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Original Article

Nutrition Section

Correlation of Mother's Knowledge on Child Nutrition, Feeding Practices and Nutritional Status of Children in Karnataka, India: A Cross-sectional Study

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ABSTRACT

Introduction: Malnutrition is a critical health problem in many countries, including India. The main reason for this is incorrect dietary habits that lead to illness and infections in early childhood. Inadequate food intake can hinder the growth and development of children. Childhood malnutrition can impair psychological and intellectual development, which can subsequently result in low school performance and behavioural disturbances. Therefore, child nutrition is of utmost importance. The knowledge and feeding practices of mothers can significantly influence child nutrition. Hence, it is essential to study the knowledge, feeding practices, and nutritional status of children as influenced by their mothers.

Aim: To was to determine the correlation between the knowledge of mothers regarding child nutrition, their feeding practices, and the nutritional status of children.

Materials and Methods: A cross-sectional correlational study was conducted in a 1050-bed multispecialty tertiary care hospital in Mangaluru, Karnataka, India, from December 30, 2021, to August 30, 2022. A total of 150 children under the age of five, visiting the hospital accompanied by their mothers, were selected as study participants using a non probability convenience sampling technique. Data was collected using a demographic proforma, a structured knowledge questionnaire on child nutrition, a structured checklist on feeding practices, and anthropometric measurements of children, which were taken using a digital weighing scale and stadiometer. Descriptive statistics including mean, frequency, percentage, Karl Pearson's correlation coefficient, and World Health Organisation (WHO) Anthro software were used for statistical analysis.

Results: The majority of the study participants, 96 (64%), had average knowledge regarding child nutrition, while all of them had good child feeding practices. Regarding the nutritional status of the children, the majority fell under the normal category based on weight for height (123, 82%), weight for age (118, 78.67%), and height for age (104, 69.33%). The study also revealed a significant correlation between the knowledge of mothers, feeding practices, and nutritional status of children (p-value <0.05).

Conclusion: The study concluded that although majority of the study participants had a normal nutritional status and their mothers had average knowledge, regular awareness programs could be conducted, and the nutritional status of children needs to be regularly monitored.

Keywords: Behavioural disturbance, Health problem, Infection, Malnutrition

INTRODUCTION

It is essential to have good feeding practices of infant and toddler to maintain the health, growth, and development of children [1]. Developing healthy eating habits early in life prevents diet-related diseases later on and in adulthood. The development of food preferences in children is complex. Familial and environmental factors affect food preferences, but they may not always promote a healthy and varied dietary practice. Parents employ a variety of strategies to influence the eating habits of children, some of which may be effective, while others may not be [2].

Malnutrition is a major health issue in developing countries. It can manifest in the form of both overnutrition and undernutrition. Across the world, undernutrition is the most common form of malnutrition, resulting from insufficient food intake and recurrent infections [3]. In India, nearly half of all under-five child mortality is attributed to undernutrition [4]. Malnutrition accounts for 45% of mortality among under-five children globally, as it increases the risk of death by exacerbating the frequency and severity of infections and slowing recovery [5]. According to the Global Nutrition Report 2018, in India, 8.23 million children under the age of five are both stunted and wasted, and 46.6 million children are stunted, accounting for 33% of the world's total [6]. Child malnutrition is a concern in many countries as it is one of the causes of under-five mortality [7-9]. The Fourth National Family Health Survey in 2015-2016 reported that 32.1% of under-five children were underweight, 35.5% were stunted, and 19.3% were wasted, which was lower compared to the survey conducted in 2005-2006 [10]. This indicates that malnutrition is decreasing in under-five children but still persists.

Much research has been conducted in the area of child malnutrition, and guidelines for evidence-based practice. A randomised controlled trial has shown that home-based therapeutic food is more effective in terms of better acceptability, palatability, affordability, increased frequency of feeding, and ease of preparation (p-value <0.05) [10]. On the other hand, a study in India has shown that only 39 (38.8%) of infants were breastfeed within one hour of birth, even after institutional delivery. Exclusive breastfeeding for six months was reported in only 26 (30.6%) infants. The study concluded that Infant and Young Child Feeding practices (IYCF) in India are extremely poor, which may be due to lower literacy rates, lack of IYCF education among mothers, and a lack of counseling and support [11].

A cross-sectional study in Karnataka revealed that 136 (39%) mothers initiated breastfeeding within half an hour of childbirth. A total of 31 (9%) of them reported giving prelactea feeds. Only 91 (26%) of the mothers were found to be providing the WHO recommended minimum adequate diet to their children. The study highlighted the prevalence of inappropriate IYCF practices in the community [12].

Recent research has demonstrated that the period before a child reaches 18 months of age is essential for preventing and treating iron-deficiency anaemia. This suggests that the effects of poor feeding practices during this stage of a child's life may have long-term impacts on their development and health status [13].

It is evident from the above discussion that the burden of malnutrition among children under the age of five is relatively high. Despite various government projects carried out in Karnataka and throughout the country, the prevalence of undernutrition has not reduced significantly. There are many factors that influence the nutritional status of children, such as cooking and child-rearing practices, likes or dislikes of food, beliefs or taboos, and the quality and quantity of the food served [13]. The literature shows that malnutrition still exists as a major health problem in India, with faulty feeding practices being the main cause among children under the age of five [13]. Many research studies have explored mothers' knowledge regarding nutrition and the nutritional status of children. A mother's knowledge of child nutrition is also important for the nutritional status of children. Therefore, the present study was conducted to find the correlation between mothers' knowledge of child nutrition, feeding practices, and the nutritional status of children.

MATERIALS AND METHODS

A cross-sectional correlational study was conducted at a 1050-bed multispecialty tertiary care hospital in Mangaluru, Karnataka, India, from December 30, 2021, to August 30, 2022. Ethical clearance was obtained from Institutional Ethics Committee (IEC), and permission was obtained from the concerned hospital authority (Approval protocol number: YEC2/835). Informed consent was obtained from the study participants.

Inclusion criteria: Under-five children, both males and females, visiting the Outpatient Department (OPD) or admitted to the paediatric ward, along with their mothers, were included in the study.

Exclusion criteria: Critically ill children and mothers who were physically or mentally disturbed were excluded from the study.

Sample size calculation: The sample size was estimated based on the prevalence of mothers' knowledge regarding feeding practices for infants (p=0.25%), considering a significance level of 5% and a study precision of 7% around the specified prevalence [14]. The recommended sample size for the present study was 150.

Data collection: Data were collected using a demographic proforma, a structured knowledge questionnaire on child nutrition, a structured checklist on feeding practices, and anthropometric measurements of children taken using a digital weighing scale and stadiometer. The demographic proforma consisted of eleven items related to demographic data for children and their mothers, including the child's age, gender, birth order, religion, type of family, family income, mother's education, socio-economic condition, and information regarding child nutrition. The structured knowledge questionnaire consisted of 40 questions classified under four domains: a) nutrients and requirements, balanced diet; b) importance of child nutrition; c) nutritional deficiency, malnutrition; and d) factors affecting child nutrition. The questionnaire was validated by subject experts and was found to be reliable (r=0.83). The investigators arbitrarily graded the knowledge as good (27-40), average (14-26), or poor (<14) based on the scores obtained. The structured checklist on feeding practices consisted of 39 statements categorised under five domains: a) breastfeeding; b) weaning; c) hand hygiene/food hygiene; d) follow-up of nutritional status; and e) method of cooking. The checklist was validated by subject experts and was found to be reliable (r=0.99). Practices were arbitrarily graded as good (scores ≥20) or poor (scores <20).

For the anthropometric assessment of children, a calibrated digital weighing scale was used to measure weight, and a stadiometer was used to measure height. The nutritional status of the children was then assessed based on WHO growth standards [15] using WHO Anthro software Version 1.0.4. and described as follows: **Underweight** (weight for age <-2SD, indicating changes in the magnitude of malnutrition over time), **Stunting** (height for age <-2SD, indicating growth retardation), and **Wasting** (weight for height <-2SD, indicating inadequate nutrition).

Study Procedure

Formal permission was obtained from the concerned hospital authority to conduct the study, and informed consent was obtained from the participants. The questionnaire was administered to the participants, and it took approximately 45-50 minutes for them to complete it [Annexure I]. The investigator ensured that the tool was completely filled out by the participants. At the same time, the investigator measured the height and weight of the children and recorded the data. Finally, the investigator thanked the study participants for their participation.

STATISTICAL ANALYSIS

The data were analysed using Statistical Package for the Social Sciences (SPSS) version 23.0. Descriptive statistics of knowledge and practice regarding child nutrition were analysed in terms of frequency and percentage. The nutritional status of the children was analysed using WHO Anthro software. Karl Pearson's correlation coefficient was used to identify correlations between the mother's knowledge on child nutrition, feeding practices, and the nutritional status of the children.

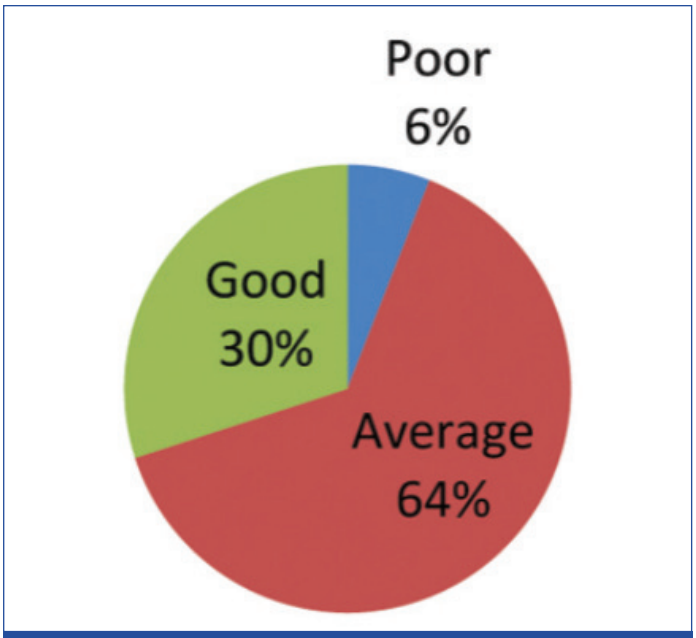
RESULTS

[Table/Fig-1] describes the demographic characteristics of the study participants. In addition to this data, all the participants had a ration card, and 89 (59.3%) belonged to below the poverty line. The mean age of the children in completed months was 33.23±13.87, and the mean age of the mothers in completed years was 28.51±16.3.

Demographic proforma		Frequency n (%)
Gender	Male	78 (52)
	Female	72 (48)
Child order of birth	First	57 (38)
	Second	57 (38)
	Third or more	36 (24)
Religion	Hindu	37 (24.7)
	Muslim	102 (68)
	Christian	10 (6.7)
	Others	1 (0.7)
Education of the mother	No formal education	9 (6)
	Primary school	50 (33.3)
	school	34 (22.7)
	PUC	45 (30)
	Graduation	12 (8)
Occupation of the mother	House wife	121 (80.7)
	Government employee	3 (2)
	Private employee	13 (8.7)
	Self-employee	13 (8.7)
Type of family	Nuclear	103 (68.7)
	Joint	47 (31.3)
Received information regarding child nutrition	Yes	149 (99.3)
	No	1 (0.7)
Source of information	Health personnel	81 (54)
	TV/radio	25 (16.7)
	Social media	29 (19.3)
	Family members	15 (10)

[Table/Fig-1]: Distribution of study participants in terms of frequency and percentage (N=150).

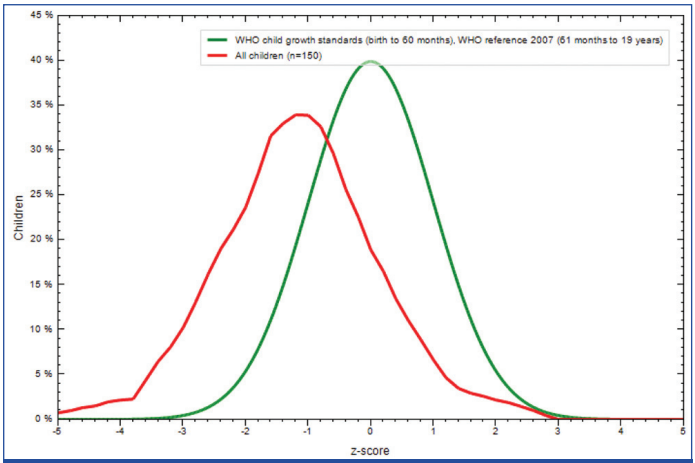
[Table/Fig-2] depicts the knowledge of mothers regarding child nutrition. The study revealed that the mean percentage of the subjects' knowledge was 57.7%. The domain-wise mean percentage of knowledge on nutrients and requirements, balanced diet was 65.22%, the importance of child nutrition was 56.87%, nutritional deficiency and malnutrition was 52.22%, and factors affecting child nutrition was 48%.



[Table/Fig-2]: Pie diagram showing the knowledge of mothers regarding child nutrition.

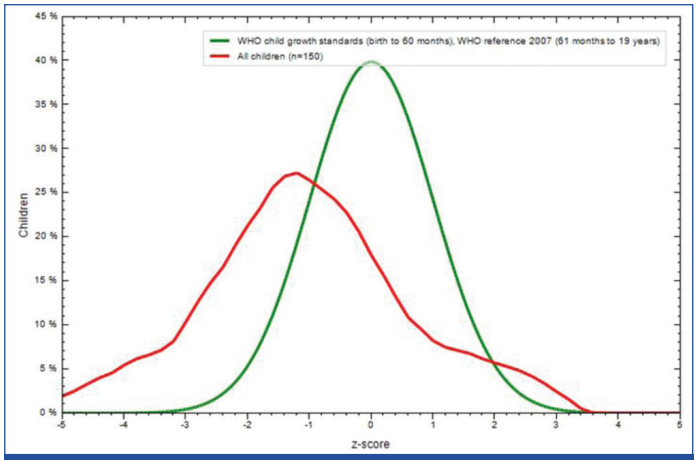
It was also observed that all the study participants had good feeding practices as they responded positively to the practice checklist. The mean percentage of the mothers' practice was 83.64%. The domain-wise mean percentage of practice on breastfeeding was 95.54%, weaning was 69%, food hygiene was 97%, follow-up of nutritional status was 88.51%, and methods of cooking was 85.20%.

When comparing the nutritional status of the children with the WHO growth standards, it was found that 118 (78.66%) children had a normal weight for age [Table/Fig-3], 104 (69.33%) had a normal height for age [Table/Fig-4], and 123 (82%) had a normal height for weight [Table/Fig-5]. However, 32 (21%) were found to be wasted, 17 (11%) were underweight, and 33 (22%) were stunted.

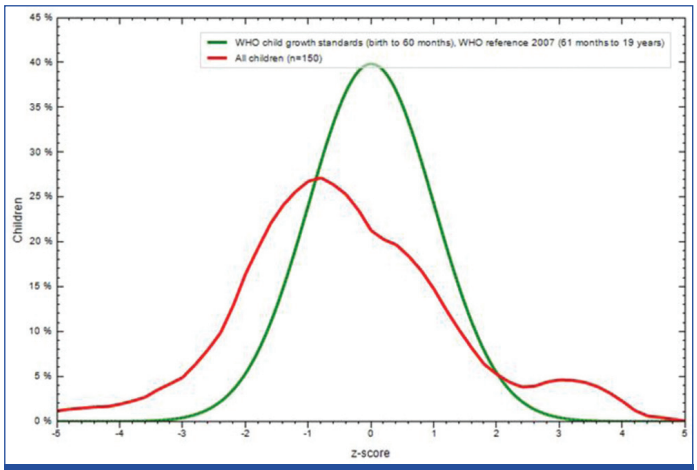


[Table/Fig-3]: Comparison of weight for age of children with WHO growth standards.

Karl Pearson's correlation coefficient was used to assess the correlation between the mother's knowledge on child nutrition, feeding practices, and the nutritional status of the children. The study results showed a positive correlation between the mother's knowledge and feeding practices (r-value=0.72, p-value <0.05), the mother's knowledge and nutritional status (r-value=0.11, p-value <0.05), and feeding practices and nutritional status (r-value=0.37, p-value <0.05).



[Table/Fig-4]: Comparison of height for age of children with WHO growth standards.



[Table/Fig-5]: Comparison of height for weight of children with WHO growth standards.

DISCUSSION

In the present study, 78 (52%) of the children were male, and 57 (38%) belonged to the first and second order of birth. Additionally, 50 (33.3%) of the mothers had primary education, 121 (80.7%) were housewives, 103 (68.7%) belonged to nuclear families, and 89 (59.3%) were below the poverty line. These findings are consistent with previous studies, where 229 (57.3%) of the subjects were male [16], 140 (34.9%) of the mothers were housewives [15], 11 (57%) belonged to nuclear families, and 383 (76.6%) had a poor socio-economic condition [17,18].

The present study showed that the majority, 96 (64%), of the mothers had average knowledge regarding child nutrition. A similar study showed that mothers had good knowledge on IYCF recommendations [19], while another study contradicted this finding, showing that the majority, 321 (64.2%), of the mothers had inadequate knowledge about Complementary Feeding (CF) [17]. The main reason for this discrepancy could be that the population in the latter study was from an urban slum where personal and environmental sanitation was very poor, and people were ignorant about child nutrition and health [18].

In the present study, it was observed that all the mothers had good feeding practices regarding child nutrition. The mean percentage of the practice score was 109 (72.7%). However, a similar study conducted showed contradictory findings, with mothers exhibiting poor feeding practices regarding child nutrition [20]. The mothers and their children in that study consumed a lot of fast food and lacked nutritional education, which could lead to poor feeding practices [20].

Regarding the nutritional status of the children, the present study revealed that the majority of the children were well-nourished. However, 32 (21%) were found to be wasted, 17 (11%) were underweight, and 33 (22%) were stunted. A similar study found

that 204 (26%) of the study participants were undernourished, 102 (13%) were stunted, 94 (12%) were wasted, and 78 (1%) were both stunted and wasted [21]. The investigators also compared the present study findings with the literature, where contrasting study findings were found [Table/Fig-6] [19-22]. The main reason for this difference may be the low socio-economic status of the mothers.

S. No.	Publication year	Place of study	Number of subjects	Parameters compared	Conclusion
1	Memon S et al., [19] 2010	Jamshoro, Hyderabad	500	Knowledge	Majority 321 (64.2%) of mothers' knowledge about child feeding was inadequate.
2	Yabanci N et al., [20] 2014	Ankara, Turkey	302	Knowledge	Mothers had inadequate knowledge on Infant and Young Child Feeding (IYCF) recommendation.
3	Safari JG et al., [21] 2013	Morogoro Municipality, Tanzania	130	Feeding practices	Mothers had poor feeding practices regarding child nutrition.
4	Joshi HS et al., [22] 2011	Western Region of Nepal	786	Nutritional assessment	Majority 204 (26%) of the study participants were undernourished, 102 (13%) stunted, 94 (12%) wasted and 78 (1%) both stunted and wasted.
5	Present study, 2023	Selected tertiary care hospital, Mangaluru, Karnataka	150	Mother's knowledge on child nutrition, feeding practices and nutritional status of children	Mothers had good knowledge, adequate feeding practices and majority children were well nourished. There was a significant correlation between knowledge, practice and nutritional status (p-value <0.05).

[Table/Fig-6]: Comparison of the findings in present study with contrast study findings [19-22].

Limitation(s)

The feeding practice was assessed through verbal responses by the mother, but the actual practice was not observed by the researcher. The study was limited to a single setting in a single geographical area; therefore, the generalisation of study findings was not possible.

CONCLUSION(S)

This study finding suggests that mothers had average knowledge and good child feeding practices, and the majority of the children were well nourished. There was a positive correlation between knowledge, feeding practices, and nutritional status. The current study will provide important information for future research in the area of child nutrition and malnutrition among children, as well as the knowledge and practices of mothers. The outcomes of this study can be used by researchers to perform interventional research, exploring and testing various interventions to maintain the nutritional status of under-five children and enhance their mothers' knowledge and practices regarding child nutrition.

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[ANNEXURE I: TOOL]

Section-I: Demographic Proforma

Instructions:

Dear participants,

The below items give information regarding your personal data, please go through the content and place a tick mark (✓) against the items that best describes your personal information or fill in the blanks provided. Your information will be kept confidential.

DEMOGRAPHIC VARIABLES

Code No.

1. **Age of mother in completed years ……**
2. **Age of child in completed months ……..**
3. **Gender of the child**
   a. Male
   b. Female
4. **Childs order of birth**
   a. First
   b. Second
   c. Third or more
5. **Religion**
   a. Hindu
   b. Muslim
   c. Christian
   d. Others
6. **Education of the mother**
   a. No formal education
   b. Primary school
   c. High school
   d. P.U.C
   e. Graduation
   f. Postgraduation or above
7. **Occupation of the mother**
   a. House wife
   b. Government employee
   c. Private employee
   d. Self-employee
8. **Family income (per month) Rs.**
9. **Type of family**
   a. Nuclear
   b. Joint
   c. Extended
10. **Received information regarding child nutrition**
    a. Yes
    b. No

    If yes, Source of information
    a. Health personnel
    b. TV/Radio
    c. Social media
    d. Family members/Friend
11. **Do you have ration card?**
    a. Yes
    b. No

If yes, specify ration which you received……

SECTION II: Knowledge Questionnaire on Child Nutrition

Instructions:

Dear participants,

The below items give information regarding child nutrition, please go through the content and place a tick mark (✓) against the items that which you feel more appropriate. The information will be kept confidential.

1. **Which among the following is healthy diet?**
   a. Ragi porridge
   b. Carbonated beverages
   c. Sweets
   d. Junk food
2. **Which food among the following will promote sleep at night?**
   a. Heavy food at bed time
   b. Warm milk at bed time
   c. Packed food at bed time
   d. Carbonated beverages at night
3. **Which would be the best choice for low fat and high fibre food?**
   a. Cheese
   b. Fish
   c. Chocolate
   d. Whole grains
4. **How are pulses and cereals helpful to children?**
   a. Makes the child to sleep for long time
   b. Help the child to over growth
   c. It provides energy for daily activities
   d. Makes child to eat more food

5. **What are the essential nutrients for children?**
   a. Carbohydrate, protein, fat, minerals, vitamins, water
   b. Protein, fat, minerals, vitamins, water
   c. Carbohydrate, protein, fat, minerals, water
   d. Minerals, vitamins, water
6. **Which foods have a low-fat content?**
   a. Dark chocolate, egg, fatty fish, nuts
   b. Green leafy vegetables, fruits, whole grains, skimmed milk
   c. Ice cream, cheese, ghee, butter
   d. Red meat, chicken, fatty liver
7. **Which among the following food contain more carbohydrates?**
   a. Apple, orange, pineapple, avocado
   b. Fish, egg, green leafy vegetables, broccoli
   c. Potato, legumes, wheat, rice
   d. Fruits, vegetables, fish, meat
8. **What is the importance of healthy diet for children?**
   a. It makes the child obese
   b. It causes under development of the children
   c. It helps in normal growth and development
   d. It causes weakness and lethargy
9. **What is the benefit of balance diet?**
   a. Supplies the nutrient to the body
   b. Improves body's immunity
   c. Maintaining good health
   d. All of the above
10. **What is the benefit of consuming protein?**
    a. It makes child intelligent
    b. It increases muscle strength
    c. Child gains less weight
    d. Reduce hunger
11. **Which of the following foods is considered a protective food?**
    a. Green leafy vegetables, fruits
    b. Chicken, meat, barley
    c. Potato, rice, okra, sweet potato
    d. None of the above
12. **Why calcium is so vital to the children?**
    a. Decrease the skin damage
    b. Strengthen bones and teeth
    c. Improve the lung functioning
    d. Decrease weight gain
13. **What is are the possible deficiency symptoms of vitamin A?**
    a. Loss of appetite
    b. Lack of sleep at night
    c. Poor vision
    d. Dry rough skin
14. **What is the effect of excessive in c6c take of cow's milk in children below one year?**
    a. Baby gets malnourished
    b. Decrease in absorption of iron
    c. Decrease weight gain
    d. Increase the appetite in baby
15. **What is the role of Vitamin C?**
    a. To gain weight
    b. Repairs body tissue, improves immunity
    c. To get adequate sleep
    d. Reduce the appetite
16. **What do you understand by the term "balanced diet"?**
    a. Diet that is tasty and easily digestible
    b. Diet that is attractive and sweet in taste
    c. Diet that contains all the nutrients in appropriate proportions
    d. Diet that is liked by all
17. **Which are the following food are rich in protein?**
    a. Egg, milk, pulses, meat
    b. Ragi, jaggery, dates, oats
    c. Tomato, cabbage, carrot, apple
    d. Potato, bean, brinjal, barley
18 **Which among the following foods are appropriate for an 8-month-old baby?**
    a. All type of fish and meat
    b. Mashed boiled potato, vegetables soup, milk
    c. Biscuits, magi, noodles, packed food
    d. None of the above
19. **Which foods should not be given to children below 3 years?**
    a. Large chunk food
    b. Hard row veggies, hard meat, whole grapes
    c. Nuts and seeds, sticky candy, chew gum
    d. All of the above
20. **How often the child has to be fed in a day?**
    a. Four times (Breakfast, lunch, evening snack, dinner)
    b. Four times (Breakfast, midmorning, evening snack, dinner)
    c. Three time (Midmorning, lunch, bedtime)
    d. Six times (Breakfast, midmorning, lunch, evening snack, dinner, bedtime)
21. **Which among the following foods contain iron?**
    a. Chocolate, biscuits, ice-cream, bread, cake
    b. Lentil, spinach, drumstick, jaggery, dates, liver
    c. Papaya, apple, grapes, orange
    d. Don't know
22. **Food borne disease can be prevented by**
    a. Preparing food in a hygienic way
    b. Cooking the food well
    c. Maintaining good personal hygiene while cooking
    d. All of the above
23. **Which among the following foods are rich in calcium?**
    a. Rice, yam, potato, cucumber
    b. Biscuits, chocolate, bread, Magi
    c. Milk, fish, shellfish, Ragi
    d. None of the above
24. **What is the major source of vitamin D?**
    a. Standing in the shadow
    b. Exposure to moon light
    c. Exposure to sunlight in the morning and evening
    d. Application of oil to the skin

25. Which of the following foods contains high fibre?
a. Biscuits, chocolate, bread, Magi
b. Banana, green peas, spinach, lentils
c. Milk, curd, ghee, butter
d. Egg, fish, red meat, liver

26. How much water should a toddler drink per day?
a. 1-2 glasses
b. 4-6 glass
c. 8-10 glass
d. 2-3 glass

27. Which of the following symptoms indicate a child is anaemic?
a. Weight gain
b. Increase the appetite
c. Pallor, lethargy, weight loss
d. Changes in behaviour pattern

28. Which of the following disease is caused by iodine deficiency?
a. Night blindness
b. Goitre
c. Rickets
d. PEM

29. Which among the following are the symptoms of calcium deficiency?
a. Muscle ache, delay walking, growth retardation
b. Skin irritability, pallor, acne
c. Abdominal pain, diarrhoea, dysentery
d. Fever, chills, headache

30. How often a child of 2-4 year should receive vitamin A supplementation?
a. Once a year
b. Twice a year
c. Three times a year
d. Four times a year

31. What do you understand by the term malnutrition?
a. It is a sleeping disorder
b. It is a disorder where the child does not get enough nutrient
c. It is a genetic disorder
d. It is a disorder of liver

32. How do you identify malnourishment in children
a. Excessive weight loss or gain
b. Child always lethargic
c. Lack of appetite or interest in food
d. All the above

33. What are the direct causes of malnutrition
a. Inadequate food intake
b. Diseases affect the gastrointestinal system
c. Lack of sanitation
d. All of the above

34. How to prevent malnutrition in children?
a. Reducing food intake
b. Providing junk food
c. Providing well balanced diet
d. Drinking plenty of milk and juice

35. Which of the following is a cause of childhood obesity
a. Consuming excessive junk food
b. Drinking plenty of water
c. Consuming well balanced diet
d. Practicing regular exercise

36. Which among the following practices affects child nutrition
a. Hygienic practice
b. Faulty practice
c. Eating healthy food
d. Drinking plenty of water

37. What is junk food?
a. Pre prepared food with low nutritional value
b. Healthy food
c. High fat and nutritional value
d. Homemade food

38. Which among the following helps to prevent anemia in children?
a. Drinking excessive milk
b. Drinking more water
c. Consuming unhealthy diet
d. Regular deworming

39. How often deworming to be done in children?
a. Every 3 months
b. Every 6 months
c. When the child gets symptoms
d. Every 12 months

40. How to keep the child away from junk food?
a. Introducing different fresh food in attractive manner
b. Distracting by giving favourite healthy food
c. Explaining the effects of junk food in understanding manner
d. All the above

SECTION III: Checklist on Feeding Practice

Instructions:

Dear participants,

The below checklist assesses the feeding practice of you kindly read the item properly and place the tick mark appropriately. The information will be kept confidential. It can be indicates your past or present experience.

S. No.	Feeding practices	Yes	No
	Breast feeding		
1.	I started to breastfeed within half an hour after the delivery		
2.	I used to breastfeed my baby minimum 15 min on each breast		
3.	I usually clean my breast before I fed the baby		
4.	I give breastfeeding every 2 hours and on demand		
5.	I burped my baby after every breastfeeding		
6.	I had fed by baby with expressed breast milk		
	Weaning		
7.	I started weaning at six months age		
8.	I started first feed with liquid diet		
9.	I stopped breastfeeding once I started with weaning		
10.	I used to observe any food allergies while weaning baby		
11.	I stopped weaning food when baby starts diarrhoea		
12.	I had given weaning food along the breastfeed		
13.	I had given bottle feeding to my baby		

14.	I introduced food by using spoon		
15.	I had given palada feeding to the baby		
16.	I introduced new food gradually		
17.	I gave homemade food only		
18.	I gave commercially available formula only		
19.	I gave homemade and commercially available formula		
20.	I gave cow milk		
	Hand hygiene/food hygiene		
21.	I do hand wash before feeding the child		
22.	I used to wash the utensils which is using for feeding the child		
23.	I cleaned properly work surface before starts cooking		
24.	I practiced cleanliness during cooking and serving the child		
	Follow-up of nutritional status		
25.	I give small frequent feeds		
26.	I included all the type of food/nutrients in my child's meal		
27.	I regularly check the weight of my child		
28.	My child gets Anganawadi services		
29.	I consult regularly my child to the paediatrician/dentition		
30.	I compare my child with others with same age		
31.	I do vaccination to my child according to paediatrician order		
32.	I regularly visit hospital for monitor my child's growth by checking height		
	Method of cooking		
33.	I cooked the food properly		
34.	I used only potable water from safe source for preparation of food		
35.	I covered the food properly after preparation/cooking		
36.	I used to prepare vegetable soup to my child.		
37.	I used simmering method while preparing soup for the child		
38.	I gave roasted food to my child		
39.	I prepared steamed food		