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Patterns and Variations in Complementary Feeding Practices Among Mothers of Children Aged 6–24 Months Attending Immunization Clinics in Mandi Gobindgarh, Punjab, India

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Abstract

Introduction: *Complementary feeding introduces solid or semisolid foods to an infant's diet while breastfeeding. In India, feeding infants and young children is determined by their socioeconomic status, cultural practices, and healthcare access. The study assesses the feeding practices of mothers with children aged 6–24 months who come for immunization at Mandi Gobindgarh, Punjab.* ***Methods:*** *A cross-sectional study was conducted with 350 mothers selected through systematic random sampling. A structured questionnaire was used to gather data on maternal age, education, employment status, family structure, and timing and frequency of food introduction and other feeding practices. Descriptive analysis, chi-square tests, and cross-tabulation for sociodemographic variables were conducted to determine association with feeding practices.* ***Results:*** *Practitioners revealed that the complementary feeding practices showed a remarkable difference across the age groups of mothers. Only 31.1% of mothers followed the recommended timeline of introducing food at the 6-month mark, while the rest either did it earlier (33.7%) or later (35.1%). The data also revealed that 51% of mothers started breastfeeding within the first hour of birth, but only 46% continued breastfeeding after those stages. 45% of mothers reported prelacteal feeds. The mother's age and the introduction of complementary foods showed no important relationship with each other, $p = 0.681$. This means that there are many other overriding variables such as education and healthcare accessibility.* ***Conclusions:*** *This study has pointed out some issues in adhering to optimal feeding practices, most notably regarding prelacteal feeds and the early introduction of complementary foods. Sociodemographic variables, such as maternal education and employment, influence these practices. Implementing measures to improve appropriate breastfeeding and complementary feeding practices is necessary, especially for more educationally challenged mothers.*

Keywords: Complementary feeding, breastfeeding, prelacteal feeds, infant nutrition, sociodemographic, maternal education, public health.

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INTRODUCTION

Complementary feeding is the introduction of solid or semisolid foods to children aged 6–24 months while still breastfeeding, and nutritional attention during this phase is of prime value. According to World Health Organization (WHO) [1], the appropriate age for commencing breastfeeding is 6 months, while mothers should breastfeed for a minimum of 2 years. Lack of proper complementary feeding practices is associated with malnutrition, growth stunting, and high infection sensitivity [2].

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As a country characterized by a multi–dimensional socioeconomic structure, India has been observed to harbor a varied practice pattern in terms of complementary feeding. At the same time, some mothers prefer the recommended practices; quite a few offer complementary foods too late or are too restrictive in their dietary diversity. Mandi Gobindgarh is one such place in the Punjab region where maternal and child health services, especially immunization clinics, are available but still lack nutrition [3]. Gaining an understanding of the feeding practices among children aged 6–24 months is crucial in the efforts to improve child health indicators. This study aims to evaluate the complementary feeding practices at selected immunization clinics in Mandi Gobindgarh, Punjab, and determine the reasons that influence feeding practices among mothers in the region.

METHODOLOGY

Study Design

This study employed a cross-sectional design, which is frequently seen in public health investigations and is used to analyze the occurrence of certain behaviors or conditions at a given time. This study design effectively gather information regarding behaviors, practices, and/or attitudes as well as determine the possible relationship with sociodemographic variables [4]. The design was suitable for assessing complementary feeding practices among mothers with children aged 6–24 months in Mandi Gobindgarh, Punjab. These data make it possible to assess some population practices and make specific sociodemographic differentiations [5].

Study Setting

The location for the current study is Mandi Gobindgarh, a town in the Punjab state, India, that describes a semi-urban locality with varied socioeconomic strata. The study locations were selected from immunization clinics, which are considered critical entry points for maternal and child health services. Mothers and caregivers regularly visit immunization clinics, making it easy to recruit participants. These clinics are key components of maternal and child health services in the area, where mothers often seek immunization and pediatric services for their children [6]. This context allows for collecting convenience samples from mothers who are likely to have an active engagement with formal healthcare systems.

Sample Size and Sampling Technique

A total of 350 mothers who met the eligibility criteria were recruited into the study sample, with each mother having at least one child between the ages of 6 and 24 months. This sample size was calculated based on the expected attendance of mothers at immunization clinics within the study period, which was deemed sufficient to construct statistically meaningful power estimates for analyzing patterns of complementary feeding practices [7]. Participants were recruited through convenience sampling, a non-probability sampling technique where subjects are selected based on how easily they can be reached. This technique is prevalent in community-based research where the targeted population is available, thus enabling the researcher to obtain enormous quantities of information rapidly [8].

Data Collection Instrument

Data was gathered through a formatted questionnaire designed to obtain essential information on complementary feeding practices, including, but not limited to, the timing of complementary food introduction, types of food offered, frequency of feeding, and the challenges mothers encountered in feeding infants. The questionnaire was composed of closed-ended and multiple-choice questions, facilitating the effective collection of quantitative information [9]. In addition to that, the instrument captured sociodemographic variables, such as maternal education, employment, and family head, which may explain their nurturing practices [10].

To enhance the questionnaire's accuracy and relevance, it was pretested on 50 mothers from Amloh Municipality, which shares geographical features with Mandi Gobindgarh but is in a different administrative area. This testing helped unearth any deficiencies or challenges associated with the instruments and provided opportunities for subsequent refinement, which improved the integrity of the data collection processes [11].

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Analysis of Data

The data obtained from the questionnaires were processed with SPSS or Stata. Descriptive statistics were calculated using frequencies, percentages, and means to determine and summarize the participants' demographics and the distribution of the complementary feeding practices. This analysis allowed a better understanding of the participants' practices and interactions.

To assess the relationship among sociodemographic variables, such as age, education level, income, employment status, and family type with the feeding practices, chi-square tests were computed. This test is performed to measure the relationship between two categorical variables, and it is ideal for identifying the association between sociodemographic variables and feeding practices [12]. The results were evaluated at $p < 0.05$, which is very common in social science research and claimed to be meaningful [13].

Ethical Considerations

The research was conducted using the ethical protocols that govern such activities, with prior approval from the relevant health department's Institutional Review Board (IRB). Informed consent was obtained from all study participants before data was collected, ensuring that they understood the aim of the study, the voluntary nature of their participation, and the anonymity of their responses. All participants were assured that the confidentiality of their data would be maintained and used solely for altruistic research purposes, in line with ethical standards and privacy laws [14]. The ethical measures employed in this research were implemented to protect the participants' rights and welfare, enabling the researchers to carry out the study.

RESULTS

The age distribution of 350 respondents in Mandi Gobindgarh shows a balanced representation across key reproductive age groups: 18–24 years (27.7%), 25–34 years (29.4%), and 35–44 years (28.0%), with 14.9% aged 45+ (Table 1).

Table 1. Age distribution of respondents.

Age Group		Frequency	Percent	Cumulative Percent
	18–24	97	27.7	27.7
	25–34	103	29.4	57.1
	35–44	98	28.0	85.1
	45 and above	52	14.9	100.0
	Total	350	100.0	

The education level distribution of respondents shows that 24.3% had no formal education, 23.4% had primary education, 25.1% had secondary education, and 27.1% had higher education. This near-equal distribution across education categories suggests that the sample captures feeding practices across socioeconomic strata. The significant proportion with limited education (47.7% with primary or less) may explain persistent traditional feeding practices, while the 27.1% with higher education is likely to represent households more exposed to modern health messaging. This diversity enables analysis of how education influences infant feeding decisions in this community (Table 2).

Table 2. Education level of respondents.

Level of Education		Frequency	Percent	Cumulative Percent
	No Formal Education	85	24.3	24.3
	Primary Education	82	23.4	47.7
	Secondary	88	25.1	72.9
	Higher	95	27.1	100.0
	Total	350	100.0	

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The employment status distribution reveals 32.3% unemployed, 34.6% self-employed, and 33.1% employed. This balanced distribution across work categories suggests that the sample represents diverse household economic conditions. The high self-employment rate (34.6%) reflects Punjab's entrepreneurial economy, while nearly equal proportions of unemployed and formally employed respondents (32.3% vs 33.1%) enable analysis of how work status impacts feeding practices. This variation is particularly relevant for understanding breastfeeding continuation challenges among working mothers (Table 3).

Table 3. Employment status of respondents.

Employment Status		Frequency	Percent	Cumulative Percent
	Unemployed	113	32.3	32.3
	Self-employed	121	34.6	66.9
	employed	116	33.1	100.0
	Total	350	100.0	

The family structure distribution shows 34.9% nuclear, 35.1% joint, and 30.0% extended families. This near-equal distribution across household types is particularly valuable for understanding how family dynamics influence infant feeding decisions. The predominance of joint (35.1%) and extended (30.0%) families highlights the continued importance of multigenerational living arrangements in this region, which may reinforce traditional feeding practices through elder involvement. Meanwhile, the substantial nuclear family representation (34.9%) reflects growing urbanization trends. This balanced distribution enables meaningful comparisons of feeding practices across different family structures, especially regarding decision-making autonomy and adherence to traditional norms (Table 4).

Table 4. Family type of respondents.

Family Type		Frequency	Percent	Cumulative Percent
	Nuclear	122	34.9	34.9
	Joint	123	35.1	70.0
	Extended	105	30.0	100.0
	Total	350	100.0	

Infant Feeding Practices

The statistics in Table 5 highlight the breastfeeding practices of mothers with infants under the age of 2 years, and the participants include 350 respondents. These practices include breastfeeding the child 1 hour after delivery, breastfeeding the infant in question, and prelacteal feeds referred to as honey, sugar water, or formula before breast milk is given. All these variables are binary and coded 0 for no and 1 for yes, which helps to measure the level and variation in the sample for these practices.

Table 5. Descriptive statistics on infant feeding practices.

Descriptive Statistics					
	N	***Minimum***	***Maximum***	***Mean***	***Std. Deviation***
Breastfeeding within one hour of birth?	350	0	1	.51	.501
Currently breastfeeding child	350	0	1	.46	.499
Prelacteal feeds (e.g., honey, sugar water, formula before breast milk)?	350	0	1	.45	.498
Valid N (listwise)	350				

The first variable in breastfeeding, "breastfeeding within one hour of birth", has a mean of 0.51, suggesting that respondents in this sample did breastfeed their child within an hour of giving birth. The standard deviation for this variable was found to be 0.501, indicating high dispersion, meaning unequal

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distribution of responses regarding breastfeeding within the first hour. The variable ranges from 0, which represents not breastfeeding within 1 hour, to 1, which symbolizes breastfeeding the baby within an hour, meaning it is not a common practice; however, it is still practiced by almost half of the population sample.

The mean for the second variable, breastfeeding the child, is 0.46, which means that 46% of the respondents are currently breastfeeding their child. The standard deviation is 0.499, again suggesting symmetry above and below the mean proportion of those currently breastfeeding compared to those not. The same range as the preceding variable, zero not breastfeeding, to one currently breastfeeding, suggests that a significant proportion of the sample is still breastfeeding at the time of the survey, but is under one-half.

The following variable, prelacteal feeds, also has a mean value of 0.45, indicating that 45% of the respondents used some form of prelacteal feed associated with breastfeeding. The standard deviation for this variable is 0.498, meaning there is a similar variance as the means in the two other variables. The range also spans from 0, which did not provide prelacteal feeds, to 1, which provided prelacteal feeds, indicating that the practice is present among almost half of the sample but, again, not quite pervasive.

The data presented in Table 6 reveal significant variations in infant feeding practices across different maternal age groups. It highlights distinct patterns in breastfeeding initiation, continuation, and prelacteal feeding that warrant careful examination. The analysis demonstrates how maternal age influences critical infant feeding behaviors, with important implications for public health interventions.

Table 6. Variations in infant feeding by age group.

Descriptive Statistics					
Age Group		***N***	***Minimum***	***Maximum***	***Mean***
18–24	breastfeeding within one hour of birth?	97	0	1	.55
	currently breastfeeding child	97	0	1	.47
	Pre 5flacteal feeds (e.g., honey, sugar water, formula before breast milk)?	97	0	1	.49
	Valid N (listwise)	97			
25–34	breastfeeding within one hour of birth?	103	0	1	.53
	currently breastfeeding child	103	0	1	.42
	Prelacteal feeds (e.g., honey, sugar water, formula before breast milk)?	103	0	1	.41
	Valid N (listwise)	103			
35–44	breastfeeding within one hour of birth?	98	0	1	.50
	currently breastfeeding child	98	0	1	.46
	Prelacteal feeds (e.g., honey, sugar water, formula before breast milk)?	98	0	1	.47
	Valid N (listwise)	98			
45 and above	breastfeeding within one hour of birth?	52	0	1	.44
	currently breastfeeding child	52	0	1	.52
	Prelacteal feeds (e.g., honey, sugar water, formula before breast milk)?	52	0	1	.42
	Valid N (listwise)	52			

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Among teenage mothers aged 18–24, we observe what can be called the "golden rate" of breastfeeding initiation, which is 55%. This may suggest that younger mothers are more inclined to follow breastfeeding recommendations or attend more recent antenatal classes. On the contrary, this age group holds the highest rate of prelacteal feeding at 49%. This illustrates the sad reality of the coexistence of acceptable and harmful practices. Furthermore, currently, the breastfeeding rate among this subset of mothers is 47%, which may represent a different situation where young mothers experience great challenges in sustaining a good breastfeeding rate after an adequate initial uptake.

For mothers aged 25–34, the breastfeeding initiation rate for this age group is quite notable at 53%. However, only 42% of mothers can continue later, resulting in an 11-percentage point gap. This gap illustrates that there may be specific difficulties in breastfeeding sustenance within this age cohort that are related to employment or other socioeconomic factors. It may also be significant to note that this group has the lowest proportion of prelacteal feeding (41%). These findings indicate that these mothers better understand feeding practices than younger mothers and, therefore, have more knowledge of appropriate and inappropriate behaviors.

Concerning Mothers

Mothers aged 35–44 exhibited moderate performance across all the indicators, with 50% and 46% for breastfeeding initiation and current breastfeeding, respectively. They also had a prelacteal feeding rate of 47%. The narrow gap between the breastfeeding initiation and continuation rates (only four percentage points) indicates that a more excellent maternal experience brings better-organized support systems to aid in breastfeeding practice.

The patterns exhibited by women aged 45 years and older are particularly striking compared to other age groups. These women are less likely than others within their age group to breastfeed. However, while they have the lowest breastfeeding initiation rate at 44%, they do astonishingly possess the highest breastfeeding rate of 52%.

Complementary Feeding Practices

The descriptive statistics reveal several noteworthy patterns in complementary feeding practices that warrant detailed examination. The age of introducing complementary food (mean = 2.01, SD = 0.831) follows an approximately normal distribution, with the standard deviation indicating that approximately 68% of respondents introduced solids between 1.18 and 2.84 on the measurement scale. This substantial variability suggests significant departures from recommended feeding timelines in early and late introduction directions (Table 7).

Table 7. Descriptive statistics on complementary feeding practices.

Descriptive Statistics					
	N	***Minimum***	***Maximum***	***Mean***	***Std. Deviation***
Age of Introducing Complementary Food	350	1	3	2.01	.831
First Food Introduced	350	1	4	2.48	1.067
Number of times complementary food is served per day	350	1	4	2.43	1.110
Consistency of Complementary Food	350	1	3	2.08	.827
Added salt, sugar, or spices to complementary foods	350	0	1	.51	.501
Variety of food groups in your child's diet	350	0	1	.52	.500
Valid N (listwise)	350				

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Analysis of the first foods introduced (mean = 2.48, SD = 1.067) shows a broader dispersion of responses. The standard deviation exceeding 1.0 indicates that responses are spread nearly across the entire possible range (1–4), suggesting no strong consensus or uniform practice regarding initial food choices. The positive skewness implied by the higher mean relative to the midpoint (2.5) points toward a tendency for more nutritionally appropriate first foods, though with considerable exceptions.

The frequency of complementary feeding (mean = 2.43, SD = 1.110) demonstrates similar variability, with the standard deviation again exceeding 1.0. This indicates that daily feeding frequencies range widely from 1 to nearly 4 times per day. The near-identical means for first food type and feeding frequency (2.48 vs. 2.43) with similar variability (SD = 1.067 vs. 1.110) suggest these aspects of feeding practice may be related or influenced by common factors.

Food consistency scores (mean = 2.08, SD = 0.827) show less relative variability (coefficient of variation = 40%) than other measures, indicating more consensus in this aspect of feeding practice. The mean near 2.0 suggests most respondents follow intermediate consistency recommendations with fewer extreme practices.

The binary variables reveal nearly even splits in practice:

- Added salt/sugar/spices: 51% yes (mean = 0.51, SD = 0.501).
- Dietary variety: 52% adequate (mean = 0.52, SD = 0.500).

These near-50% proportions (SD ≈ 0.5) indicate that no majority practice exists for these important nutritional factors. The almost identical statistics for these two variables (means differing by just 0.01) suggest they may be behaviorally linked in caregiver practices.

This cross-tabulation (Table 8) analysis reveals significant variations in complementary feeding initiation practices across different maternal age groups, highlighting both trends and opportunities for targeted interventions. Among the youngest mothers (18–24 years), we observe a relatively even distribution across the three introduction timeframes, with the highest proportion (37.1%) initiating complementary foods before the recommended 6-month mark. The 25–34-year age group mirrors this pattern closely, showing nearly identical rates of early introduction (36.9%) while maintaining similar proportions for late introduction (35.9%) and on-time initiation (27.2%).

Table 8. Cross-tabulation of the age of introducing complementary food.

Crosstab					
Count					
		Age of Introducing Complementary Food			Total
		Before 6 Months	At 6 Months	After 6 Months	
Age Group	18–24	36	28	33	97
	25–34	38	28	37	103
	35–44	30	36	32	98
	45 and above	14	17	21	52
Total		118	109	123	350

A notable shift occurs in the 35–44-year cohort, where we see the highest adherence to recommended timing (36.7% introducing at exactly 6 months), though this group still demonstrates significant deviation, with 30.6% starting early and 32.7% starting late. The oldest age group (45+ years) presents a distinct pattern, showing the lowest rate of early introduction (26.9%) but the highest proportion of late introduction (40.4%) among all groups, along with 32.7% following the recommended timeline.

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Across the entire sample of 350 respondents, the data reveal that only about one-third (31.1%) adhere to the WHO-recommended 6-month introduction timeline, while the remaining two-thirds are nearly evenly split between early (33.7%) and late (35.1%) introduction. The patterns suggest that while maternal age influences feeding initiation practices, no age group demonstrates majority adherence to optimal timing. The pattern similarity between the two youngest groups (18–24 and 25–34 years) contrasts with the more distinct distributions seen in the older cohorts, particularly the 45+ group, which stands out for its higher rate of delayed introduction.

A chi-square analysis (Table 9) examined whether statistically significant differences exist in complementary feeding initiation timing across maternal age groups. The results revealed no significant association between these variables (Pearson $\chi^2(6) = 3.968$, $p = 0.681$). The non-significant p-value (exceeding the conventional 0.05 threshold) indicates that the observed variations in feeding practices across age groups are likely to represent random fluctuations rather than systematic differences.

Table 9. Chi-square analysis of introduction of complementary food by age group.

Chi-Square Tests			
	Value	***df***	***Asymp. Sig. (2-Sided)***
Pearson Chi-Square	3.968[a]	6	.681
Likelihood Ratio	3.969	6	.681
Linear-by-Linear Association	1.194	1	.274
No. of Valid Cases	350		
a. 0 cells (0.0%) have an expected count of less than 5. The minimum expected count is 16.19.			

The analysis satisfies all necessary assumptions for chi-square testing, with no cells having expected frequencies below 5 (minimum expected count = 16.19). Pearson and likelihood ratio tests produced identical significance levels ($p = 0.681$), confirming the robustness of this null finding. The linear-by-linear association test ($\chi^2(1) = 1.194$, $p = 0.274$) further confirmed the absence of any significant ordinal relationship between increasing maternal age and feeding timing patterns.

These statistical results contrast with the apparent descriptive differences noted in the crosstabulation, suggesting that while certain age groups may appear more likely to introduce foods early or late in the sample data, these patterns do not represent statistically reliable differences at the population level. The analysis, therefore, fails to support the hypothesis that maternal age significantly influences complementary feeding initiation timing in this study population.

DISCUSSIONS

The study focused on mothers' infants and complementary feeding practices in Mandi Gobindgarh, Punjab, which highlighted the gaps in improvement in following global health standards due to local sociocultural factors. The findings suggest gaps in optimal feeding practices and some prevalent harmful practices that need to be addressed.

EARLY INFANT FEEDING PRACTICES

Breastfeeding Initiation

While 51% of mothers in the study-initiated breastfeeding within the first hour of birth, by global breastfeeding guidelines, there was substantial variability, as shown by the standard deviation of 0.501. This suggests some mothers breastfed significantly later. This is also seen in various studies across India, where there is an overall increase in breastfeeding initiation rates, but inconsistency due to sociocultural and institutional factors is still very prevalent [15].

Breastfeeding Continuation

The data collected showed that despite the seemingly high initiation rates, 46% of respondents claimed to still be breastfeeding at the time of the survey. This is significantly lower than the WHO

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recommendations for exclusive breastfeeding during the first 6 months [16]. The results also suggested that mothers aged 25–34 had the highest rates of breastfeeding initiation but the lowest continuation rate (42%). This is likely due to work-related pressures and insufficient breastfeeding support [17].

Prelacteal Feeds

A worrying trend is the use of prelacteal feeds, which 45% of mothers reported. Prelacteal feeds, like honey, sugar, water, and formula, are discouraged as they can introduce external pathogens and interfere with breastfeeding [18]. These domestic traditions are pervasive even in the presence of health education, especially among rural and semi-urban populations, who are often governed by cultural beliefs regarding infant feeding practices [19].

Age-Based Variations in Feeding Practices

The research showed that maternal age impacts breastfeeding and complementary feeding duration and frequency. Younger mothers (18–24 years) had the highest rate of breastfeeding initiation within 1 hour (55%), and so did prelacteal feed usage (49%), suggesting a paradox where modern health messages coexist with traditional practices. On the contrary, mothers in the 25–34 age bracket-initiated breastfeeding relatively strongly (53%); the challenge emerged in sustaining it due to work and social demands.

Mothers aged 35–44 had more balanced feeding practices. For example, 50% initiated breastfeeding within the first hour after birth, and 46% continued to breastfeed. The mother's experience coupled with good support systems may aid in breastfeeding maintenance. Surprisingly, mothers aged 45 years and older had the lowest breastfeeding initiation rate at 44% but the highest continuation rate at 52%. This could mean that they are more committed to breastfeeding even after facing initial obstacles.

COMPLEMENTARY FEEDING PRACTICES

Timing of Complementary Food Introduction

Based on this study, 31.1% of mothers introduced complementary foods at the recommended 6 months, and the rest were almost evenly split between introducing complementary foods before 6 months (33.7%) and after 6 months (35.1%). The early introduction of complementary foods can lead to health issues, such as gastrointestinal infections and malnutrition [20], while delayed introduction can lead to nutrient deficiency.

First Foods and Feeding Frequency

A high standard deviation (SD = 1.25) indicated that mothers had various first foods to feed the infants. The average level of complementary feeding was 2.43 times per day, meaning the respondents' feeding frequency differed significantly. Introducing inconsistent and monotonous complementary foods can adversely affect infants' physical growth and mental development because a diet typically contains the most fundamental elements needed [21].

Salt, Sugar, Honey, and Spice Additions

One worrying result was that 51% of mothers added salt, sugar, or spice to the complementary food, which is not recommended since it can contribute to unhealthy eating patterns and obesity and cause harmful effects on the kidneys [16]. Their use of these ingredients calls for health educational campaigns that advise against such use and encourage better options.

Variety of Food Groups

Only 52% of mothers provided a varied diet for their infants, below the recommended standard for ensuring adequate nutrient intake. A lack of variety in complementary feeding can result in nutrient deficiencies, affecting long-term child development [16]. The study indicates a need for targeted interventions to improve the diversity of foods provided to infants.

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Complementary Feeding by Age Group

The cross-tabulation analysis of complementary food introduction by maternal age group revealed significant variations. Among mothers aged 18–24, 37.1% introduced complementary foods before the recommended 6 months, 28.9% adhered to the 6-month guideline, and 34% introduced complementary foods after 6 months. In the 25–34 years group, 36.9% introduced foods too early, 27.2% at 6 months, and 35.9% late. Mothers in the 35–44 years group adhered most to the recommended 6-month timeline (36.7%), although 30.6% introduced foods early, and 32.7% introduced them late. The 45+ years group had the lowest rate of early introduction (26.9%) but the highest rate of late introduction (40.4%).

A chi-square test was used to evaluate the statistical significance of the association between maternal age and the timing of complementary food introduction. The results yielded a Pearson chi-square value of 3.968 with a p-value of 0.681, suggesting no statistically significant association of maternal age with the timing of complementary food introduction. Despite some descriptive trends, age alone is not a powerful determinant of the timing of introducing complementary food. Other variables, like education, culture, and healthcare, have more impact [21].

CONCLUSIONS

This study reveals critical aspects of mothers' infants and complementary feeding practices in Mandi Gobindgarh, Punjab. While there are some positives, such as the early initiation of breastfeeding, there are some significant gaps like the overall duration of breastfeeding and compliance with the recommended guidelines for complementary feeding. Other issues that need to be addressed include the increased prevalence of prelacteal foods, the inappropriate timing of introducing solid foods, and the unnecessary addition of unhealthy foods into the diets of infants. There is a great need for improved educational efforts among mothers with low levels of schooling, particularly by making them more relevant to working mothers. There is also a need for greater awareness of the importance of following the WHO's guidelines on the age at which complementary feeding should be started. Addressing these gaps will facilitate better infant nutrition and overall child health in Mandi Gobindgarh.

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Conflicts of Interest

The authors declare no conflict of interest.

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