaya, 2012.
15. Bhasin S.K. et al, Long term nutritional effects of ICDS, Indian Journal of Pediatrics, 68(3), 211-16, 2001.
16. Bharti S. et al, Evaluation of nutrition services provided to pre-schoolers at Anganwadi centers (urban slums of Jammu city), Deptt. of Home Science, Jammu Univ., p 3, 2003.
17. Dash N.C. et al, Impact assessment/ evaluation of ICDS programme in the state of Orissa. Center for Rural Development, Bhubaneswar, 2006.
18. Banerjee S., A Study on community participation in ICDS at North Calcutta, Vidyasagar School of Social Work, Kolkata, p 72, 1999.
19. Tripathy K.M., Barriers in accessing child development programme in Daringbadi block, Center for Children Studies, KIIT school of Rural Management & UNICEF, Bhubaneswar, July 2011.
20. Madhavi H. et al, A study of utilization of ICDS scheme and beneficiary satisfaction in rural area of Gulbarga district, Pravara Med Rev, 3(3), 2011.
21. A final project report on evaluation of ICDS SNP service provided to beneficiaries at Anganwadi centers, Rakhi, Management trainee ICDS, BIT Ranchi.
22. Barman N.R., Functioning of Anganwadi centers under ICDS scheme: an evaluative study, Faculty of Home Science, Dept. of Child Development and Family Relations, Assam Agricultural Univ., Jorhat, Assam, p 87, 2001.
23. Vinnarasan A., A Study on factors influencing non enrollment of children in the ICDS Anganwadi centers at Chennai Corporation, Dept. of Social Work, Loyola College, p 170, 2007.
24. Prasannakumari B. et al, Factors affecting the knowledge, attitude and adoption of improved practices in health and nutrition of ICDS beneficiaries, College of Home Science, Kerala Agricultural Univ., Thiruvananthapuram, p 8, 2006.