

To Study Association of Sociodemographic Factors with Awareness and Practices Pertaining to Complementary Feeding in Six Months to Two Years old Child Attending Immunization Clinic in a Tertiary Care Hospital of a Medical College in Urban Area.

Sabreen B¹, Bhupinder Kaur Anand², Sunil Agarwal³, Rajesh Vaidya⁴, MPS Marwaha⁵, Rajat Kumar Garg⁶

¹Community Medicine SPL, SMC HQ WAC (U).

²Professor, Department Of Community Medicine, Sgt Medical College, Gurugram.

³Director Medical Services (Health) & Senior Adviser Community Medicine, Delhi.

⁴HOD & Professor Department of Community Medicine, Army Medical College, Delhi.

⁵Classified Specialist Aviation Medicine, Air Force Centre Medical Establishment, New Delhi.

⁶Graded Specialist Psychiatry, Air Force Centre Medical Establishment, New Delhi.

Received: March 2019

Accepted: March 2019

Copyright: © the author(s), publisher. Annals of International Medical and Dental Research (AIMDR) is an Official Publication of "Society for Health Care & Research Development". It is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: National Guidelines on Infant and Young Child Feeding should become an integral part of nation-wide Integrated child development Services (ICDS) and the Reproductive and Child Health (RCH) Programme. These need to be effectively operationalized through the programme managers and field functionaries of these on-going programmes. This can happen only when they are practically oriented to the correct norms of IYCF. **Methods:** A cross sectional study of complementary feeding practices amongst mothers of children aged six months to two years in an urban setting. The place of study is an immunization clinic in a tertiary care hospital of a medical college located in urban area. Study population comprised of mothers of children aged six months to two years attending an immunization clinic. Study was approved by college Institutional Ethics Committee. Mothers who met the inclusion criteria, attending the immunization clinic, from the selected tertiary care hospital of a medical college were selected by systematic random sampling and interviewed. Data analysis done with the using Microsoft excel. **Results:** Out of 154 mothers, 51.3% of the mothers were in the age group of 25-34 years followed by 47.4% of the mothers in the age group less than 25 years and only 1.3 % of the mothers were more than 35 years of age. Mean age \pm SD of the mothers was 25.26 ± 3.73 with the youngest and the oldest mother being 19 and 39 years old respectively. Among the respondents by religion, majority (80.5%) were Hindus followed by 15.6 % Muslims and only 3.9% were Christians. **Conclusion:** Time of complementary feeding initiation varied according child's gender, predominant caregiver of the child, mother's parity and socio economic status of the family, which were found to be statistically significant.

Keywords: Complementary feeding, Nutrition interventions, IYCF.

INTRODUCTION

Infant mortality rate in India is 47 per thousand live births.^[1] Nutrition interventions are among the most effective preventive actions for reducing mortality among children under the age of five years. Of these actions, the most important is exclusive breastfeeding and complementary feeding which ranks first; being estimated as having the potential to prevent 13% of all

deaths in this age group while hygiene and sanitation would reduce 3% and 6% respectively.^[2] Improving infant and young child feeding (IYCF) practices, by nutritional counseling in children, is critical in improving nutrition, health and development. Appropriate complementary feeding depends on accurate information and skilled support from the family, community and healthcare system. Inadequate knowledge about appropriate food and feeding practices is often a greater determinant of malnutrition. Knowledge of mothers about these factors will be of help in planning interventions to improve feeding practices.^[3] Reducing childhood malnutrition mandates a multi-sectorial approach that includes a variety of

Name & Address of Corresponding Author

Dr. Sunil Agarwal,
Director Medical Services
(Health) & Senior Adviser
Community Medicine,
Delhi.

interventions to tackle its major causes. There is increasing evidence for the positive impact of feeding counseling on energy and nutrient intakes and growth in children less than two years of age.^[4] To bring changes in individual behaviour, supplemental interventions will be needed in many settings to ensure the availability and utilization of adequate micronutrient-rich complementary foods. Since there is a close link between maternal health and child health outcomes, in particular the contribution of low birth weight to childhood malnutrition, interventions should also address the health and nutrition of mothers.

National Guidelines on Infant and Young Child Feeding should become an integral part of nationwide Integrated child development Services (ICDS) and the Reproductive and Child Health (RCH) Programme. These need to be effectively operationalized through the programme managers and field functionaries of these on-going programmes. This can happen only when they are practically oriented to the correct norms of IYCF. The medical and para-medical personnel of the Departments of Paediatrics, Obstetrics and Gynecology and Preventive and Social Medicine should actively participate in educating and motivating the mothers and other relatives for adoption of appropriate IYCF practices. In addition, involvement of formal and non-formal education, the media and voluntary organisations can be utilised for effective implementation of these guidelines.

MATERIALS AND METHODS

Study design

A cross sectional study of complementary feeding practices amongst mothers of children aged six months to two years in an urban setting.

Study setting

The place of study is an immunization clinic in a tertiary care hospital of a medical college located in urban area.

Reference population includes all the mothers of children aged six months to two years.

Study population comprised of mothers of children aged six months to two years attending an immunization clinic.

Target Population

Comprised of mothers of children aged six months to two years attending an immunization clinic from a selected tertiary care hospital of a medical college.

Period of study

The study was conducted from Jan 2014 – Sep 2015. Pilot study was carried out from Jan 2014 – March 2014. Data collection was carried out from March 2014 – August 2014. Data analysis was done from Sep 2014 - Jan 2015 Final report writing was done from March 2015- August 2015.

Methodology

Study was approved by college Institutional Ethics Committee. Mothers who met the inclusion criteria, attending the immunization clinic, from the selected tertiary care hospital of a medical college were selected by systematic random sampling and interviewed.

Inclusion criteria

Mothers of children aged six months to two years, attending immunization clinic during the study period and mothers who were willing to participate in the study.

Exclusion criteria

Mothers of all children aged six months to two years who have had illness for which they consulted a health staff in last three weeks.

Data Analysis

Data analysis done with the using Microsoft excel.

RESULTS

Out of 154 mothers, 51.3% of the mothers were in the age group of 25-34 years followed by 47.4% of the mothers in the age group less than 25 years and only 1.3 % of the mothers were more than 35 years of age. Mean age \pm SD of the mothers was 25.26 ± 3.73 with the youngest and the oldest mother being 19 and 39 years old respectively. Among the respondents by religion, majority (80.5%) were Hindus followed by 15.6 % Muslims and only 3.9% were Christians. Among the respondents, 44.2% of the mothers were educated up to 12thClass while 30.5% were educated up to primary level. Only 1.3% of the mothers were illiterate. There was no one in the study group with post graduate and professional qualification. Almost more than three forth of the mothers (81.8%) were not employed against 8.2% of the mothers who were employed. Majority of the families among the study population had less than 5 members in the family (69.5%) followed by 26 % of the families had 6-10 members and only 4.5% of the families were large families consisting of more than 11 members. Kuppuswamy's Scale based on education, occupation and income of the head of the family, was used to classify the study participants into various socio economic classes. Maximum participants were found to be from class IV (44.1%), followed by class III (34.5%). Only 4 participants belonged to class I (1.8%). Almost more than half of the children were in the age groups of more than 9 months and only 18.2% were in the age group 6 – 8 months. Mean and standard deviation of age among the children was found to be 12.25 ± 4.52 months with minimum and maximum age of 7 months and 23 months respectively. Among the studied children, 59.7% were males and 40.3% were females. In this study population, majority of the mothers (86.4%) were predominant caregivers of the children followed by only 13.6 % of caregivers were grandmothers of the children (Figure 9). Most of the

mothers (62.3%) were primi and 37.7% of them were multipara having more than one child. Almost 100% of the respondents in the study group had delivered in hospital.

Table 1: Age wise Distribution of mothers among study population (n=154)

Mother's age (years)	Frequency	Percentage (%)
Less than 25	73	47.4
25-34	79	51.3
More than 35	2	1.3
Mean Age \pm SD	25.26 \pm 3.73	
Minimum age	19 years	
Maximum Age	39 years	

Table 2: Distribution of study subjects as per religion (n=154)

Religion	Frequency	Percentage (%)
Hindu	124	80.5
Islam	24	15.6
Christian	6	3.9
Total	154	100

Table 3: Distribution of study subjects as per education level (n=154)

Education level	Frequency	Percentage (%)
Illiterate	2	1.3
Primary	47	30.5
Secondary	68	44.2
Tertiary	37	24
Total	154	100

Table 4: Distribution as per mother's employment status (n=154)

Employment status	Frequency	Percentage (%)
Yes	28	8.2
No	126	81.8
Total	154	100

Table 5: Distribution as per total number of members in the family (n=154)

Number of Family members	Frequency	Percentage (%)
<5	107	69.5
6-10	40	26
>11	7	4.5
Mean number of family members \pm SD (per household)	5.4 \pm 2.75	
Minimum number of family members (per household)	3	
Maximum number of family members (per household)	15	

Table 6: Distribution of study subjects according to Socio Economic Status (n=154)

Socio economic status: class	Frequency	Percentage (%)
Class I (Upper)	4	1.8
Class II (Upper middle)	25	11.4
Class III (Lower middle)	76	34.5
Class IV (Upper lower)	97	44.1
Class V (lower)	18	8.2
Total	154	100

Table 7: Age wise distribution of children (n=154)

Age group (months)	Frequency	Percentage (%)
6-8	28	18.2
9-11	60	39
12-23	66	40.9
Mean Age \pm SD	12.25 \pm 4.52	

Minimum age	7 months
Maximum Age	23 months

Table 8: Distribution of children by gender

Gender of the child	Frequency	Percentage (%)
Male	92	59.7
Female	62	40.3
Total	154	100

Table 9: Distribution of Predominant Caregiver of the child, Parity, Place of delivery (n=154)

Characteristics	Frequency	Percentage (%)
Predominant caregiver of the child		
Mother	133	86.4
Grandparents	21	13.6
Parity		
Primi	96	62.3
Multipara	58	37.7
Place of delivery		
Home	Nil	-
Hospital	154	100

Table 10: Mother's Knowledge related to breastfeeding practice (n=154)

Parameters	Frequency	Percentage (%)
Initiation of breastfeeding after birth		
Within one hour	117	76
One hour -1 day	22	14.3
Don't Know	15	9.7
Duration of exclusive breast feeding		
<6 months	14	9.1
6 months	131	85.1
>=7 months	7	4.5
Don't Know	2	1.3
Continuation of breast feeding		
Up to 1 year	28	8.2
Up to 1.5 years	37	24
Up to 2 years	81	52.6
Don't Know	8	5.2

Table 11: Mother's Knowledge related to Complementary feeding practice (n=154)

Parameters	Frequency	Percentage (%)
Heard about complementary feeding		
Yes	152	98.7
No	2	1.3
Complementary feeding is essential		
Yes	150	97.4
No	4	2.6
Initiation of complementary feeding		
<4 months	2	1.3
4-5 months	15	9.7
6-7 months	128	83.1
8-9 months	7	4.5
10-12 months	2	1.3
Best method to give complementary feeds		
Katori & spoon	150	97.4
Bottle	4	2.6

DISCUSSION

Most of the participants in this study were of age group of 25 to 34 years (51.3%). The distribution in the current study is related to the fact that married couples take few years to take the decision for bearing child after starting marital life. Another explanation could be due that this age group is the most common reproductive age group in our

country. Most of the participants of this study were Hindus followed by Muslims and Christian (80.5%, 15.6% and 3.9% respectively). This reflects the religion system in our country where Hindu are a big majority followed by Muslims and others. People living in India are influenced with different cultures and religions. There is a difference in rates of exclusive breastfeeding according to religion. As importance of breastfeeding and its duration is being mentioned in the Holy Quran, Muslims respondents have more knowledge on breastfeeding than others.^[5] Religion of the mother also influences the tradition of giving pre lacteal feeds. In a study, it was found that 40.7% of Muslim mothers had given pre- lacteal feed to their babies when compared 33.1% of Hindu mothers.^[6] However, in our study religion did not show any statistical significant association with any of the complementary feeding practices.

Most of the participants in our study had some forms of education with majority of them (44.2%) having education of secondary level. This may be due to the fact that educated mothers seek medical help more often than the uneducated mothers. The location of the hospital might also have played role for such participations. The general socio-economic status of the study subjects living in the study area ranges from lower to upper middle as per Kuppuswamy's Scale of socio economic classification. In our study, maximum participants belonged to upper lower class (IV) (44.1%), while 34.5% belong to the lower middle class(III). The upper two classes (I&II) accounted for 13.2 % and the lower class(V) accounted for 8.2% of the total study population.

Almost more than half of the children were in the age groups of more than 9 months and only 18.2% were in the age group 6 – 8 months. The age distribution seemed satisfactory as all age groups were included in the study.

It was observed that male children(59.7%) outnumbered the female children (40.3%) in our study. It may be due to our cultural influence as more emphasis is being given to male children and family members seek medical care earlier for male than female children.

Majority of the mothers (97.4%) of mothers consider katori (cup) and spoon to be the best method to feed complementary-feeds. Previous studies also reported similar findings where majority of the mothers preferred katori and spoon for feeding.^[7-8]

CONCLUSION

Maternal knowledge related to breast feeding and complementary feeding was directly proportional to mother's education status, mother's employment status and socio economic status of the family. These

associations were found to be statistically significant.

Time of complementary feeding initiation varied according child's gender, predominant caregiver of the child, mother's parity and socio economic status of the family, which were found to be statistically significant.

REFERENCES

1. Family welfare statistics in india-2011. [cited Dec 26 2014]. Available from: <http://nrhm-mis.nic.in/UI/FamilyWelfare2011/03%20Section-A/03%20Section%20-%20A.pdf>
2. Indicators For Assessing Infant And Young Child Feeding Practices Conclusions of a consensus meeting held 6-8 November in WHO Washington D.C. USA. [cited 2014 Dec 26]. Available from: <http://www/iycf> indicators for peer review.
3. Rao S, Swathi P, Unnikrishnan B, Hegde A. Study of complementary feeding practices among mothers of children aged six months to two years-A study from coastal south India. *The Australasian medical journal.* 2011;4(5):252.
4. Santos I, Victora CG, Martines J et al. Nutrition counselling increases weight gain among Brazilian children. *Journal of Nutrition.* 2001;131(11):2866–73.
5. Hasnain S, Majrooh MA, Anjum R. Knowledge and practices of mothers for complementary feeding in babies visiting pediatrics outpatient department of jinnah hospital, lahore. *Biomedica.* 2013;29(4).
6. Mamtarani V, Divakar B, Ratan K, Srivastava. Socio-Demographic Features and Breast Feeding Profile of Mothers Attending Teaching Hospital in Gujarat State, India. *Journal of Community Medicine & Health Education.* 2012;2(7).
7. Bavdekar S, Bavdekar M, Kasla R, Raghunandana K, Joshi S, Hathi G. Infant feeding practices in Bombay slums. *Indian Pediatr.* 1994;31(9):1083-7.
8. Piyush K, Aarif SM. Socio-cultural practices in relation to breastfeeding, weaning and child rearing among Indian mothers and assessment of nutritional status of children under five in rural India. *Australasian Medical Journal.* 2010;3(9):618-24.

How to cite this article: Sabreen B, Anand BK, Agarwal S, Vaidya R, Marwaha MPS, Garg RK. To Study Association of Sociodemographic Factors with Awareness and Practices Pertaining to Complementary Feeding in Six Months to Two Years old Child Attending Immunization Clinic in a Tertiary Care Hospital of a Medical College in Urban Area. *Ann. Int. Med. Den. Res.* 2019; 5(3):CM01-CM04.

Source of Support: Nil, **Conflict of Interest:** None declared