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Sociodemographic Profile Of The Children (3-6 Years) Enrolled In The Anganwadi Centres Under The Registered Areas

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Abstract

Children are the backbone of a country and so their health should be of prime concern.As per the Census of India (2011),children constitute 29.5 % of India's population, in which 9.7 % are below the age of 5 years.Their protection is the greatest investment for the country's economic and political stability. As the future of this country lies on this growing generation, they should be healthy enough to make use of the full potential of their productive age.

This study was conducted(cross sectional) at the Anganwadi centres under registered areas of the Department of Community Medicine, Jawaharlal Nehru Medical College Aligarh Muslim University, Aligarh. The study was conducted from July, 2017 to June 2018. All children of age 3-6 years registered at the Anganwadi centres of field practice area.

Inclusion Criteria: Child of 3 years to 6years (36 months to 71 months) of age and Child whose caregiver gave consent for the study.

Exclusion Criteria: Child not registered at Anganwadi centre,Non-cooperative caregivers,Caregiver and child not present in three visit periods. Ethical clearance was obtained from Institutional Ethics Committee, JNMC, AMU, Aligarh.Informed verbal consent was taken from caregiver before interview.

The age wise distribution of the study population came out to be almost equal with 48-59 months (34%), 60-71 months (34%) followed by age group 36-47 months (32%).Mothers of 46.5% anganwadi children were illiterate and 53.5% were literate. Majority (91.3%) of the mothers of the children were homemaker. Around half (50.0%) of the children belonged to households of Class IV socioeconomic class followed by Class V (27.3%) and Class III (13.4%).Education of women, who are the primary caregivers of children, should be improved. Mothers should be counselled regarding exclusive breast feeding and proper complementary feeding which contribute to thenutritional and developmental status of children,

Keywords: anganwadi centres,illiteracy,socio economic status,children,environmental conditions

Introduction

Children are the backbone of a country and so their health should be of prime concern**(1)**.As per the Census of India (2011),children constitute 29.5 % of India's population, in which 9.7 % are below the age of 5 years.Their protection is the greatest investment for the country's economic and political stability **(2)**. As the future of this country lies on this growing generation, they should be healthy enough to make use of the full potential of their productive age**. (3).**The first six years of a child's life are the most crucial as the foundations for cognitive, social,

emotional, physical, motor and psychological development are laid down at this stage **.**Nutrition plays a key role in physical, mental and emotional development of children and much emphasis has been given to provide good nutrition to growing populations especially in the formative years of life **(4).**These growing children require constant supplementation of calories, proteins and micronutrients to keep pace with the increasing demands of the body**(3)**. Since childhood is the most vulnerable phase in the life of a human being, nutritional inadequacies will result in the hampering of the development of the body **(3)**. If this nutritional inadequacy is continued for a long period of time it results in the growth faltering manifested in the form of low weight, small height, low IQ.To tackle the problem of malnutrition and provide integrated health services, the Government of India launched the Integrated Child Development Services (ICDS) in 1975**(4)**. ICDS has expanded over the years and is now one of the world's largest and unique outreach programmes to meet the holistic needs of a child**(5)**.Over the years the programme has undergone transformations in terms of scope, content and implementation, but the primary goal of breaking the inter-generational cycle of malnutrition, reducing morbidity and mortality caused by nutritional deficiencies, reaching out to children, pregnant women, lactating mothers and adolescent girls has remains unaltered**(5).**One of the major objectives of the scheme is to improve the nutritional and health status of children in the age group of 0-6 years **(6)**. This objective is sought to be achieved through a network of "Anganwadi Centres" (AWCs) literally'courtyard play centre' **(7)**, by providing a package of six services comprising of supplementary nutrition, early childhood education (pre-school education), nutrition and health education, immunization, health check-up, and referral services to the children below six years**.** Globally, indicators of child well-being are used to know the developmental status of different countries**(19).** Age, gender, family structure, number of children etc. are the socio demographic features that can likely determine disease related factors at the early stages of the life cycle**(20).** Results of a study **(21)** demonstrated that, lower socio economic status is one of the independent risk factor for respiratory diseases in children. A cross sectional study **(22),** found that children living in joint families are more prone to the risk of malnutrition, and also children whose mothers education are less than or equal to 6th standard and those of working mothers. Mishra **(23)** found that, social and educational status of mother, availability of food and safe water accessibility are significant as determinants that cause malnutrition among children directly or indirectly. Socio economic status of a person is important in his productive accomplishments**(24).**

The aim of this study was to find the socio demographic profile of the children(3-6 years) enrolled in the anganwaadi centres under the registered areas of the department.

Material And Methods

This study was conducted(cross sectional) at the Anganwadi centres under registered areas of the Department of Community Medicine, Jawaharlal Nehru Medical College Aligarh Muslim University, Aligarh. The study was conducted from July, 2017 to June 2018. All children of age 3-6 years registered at the Anganwadi centres of field practice area.

Inclusion Criteria: Child of 3 years to 6years (36 months to 71 months) of age and Child whose caregiver gave consent for the study.

Exclusion Criteria: Child not registered at Anganwadi centre,Non-cooperative caregivers,Caregiver and child not present in three visit periods.

Sample Size Determination

Sample size was calculated the following formula

$$n = z^2 \frac{p \times (1-p)}{d^2} \quad \textbf{[8]}$$

where, n = sample size

P = prevalence of underweight in Uttar Pradesh **[NFHS-3]** taken as **42.4%**. d = allowable absolute error **(5%)** z = value of the standard normal variable at 0.05 level of significance **(1.96)**

$$n=(1.96)^2 \frac{424 \times (1-0.424)}{(0.05)^2}$$

Total sample size **(n)** was **375**.

Taking non response rate of 5% of the sample size, n=375 + 18 = 393

Sampling Design: Simple random sampling.

Information was collected from the guardian of the child beneficiary of the Anganwadi Centres with a pre-tested and pre-structured questionnaire.

Ethical clearance was obtained from Institutional Ethics Committee, JNMC, AMU, Aligarh.Informed verbal consent was taken from caregiver before interview. The nature and purpose of the survey were explained to them. Confidentiality was assured.Interviews were conducted in a non-hostile and non-judgmental manner.Local cultural values and ideas were respected.

Results

Table 1: Distribution of the children on the basis of their Age and Gender (N=400)

Characteristics	Frequency (N = 400)	Percentage (%)
Age Group (in months)		
36 -47	128	32.0
48-59	136	34.0
60-71	136	34.0
Total	**400**	**100.0**
Gender		
Male	216	54.0
Female	184	46.0
Total	**400**	**100.0**

Table 2: Distribution of the children on the basis of their Parent's Education (N=400)

Characteristics	Frequency (N = 400)	Percentage (%)
Mother's Education		
Illiterate	186	46.5
Upto Primary level	67	16.7
Upto Middle school	56	14.0
Upto High school	44	11.0
Upto Intermediate	31	7.8
Graduate and above	16	4.0
Total	**400**	**100**
Father's education		

Illiterate	93	23.3
Upto Primary level	62	15.4
Upto Middle school	89	22.3
Upto High school	72	18.0
Upto Intermediate	38	9.5
Graduate and above	46	11.5
Total	**400**	**100**

Table 3: Distribution of the children on the basis of their Parent's Occupation (N=400)

Characteristics	Frequency (N = 400)	Percentage (%)
Mother's Occupation		
Homemaker	365	91.3
Working	35	8.7
Total	**400**	**100**
Father's Occupation		
Unemployed	4	1.0
Unskilled worker	134	33.5
Partially skilled worker	91	22.8
Skilled worker	106	26.5
Clerical / Shop owner / Farmer	44	11.0
Professional	21	5.2
Total	**400**	**100**

Table 4: Distribution of the study population on the basis of Socioeconomic Status (N=400)

Characteristics	Frequency (N = 400)	Percentage (%)
Socioeconomic Class		
I	13	3.3
II	24	6.0

III	54	13.4
IV	200	50.0
V	109	27.3
Total	**400**	**100**

Table 5: Distribution of the study population on the basis of Type of Family, locality of the house, type of the house, lighting, ventilation and overcrowding (N=400)

Characteristics	Frequency (N = 400)	Percentage (%)
Type of Family		
Nuclear	227	56.8
Joint	173	43.2
Total	**400**	**100**
Type of Locality of the House		
Congested	270	67.4
Semi Congested	99	24.8
Open	31	7.8
Total	**400**	**100**
Type of House		
Kutcha House	38	9.5
Mix House	175	43.7
Pucca House	187	46.8
Total	**400**	**100**
Lighting		
Adequate	49	12.2
Inadequate	351	87.8
Total	**400**	**100**
Ventilation		
Adequate	59	14.8
Inadequate	341	85.2
Total	**400**	**100**

Contd…

Overcrowding		
Yes	321	80.2
No	79	19.8
Total	**400**	**100**

Table 6: Distribution of the study population on the basis of Environment condition

Characteristics	**Frequency (N = 400)**	**Percentage (%)**
Main source of drinking water		
Hand pump (India Mark-II)	257	64.3
Piped water into residence	110	27.4
Public tap	33	8.3
Total	**400**	**100**
Type of toilet facility in the house		
Own flush toilet	255	63.7
Own pit latrine	73	18.3
Public toilet	4	1.0
Open defecation	68	17.0
Total	**400**	**100.0**
Presence of domestic animal in the house		
Yes	147	36.8
No	253	63.2
Total	**400**	**100.0**

Discussion

As shown **in table 1**, the age wise distribution of the study population came out to be almost equal with 48-59 months (34**%**), 60-71 months (34**%**) followed by age group 36-47 months (32**%**).

These findings were similar to a study **(9)** among 3 to 5 years in which it was found that majority of the children (40%) were of 4 years of age.Another study**(10)** also reported that majority of children were of age between 4-5 years (47.5%) and 11.7% were found to be of age 6 years while another **study (11),** reported that 33% were 3-4 years old, 28% were 4-5, and 10% were 5-6 years old.The table also depicts that more than half (54**%**) of the study subjects were male and 45% were females. Another study **(12)** found 110 are males and 90 are females. A study **(13)** in Aligarh, Uttar Pradesh found that 51.4% male and 48.6% female in their study among 1-5 years anganwadi children.Another study **(14)** in Lucknow had 50.2% male in their study of 1-5 years children. In contrast to our study, another study**(10)** reported

that 50.8% were female and 49.2% male in their study among 2-6 years children and one study **(15)** reported 51.7% female and 48.3% male among 2-6 years of children.

As shown **in table 2**, it was observed that, mothers of 46.5% anganwadi children were illiterate and 53.5% were literate. Of the literate, about 41.7% of the mothers had an educational level upto high school whereas only 11.8% of mother had education above high school. The observed female illiteracy (46.5%) is very similar to the findings of Deuri et al **(16)** study in which high illiteracy was observed among 52% mothers. Another study **(17,14)** were observed a high illiteracy as 50% and 43.5% in mothers respectively.

This study shows that the majority of the father had education upto high school (55.7%) and only 21% were educated above high school while 23.3% father were illiterate. In this study, the father's literacy rate (76.7%) was found to be very good as compared to literacy rate for male in Utter Pradesh (79.2%) and in India (82.1%) **(Census, 2011)**.In a study **(27),**it was reported that more than half (58.9%) of the mothers of the children were graduate and a large percent of mothers were not working. Only 13.3% of mothers were working women. In another study, **(25)** it was reported that educational qualification of mother is important in the nutritional status of child. The chance to have under nourished children is less for a more educated mother than the other.It was reported in a study that **(26)** there is decline in the cases of stunting by mother's education in many developing countries.

As shown **in table 3**,majority (91.3%) of the mothers of the children were homemaker while only 8.7% mother were working by occupation. It was found in another study **(18),** similar findings in a study in Patiala, Punjab that only 8.1% mothers were engaged in some kind of employment. A study by Deuri et al **(16)** in Dibrugarh, Assam also found that majority of the mother were non-working (79%) while only 21% mother were engaged in some kind of work.Above table also depicts that majority (33.5%) of the children's father were unskilled worker followed by skilled worker (26.5%) and partially skilled worker (22.8%) while only 11.0% and 5.2% were Clerical / Shop owner / Farmer and professional respectively. About 4% father of children were found as unemployed.

Table 4 reported that (according to modified B.G. Prasad classification-2018) around half (50.0%) of the children belonged to households of Class IV socioeconomic class followed by Class V (27.3%) and Class III (13.4%) socioeconomic class while only 6% and 3.3% were belonged to households of Class II and Class I respectively. This shows that it's the poorer section of the society which is enrolled in ICDS.It was found in a study **(27)** that majority of children (48.88%) were from the families having a monthly income of less than or equal to 20,000. A study **(28)** indicated that lower educational status of parents and lower family income affects food intake of children. Intake of fruits, cooked vegetables, milk etc. were diminished. Even though with an increase in the income the overall outcomes of children were also improving. Women's employment status increases the family income, and study **(29)** suggested that job of mother and child nutritional status are positively related.

Table 5 shows that in this study more than half (56.8%) children belong to nuclear families while children belong to joint families were found to be 43.2%.In present study 67.4% children were living in congested locality, followed by 24.8% living in semi congested and 7.8% in open type of locality.Majority of the children in the present study were living in pucca houses (46.8%), followed by those living in mixed houses (43.7%) and kutcha houses (9.5%).Lighting was found to be adequate in houses of only 12.2% children while it was found to be inadequate in 87.8% of houses children enrolled in the study.Houses of 85.2% children had inadequate ventilation while adequate ventilation was observed only in 14.8 percent.80.2% of the children enrolled in the study found to live in overcrowded households while on only 19.8% were found to be living with adequate space around.

Table 6 shows the associated environmental conditions and it was observed that for source of water supply, 64.3% children had access to hand pump, 27.4% to piped water, and only 8.3% using public tap as source of water.63.7% of the study children were found to be using flush type of latrine, 18.3% using pit latrine, 1% using public toilet while 17% of the study subjects were going to open fields for defecation.Domestic animals were present in the house of 36.8% children but not there in 63.2% households.

Conclusion

There should be intensification of ICDS(**30)** with multi sectorial strengthing, that can be achieved by help of ASHA, AWW, ANM and local village self help groups.Improvement of socio economic status through poverty alleviation programs.A study **(31)** commented that the reason for under nutrition being more prevalent among lower socioeconomic groups may be due to their lower purchasable capacity for food and unavailability of hygienic and healthy living environment among them. Education of women, who are the primary caregivers of children, should be improved. Mothers should be counselled regarding exclusive breast feeding and proper complementary feeding which contribute to thenutritional and developmental status of children.

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