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Research Article

**TRENDS IN WEANING PRACTICES AMONG INFANTS
COMING TO PEDIATRICS OPD OF KISHWAR FAZAL
TEACHING HOSPITAL LAHORE**¹Dr. Rabia Iqbal, ²Dr Zirwa Younis, ³Dr. Sumayya Aslam,⁴Dr. Muhammad Haris Ghous¹MBBS, Amna Inayat Medical College Lahore.²Allied Hospital Fiasalabad³Khawaja Muhammad Safdar Medical College Sialkot⁴MBBS, Services Institute of Medical Sciences Lahore**Abstract:**

Introduction: Thirty-four consecutive mothers of infants above 6 months of age attending in Pediatrics OPD at Kishwar Fazal Teaching Hospital Lahore were interviewed using questionnaire to determine how well they were informed about weaning process.

Methodology: A cross sectional survey was conducted using questionnaire method regarding definition, age at which weaning should be initiated, foodstuffs to be included, principles to be followed and myths in context to weaning.

Findings: Educated mothers have concept about weaning and started weaning at proper time while illiterate mothers have poor concept of weaning. It was found that out of total 21% infants were fed on cow milk, 16% formula milk, 32% on exclusive breast feeding and 32% were fed on mixed feeding.

Conclusion: Improved health facilities, child and maternal health programs, easy access to mass media along with the increased rate of literacy in women, it has been seen that many mothers are well aware about weaning process. Though a still few mothers are lacking knowledge.

Keywords: Mother, Knowledge, Weaning Process, Infants

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INTRODUCTION:

Human breast milk is not only the best source of nutrition for the neonate but also the fundamental right of every baby. The optimal practice of breastfeeding (BF) is exclusive breastfeeding for the first six months of life and thereafter cereals are introduced while BF is continued till the age of two years and beyond. (1) The barriers for BF and weaning The term 'Weaning' describes the process by which baby moves or shifts from having breast milk to consuming semi-solid or solid foods with a gradual reduction in the intake of breast milk and /or baby formula [2]. The infant is considered to be fully weaned once it is no longer fed any breast milk. The American academy of pediatrics recognizes breast milk and human milk as the "Normotensive standards for infant feeding". Exclusive breast feeding is recommended for first 6 months followed by continued breast feeding for at least 12 months as complementary foods were introduced (3).

Maternal physiology, infant nutritional needs, infant development such as development of biting and chewing and cultural issues plays an important role at the time of weaning. The prevalence of breast feeding differs from one country to another and from one society to another. This is definitely due to cultural and religious believes. Delayed breast feeding initiation, claustrum deprivation, supplementary feeding of breast milk substitutes, early introduction of complementary feeding and incorrect weaning from breast milk are commonly found practices in communities around the world.

The food for weaning is generally soft and runny as mashed fruits and vegetables. The UK NHS recommends withholding food including those that contain wheat, gluten, nuts, peanuts and its products, seeds, liver, fish, shell fish, cow's milk and unpasteurized cheese until the baby is 6 months old. In Pakistan the infant mortality rate is around 76/1000 live births indicating that around 400,000 are likely to die in first year of life. The UNICEF estimated that exclusive breast feeding in first 6 months can reduce under five mortality rates in developing countries by 13%.

In Pakistan most of the mothers give home made products to their babies like khichdi, mashed potatoes, mashed banana, egg and also some commercial products like cereal and porridges. Meat is never used in many cases as these high protein diets are quite expensive in Pakistan. Poor families usually give tea, crackers and rusk because these foods are easily available and economical (4,5).

Need for the Study

Knowledge has enabled humanity to make progress in life; it ensures success in improving the health status of the people. Though we have adequate health facilities, it becomes increasingly evident that existing health care facilities cannot be gained unless the people get the knowledge regarding available health care facilities in specific fields. After 6 months, breast milk alone does not provide all the nutrients that growing baby need, in particular iron and calories that solid foods provide. For other sources of nourishment, try to gradually introduce semi solid or solid foods to baby. Hence weaning provides child a nutritional balance for proper growth and development [6]. According to WHO criteria, 22.7% of the infants were anemic at 8 months and 18.1% at 12 months. More breast than formula fed infants were anemic at 8 and 12 months. Cow's milk as the main drink was associated with increased anemia at 12 months and low ferritin at 8 and 12 months [7]. The prevalence of anemia in children of age 6months– 1 year in urban slums of Meerut was 59.9%. The weaning time, nutritional status and early iron supplementation had a positive impact on it. Exclusive breast feeding up to 4 months followed by weaning, adequate nutritional status and early iron supplementation have a definite role in prevention of anemia in children [8]. Therefore, a proper guide and education is required for the mothers on weaning.

Review of Literature

There is growing literature on weaning specially in the developing countries. however very few focused studies have been seen in this regard. The factors determining the weaning may be seen in various contexts as physical, socioeconomic and cultural. Therefore, weaning may depend upon socio-demographic factors, social structures, level of education, cultural believes and practices, gender discrimination, status of women, economic system and environmental conditions. A more concerted effort is required for designing weaning promotion campaign through intersectional collaboration focusing more on disadvantage segments of the population.

The American Academy of pediatrics recommends the simplest, most natural time to wean is when your child initiates the process. The weaning begins at 6 months, when iron fortified solid foods are introduced. Child may hasten the weaning process because it still takes similar volumes of milk as earlier. That's why baby desire should be a limit (9).

In 2009 European food safe authority panel published a scientific opinion on the appropriate age of weaning for infants. They conducted that the introduction of complementary food in the infants between the age of 4-6 months is safe, food containing Gluten should be introduced later than 6months, exclusive breast feeding provides adequate nutrition up to 6 months for the majority of infants but some infants may require complementary food before 6 months to support optimal growth and development (10).

The European society of pediatric, gastroenterology, hepatology and nutrition committee on complementary nutrition in 2008 recommend that exclusive or full breast feeding for around 6 months is a desirable goal. Complementary feeding should not be introduced to the diet of any infant before 17 weeks and not later than 26 weeks (11).

In 2001 WHO advised that babies should breast feed exclusively for the first 6 months and should not weaned until this point. In 2003 this policy was adapted by the Department of health (12).

In an American study in 2007 found that there was an increased risk of anemia compared with babies introduced to solids at 4-6 months.

Mail online by EMNA JNNES on 9th July 2013 said that babies weaned after 6 months are 3 times as likely to develop Type 1 Diabetes. Both early and late exposure to solids increase Type 1 Diabetes risk. Weaning before a baby is 4 months old doubles the risk. Currently the NHS recommends that babies should be fed from 6 months (13).

According to study carried out by Khan MAS et al suggested that majority of mothers (54%) were found in high category of knowledge about weaning followed by (37%) poor weaning knowledge category and 4% medium weaning knowledge category, literacy level, nutrition status of patients, economic status of family and starting time of food were significantly related with knowledge of mothers. The conclusion of the study was knowledge of mothers of Bangladesh was not up to the mark(14).

2.4) METHODOLOGY

The study was conducted among mothers of infants attending pediatric OPD in Kishwar Fazal Teaching hospital, associated with Amna Inayat Medical college Lahore. A descriptive survey was conducted in order to obtain detailed information of the study subjects with specific characteristics. The research design used for this study was descriptive epidemiological. The study was conducted for the duration of 3 weeks. The interviews of mothers

were taken after written informed consent and using a pre-tested semi-structured questionnaire. The socio-demographic features such as age, religion, education, occupation and monthly family income were collected.

The target population comprises of mothers of infants above 6 months of age who are reporting to pediatric ward, O.P.D Kishwar Fazal Teaching hospital. In this study, weaning process in infants is the dependent variable. In this study the knowledge of mothers is the independent variable. In this study, the extraneous variables are age of the participant, educational status, and socio economic factors, gender, religion and occupation.

1) Inclusion criteria:

Sample is selected only from:

- └ Mothers who are willing to participate in the study.
- └ Mothers of infants above 6 months of age reporting to pediatric ward, O.P.D, and postnatal ward.
- └ Mothers who can communicate in either English, Urdu or Punjabi.

2) Exclusion Criteria:

- └ Mothers of children who are seriously ill.
- └ Mothers of children who are not willing to participate in the study.

2.4. 1: Baseline Performa:

Section 1 consisted of 8 items which provides baseline information or demographic data of the study subjects. It includes age, gender, religion, education, occupation, family income, marital status, and area of residence.

Structured questionnaire:

The mothers of infants were interviewed by using a well-structured knowledge questionnaire which consisted of 40 items covering 6 aspects on weaning. The aspects included were definition, age at which weaning to be started, dietary needs of an infant, foodstuffs to be included, principles to be followed and myths in context to weaning. The items that were included were of multiple- choice questions with one correct answer.

Data Analysis

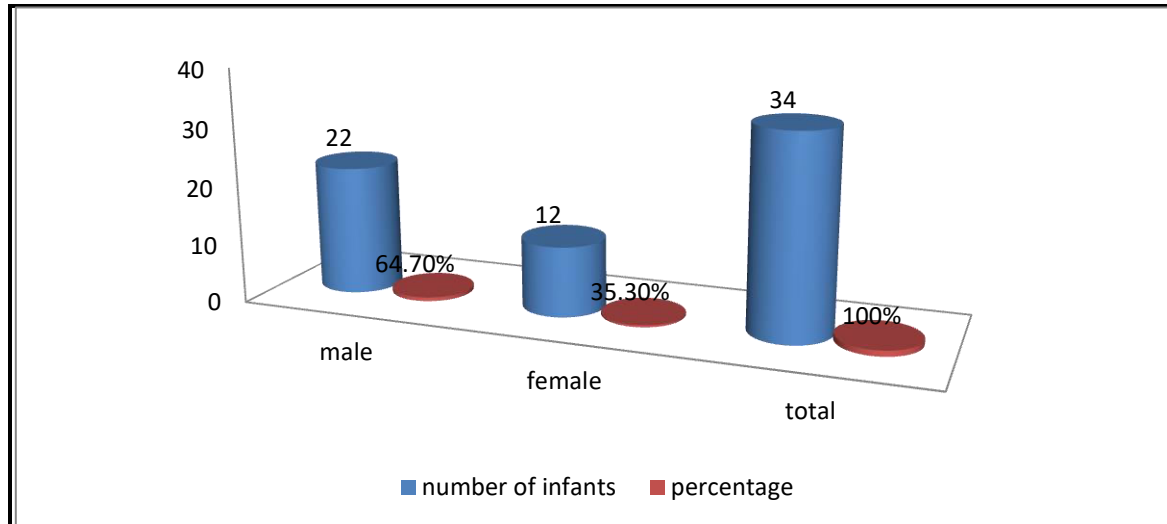
Data was analyzed on SPSS version 17.0. All categorical variables were presented as percentage and frequency, and graphically the results are shown as bar charts and pie chart.

RESULTS:

34 infants were included in the study and they were divided on the basis of gender. Out of 34 infants 22 were males making 64.70% of total and 12 were female making 35.30% of total infant population (table 1):

Table 1: Gender of infants

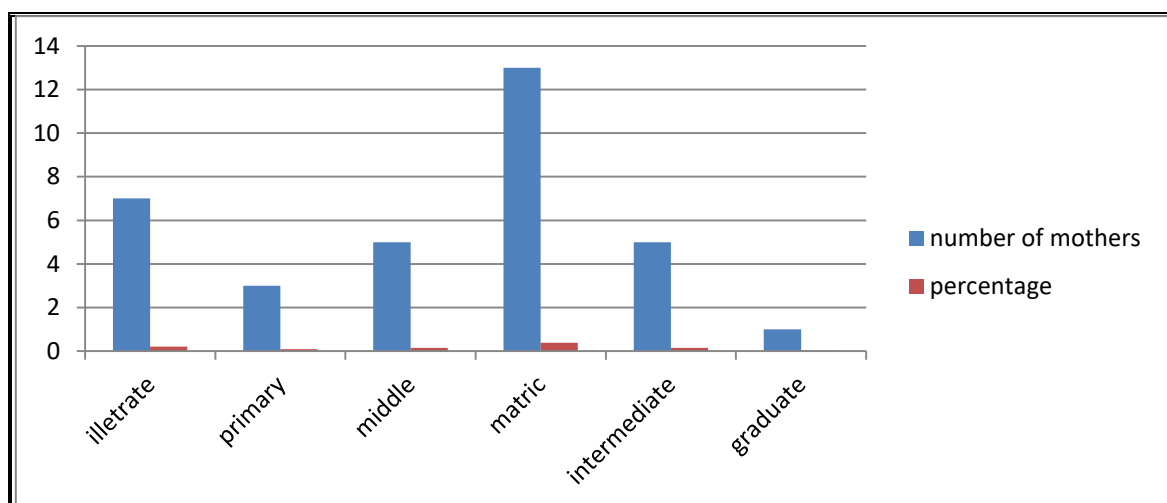
Sex	Number of infants	Percentage
Male	22	64.70%
Female	12	35.30%
Total	34	100%



The mothers of the infants were divided according to status of education and we concluded that 20.6% mothers were illiterate, 8.82% mothers were of primary education, 14.7% were middle, 38.23% were matric, 14.7% were intermediate and 2.94% mother were graduate (table 2):

Table 2: Education status of mothers

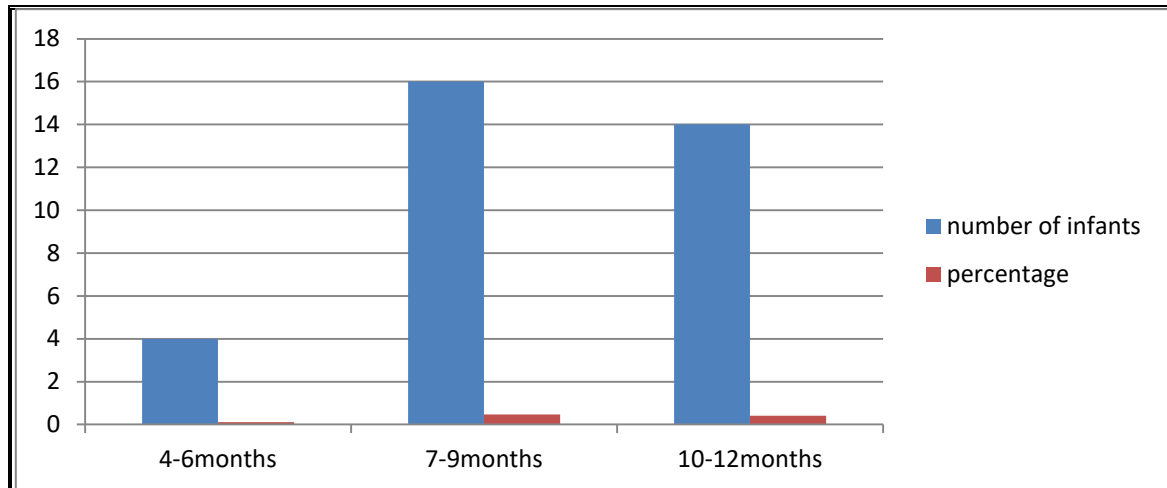
Education	Number of mothers	Percentage
Illiterate	7	20.6%
Primary	3	8.82%
Middle	5	14.7%
Matric	13	38.23%
Intermediate	5	14.7%
Graduate	1	2.94%
Total	34	100%



Out of 34 infants 11.6% were of age 4-6months, 47.06% were around 7-9months, 41.18% were around 10-12months (table 3):

Table 3: Ages of infants

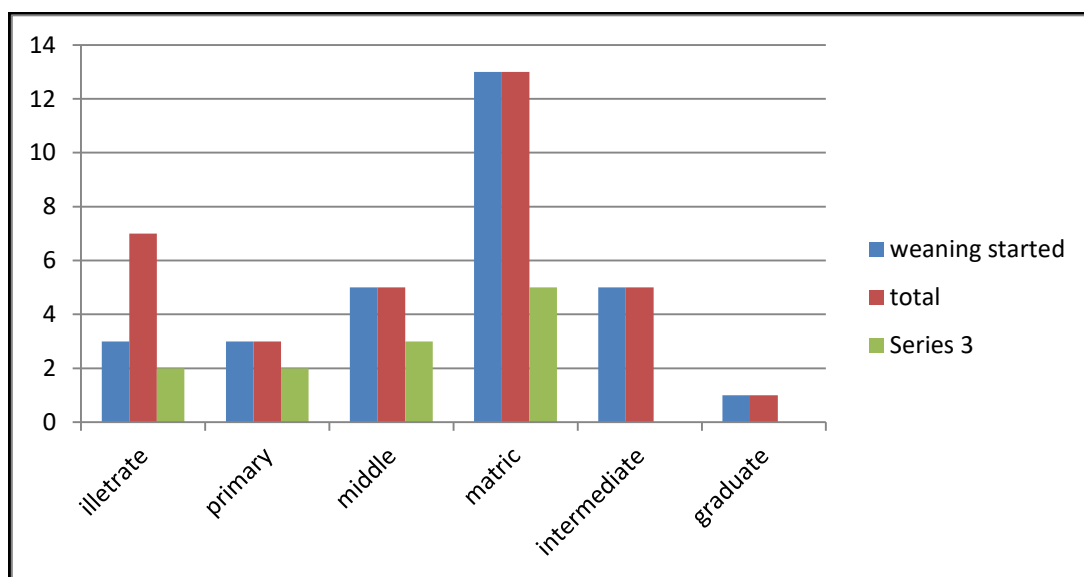
Ages in months	Number of infants	Percentage
4-6	4	11.76%
7-9	16	47.06%
10-12	14	41.18%
total	34	100%



When the practicing of weaning was observed in mothers it was shown that illetrate mothers have very poor knowledge about weaning i.e 57% while the literate mothers practice weaning and have good knowledge about weaning (table 4):

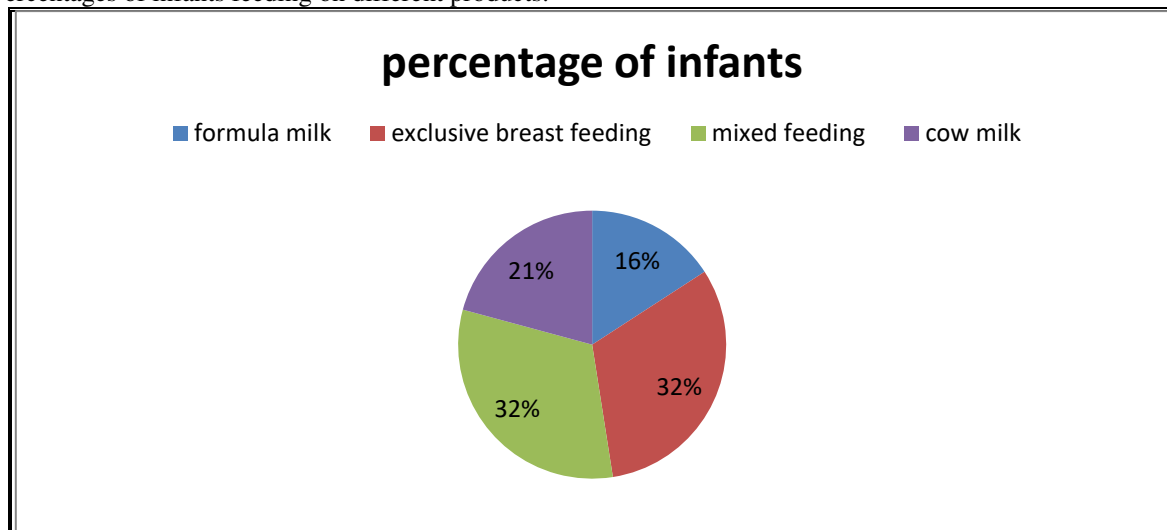
Table 4: The level of mother education and practice of weaning

Mother education	Weaning started	Total
Illetrate	3	7
Primary	3	3
Middle	5	5
Matric	13	13
Intermediate	5	5
graduation	1	1



It was found that out of total 21% infants were fed on cow milk, 16% formula milk, 32% on exclusive breast feeding and 32% were fed on mixed feeding.

Percentages of infants feeding on different products:



DISCUSSION:

The optimal practice of breastfeeding (BF) is exclusive breastfeeding for the first six months of life and thereafter cereals are introduced while BF is continued till the age of two years and beyond. Wright *et al.* [14] found that perceiving the *infant was hungry* was an independent predictor for beginning complementary foods before 13 weeks. Mothers who did not agree with the recommendation to introduce complementary foods at four months (the recommendation at the time these data were collected) were also more likely to start complementary foods before 12 weeks [15]. While breast milk provides sufficient nutrients for almost all healthy term infants to six months of age [16], it becomes increasingly difficult for an infant to get sufficient nutrients from breast milk alone after this time [17]. Therefore, once an infant reaches six months of age, complementary foods need to be introduced to meet the expanding nutrient requirements. Because it is essential that high iron foods are introduced from six months, it is not advisable to delay the introduction of complementary food beyond 180 days [18]. Our study was conducted to observe the practice of weaning among the mothers visited pediatric OPD in Kishwar Fazal Teaching Hospital attached to Amna Inayat medical college Sheikhpura, Lahore. The study was conducted by filling the self-prepared questionnaire by the mothers of infants or by our colleague (for illiterate mothers). The sample population consists of 34 infants around the age of 4 months to 12 months. The infants were divided into 2 groups on the basis of age. So among 34 infants 22 were male making 64.70% of total infants and 12 were female making 35.30% of total population. The infants were also divided into 3 groups on the basis of age. It was observed that 11.6% were of 4-6months, 47.06% were of 7-

9months and 41.18% were of 10-12months. Education status of mothers plays a vital role in the initiation of weaning. in our study we divided the mothers of the infants into 6 groups regarding their education status. it was observed that among the 34 mothers 7 were illiterate, 3 were of primary education, 5 were middle, 13 were matric, 5 were intermediate and 1 was graduate. so when the initiation of weaning was compared among the mothers it was found that only 3 of 7 illiterate mothers started weaning while all the literate mothers (primary, middle, matric, intermediate n graduate) started weaning. This shows that there is awareness of weaning among the literate mothers while the illiterate mothers have very poor concept of weaning.

When the diet of infants were compared it was found that among the total 34, 21% fed on cow milk, 16% on formula milk, 32% on exclusive breast feeding and 32% were on mixed feeding. in one of the Somalian study it was stated that majority of mothers fed their infant on cow's milk or goat milk from birth to three months and started complementary food earlier than 6 months (19).

After the study it was concluded that there is a need of guidance and counseling programs to spread the awareness of weaning among the mothers of infants, for the better upbringing of infants and to cover the deficiencies among the infants. This will help to improve the life span of infants and the healthy living.

2.2) CONCLUSION:

Through our research it is concluded that almost all literate mothers started weaning at proper time as compared to illiterate mothers. So there is a need that proper program should be initiated by health

care providers to educate mothers about weaning as this will help to reduce the mortality rate among the infants who remain malnourished.

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