

# Knowledge and Practices of Mothers: Infant and Young Child's Feeding in Chowk Azam, the Punjab, Pakistan

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**Abstract:** In order to investigate the knowledge and practices of mothers regarding breast feeding and complementary feeding and to assess their compliance with the health guidelines, we conducted a cross-sectional survey of infant complementary feeding and breast feeding practices was conducted in a sample of 230 mothers. Data was collected systematically from rural areas of Chowk Azam. A validated questionnaire comprising of questions pertaining to sociodemographic profile, knowledge and practices of breast feeding and complementary feeding practices was used. The data was analyzed using SPSS version 20 and chi square test was applied. Our study results revealed that only 18% mothers were practicing complementary feeding at the recommended age. About 72% of the respondents started complementary feeding before the recommended age of six months and 3% mothers started delayed complementary feeding. Around 6.5% mothers had children less than six months of age and did not start complementary feeding yet. Almost half of the respondents 56.3% were using the homemade complementary food, while less than a fourth i.e. 19.5% mothers were giving commercially prepared food to their children and rest of one-fourth mothers 24.2% were giving both types of food. We conclude that knowledge and practices of mothers pertaining to breast feeding and complementary feeding practices are at mixed levels, and their understanding about exact time of starting complementary feeding is suboptimal. There is a need to create awareness among mothers regarding the appropriate time of starting complementary feeding so that health status of the infants and children can be ameliorated.

**Keywords:** Complementary Feeding, Pakistan, Knowledge, Breast Feeding

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## 1. Introduction

Feeding practices of infants are chief determinants of future physical and mental well-being because of rapid growth and development of tissues during the first year of life [1]. Health status of child is immensely affected by the breastfeeding and complementary feeding practices. Childhood under nutrition is quite common in low and middle income countries and it is one of the contributing factors for child mortality. It has been estimated that around the globe about 2.1 million deaths in children less than 5 years of age occur just because of wasting, stunting and intrauterine growth restriction [2]. Child health is negatively influenced by both under nutrition and inappropriate stimulation and as a result imposes long term impacts by

adversely affecting the educational and economical outcomes of child [3, 4]. After six months of age exclusive breast feeding is insufficient to fulfill the nutritional requirements of the rapidly growing child as a result incidence of stunting are highest in this age [5].

Therefore there is need to introduce the solid food at the age of six months [6, 7]. Complementary food should be safe and nutritious and it should be introduced at appropriate time and in adequate amount [8]. In Pakistan complementary feeding practices are not according to the health guidelines and suboptimal feeding practices have been observed in various parts of the country [9, 10]. The aim of present study is to describe the breast feeding and complementary feeding practices among mothers at Chowk Azam, Pakistan and to assess their compatibility with health guidelines.

## 2. Materials and Methods

### 2.1. Study Design

Cross sectional study was conducted that was descriptive and exploratory in nature. Breast feeding and complementary feeding practices among mothers were determined and their compatibility with health guidelines was assessed. The risk factors for early and delayed initiation of complementary feeding practices were also identified.

### 2.2. Subjects

The sample was collected from rural community of Chowk Azam and systematic sampling technique was used. Mothers having child up to 2 years of age or below were included in the study. About 230 mothers participated in the study.

### 2.3. Data Collection Tool

A validated close ended, structured questionnaire was used to collect the data. Questionnaire was first piloted with 10 participants among community. The questionnaire comprised of sociodemographic characteristics of the study participants including education level of mother, family income and age. Study variables comprised of time of starting complementary feeding, frequency of complementary feed and type of complementary food. Questionnaire was translated into local language so that study participants could understand and respond accurately. Informed consent form was obtained prior to interviews.

### 2.4. Data Analysis

Data analysis was carried out by using SPSS version 20 and chi square test was applied to see the association between dependent and independent variables. Descriptive summary statistics such as frequencies and percentages were computed for statically important variables. The inferential analysis at  $p\text{-value} < 0.05$  was carried out using Chi-Square test and study variables were cross tabulated to assess the level of association of categorical/nominal variables. Results were presented in Graphic and tabular forms.

## 3. Results

### 3.1. Demographic Data

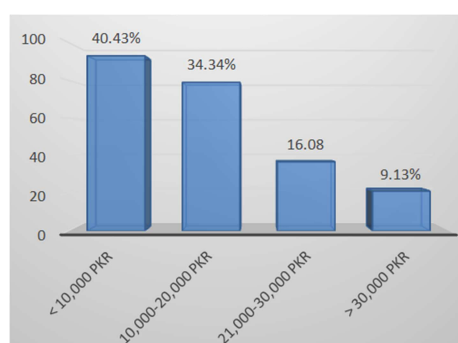


Figure 1. Monthly income of the family.

Out of 230 mothers who participated in the study about 37% mothers were illiterate and around 33.5% of the participants were having primary level education, 16.5% obtained middle level education, whereas 10% had high school education. Only 3% mothers received graduation degree.

### 3.2. Breast Feeding Practices

In a response to a question about duration of exclusive breastfeeding only 11.7% mothers correctly answered that it is after six months. More than two-third 71.3% of the respondents said that exclusive breastfeeding is recommended only for four months.

Table 1. Sociodemographic characteristics of the respondents.

Variable	Frequency(n=230)	Percentage (%)
Education level of mother		
Illiterate	85	37
Primary	77	33.5
Middle	38	16.5
High	23	10
HSSC	4	1.7
Graduation	2	0.86
Religious	1	0.4
Monthly income of family		
<10,000 PKR	93	40.4
10,000-20,000	79	34.3
21,000-30,000	37	16.1
>30,000	21	9.1

### 3.3. Complementary Feeding Practices

Table 2. Complementary feeding practices among the respondents.

Variable	Frequency (percentage)(n=230)
Started complementary feeding	
Yes	215 (93.4)
No	15 (6.5)
Age of children when started complementary feeding (n=215)	
< 6 months	167 (77.7)
At 6 months	41 (19)
>6 months	7 (3.3)
Reasons of early complementary feeding (n=167)	
Didn't know when to start CF	138 (82.6)
Breast milk was insufficient	23 (13.8)
Sickness of mother	6 (3.6)
Reasons for delayed complementary feeding (n=7)	
Didn't know exactly when to start	2 (28.6)
Feeling that breast-milk is sufficient	3 (42.9)
Family elders advised to start late	1 (14.3)
Feeling that child was not able to digest	1 (14.3)
Food source being given to children (n=215)	
Commercially prepared	42 (19.5)
Homemade	121 (56.3)
Both	52 (24.2)
No of complementary feeding per day (n=215)	
One meal/day	29 (13.5)
2-3 meals/day	63 (29.3)
>3 meals/day	7.2)

Only about 18% of mothers had started complementary feeding at recommended age of the children. 72.6% of the respondents had started complementary feeding before the recommended age of six months. 3% had started delayed complementary feeding i.e. at more than six months of age. 6.5% of the respondents had not started complementary feeding to their children (i.e. the age of their children was less than 6 months). Around 56.3% mothers were giving homemade food to their children, 19.5% were giving commercially prepared food and 24.2% were giving both types of food. Most of 57.2% of the mothers were giving more than 3 meals per day and 13.5% were giving one meal per day.

## 4. Discussion

The study results revealed that in Pakistan, contrary to health guidelines, the practice of feeding children with solid or semi solid food starts quite early in life [11]. A large percentage of children i.e. about 72.6% children were receiving complementary feed below age of 6 months. Only 18% children were given solid food at the recommended. However there was a minor fraction of children 3% who received solid food at greater than 6 months of age.

Lack of knowledge about exact time of starting complementary feeding was the main reason for suboptimal feeding practices [12]. About 82.6% of those respondents who were practicing early complementary feeding didn't know when to start complementary feeding. Majority of these mothers were illiterate and they were having little knowledge about importance of complementary food and its impact on the child's health. Other reasons included were mother's perception that breast milk is insufficient for children about 3.6% mothers said their sickness led them to start early complementary feeding. Approximately 3% of mothers who started delayed feeding tried to justify that breast milk was enough for their babies. Other reasons stated by mothers for delayed complementary feeding were lack of knowledge about time of initiation of weaning (28.6%), instructions from family members (14.3%) and feeling of mothers that their children were not able to digest food other than breast-milk. Tabish et al also showed similar results; prevalence of suboptimal feeding practices is quite high among Pakistani mothers and there is need to develop interventions to control these alarming rates [13]. A similar study conducted by Shirely et al revealed that education level of mothers' effect time of introduction of complementary food. Shirley et al stated that educated mothers had more knowledge about significance of complementary food and they had better weaning practices compared to uneducated mothers. Another study conducted by Ali et al revealed there was significant improvement in complementary feeding practices among mothers after providing them health education.

Infant mortality rate and child mortality rate associated with the use of inappropriate complementary feeding practices are already high in Pakistan and there is need to

resolve this issue on priority basis. Otherwise situation may get worse thus making it impossible for Pakistan to achieve it MDG 4 and 5.

## 5. Conclusion

The high level of noncompliance with the health guidelines could conclude that lack of knowledge about complementary feeding is one of the main reasons for poor feeding practices. There is need to improve the health knowledge of mothers regarding the duration of exclusive breast feeding and time of initiation of complementary feeding. Health professional should be trained to properly counsel the mothers about frequency and adequacy of complementary food.

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