CHAPTER III

METHODOLOGY
METHODOLOGY

Weaning is a natural phenomenon characterized by a shift from mothers' milk to liquid, semi-solid and finally solid adult food or family food and has its own features, methods and types differing from individual to individual. Sticking up or deviation from its prescribed procedure ultimately would depend upon the possession of knowledge on the part of mothers. How far and to what extent mothers with rural and urban background were in the know of weaning practices and adopt the same was a matter of great concern and curiosity on the part of author, and therefore, present study was undertaken with an object of understanding knowledge and adoption of weaning practices among rural and urban women.

This chapter "Methodology" describes method used and procedure followed for conducting the entire study at hand. This chapter has broadly been divided into two parts for the sake of convenience in its presentation.

Part "A" deals with:

1. Locale of the study.
2. Physical, climatic, demographic and other relevant information about the study area.
3. Sample and sampling procedure.
4. Development, pretesting and administration of the schedule.
5. Variables, their meanings and measurements.
6. Hypotheses formulated and research design used.
7. Statistical methods used.
8. Operationalisation of key terms together with quantification strategy employed.

Part "E" deals with:

1. Development of scales for quantification of:

   i. Knowledge,
   ii. Adoption of weaning practices among rural and urban women respondents.

2. Standards and classification system used for measurement of:

   i. Nutritional Status of Infants.
   ii. Health Status of Infants.

1. Locale of the study:

   Present study was undertaken in 20 villages situated in two blocks of Akola district in vidarbha region of Maharashtra. In the absence of such study attempting to compare rural and
urban mothers on the aspect of vital importance, selection of rural and urban respondents was thought imperative. Respondents from these 20 selected villages represented the rural area while respondents selected from 20 wards of Akola city represented the urban setting.

Akola district, blocks and villages for conducting present study were purposively selected, firstly because author herself was professionally engaged in one of the educational institutes and secondly because of her already established rapport. As such it was easy and convenient for her to collect data properly. The map of Akola district is given in Figure No.1.

2. Physical, Climatic, Demographic and other Relevant Information about the Study Area.

Akola the place of present investigation has been prominently shown on the map of Vidarbha region of Maharashtra, particularly because of Institutes of higher education in general and head quarter of an Agricultural University in particular established after the name of an eminent social reformer, an educationist and an agriculturist Dr. Panjabrao Deshmukh.

Akola district lies between 19.80° to 21.8° North latitude and 76.8° to 77.0° East Longitudes. To its North Side lies Madhya Pradesh, to the West Buldana district, to its South Parbhani district and Amravati district to the East.
The district has mainly plain topography. The North side of the district is covered by Satpura ranges broken by Purna river valleys.

Black medium to heavy black cotton soil with little course shallow soil is available. The district comes under assured rainfall zone from south west monsoon. Intensity of rainfall varies from 607 to 1091 mm.

Cotton, Jawar, Tur, Udad, Mung are major kharif where as wheat, gram and safflower are predominant rabi crops of the district. Other relevant details about the district are furnished below:

* Population (As per 1991 census)
  i) Rural Population  1580000
  ii) Urban Population  634000
  Total  2214000
  iii) Scheduled caste  264000
  iv) Scheduled Tribe  156000

* Geographical area  1057000 Ha.

* Area under crops  821000 Ha.
Irrigation projects (No.)

1) Small - 88
2) Medium - 10
3) Major - 1

Dispensaries - 16
Hospitals - 136
Primary Health centres - 52
Primary Schools - 1775
Secondary Schools - 2190
Higher Education Institutes - 28
Industrial Training Institutes - 4

The District consultative committee is a coordinating agency for implementation of different developmental schemes and programmes.

3. Sample and Sampling Procedure:

Mothers and their respective infants in the age range of 4 to 18 months formed the prominent categories of sample for the purpose of present study. Selection of mother sample had therefore, a major task before the author, for the obvious reason that respondents selected for the present study should represent true picture and representation. Mother respondents with wide range of education, professional background, economic status and
locality they come from, were some of the points for consideration were listed first and 300 mother respondents were finally selected with the help of 'N' th method of randomisation.

As regards the selection of mother samples from rural area, twenty villages, 10 villages from each block were selected and from each village 15 mothers were selected to make a total sample of 300 mother respondents.

Children in the age range of 4 to 18 months and respective mothers of these children naturally formed the sample. List of villages from each block in Akola district together with number of respondents selected is given in Table No.1. Photographs showing the author surveying urban slum and rural area are shown in photograph No 1 and 2.
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Dist</th>
<th>Block</th>
<th>Villages</th>
<th>Total no. of respondents selected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Balapur</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Akola</td>
<td></td>
<td>Balapur</td>
<td>15</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td>Wadegaon</td>
<td>15</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td>Parae</td>
<td>15</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td>Mandoli</td>
<td>15</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td>Bhikundkhed</td>
<td>15</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td>Dhanora</td>
<td>15</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td>Nakashi</td>
<td>15</td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td>Tamshi</td>
<td>15</td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td>Barlinga</td>
<td>15</td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td>Degaon</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Patur</td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td>Patur</td>
<td>15</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td>Channi</td>
<td>15</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td>Karla</td>
<td>15</td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td>Malsur</td>
<td>15</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td>Zarandi</td>
<td>15</td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td>Alegaon</td>
<td>15</td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td>Chatari</td>
<td>15</td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td>Sukdi</td>
<td>15</td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td>Umara</td>
<td>15</td>
</tr>
<tr>
<td>10.</td>
<td></td>
<td></td>
<td>Padsongi</td>
<td>15</td>
</tr>
</tbody>
</table>
Author Surveying Urban Slum and Rural Areas.

Photograph No. 1

Photograph No. 2

Schedule is an important tool for data collection. Appropriateness and to some extent quality and validity of data depends upon development of schedule. Therefore, all the aspects encompassing various dimensions, aspects of weaning were listed, pertinent information collected and suitable questions framed and were placed in the schedule in appropriate sequence. Schedule developed had two broad parts. In the first part basic information pertaining to the sample and the various aspects understudy were placed. Second part of the schedule covered the scale format for ascertaining knowledge and adoption of the respondents.

Schedule thus developed was subjected to exercise of pretesting which provided insight to the author for the appropriateness of the questions, their interpretation and understanding on the part of the respondents. Experience gained resulted in incorporating necessary suitable modification.

Schedule so developed and pretested was administered and data were collected personally through interview by the author herself.
In order to establish rapport, respondents were approached through medical officers and other supporting staff working in Primary Health Centres, and extension functionaries from Panchayat Samitis and other known workers in the area.

5. Variables their Meaning and Measurement:

Variables their nature and type, meaning together with quantification strategy used is given in Table - 2 followed by Conceptual Model (Figure No. 2) of the study.
CONCEPTUAL MODEL OF THE STUDY

INDEPENDENT FACTORS

MOTHER RESPONDENTS
1. AGE OF MOTHER
2. EDUCATION OF MOTHER
3. PROFESSION OF MOTHER
4. FAMILY INCOME
5. SIZE OF FAMILY
6. SOURCES OF INFORMATION
7. SOCIO-ECONOMIC STATUS

INFANT RESPONDENTS
1. AGE OF INFANT
2. BIRTH ORDER OF INFANT
3. MEAN WEIGHT FOR AGE
4. MEAN HEIGHT FOR AGE

CONSTRAINTS FACED BY MOTHER RESPONDENTS

DEPENDENT FACTORS

1. KNOWLEDGE OF WEANING
2. ADOPTION OF WEANING

1. NUTRITIONAL STATUS OF INFANTS

RELEVANT ASPECTS OF STUDY

1. TYPES OF WEANING FOOD USED
2. REASONS FOR WEANING
3. TECHNIQUES OF WEANING
4. CONSEQUENCES OF WEANING
5. SUGGESTIONS OFFERED BY MOTHERS
Table - 2 : Variables Included in the Study and their Quantification Strategy

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Variable, its nature and type</th>
<th>Quantification strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>.1.</td>
<td>Independent Variable</td>
<td></td>
</tr>
<tr>
<td>.A.</td>
<td>Mother Respondents</td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Age</td>
<td>Schedule developed and</td>
</tr>
<tr>
<td>ii.</td>
<td>Education</td>
<td>score assigned as per</td>
</tr>
<tr>
<td>iii.</td>
<td>Profession</td>
<td>scoring key proposed.</td>
</tr>
<tr>
<td>iv.</td>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>v.</td>
<td>Size of Family</td>
<td></td>
</tr>
<tr>
<td>vi.</td>
<td>Sources of Information</td>
<td></td>
</tr>
<tr>
<td>vii.</td>
<td>Socio-economic Status</td>
<td>Scale developed by</td>
</tr>
<tr>
<td></td>
<td>a. Rural</td>
<td>Nandapurkar &amp; Bswajir(1985)</td>
</tr>
<tr>
<td></td>
<td>b. Urban</td>
<td>Jogawar (1975)</td>
</tr>
<tr>
<td>.B.</td>
<td>Children Respondents</td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Age of Infant</td>
<td></td>
</tr>
<tr>
<td>ii.</td>
<td>Birth order of infant</td>
<td>Schedule developed</td>
</tr>
<tr>
<td>iii.</td>
<td>Mean weight for age</td>
<td></td>
</tr>
<tr>
<td>iv.</td>
<td>Mean height for age</td>
<td></td>
</tr>
<tr>
<td>.2.</td>
<td>Intervening Variable:</td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Constraints in Adoption of weaning practices.</td>
<td>Schedule developed</td>
</tr>
<tr>
<td>.3.</td>
<td>Dependent Variable:</td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Knowledge level</td>
<td>Separate scales</td>
</tr>
<tr>
<td>ii.</td>
<td>Adoption level</td>
<td>developed</td>
</tr>
<tr>
<td>iii.</td>
<td>Nutritional status of infants</td>
<td></td>
</tr>
<tr>
<td>iv.</td>
<td>Health status of infants</td>
<td></td>
</tr>
</tbody>
</table>
Variables have relation with each other and the same has been shown in the paradigm depicted in figure No. 3 below.

**Figure 3: Paradigm Showing Interrelationship Between Different Variables Under Study**

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
<th>Intervening Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Knowledge about weaning.</td>
<td>Constraints in Adoption of weaning practices</td>
</tr>
<tr>
<td>Education</td>
<td>Adoption of weaning practices</td>
<td></td>
</tr>
<tr>
<td>Profession</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sources of information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Socio-economic status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant respondent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth order</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean weight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean height</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Hypotheses and Research Design for the Present Study:

Hypothesis as has been defined by authorities in the field of social science is hunch, guess or imaginative idea, which becomes the basis of investigation. Hypothesis provides
direction to the investigator for research work at hand. In this context formulation of hypotheses was necessary. Similarly selection of research design was also essential. After careful consideration and in the light of above, following hypotheses have been formulated for the purpose of present study and appropriate research design selected.

i. Respondents from rural and urban area are encountering difficulties in the adoption of recommended practices.

ii. Respondents with rural as well as urban native background have no suggestions to offer for effective adoption of recommended weaning practices.

iii. There exist no relationship between various characteristics of the respondents and their knowledge of weaning practices.

iv. There exist no relationship between various characteristics of the respondents and their adoption of weaning practices.

v. Nutritional status of infants from rural area is unsatisfactory than the nutritional status of infants from urban area.

vi. There exist significant difference between the knowledge and adoption of weaning practices between the mother respondents from rural and urban area.
As far as selection of research design is concerned it can be stated that after careful consideration and in the light of nature of the study at hand 'Descriptive' type of research design was thought appropriate. An attempt was made by the researcher in the present study to depict the picture regarding possession of knowledge and adoption of recommended weaning practices by the mother respondents from rural and urban area, besides other relevant aspects and therefore, appropriateness of the research design selected.

7. Statistical Methods Used:

Following statistical methods were used for analysis of the data in the present study.

i. Information relating to personal, social, economical and situational characteristics of the respondents was collected from the respondents and it was necessary to present the frequencies of the respondents reporting the same. For the purpose of proper reporting therefore number and percentages were made use of.

ii. As per one of the objectives it was necessary to test as to whether the mother respondents from rural and urban differ in their knowledge and adoption score and for this purpose students 't' test was used.
iii. Similarly one of the objectives provides for ascertaining establishment of relationship between various characteristics of mother respondents and their knowledge status score and adoption score besides nutritional status score of infants. For this purpose test of co-efficient of correlation was used.

8. Operationalisation of Key Terms and Quantification Strategy Employed.

During the course of present investigation following key terms which were likely to influence the child weaning practices were selected. Their operational definitions and scoring key used are described below.
1. **Age of Mother:**

   Chronological age of the respondent mothers was considered. Respondents then were categorized as under:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>up to 25</td>
<td>Actual age as such was considered for scoring.</td>
</tr>
<tr>
<td>2.</td>
<td>26 to 30</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>31 &amp; above</td>
<td></td>
</tr>
</tbody>
</table>

2. **Education of Mother:**

   Formal schooling in terms of mother’s educational qualification obtained was considered for knowing their educational status and were categorised as given below.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Non formal/primary education.</td>
<td>1-2</td>
</tr>
<tr>
<td>2.</td>
<td>Middle/ Secondary/Higher secondary.</td>
<td>3, 4 and 5</td>
</tr>
<tr>
<td>3.</td>
<td>College/post graduate.</td>
<td>6-7</td>
</tr>
</tbody>
</table>

3. **Profession of Mother:**

   Profession, the mother respondents have accepted for earning or livelihood or otherwise have been classified as under with proper scoring key decided.
4. Income of the Family:

Total income of the respondents or for that matter all member earning in the family from all the sources has been considered as an annual income, which is categorized as below.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Category (Rs.)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>up to 10,000/-</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>10,001/- to 20,000/-</td>
<td>Raw figures of income</td>
</tr>
<tr>
<td>3.</td>
<td>20,001/- to 30,000/-</td>
<td>as such were considered.</td>
</tr>
<tr>
<td>4.</td>
<td>30,001/- &amp; above</td>
<td></td>
</tr>
</tbody>
</table>

5. Size of Family:

Actual total number of members in the family including male, female and children respondents put together has been considered to mean as size of the family and has been categorised and scored as under.
S.No. | Category       | Score                  
---|----------------|------------------------
1. | 3 members     | Raw figures have been  
2. | 4 to 6 members| considered.            
3. | more than 6 members |                        

6. **Type of Family:**

Family In which father, mother, children and relation particularly from father side and father mother and their children has been taken to mean as joint family and nuclear family respectively in the present study and score assigned as shown below on the basis of common understanding and rationality. Categorisation was done as below with score assigned for each of them.

S.No. | Category | Score 
---|----------|-------
1.  | Joint    | 1     
2.  | Nuclear  | 2     

7. **Sources of Information:**

Sources used by the respondent for seeking the information about the improved weaning practices, and the same, written, audio and audio-visuals have been classified in to five categories.
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Category</th>
<th>Rural</th>
<th>Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Low</td>
<td>upto 28</td>
<td>upto 50</td>
</tr>
<tr>
<td>2.</td>
<td>Medium</td>
<td>29-44</td>
<td>51-82</td>
</tr>
<tr>
<td>3.</td>
<td>High</td>
<td>45 &amp; above</td>
<td>83 &amp; above</td>
</tr>
</tbody>
</table>

The term socio-economic status for the purpose of present study has been conceptualised as social and economic standing of an individual in terms of income and social participation besides other relevant aspects. In order to compute the socio-economic status score of the individual respondents, scale developed by Bawajir and Nandapurkar (1985) and Jogawar (1986) scale was used for rural and urban respondents respectively. Respondents were classified into three categories Low, Medium and High on the basis of their S.E.S. scale. Score of confidence interval method are as shown below.
9. **Age of Infant:**

Age in present study has been considered as weaning age that starts from 4 months onwards of an infant. The categorization of infant’s age was done as given below.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>4 to 6 months</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>7 to 9 months</td>
<td>Raw data were used</td>
</tr>
<tr>
<td>3.</td>
<td>10 to 12 months</td>
<td>as such</td>
</tr>
<tr>
<td>4.</td>
<td>13 &amp; above</td>
<td></td>
</tr>
</tbody>
</table>

10. **Anthropometric Measurements:**

1. **Weight:**

This is a good index of the child’s growth potential and a delicate measure of the health of an individual. In the first year of postnatal life, weight gain per month is 500 to 600 gm on an average. In the first year of postnatal life weight gain per month is 500 to 600 gm on an average. This rate of weight gain is slightly more during the first six months and somewhat less in the later six month period of infancy. The birth weight may, thus, be doubled up at the age of six months and likewise it could be as much as three times at one year of age. Thereafter, the weight gain gradually slows down with an
increase of about 200 to 250 gm per months during the second year of life and about 175gm from three to seven years of age.

Formula for calculating weight:

<table>
<thead>
<tr>
<th>Age</th>
<th>Weight in Kgs</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 to 12 months</td>
<td>( \frac{(\text{Age in months} + 11)}{2.5} )</td>
</tr>
<tr>
<td>1 to 8 years</td>
<td>( \frac{(\text{Age in years} \times 5)+17}{2.5} )</td>
</tr>
<tr>
<td>6 to 12 years</td>
<td>( \frac{(\text{Age in years} \times 7)+5}{2.5} )</td>
</tr>
</tbody>
</table>

Recording Technique:

Accepted method of recording the weight of a child is to strip him off from all the clothes, etc. Beam balance type weighing machine is preferred over the spring balance. Upto the age of one year, weight recording at 1, 3, 6, 9 and 12 months of age would be enough to know the rate of growth. Thereafter, adult type of weighing machine can be used and a six monthly or yearly recording would be adequate.

ii. Height:

Measurement of length or height includes that of erect height, and sitting height. In the first year of postnatal life, increment in stature is at the rate of about 2 to 2.5 cm per month. Thereafter, the growth in stature slows down to about 0.75 to 1cm per month. By about four years of age the stature of a child is nearly double (100cm) of that at birth.
Formula for calculation of approximate height:

- At birth length: 20" or 50 cms.
- At one year: 30" or 75 cms.
- From 2 to 14 years: Height in inches = age in years × 2 1/2 + 30

iii. Head Circumference:

Measurement of the head circumference is important because it gives an information of the developing brain inside. Head circumference is 33cm at birth. An average increase in the head circumference during the first six months of age is about 1.5cm per month. During the next six months average growth rate is only 0.5cm to 1cm per month. By the age of one year head circumference is 45cm. After the infancy growth of head circumference decelerates further, so that during the next two years only about 2 to 3cm increase in the measurement occurs. Thereafter, a total of 4-6cm increase occurs to attain the adult size by the end of 12 to 14 years of age. A thin flexible steel tape of a short width of about 0.5cm is used.

iv. Chest Circumference:

Average chest circumference at birth is about 31cm. At birth the head circumference is usually greater than the chest circumference by about 1 to 3cm. Thereafter, with the rapid
increase in the size of bony cage of chest and the accumulation of fat over it, the chest circumference overtakes the head circumference by about 9 to 12 months of age. In infants who belong to poor communities and consequently whose growth, especially of subcutaneous fat, is not up to the mark, chest circumference may not overtake the head circumference up to or even beyond 1 1/2 to 2 years of age. The rate of growth of chest circumference is 6-8cm in first year of age, 2-3cm per year up to the age of five years and thereafter 2.5cm per year till adolescence.

It can be measured by passing the tape around the chest at the level of the nipples. The reading is recorded midway between inspiration and expiration.

11. **Personal Hygiene**:

The term refers personal cleanliness within the setting of the conditions, where individual lives and includes bathing, clothing, washing, care of all personal appearance.

12. **Immunization**:

The term refers to the fighting power of the body. It is a process of production of immunity to an infectious disease by artificial means. The National Immunization schedule followed is given below in Table - 3.
Table - 3 : Immunisation Schedule

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Age</th>
<th>Vaccine</th>
<th>No.of doses</th>
<th>Administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>0 - 3</td>
<td>B.C.G.</td>
<td>1</td>
<td>Intra-dermal</td>
</tr>
<tr>
<td>2.</td>
<td>4 - 6</td>
<td>D.P.T.</td>
<td>3</td>
<td>Intra-muscular</td>
</tr>
<tr>
<td>3.</td>
<td>6 - 7</td>
<td>Polio iv</td>
<td>1</td>
<td>Oral</td>
</tr>
<tr>
<td>4.</td>
<td>7 - 8</td>
<td>Polio v</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>9 - 12</td>
<td>Measles</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>up to 15 months</td>
<td>M.M.R / Measles</td>
<td>1</td>
<td>subcutaneous</td>
</tr>
<tr>
<td>7.</td>
<td>18 to 24 months</td>
<td>Booster</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

13. Constraints in Adoption:

The term constraints for the purpose of present study has operationally been defined as the problems or difficulties encountered by the respondents in the implementation of recommended weaning practices.

14. Knowledge Level:

Knowledge, however, for the purpose of present study has been operationalised as an awareness on the part of mother respondents about concept of weaning, in its totality and includes
dimensions such as Need, Importance, Techniques, Types, Age, Factors and Guidelines to develop recipes for weaning food.

15. **Adoption Level:**

For the purpose of present study, however, the term adoption has operationally been taken to mean as the process through which mother respondents make use of or follow recommended weaning practices meticulously or as per convenience with little or more deviation from the recommendations.

16. **Nutritional Status of Infants:**

The term Nutritional status for the purpose of present study has operationally been defined as the state of health of infant as affected by intake and utilization of nutrients and includes methods of its assessment through anthropometric measurements, diet survey inclusive of types of weaning foods used.

17. **Health Status of Infants:**

The term Health status was taken to mean as a position, state or condition of an individual with regard to physical affairs and include immunization, personal hygiene and diseases effects.
Other Relevant Aspects of the Study:

1. **Ceremonies Performed to Start Weaning Foods**:

   After 4 to 6 months onwards there is a practice to start cereal or any food to the child. Some functions are organised to celebrate for starting adult food. In the present study mother respondents were specifically asked as whether they celebrate or perform ceremonies to start weaning food and if so in what way, and information is presented under the aspect.

2. **Reason for Weaning**:

   The process of weaning is governed by variety of reasons. Thus various reasons for adoption of weaning practices were considered. They were classified according to necessity for mothers or infants. The intention of giving weaning foods for different reasons were minutely studied.

3. **Techniques of Weaning**:

   To keep the infants off the breast and introducing weaning food are called the techniques of weaning. Different techniques are adopted by mothers to start weaning foods.

4. **Consequences of Weaning**:

   Weaning is a necessary process for the proper growth of infant. If mothers do not start proper weaning of their infants
at proper time, many problems can arise. Some mother complains about weaning foods because of their ignorance or their traditional styles of rearing the child. Fallacies of some food also are hindrance to feed the child. Process of weaning has some positive and negative effects to leave behind.

5. Suggest ions Offered by Mothers:

Inviting suggestions from mothers for making practices of weaning more effective was thought important and useful. Suggestions for the purpose of present study has been considered as tips, hints, clues proposed by the mother respondents to make the process of weaning more effective and fruitful.

Part 'B' deals with

1. Development of Scales for Measuring:
   1. Knowledge,

   Major focus of an enquiry in the present study was centered around quantification of knowledge of the respondents relating to recommended weaning practices and their subsequent adoption in accordance with objectives formulated for the purpose of study.
The first task before the author therefore, was to locate and identify measuring instruments if any developed by earlier researchers for quantification of dimensions under study. Inspite of her exhaustive search and best efforts it was not possible to come out with any measuring instruments developed especially for assessing knowledge and adoption of recommended weaning practices by the mothers from both rural and urban area. Author, therefore, had no other alternative than to go in for developing instrument of her own. Author, however, came across with measuring instruments developed by the researchers for quantification knowledge and adoption of other innovations other than weaning practice as an innovation, and therefore, author had little relief in referring the methodology, researchers have employed for development of these instruments.

Author then was confronted with the task of conceptually and operationally both the terms- knowledge and adoption and determine the dimensions/indicators/parameters as the case may be for the same.

Knowledge - Concept and Operationalisation:

According to the Random House Dictionary of the English language knowledge means familiarity or conversance as with the particular subject or clear and certain perception of facts or truth.
Knowledge in its elementary sense is knowing about an innovation.

Knowledge functions according to Rogers and Shoemaker (1971) commences when the individual is exposed to the innovation and gains some understanding, how it functions.

The term Knowledge, however, for the purpose of present study has been operationalised as an awareness on the part of mother respondents about concept of weaning in its totality and includes dimensions such as Need, Importance, Age, Techniques, Types and Guidelines to develop recipes for weaning food.

Adoption – Concept and Operationalisation

Dictionary meaning of the term Adoption is to accept into or act in accordance with.

Rogers and Shoemakers (1971) in their book, 'Communication of Innovations - A Cross Cultural Approach' defined the term 'Adoption' as "a decision to make full use of a new idea as the best course of action available."

For the purpose of present study, however, the term Adoption has operationally been taken to mean as the process
through which mother respondents make use of or follow recommended weaning practices meticulously or as per convenience with little or more deviation from the recommendations.

Consequent upon the operationalisation of the term knowledge and adoption for the purpose of the present study, the next step was to determine the dimensions. In the present study following eight dimensions, therefore, were considered.

i. Concept
ii. Need
iii. Importance
iv. Age of weaning
v. Techniques
vi. Types of weaning food
vii. Factors affecting weaning and
viii. Guidelines

These dimensions were then defined operationally as under:

1. Concept:

Perception of an idea of something formed by mentally combining all its characteristics or some particular by the mothers.
ii. Need:

Necessity or requirement in terms of fulfillment of the objectives for the sake of satisfaction.

iii. Importance:

Attachment of value in terms of merits and demerits ultimately to derive personal benefits with its acquirements.

iv. Age of Weaning:

Weaning age refers to chronological age of infant either in months or years as the case may be when the infant gradually becomes accustomed to the adult food diet.

v. Techniques:

Methods considered technically appropriate for the purpose of weaning.

vi. Types of Weaning Foods:

Types of weaning foods denotes state, (liquid, semi-solid and solid) composition in terms of nutritive value and mode of preparation (Home-made and Ready-made).
vii. Factors Affecting Weaning:

The term factor has been taken to mean as element contributing to a particular results or situations in the process of weaning with mothers.

viii. Guidelines:

The term guidelines denotes the instructions directives or procedural key points.

The next step then was selection of scale items for these dimensions. The procedure followed for the purpose is described below.

Collection of Items:

Items indicative of knowledge and adoption of weaning on the part of mothers were collected through literature and discussions with experts in the field and members of the faculty from the Department of Home-science etc. and listed, which were then rated for their relevance and appropriateness. Besides necessity for their incorporation in the scale developed. Finally 30 items were selected. Dimension wise distribution of which is given in Table - 4.
Table - 4: Dimension wise Distribution of Items included in the Study

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Dimensions</th>
<th>No. of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Concept</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>Need</td>
<td>6</td>
</tr>
<tr>
<td>3.</td>
<td>Importance</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Age of weaning</td>
<td>2</td>
</tr>
<tr>
<td>5.</td>
<td>Techniques/and</td>
<td>7</td>
</tr>
<tr>
<td>5.</td>
<td>Types of weaning foods</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Factors affecting weaning</td>
<td>2</td>
</tr>
<tr>
<td>8.</td>
<td>Guidelines</td>
<td>7</td>
</tr>
</tbody>
</table>

These items then were converted into statements. While preparing the statements suggestions proposed by Edwards (1969) were considered. Statements placed in the scale format were administered to the respondents for seeking responses. Responses from the respondents were sought in 2 point response continuum as shown below.

Scales developed was further tested for its reliability and validity. Reliability co-efficient for this scale through test-retest method and split-half method worked out to be 0.637 and 0.732 for knowledge and 0.537 and 0.674 for adoption respectively indicating thereby that the scale is reliable.
Dimension, Statements Responses Continuum and Score key Employed to Workout Total Score on Knowledge and Adoption of Recommended Weaning Practices is given below.

Table 5. Weaning Knowledge and Adoption Scale for Rural and Urban Mothers

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Dimension and Statements</th>
<th>Knowledge</th>
<th>Adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>I.</td>
<td>Need:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Improper nourishment results in affecting physical/Social/ mental and behavioural growth of infants adversely.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Ideal nourishment prevents under nutrition/ malnutrition.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Infancy is critical/ vulnerable period in the life of an individual.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Infants are growing too fast to thrive on breast milk alone after 6 months of age and hence need for supplementary foods.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Infants start crying more often than before because of hunger hence need food.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>In the events of inadequate milk for mothers side, provision of supplementary milk from six weeks onwards is necessary.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
II. Importance:

1. Feeding practices during Infant stage are considered very important for better future.

2. To improve and ensure the well being of infant, knowledge regarding recommended weaning practices is necessary.

3. Inadequate food intake and superimposed infection led to poor nutritional status and therefore knowledge about weaning practices is of Importance.

III. Concept:

1. Even at this stage of development mothers look to the concept of weaning with prejudice mind.

2. Concept of weaning in its true sense has not been taken by the mothers.

3. Understanding of the concept of weaning is necessary for availing its benefit.

IV: Age:

1. Commencement of weaning is recommended when a child is in between 4-8 months of age.
2. Quality and Quantity of Infant's food should match advancement of age.

V : Technique / Type of foods:

1. Shift in nature/ state of food to be done after at least 8 to 10 days.

2. Shift in type of weaning foods to be done after 2 or 3 months.

3. Infant needs mixtures of foods which are nutritious and concentrated in energy.

4. Fruits to be given mashed or in the form of juice.

5. Half boiled egg to be introduced gradually.

6. Milk supplements to be given regularly.

7. Dark leafy vegetables to be given.

VI. Factors:

1. Age as a factor has its own influence on adoption of weaning practices.

2. Infant to be fed at regular intervals.
VII. Guidelines:

1. The growth of babies to be checked by weighing them every month regularly.

2. Foods to be prepared and handled hygienically.

3. Feeding infant suitably during illness to be continued.

4. More food than usual to be given after illness.

5. During diarrhoea, specified, food and drink to be continued.

6. Home-made mixes to be preferred than ready-made foods.

7. Full diet without spices to be given after one year.

Having described the strategy for computation of knowledge and adoption score, it was thought appropriate and worth as well to compute the knowledge and adoption index.
Therefore knowledge index and adoption index was worked out as detailed below.

\[
\text{Knowledge Index} = \frac{\text{Sum of knowledge scores obtained by a respondent}}{\text{Sum of the obtainable knowledge scores}} \times 100
\]

\[
\text{Adoption Index} = \frac{\text{Sum of adoption score obtained by a respondent}}{\text{Sum of the obtainable adoption scores}} \times 100
\]

Thus all the mother respondents were divided into three different categories with the help of confidence interval method as shown in Table - 6.

Table - 6: Attributes, Classification, Categories and Score Range

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Attributes</th>
<th>Category</th>
<th>Score Range Rural</th>
<th>Score Range Urban</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>i. Complete</td>
<td></td>
<td>93 and above, 72 and above</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ii. Partial</td>
<td></td>
<td>27 - 92</td>
<td>42-72</td>
</tr>
<tr>
<td></td>
<td>iii. Poor</td>
<td></td>
<td>upto 26</td>
<td>upto 41</td>
</tr>
<tr>
<td>2.</td>
<td>Adoption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>i. Complete</td>
<td></td>
<td>49 and above, 64 and above</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ii. Partial</td>
<td></td>
<td>16-49</td>
<td>30-63</td>
</tr>
<tr>
<td></td>
<td>iii. Poor</td>
<td></td>
<td>upto 15</td>
<td>upto 29</td>
</tr>
</tbody>
</table>
2. Standards and Classification System Used for Measurement of

i. Nutritional Status of Infants

Although many of us if not all are well conversant and familiar with the term, "Nutritional Status" yet has been perceived and taken to be in different ways, considering different components and parameters for its computation. It was therefore, for the purpose of present study necessary to operationalise the term besides the computation strategy for working out nutritional status score for infant respondents under the study.

The term Nutritional status for the purpose of present study has operationally been defined as the state of health of infant as affected by intake and utilization of nutrients and includes methods of its assessment through anthropometric measurements, diet survey inclusive of types of weaning foods used. Scale developed was further tested for its reliability and validity. Reliability co-efficient for this scale through test-retest method and split-half method worked out to be 0.785 and 0.678 respectively indicating thereby that the scale is reliable.

Having operationalised the term Nutritional status dimensions and indicators under the respective dimensions, were
finalised together with classification category and scoring key described, and the information about the same is presented with the Table - 7.

Table - 7: Dimensions, Indicators, Classification categories and Scores assigned for Nutritional Status.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Dimensions</th>
<th>Indicators</th>
<th>Classification and scoring key</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Anthropometry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Weight for age</td>
<td>1 2 3 4</td>
<td></td>
</tr>
<tr>
<td>ii.</td>
<td>Height for age</td>
<td>1 2 3</td>
<td></td>
</tr>
<tr>
<td>iii.</td>
<td>Head/Chest</td>
<td>1 2</td>
<td>circumference</td>
</tr>
<tr>
<td>2.</td>
<td>Diet survey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>Protein</td>
<td>&gt;15gm, 10.1-18, upto 10gm</td>
<td>3 . 2 . 1</td>
</tr>
<tr>
<td>ii.</td>
<td>Energy</td>
<td>&gt;720kcal, 400-720, upto 400kcal</td>
<td>3 . 2 . 1</td>
</tr>
<tr>
<td>iii.</td>
<td>Calcium</td>
<td>&gt;180mg, 100-180mg, upto 100mg</td>
<td>3 . 2 . 1</td>
</tr>
<tr>
<td>iv.</td>
<td>Breast feeding</td>
<td>&gt;6times, 4-6times, upto 3 time</td>
<td>3 . 2 . 1</td>
</tr>
<tr>
<td>b.</td>
<td>Types of weaning foods used</td>
<td>1 score of each item</td>
<td></td>
</tr>
</tbody>
</table>
Thus individual infant understudy was accordingly scored for these three dimensions and total score was worked out and then all the infants were classified into three categories on the basis of score earned by them as Normal, Satisfactory, Below normal with the help of confidence interval method.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Categories</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Below Normal</td>
<td>upto 20</td>
</tr>
<tr>
<td>2.</td>
<td>Satisfactory</td>
<td>21 - 30</td>
</tr>
<tr>
<td>3.</td>
<td>Normal</td>
<td>31 and above</td>
</tr>
</tbody>
</table>

Gopalan, (1992) opined that measurement of growth has been a widely used tool for the assessment of health/nutritional status of children. For the evaluation of growth, it has to be compared with a 'standard' which is considered the best to represent normal growth. The author defines the term 'Normal growth' as "the level of growth which is attained by the child when its innate genetic potential for growth finds full expression in a situation wherein dietary and environmental constraints on growth are eliminated."

A. Anthropometric Measurements:

Anthropometric measurements are an important tool for the assessment of nutritional status. Anthropometric measurements, i.e. age, weight, height, head/chest circumference were taken and described below.
i. Age:

For proper interpretation of starting of weaning practices at proper age, the correct assessment of age of the children was pre-requisite, for assessment of correct ages of infants, the mothers were asked to relate the birth of their children to some events or festivals.

ii. Weight:

Weight of infants was recorded by using weighing machines. The baby beam weighing machine was used for infants below one year, and simple weighing machine was used for infants above one year. The age wise standard weight given by ICMR compared with the weight of infant respondents. On the basis of 'Gomez' classification, the scoring were done to work out the total nutritional status score.

Gomez classification:

- 60% < weight-for-age : Grade iii malnutrition
- 61-75 % weight-for-age : Grade ii malnutrition
- 76-90 % weight-for-age : Grade i malnutrition
- > 90 % weight-for-age : Normal
iii. Height:

According to Jellife (1966) height is a very reliable measurement that reflects the total increase in size of the individual up to the moment it is determined and could indicate adequate nutritional status. Considering the suitability and convenience the author had made use of measuring tape for recording the height of the infants. The standard height given by ICMR was taken for comparison for the age wise distribution of infant respondents. Mclaren's classification was used to categorise and scoring was done.

Mclaren's classification:

60 % < : Dwarf
80 - 93 % : Short
93 - 105 % : Normal

iv. Head and Chest Circumference:

The chest circumference measurement along with the head circumference is useful to detect malnutrition in children. The head circumference is more than the chest for the infants up to six months. After that the chest grows rapidly while head grows slow with the result that Head/Chest circumference ratio becomes less than one, the infant is considered as malnourished and if the ratio is equal to one or less than the infants is
considered Normal. To assess the ratio of Head/Chest circumference the researcher used measuring tape.

B. Diet Survey:

Diet survey plays an important role in evaluating the nutritional status of an individual of a society, since diet has a far reaching influence on health.

In the present study 24 hour recall method was adopted to collect information about food consumption of sample infants. Mothers of the sample infants in both the categories were asked to recall/ describe, in as much detail as possible the food intake of their child for the past 24 hours. The different types of weaning foods given were recorded in liquid, semi-solid and solid categories, and total foods was evaluated to find out the nutritive value. Thus total one day feeding as per quantity and quality wise was evaluated.

C. Types of foods used:

The different supplementary foods were given to infant such as liquid, semi-solid, and solid foods. Each food was given score of one according to their use as a weaning food, and thus total score of each infant respondent was worked out and was considered for ascertaining status of the infant. As a matter of
fact individual food items should have been rated and scored differently based on its quality in terms of nutritive value however in order to avoid bias all the food items were treated as equal for scoring purpose.

Health Status:

The term 'Health status' was taken to mean as a position state or condition of an individual with regard to physical affairs and include immunization, personal hygiene and diseases effects.

Scale developed was further tested for its reliability and validity. Reliability co-efficients for the scale through test-retest method and split-half method worked out to be 0.601 and 0.738 respectively indicating thereby that the scale is reliable.

Total score on health status dimension was worked out as per the classification category and respective score assigned as shown in the Table - 8.
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Category of respondents</th>
<th>Indices</th>
<th>Classification category with score assigned for each</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Infants 4 to 18 months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Immunization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-3 months:</td>
<td>B.C.G. - 2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-6 months</td>
<td>D.P.T. - 3 x 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-7 months</td>
<td>Polio iv - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-8 months</td>
<td>Polio v - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-12 months</td>
<td>Measles 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>upto 15 months</td>
<td>MMR./Measles- 2 . 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>upto 2 years</td>
<td>Booster - 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. ii. Personal hygiene :</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Mouth :</td>
<td>Clean / not clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 / 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Bath :</td>
<td>Regular / Irregular</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 / 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Hair :</td>
<td>Clean / not clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 / 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 / 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Clothes :</td>
<td>Clean / not clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 / 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Nail :</td>
<td>Cut &amp; not cut clean / &amp; clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 / 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Nose :</td>
<td>Clean / not clean</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2 / 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Seasonal :</td>
<td>Yes / No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>diseases 1 / 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Thus score for an individual respondents on both the two component dimensions namely Immunization and Personal hygiene under the roof of health status for an individual infant respondent was worked out and on the basis of score earned all the infant respondents were classified into three different categories namely.

i. Sound health status

ii. Medium health status

iii. Poor health status

Information pertaining to different aspects of the scale is Furnished in the Table - 9
### Table 9: Information about Different Aspects of Different Scales Used in the Study

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Nomenclature of the scale</th>
<th>No. of Dimensions/Indicators</th>
<th>No. of Statements or Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Scale for Measuring Knowledge &amp; Adoption about Weaning Practices.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Concept</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Need</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Importance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Age of Weaning</td>
<td>2</td>
<td></td>
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<td>5. Techniques and</td>
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<td>Types of weaning foods.</td>
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<td>7. Factors affecting</td>
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<td>8. Guidelines</td>
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<td>2.</td>
<td>Scale for Measuring Nutritional Status of Infants.</td>
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<td>1. Anthropometric</td>
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<td>Measurements.</td>
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<td>2. Diet survey.</td>
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<td>3. Types of weaning</td>
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<td>foods.</td>
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<td>3.</td>
<td>Health Status of</td>
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<td>1. Immunization.</td>
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<td>2. Personal Hygiene.</td>
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<td>3. Seasonal Diseases.</td>
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</table>
Thus it can be seen from the table above that three important scales with variability in the number of dimensions and statements have been developed in the present study for assessing knowledge and adoption of weaning practices, nutritional status and health status of infants. These scales as has already been stated earlier have been subjected to the tests of reliability and validity.

Scoring position of respondents on different scales have been depicted in the different tables.

In order to enhance the readability of the interpretations scores have been transformed in to figures in the form of line, bar, diagrams and pie charts.