



A Cross - Sectional Study on Infant and Young Child Feeding Practices Among Children Aged Between 6 to 23 Months Attending the Immunization Clinic in A Tertiary Care Hospital, Hyderabad

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Abstract

Introduction

Optimal infant and young child feeding practices are necessary to improve the child survival rates. Appropriate positive attitude of the parents towards child feeding is an important component.

Objective

To assess the core Infant and Young child feeding indicators among the study population

Material & Methods

A Hospital based cross sectional study was conducted in a tertiary care hospital with a total of 200 mothers attending the clinic during the study period using semi structured questionnaire including IYCF core indicators by WHO and UNICEF.

Results

Among the 200 children, 57.5% were females and 42.5% were males. Early initiation of breast feeding was found in 43.5% of infants and the history of

pre lacteal feeds was among 30.5%. Adequacy of Minimal Meal Frequency (MMF), Minimal Dietary Diversity (MDD) and Minimal Acceptable Diet (MAD) was found among 71%,33% and 24% respectively. Early initiation of breast feeding, exclusive breast feeding for first 6 months of life, MDD and MAD were statistically significant with the mother's education.

Conclusion

Overall compliance to IYCF practices was good among the study population. Factors like maternal education, misconceptions and occupational status affect the feeding practices of the child.

Key words

Infant and Young Child Feeding practices, Breast feeding, Infant and Young Child Feeding IYCF) core Indicators.

Introduction

Nearly half of the deaths among the under 5 children are attributed to under nutrition in India. About 35.8% of the under 5 children were under weight(weight for age) according to NFHS-4.¹Poor nutrition in the first 1000 days of life can lead to stunted growth which is irreversible and also impairs cognitive ability. It also leads to increased risk of frequency and severity of infections with delayed recovery.²One of the main reasons for malnutrition setting in early life is faulty and sub optimal infant and young child feeding practices.

An early preventive action is needed to reduce malnutrition related deaths. Promotion of optimal Infant and young child feeding practices is recognized as an important intervention to preserve nutritional status of the children and their survival. The World Health Organization recommends optimal practices of nutrition like early initiation of breastfeeding, exclusive breast feeding for first 6 months and continuation of breast

feeding for 2 years or more, age appropriate and safe complementary feeding practices.³

This study was conducted to assess the infant and young child feeding practices among the children aged 6 to 23 months attending the immunization clinic and to provide health education to the caretakers of the children.

Objective

To assess the core Infant and Young child feeding indicators among the study population

Material and Methods

A hospital based cross-sectional study was conducted for 3 months (August – October 2017) at the immunization clinic in Paediatric OPD of Gandhi Hospital, Hyderabad, Telangana among the caregivers of the children aged between 6-23 months by administering the questionnaire in the local language. A total of 200 mothers attending the clinic during the study period were enquired after taking informed consent. The questionnaire is pre designed and semi structured including IYCF core indicators by WHO and UNICEF.⁴As per WHO recommendations, information was collected about the child's diet in the previous 24 hours, which included the type of food items and the number of times they had consumed. Ethical clearance was obtained from the institutional ethical committee. Data was entered in Microsoft excel and analysed using open epi and SPSS version 20.

Results

Sociodemographic Characteristics

Out of the total 200 children included in the study, 115 (57.5%) were females and 85 (42.5%) were males. (Fig.1)

Figure1: Gender distribution of the study population

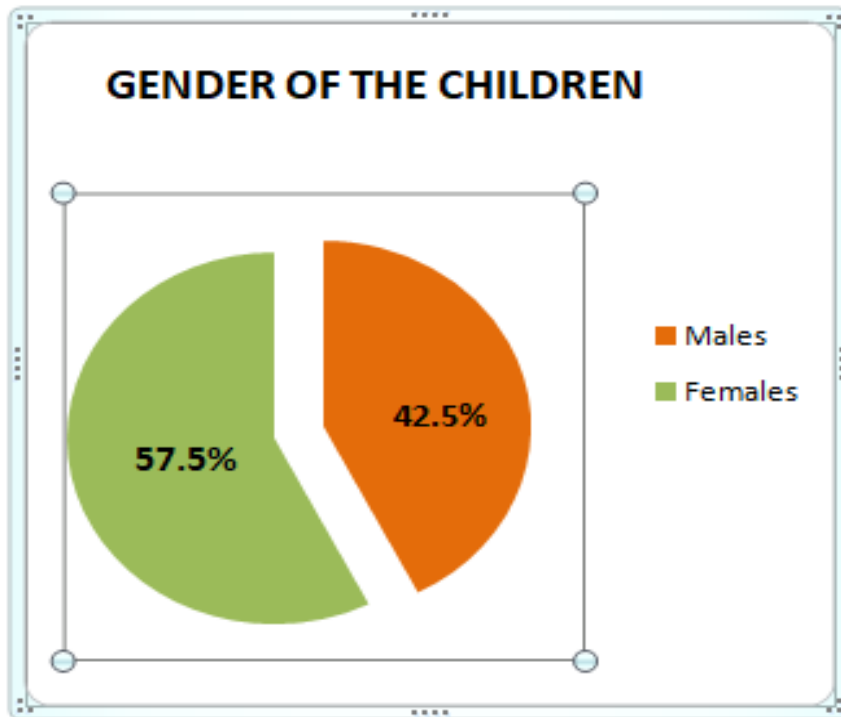


Table 1: Sociodemographic characteristics of the study population:

CHARACTERISTIC	No.	%
Religion		
Hindu	91	45.5
Muslim	102	51
Christian	3	1.5
Education		
Illiterate	14	7
Literate	186	93
Mother's occupation		
Not working	127	63.5
Working	73	36.5
Socio- economic status (according to modified Kuppaswamy classification)		
I	1	0.5
II	11	5.5
III	99	49.5
IV	89	44.5
V	0	0

The mean age of the mothers was found to be 25.5 ± 3.10 years. Among the respondents, higher proportions (53.5%) were living in urban slums followed by 46.5% from urban area and none from rural

area. Majority (93%) of the women was literate and among them 26.5% completed high school. More than one third of the women (36.5%) were working mothers and 49.5% belonged to lower middle class according to

and 49.5% belonged to lower middle class according to modified Kuppuswamy classification.(Table 1)

Out of the total studied children, 43.5% were breastfed within 1 hour of birth. The pre lacteal feeds like sugar water, honey were given among 30.5% children.

Minimal meal frequency (MMF) is the proportion of breastfed and non-breastfed children aged 6–23 months who receive solid, semi-solid, or soft foods. For breastfed children the minimum number of times varies with age (two times if 6–8 months and three times if 9–23 months). For non-breastfed children, the minimum number of times does not vary by age (four times for all children aged 6–23 months). MMF was found to be 71%.

Minimum dietary diversity (MDD) indicator is the proportion of children 6–23 months of age who receive foods from 4 or more food groups from a total of 7 food groups, namely, dairy products,

legumes and nuts, flesh foods, eggs, vitamin A rich fruits and vegetables, cereals and tubers, and other fruits and vegetables. This indicator reveals whether the child is receiving a complete and balanced diet or not. This indicator was found to be 33%.

Minimum acceptable diet (MAD) indicator is the proportion of children aged 6–23 months who receive at least the MDD as well as at least the MMF according to the definitions mentioned above. This was found to be adequate in only 24% of the children. The continuation of breastfeeding among 12-23 months children was 38%. There was no statistical difference ($p>0.05$) between any IYCF indicators and gender (Table.2)

Table 2: Distribution of the study population according to IYCF core indicators

IYCF INDICATOR (n= 200)	STATUS	Male No. (%)	Female No. (%)	Total No. (%)
Early initiation of breast feeding (within 1 hour of birth) (n=200)	Yes	40 (47)	47 (41)	87 (43.5)
	No	45 (53)	68 (59)	113 (56.5)
Pre lacteal feeds given (n=200)	Given	20 (23.5)	41 (35.6)	61 (30.5)
	Not given	65 (76.5)	74(64.4)	139(69.5)
Exclusive Breast Feeding in first 6 months of life	Yes	64(46%)	75(54%)	139(69.5)
	No	17(27.8%)	44(72.2%)	61(30.5)
Minimal meal frequency among children aged 6 to 23 months (n=200)	Adequate	62(73)	80(69.5)	142(71)
	Inadequate	23(27)	35(30.5)	58(29)
Minimal dietary diversity among children aged 6 to 23 months(n=200)	Adequate	30(35.3)	36(31.3)	66 (33)
	Inadequate	55(64.7)	79(68.7)	134 (67)
Minimum acceptable diet among children aged 6 to 23 months (n=200)	Adequate	22 (25.8)	26 (22.6)	48 (24)
	Inadequate	63 (74.2)	89 (77.4)	152(76)
Continued breast feeding among children 12 -23 months (n=118; males -40, females - 78)	Yes	16 (40)	29 (37)	45 (38)
	No	24 (60)	49(63)	73(62)

Education and IYCF indicators:

Among the IYCF indicators, early initiation of breast feeding, exclusive breast feeding for first 6 months of life, minimum dietary diversity and minimum acceptable diet were found to be statistically significant with mother’s education. (Table.3)

Table 3: Relationship between IYCF indicators and education of the mothers

IYCF INDICATOR	STATUS	≥ 10 th class(n=106) No. (%)	<10 th class(n=94) No. (%)	TOTAL	Chisquare, p value
Early initiation of breast feeding (within 1 hr of birth) n=200	Yes	54 (62%)	33(38%)	87	p<0.05
	No	52 (46%)	61(54%)	113	χ ² =5.08
Pre lacteal feeds given (n=200)	Given	34 (56.7%)	27(43.3%)	61	p>0.05
	Not given	72 (51.4%)	67 (48.6%)	139	χ ² =0.26
Exclusive Breast Feeding in first 6 months of life	Yes	99(71.2%)	40(28.8%)	139	p<0.01
	No	28(46%)	33(54%)	61	χ ² =11.73
Minimal meal frequency among children aged 6 to 23 months (n=200)	Adequate	76(53.5%)	66(46.5%)	142	p>0.05
	Inadequate	30(51.7%)	28(48.3%)	58	χ ² =0.05
Minimal dietary diversity among children aged 6 to 23 months (n=200)	Adequate	46 (69.7%)	20(30.3%)	66	p<0.01
	Inadequate	60(44.8%)	74 (55.2%)	134	χ ² =11.02
Minimum acceptable diet among children aged 6 to 23 months (n=200)	Adequate	35 (73%)	13(27%)	48	p<0.01
	Inadequate	71 (46.7%)	81(43.3%)	152	χ ² =10.06
Continued breast feeding among children 12 -23 months (n=118) {Yes=45,No-73}	Yes	27(60%)	18(40%)	45	p>0.05
	No	45(61.6%)	28(38.4%)	73	χ ² =0.07

P<0.05 –Significant; p<0.01-Highly significant

Occupation and IYCF indicators

Also when working and non-working mother were compared for IYCF indicators, exclusive breast feeding and continued breast feeding among 12 – 23 months children [working – 18.9%; non-working – 53%] has shown significant difference with a p value < 0.01 . (Table 3)

Table 3: Relationship between IYCF indicators and working status of the mothers

IYCF INDICATOR (n= 200)	STATUS	Working (n=73) No. (%)	Not working (n=127) No. (%)	TOTAL	Chisquare, p value
Early initiation of breast feeding (within 1 hr of birth)	Yes	28(32%)	59(68%)	87	p>0.05
	No	45(39.8%)	68(60.2%)	113	χ ² =1.2
Pre lacteal feeds given (n=200)	Given	18(29.5%)	43(70.5%)	61	p>0.05
	Not given	56(40.2%)	83(59.8%)	139	χ ² =2.1
Exclusive Breast Feeding in first 6 months of life	Yes	64(46%)	75(54%)	139	P<0.05
	No	38(62.3%)	23(37.7%)	61	χ ² =4.48
Minimal meal frequency among children aged 6 to 23 months (n=200)	Adequate	54(38%)	88(62%)	142	p>0.05
	Inadequate	19(32.7%)	39(67.3%)	58	χ ² =0.49
Minimal dietary diversity among children aged 6 to 23 months (n=200)	Adequate	28(42.4%)	38(57.6%)	66	p>0.05
	Inadequate	45(33.6%)	89 (66.4%)	134	χ ² =1.49
Minimum acceptable diet among children aged 6 to 23 months (n=200)	Adequate	20(41.7%)	28(58.3%)	48	p>0.05
	Inadequate	53(34.8%)	99(65.2%)	152	χ ² =0.7
Continued breast feeding among children 12 -23 months (n=118) {Working mothers -37 Not working mothers-81}	Yes	7(14%)	43(86%)	50	P<0.01
	No	30 (44%)	38 (56%)	68	χ ² =12.14

Discussion

In the present study, initiation of breast feeding within first 1 hour after birth was found to be 43.5%. This finding is similar to NFHS-4 where it was 41.6%¹ but deferred from a study conducted by Padmanabhan PS et al in Salem, Tamil Nadu where 68.9% mothers had initiated breastfeeding within an hour of the child's birth.⁵

The pre lacteal feed were given among 30.5% in contrast to a study conducted in East Delhi where it is 38%.⁶ In another study in Karnataka, history of giving pre lacteal feeds was only 9%.⁷ This could be due to misconceptions prevailing regionally.

Exclusive breast feeding in the present study was found to be 69.5% in contrast to a study conducted in north India where it was 47.9% among urban mothers.⁸

The adequate Minimal meal frequency, MDD are 71% and 33% in the present study which was similar to a study by Anupam Parashar et al, with 77.8% and 29%.⁸ In another study done in Odisha, MMF and MMD were adequate among 52.03% and 66.97% respectively⁹ Minimum acceptable diet adequacy among children aged 6-23 months was 24% which is very much less compared to a study conducted in Guntur, AP where it was found to be 70%.¹⁰

Conclusions & Recommendations

Maternal education, misconceptions of pre-lacteal feeds, working status of the mothers affect the child feeding practices. There is a need to address false beliefs and myths associated with child feeding practices by raising awareness in the community by the health care workers. The caretakers of the children should be counselled regarding appropriate feeding

practices using the opportunity of immunization visits also.

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