

## Original Research Article

### **COMPLEMENTARY FOOD PRACTICES IN RURAL AREA (6 MONTHS TO 1 YEAR)**

#### **ABSTRACT:**

**BACKGROUND** : Diet is defined as nutritionally adequate & appropriate intake of food items that **also** provide the required energy & protein intake by ensuring proper growth and development. Adequate nutrition of the infants & child is essential. To meet one's need, complementary food practices are included **apart from breast milk**. **Balanced diet is defined as nutritionally adequate & appropriate intake of food items that also provide the energy and protein.**

**METHOD** : A cross sectional / observational study is to be conducted by taking approval to meet one's need, complementary food practices are included apart from breast milk, from ethical committee which includes multigravida women as study participants PNC, PEDS ward, AVBRH. The data of sample size is recorded, tabulated analysed.

**RESULT** : As many as 43.33% of mother from the study group has started weaning practices before 6 months of age. Whereas the common complementary feeding practices is Dal pani (66.66%) followed by mashed roti / bread (60%) furthermore Dalia (53.33%). The no of meals per day were 3 meals by 36.66% of participants. The common food being Dal pani, a thin gruel, with most of the participants starting weaning

**CONCLUSION** : Poor complementary feeding practices is observed in rural area. The common food being Dal pani, a thin gruel, with most of the participants starting weaning before 6 months of age.

**KEYWORDS**: Complementary feeding weaning, exclusive breastfeeding, Infants, Neonates.

#### **INTRODUCTION:**

For the full potential of growth and development in children is very essential. Consequently to guarantee the developmental wellbeing and advancement, **sufficient substances** during the earliest stage is fundamental.<sup>(1)</sup>Integral taking care begins, then breastmilk alone at this point is not adequate to meet the extra prerequisite of children and thus different food sources and fluids are required. Selective breastfeeding is upto 6 months of age.<sup>(1)</sup> Adults have little less requirements of nutrients than infants and children for their building growth. The proper amount

**Comment [A1]:** Delete it.

**Comment [A2]:** Please add.. "After the age of 6 months."

**Comment [A3]:** Balanced diet the one that contains all the nutrients in required amount and proper proportions and provide adequate calorie and protein. THIS DEFINITION MAY BE BETTER.

**Comment [A4]:** Please delete this.

of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weight. Weaning that is complementary feeding starts from 6 months to 24 months of age, even though breastfeeding may continue beyond 2 years.<sup>(1)</sup> It should be nutritionally adequate, safe to meet the young child's energy and nutrients. Adults have little less requirements of nutrients than infants and children for their building growth. The proper amount of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weigh the feed should be appropriate. However, there are some problem faced by the mother or family, when the child is on complementary feeding, it is often fraught with problem, with food being too dilute, sometimes not fed enough or in too small quantity.

**Comment [A5]:** Is this practiced in your region? Because in our part it is practiced at the age of 6 months.

**Comment [A6]:** Repeated sentence.

Adults have little less requirements of nutrients than infants and children for their building growth. The proper amount of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weight.<sup>(2)</sup>

**Comment [A7]:** Same sentence is repeated.

The nutritional requirement of different age and sex are formulated depending on anthropometry body composition climate & environment that is termed as recommended dietary allowances. Adults have little less requirements of nutrients than infants and children for their building growth. The proper amount of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weight.<sup>(2)</sup> Weaning feeding stars from 6 months of age. It should be nutritionally adequate and safe ,nutrients need the feed should be appropriate, however there are same problem faced by the mother or family, when the child is on compile feeding it often leads to problem body composition , climate and environment.

**Comment [A8]:** Same sentence is repeated

**Comment [A9]:** Repeated sentence

## **AIM AND OBJECTIVES :**

### **Aim:**

The study aimed to know the various major complementary feeding practices across rural area.

### **Objective:**

- 1) To study the various factors influencing the mother for complementary feeding practices.
- 2) To study the distribution of participants based on number of meals a day.
- 3) To know the distribution of participants who started wearing practices before 6 months of age and after 6 months of age.

## **MATERIALS:**

STUDY DESIGN / TYPE OF STUDY – Cross sectional observational study

SETTING – PNC ward, AVBRH, Sawangi , Wardha

STUDY PERIOD – June 2021 – July 2021

STUDY PARTICIPANTS – Multigravida

SAMPLE SIZE – 20-30

**INCLUSION CRITERIA:**

– Multigravida

**EXCLUSION CRITERIA:**

Primigravida

Denied consent

**METHODOLOGY:**

The study was conducted after taking approval from the ethical committee of DMIMS in PNC ward of AVBRH for one month on mothers who are multigravida.

Sample size of the cross sectional study is 20-30

A pre tested and pre-designed questionnaire is used for collection of data by personal interview conducted after taking approval from the ethical committee of DMIMS in PNC ward of AVBRH for one month on mothers who are multigravida.

Data was collected and after studying, it will be statistical analysed and will be presented in a tabular form.

Furthermore there are factors of mothers which affect the complementary feeding practice which is to be measured.

- 1) Mother's education
- 2) Her socio-economic status
- 3) Locality
- 4) Access to information regarding complementary feeding practices.

**: FLOW CHART:**

Multigravida mothers would be included in the study



Pretested questionnaire will be recorded



Final outcome will be recorded



Would be interpreted and analysed

**Sample Size Calculation:**

20 TO 30

**Statistical Analysis:**

The data collected was recorded in case questionnaire tabulated and statistically analysed to find significance of association of clinical variables with outcome using inferential statistics.

**PRO FORMA OF QUESTIONNAIRE**

**A STUDY ON**

**“COMPLEMENTARY FOOD PRACTICES IN RURAL AREA (6 MONTHS TO 1 YEAR)”**

Name of mother

Maternal age   
Registration OPD no   
Order of pregnancy

Newborn details  
Early preterm   
Late preterm

Feeding History  Breastfeed after  hrs after birth

- Exclusive breastfeeding till
- Complementary feeding started at
- Amount of feed
- Consistency of feed
- Frequently of feeding
- Hygiene

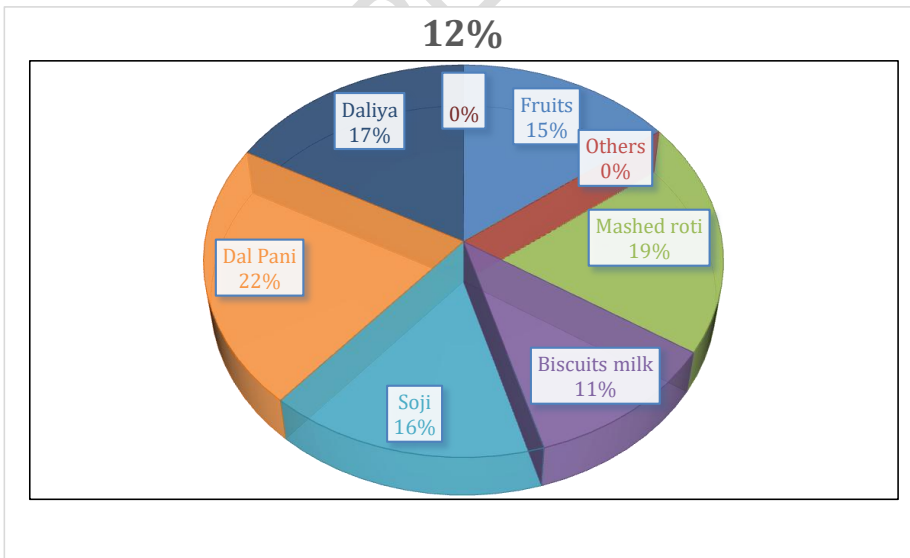
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**What common complementary feeds?**

- Rice and dal (mashed)
- Mashed roti / bread
- Biscuit mixed / in milk
- Soji
- Dal pani
- Dalia
- Kheer
- Fruits



PEER REVIEW

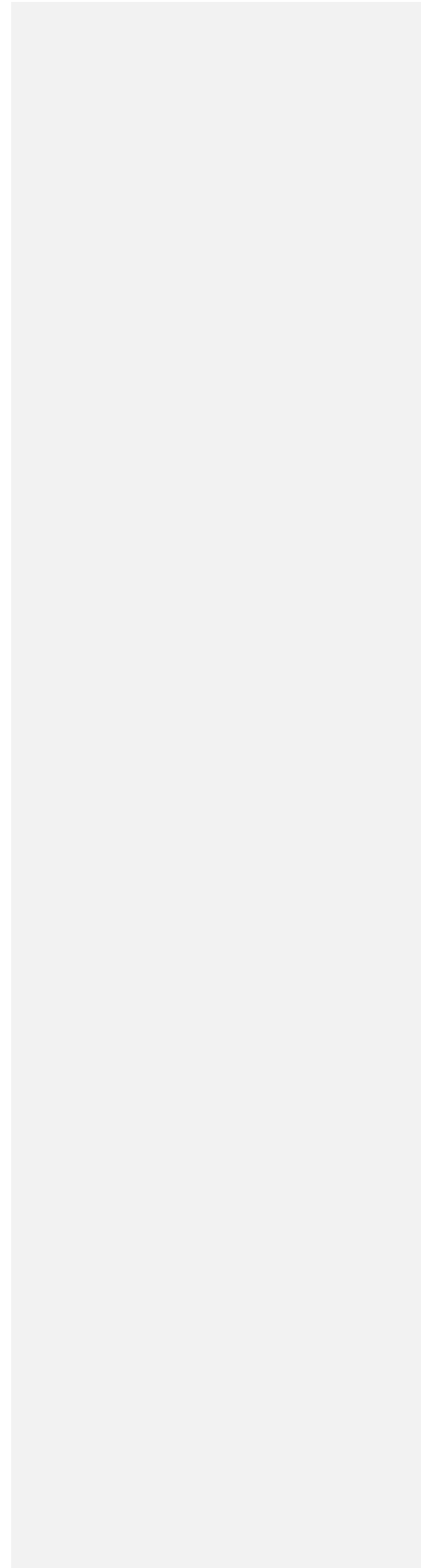


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Comment [A11]: 12% at the top.

**Figure 1. showing various complementary food practices.**

UNDER PEER REVIEW



**DISTRIBUTION OF PARTICIPANTS BASED ON COMMON COMPLEMENTARY FEEDS**

TABLE: 1

Common Complementary feeds	Number (N)	Percentage (%)
Rice and dal (Mashed)	15	50
Mashed roti / bread	18	60
Biscuit mixed in milk	10	33.33
Soji	14	46.66
Dal pani	20	66.66
Dalia	16	53.33
Kheer	12	40
Fruits	14	46.66
Others	2	6.66

**RESULT:** The common complementary feeding practice in rural area in 6 months to 1 year of age: Dal pani (66.66%) followed by mashed roti / bread (60%). Mothers also feed Dalia (53.33%). The study is carried out in 30 participants and percentage is recorded accordingly. Majority of mothers gave combination of more than two.

### **DISTRIBUTION OF PARTICIPANTS BASED ON NUMBER OF MEALS A DAY**

TABLE: 2

No of meals a day	Number (N)	Percentage (%)
2	10	33.33
3	11	36.66
4	9	30

: The study recorded that (36.66%) of participants give 3 meals a day followed by two meals (33.33%) and furthermore 4 meals (30%).

### **DISTRIBUTION OF WEANING PRACTICES BEFORE AND AFTER SIX MONTHS**

TABLE: 3

Weaning practices	Number (N)	Percentage (%)
Before six months	13	43.33
Till six months	9	30
After six months	8	26.66

: The study has noted that around 43.33% of participants started weaning before 6 months of age stating any (30% in the study group has of participants) exclusive breastfeed till 6 months whereas (26.66% started weaning practice after 6 months of age).

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## **DISCUSSION**

In this study the mean age of child being (6 months to 1 year). As many as 30 participants were studied. Out of which 43.33% of participants started weaning before 6 months of age, the reason being that mothers felt breastmilk did not meet the needs of the child. Only 30% exclusively breastfed. Sandhya Javalkar and Aras in a study done in 2018 found that 73% mothers started weaning before 6 months of age. They found out 69.3% mothers in rural areas started complementary feeds at the age of 6 months.<sup>(3)</sup> The most common feeds being combination of rice and dal. This study tells about the most common food being Dal pani (66.66%) which is thin in consistency without ghee. Out of 100% only 46.66% gives fruits. Adults have little less requirements of nutrients than infants and children for their building growth. The proper amount of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weight.<sup>(4)</sup> Weaning starts from 6 months of age. It should be nutritionally adequate and safe, nutrients in the feed should be appropriate, however there are some problems faced by the mother or family, when the child is on complementary feeding it is often due to problems in body composition, climate and environment. Prerna Singhal, Seema Jain, S K Garg, Harivansh Chopra in a study done in 2015 in Bangladesh found that complementary feeding was introduced before 6 months in one third babies and the amount was inadequate in same number of children.<sup>(4)</sup> The no. of meals per day varied from child to child. It is also dependent on the socio-economic status of the family. The study recorded 36.66% participants giving 3 meals a day followed by 33.33% giving 2 meals a day. Only 30% of participants give 4 meals a day. This has been observed that no. of meals were dependent on the affordability and availability.<sup>(4)</sup> The study included participants only from rural area with child's age between (6 months to 1 year). The food measured was not of exact quantity and hence can be subjected to bias. The nutritional requirements of different age and sex are formulated depending on anthropometry, body composition, climate & environment that is termed as recommended dietary allowances.<sup>(4)</sup> Adults have little less requirements of nutrients than infants and children for their building growth. The proper amount of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weight. Weaning feeding starts from 6 months of age. It should be nutritionally adequate and safe, nutrients in the feed should be appropriate, however there are some problems faced by the mother or family, when the child is on complementary feeding it often leads to problems in body composition, climate and environment. recommended dietary allowances. Adults have little less requirements of nutrients than infants and children for their building growth.<sup>(5)</sup> The proper amount of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weight. Weaning feeding starts from 6 months of age. It should be nutritionally adequate and safe, nutrients in the feed should be appropriate, however there are some problems faced by the mother or family, when the child is on complementary feeding, it often leads to problems in body composition, climate and environment.<sup>(6)</sup>

**Comment [A12]:** I think this line is not needed.

**Comment [A13]:** Is it inclusion criteria?

**LIMITATIONS** The study included participants only from rural area with child's age between (6months to 1 year).The food measured was not of exact quantity and-hence can be subjected to bias.<sup>(7)</sup>

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## **CONCLUSION**

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Complementary food practice refers to food that is given along with breastmilk so as to ensure proper nourishment of the child hence the growth and development. It should be a balanced diet including proper proteins, <sup>(7)</sup>energy, nutrients .Many factors like lack of education to the pregnant mother , The proper amount of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weight.<sup>(8)</sup> Weaning feeding starts from 6 months of age. It should be nutritionally adequate and safe, the feed should be appropriate, however there are same problem faced by the mother or family, when the child is on compile feeding it often leads to problem in body composition , climate and environment.<sup>(9)</sup>family member's advice ,socio-economic status ,locality ,cultural beliefs has hampered the correct feeding practices. The study observed poor complementary feeding practice with moderate feeding frequency.<sup>(10)</sup>Education camp should counsel not only the mothers but also other family members and do's and don'ts should be discussed. ASHA, ANM, Health care workers, doctors can also contribute for the same. The nutritional requirement of different age and sex are formulated depending on anthropometry body composition climate & environment that is termed as recommended dietary allowances. Adults have little less requirements of nutrients than infants and children for their building growth.<sup>(10)</sup>The proper amount of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weight. Weaning starts from 6 months of age.<sup>(11)</sup>It should be nutritionally adequate and safe ,nutrients in the feed should be appropriate, however there are same problem faced by the mother or family, when the child is on compile feeding it often leads to problem body composition , climate and environment. Complementary food practice refers to food that is given along with breastmilk so as to ensure proper nourishment of the child hence the growth and development.<sup>(12)</sup>It should be a balanced diet including proper proteins, energy, nutrients .Many factors like lack of education to the pregnant mother , [The proper amount of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weight.<sup>(12)</sup>Weaning feeding stars from 6 months of age.It should be nutritionally adequate and safe ,nutrients need the feed should be appropriate, however there are same problem faced by the mother or family. recommended dietary allowances.<sup>(12)</sup>Adults have little less requirements of nutrients than infants and children for their building growth. The proper amount of nutrients in infants & children promote and support their rapid rate of growth while adults need nutrients to maintain the function and constant body weight.<sup>(13)</sup>Weaning feeding stars from 6 months of age.It

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## **REFERENCES:**

1. Ashwini, S., Katti, S. M., & Mallapur, M. D. (2014). Comparison of complementary feeding practices among urban and rural mothers: A cross-sectional study. *Al Ameen J Med Sci*, 7(4).
2. Garg, M., Hasan, M., & Kapur, D. (2015). *Infant and Young Child Feeding (IYCF) practices in Udupi district karnataka j nutrition Res* (Vol. 3, Issue 1)
3. Gupta, P., Srivastava, V., Kumar, V., Jain, S., Masood, J., Ahmad, N., & Srivastava, J. (2010). Newborn care practices in urban slums of Lucknow city, UP. *Indian Journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine*, 35(1), 82–85.
4. Javalkar, S. R., & Aras, R. Y. (2018). A study on complementary feeding practices among mothers in urban and rural areas. *International Journal of Community Medicine and Public Health*, 5(3), 1162
5. Khan, A. M., Kayina, P., Agrawal, P., Gupta, A., & Kannan, A. T. (2012). A study on infant and young child feeding practices among mothers attending an urban health center in East Delhi. *Indian Journal of Public Health*, 56(4), 301–304.
6. Khanna, A., Kadeangadi, D. M., & Mallapur, M. D. (2014). Infant And Young Child Feeding Practices In Rural Belgaum: A Descriptive Study. *Global J Med Pub Health*, 2(6).
7. Madhu, K., Chowdary, S., & Masthi, R. (2009). Breast feeding practices and newborn care in rural areas: a descriptive cross-sectional study. *Indian Journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine*, 34(3), 243–246.
8. Mondal, T., Sarkar, A., Shivam, S., & Thakur, R. (2014). Assessment of infant and young child feeding practice among tribal women in Bhatar block of Burdwan district in West Bengal, India. *International Journal of Medical Science and Public Health*, 3(3), 324.
9. Parekh, C., Bavdekar, S. B., & Shaharao, V. (2004). Study of infant feeding practices: factors associated with faulty feeding. *Journal of Tropical Pediatrics*, 50(5), 306–308.
10. Paul, V. K. (2013). *Ghai Essential Pediatrics*. CBS Publishers & Distributors.
11. Roy, S., Dasgupta, A., & Pal, B. (2009). Feeding practices of children in an urban slum of kolkata. *Indian Journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine*, 34(4), 362–363.

12. Sujatha, P., & Prasad, K. V. S. (n.d.). Knowledge of infant feeding practices among mothers delivered in a tertiary care hospital, Kakinada, East Godavari district, Andhra Pradesh, India. *Int J Interdisciplinary Multidiscipl Studies*, 2015(2), 8.
13. Yadav, R. J., & Singh, P. (2004). Knowledge attitude and practices of mothers about breast-feeding in Bihar. *Indian j Comm Med*, 29(3).
14. (N.d.-a). Who. Retrieved October 12, 2021, from <http://www.who>.
15. (N.d.-b). 101.21. Retrieved October 12, 2021, from <http://202.138.101.21/dwcd/index.php?option=com>.
16. Mithra P, Unnikrishnan B, Rekha T, Kumar N, Holla R, Rathi P. Paternal Involvement in and Sociodemographic Correlates of Infant and Young Child Feeding in a District in Coastal South India: A Cross-Sectional Study. *FRONTIERS IN PUBLIC HEALTH*. 2021 Jun 4;9.
17. Kogade, Priti, Abhay Gaidhane, Sonali Choudhari, Mahalaqua Nazli Khatib, Umesh Kawalkar, Shilpa Gaidhane, and Zahiruddin Quazi Syed. "Socio-Cultural Determinants of Infant and Young Child Feeding Practices in Rural India." *MEDICAL SCIENCE* 23, no. 100 (December 2019): 1015–22.
18. Devalla, Aditya Rameshbabu, Hemant Deshpande, Sanjot Ninave, and Rakesh Bhisare. "Assessment of Malnutrition and Enteral Feeding Practices in Critically Ill in Neurosurgery ICU in Rural Teaching Hospital." *JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES-JEMDS* 9, no. 36 (September 7, 2020): 2610–13. <https://doi.org/10.14260/jemds/2020/568>.