



## Assessment the Utilization of Bottle-Feeding Practices of Mothers and Related Factors that Effecting Infants Health in the Rural Area

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### Abstract

**Background:** Breast milk substitute are used commonly worldwide with bottle feeding which should be avoided due to its impact on optimal breastfeeding and appropriate complementary feeding. Moreover, feeding bottle are associated with diarrheal disease morbidity and mortality as it is difficult to keep it clean especially in developing countries where sanitation is poor.

**Objectives:** Assessment the utilization of bottle-feeding practices of mothers and related factors that effecting infants health in the rural area Lahore (2020).

**Methodology:** The community-based cross-sectional design of the study was carried out

in rural area Lahore from 1 November 2020 to 25 November 2020. Selected 110 respondents from mothers with children, a systematic sampling method was applied. Data was obtained using a pre-tested questionnaire via face-to-face interviews. Using SPSS, data analysis was performed and used to define the corresponding chi-square factor. Graphs and tables provided the details.

**Result:**Total 110 mothers were participated in the study. Age of the participants were mostly 25-29 years. 82 (74.5%) participant were Muslims. Approximately 44 (40.0%) female participants were illiterate and others

were mix of primary, secondary and above secondary education. Education of the husbands were more educated than female. Most female were house wives but husbands were daily workers and employees. Mostly participants' income were 10000 to 14000.

**Conclusion** The study found that among mothers who were significantly higher in their level of education and among those who were government workers, bottle-feeding habits were high. It is important to emphasize health education about the benefits of exclusive breastfeeding for the first >9 months. In rural area Lahore, the study showed a high use of bottle feeding among mothers with children between 6 and 24 months of age. In order to prevent bottle-feeding and to enhance child survival, urgent action is required to assist, promote and educate all mothers on breastfeeding, with special attention to those in rural areas.

**Key word:** Utilization, Bottle feeding practices, Related factors, Mothers, Infants

## INTRODUCTION

### Background

The study was conducted in rural community of Lahore. The community was assessed by a family assessment form. During the assessment of the different families, mothers have a insufficient of knowledge, use of Bottle-Feeding Practices

and related Factors that cause many diseases like diarrhea and respiratory infections. The highest rate of disease found which were in 300 families.

Mother's feeding is very important for every child. Mother feeding prevents the child from diarrhea, dehydration, and many other infections. Mother feeding maintains good health. The mothers are not giving breastfeeding to the children. These children get gastric and abdominal infections. Mother's breastfeeding leave a good impact on children's health. The early stage of children's life play a vital role in their future lives. Nourishment and parental care are important for this phase of children growth and development

(Trafford, Jewett et al. 2020).

Mother feed is very important and considered the main source of nourishment for children. The World Health Organization (WHO) recommends that mother feed be necessary for the first six months of the year. However, there are a number of causes, the first cause is that, those babies have working mothers-have great risk to acquire disease as compare to those infants that regularly on breast feed. The second cause is infectious diseases and gastric diseases are more common in the children not taking breast feed. Moreover, the mothers who do not feed their children have

the best choice of bottle feeding that restore energy in the form of milk and endeavor growth and development

(Ali, Ali et al. 2017).

Nearly all the parents use bottle feeding, when mothers are in critical situation in the hospital or at home. It is most important to identify accurately the child is getting each feed, then in this situation bottle-feeding permits an accurate quantity of feed. The medical condition or other physical impairment of the mother does not affect the infant who receives milk from the formula. (Stuebe and gynecology 2016).

The World Health Organization (WHO) has shown that ideal breastfeeding practices should be implemented at the initial stage of the infant cycle from the day of birth to six months. In addition, keep breastfeeding for as long as 2 years

(Girma, Aregay et al. 2016).

Bottle feeding is not only used to feed milk but it is used for all type of water, tea, juice, etc. The disadvantages of bottle feeding is well understood. In the developing world, the condition of infants is worsening due to financial resources, clean water shortages, unclean environments, and uneducated mothers. The use of poor-quality bottles in developed nations exacerbates infectious problems. The risks of bottle feeding include

the loss of milk due to resulting malnutrition. There is improved susceptibility to Allergic reactions and dental caries with diarrhea and other Gastrointestinal Tract (GIT) infection. In recent times a thorough complete statement, with data together from developing nations highlighted the improved comparative risk of child mortality among formula-fed against breastfed children

(Chen, Xin et al. 2019).

World Health Organization (WHO) aim to protect children's lives, and developing a set of recommendations, containing exclusive mother feeding up to six months and prevention of bottle-feeding, (Behbod, Sordillo et al. 2015). Many studies have shown well cognitive improvement and intelligence proportions in mother fed infants associated with bottle-feed ones. Earlier studies presented that bottle-feeding was a key influence on children's morbidity and mortality in different surroundings

(Pasricha, Shet et al. 2016).

Feeding through bottle is more prevalent in Pakistan as associated with selected mother feeding, through the statistics accomplishment 41%. In Pakistan, mothers are receptive to the benefits and disadvantages of breast-feeding and bottle-

feeding, but there is a gap in understanding and practice due to the increasing pattern of bottle-feeding practices rather than EBF, it is significant to highlight the benefits of the mother feeding for those mothers who do not breast-feed, to grow in them the disposition to feed their infants if they are suffering from any prolonged situation. (Bergmann, Bergmann et al. 2015).

### **Problem Statement**

After visiting the community, the study found that the community has a lack of knowledge about the use of bottle-feeding and associated issues regarding mothers, and it is the major problem of the community. Due to this reason the researcher decides to give awareness about the utilization of bottle-feeding factors the bottle is used to give milk to children and also uses different products like cerelac that influence bottle feeding as well as profound the underdeveloped world economic resources. The Gastrointestinal Tract Infection is also the cause of bottle feeding. So, the main issue is to improve breastfeeding that can reduce the bottle feedings as well as it influence the children's health. Lack of appropriate breastfeeding lead the child malnourishment. By considering all these aspects I have selected this topic for research work.

### **Purpose of the Study**

The aim of the study is conducted to explore the significant factors that effecting the stimulated practices of bottle feedings. The basic identification of this study is to feed the practice in Lahore to obtain the data that will concern the feasible invention to alleviate the issues.

### **Research Questions**

To assess Utilization of Bottle-Feeding Practices of mothers.

To assess the Factors that effecting infants health.

### **Conceptual Definitions**

#### **Practice**

The practice is the act of rehearsal actions over and over, or to engage in activity again and again, to improve and become experienced. (Solano-Fallas 2017).

#### **Bottle Feeding**

A baby bottle is a bottle to drink milk right from it. It is characteristically used by babies, or if some child cannot drinking with the cup for feeding oneself or being fed (Rothstein, Mendoza et al. 2019).

### **Operational Definition**

#### **Bottle Feeding**

The action or any process of feeding a baby with milk from a feeding bottle. When

breast supply is low then mothers prefer bottle-feeding

### **Practice**

Any process in which we do any action habitually, customarily, and often had taken.

### **Dimensions**

This study plans the simulation for meeting practices and considers the baseline data that help to make proper implementation and other feasible factors to make an invention plan. The basic issue is to create a proper plan for bottle-feeding mothers.

### **Significance of the Study**

The reader/researcher/Students will be able to know about the community to understand “Assessment the Utilization of Bottle-Feeding Practices of Mothers and related Factors that Effecting Infants Health in the Rural Area”.

The organization will able to evaluate the assessment the use of Bottle-Feeding of Mothers and related Issues that Effecting Infants Health in the Rural Area.

The community stakeholder will be able to take appropriate action to improve the quality of Assessment the Utilization of Bottle-Feeding Practices of Mothers and related Factors that Effecting Infants Health in the community by conducting awareness

sessions, seminar programs, and educational programs.

## **LITERATURE REVIEW**

The socio-cultural practices are available to make the decision by competing for the proper information and plan professional services. The mainstream of media influences cultural success and makes proper expectations to create the presented tools for doing best for feeding with a bottle. The healthcare services create expression for the suggestion of risk and encourage the informed decisions to influence the particular practice (Morley-Hewitt and Owen 2020)

Child feeding practices of mothers influence the nutrition of babies but mothers have to conduct different situations like doing businesses or jobs so they do not create the plan for breastfeeding and use the bottle to feed children. The possible operation is to make complementary tools for doing best for food items and continue to meet the infant feeding practice (Nasrul, Hafid et al. 2020). The postpartum is internalized factors that can reduce dissatisfaction, anxiety, and other depression of mothers while doing their jobs. The basic suggestion is to consider the mother feed that influences the informed practice for decision making and consider the multidimensional tools for a specific body.

The women's choice for breastfeeding creates a systematic review to examine infant feeding behavior and other significant tools for creating proper concern about the specific image of customers. The health culture is essential to make proper benefits and consider the proper tools to examine the mother's intention for creating new choices and elaborate the world benefits for evaluating results (Nasrul, Hafid et al. 2020).

Healthcare factors enable the management to create future preferences for doing research and make the first time mother's intention to bottle feed that creates productive action for management. To look for special factors, it is essential to decide about proper settings and implications to concern about the benefits of research and creates a review about the imagination of basic concern and benefits for children (Gaffney, Brito et al. 2018). The estimation of infant feeding practices by mothers is based on considering the particular practice for material food and ideas for a depressive symptom to create the proper foundation with meeting specific requirements. This study has to create the income familiar with approval of the study to obtain the universal tools for meeting the medical issues with feeding growth and other current practices for regular schedule for children (Gaffney, Brito et al. 2018).

Parental negligence is a socially sensitive issue to create the conservative traditional tool for cultural practices and monitor the domain for notification of different care for children. The infant from 0 to six months needs feed milk so bottle feed is the alternative for mothers to increase their presence and create the fatal plan for meeting traditional programs. The existing traditional tools for making supervision can help to improve medication and consider the ideas to determine the running operations and normal functions for creating new services for doing best in motherhood

(Shubayr and Mattoo 2020).

The infant from the feed bottle is more than breastfeeding, especially in Europe. The basic context is to create a risk plan with making proper tools for consumption and per feeding ideas for managing control practices for a responsive plan

(Ventura and Mennella 2017).

The research study has to create the infant tools for managing communication plans and responsible for creating the new observations with believers of different characteristics and takes the dynamics for identification of risk for the overfeeding plan. It is used to create the paradigm by measuring different operational practices.

The basic identification is to propose the adoptive plan for analyzing practices and change the time guideline for women and others to meet the emphasized plan for meeting cultural contexts. The behavior changes need to create promotional services. The behavior changes need to create information supporting the mother's suggestion and determine the decision making process while creating the perception of MomConnect infant feeding messages and generate the recommendations for optimizing programs

(Hales 2016).

Milk feed and the size of the bottle were examined with greater-sized bottles existence related through an infant intense an additional 15 kcal/kg of milk (Wood, Skinner et al. 2016). It remained deliberated additional causal issues as possibly affecting the usage of greater bottles remained a baby's development, receptiveness to baby's feeding signs, and parent feeding technique

(Wood, Skinner et al. 2016).

Though, Ventura and Golen's trial study investigate appropriate cues when bottle-feeding originate no association to the size of the bottle and milk consumption. Their consequences associate together with the visual and mass of milk in the bottle, irrespective of the parent feeding technique,

affecting a baby's milk consumption (Ventura and Golen 2015).

The usage of impervious weighted bottles affected mothers' reactivity and her feeding style. Clearness of babies' cues related to milk feeding by impervious bottle. Babies' representative little clearness of cues did not change in milk consumption among the two bottles used. Milk type, mother feeding or formula, not a consequence on results. Limitation and additional investigation deliberated.

(Ventura, Sheeper et al. 2019).

Ventura and Mennella (2017) defined 11 self-coded baby style to quantify appetite and satiety. The Studies that inspected commercially accessible teats originate a wide difference in flow rate among brands, inside the similar brands and the similar labeled teat flow The assumption existence the company's labeling and terminology on teat flow rates remained unclear and it was stimulating to liken flow rates among brands (Pados, Park et al. 2016). Two studies usage dissimilar approaches inspected flow rates of cross-cut teats.(Pados, Park et al. 2016) hypothesized that the changeability of flow rates inside the similar teat variety is probably a purpose for baby feeding problems. It seems that if milk flow is incessant or faster, this can

disturb drinking patterns, though some babies are not able to regulate their SSB forms, affecting feeding problems (Pados et al., 2015). For occurrence, the earlier a teat flows associates to a greater capacity conveyed, the baby sucks fewer, through extensive pauses among sucks to permit for swallowing and breathing. The significances of a fast teat flow rate can obvious as living irregularities, dribbling, and the probability of aspiration of milk (Pados, Park et al. 2016). Stimulatingly, a commercial initiative funded numerous studies (Pados, Park et al. 2016).

Mothers were additional sensitive to baby signals when mother feeding than when bottle-feeding their EBM. Postulate infants have an active role when mother feeding and not once bottle-feeding. Not any change in the amount of baby's satiation cues or action by feeding style

(Whitfield and Ventura 2019).

Further disconnection cues were recorded. Appetite cues were common at the start with satiety cues at the finish of feed. Mother feeding babies cues many times than bottle-feeding babies. Not any changes in the length of feeding among breast and bottle-feeding

(Shloim, Vereijken et al. 2017).

## **GAP ANALYSIS**

Most studies evaluating the use of bottle-feeding practices and related factors amongst mothers who have infants in the southwest, although very few studies have been conducted in Pakistan specifically, there is no published study evaluating the use of mother bottle-feeding practices and associated factors affecting infants in the rural area There is a need to conduct this kind of research study in Pakistan's community Lahore.

## **RESEARCH METHODOLOGY**

### **Research Design**

The community-based cross-sectional design of the study was carried out in Deena Nath Lahore from 1 November 2020 to 25 November 2020.

### **Data Analysis**

Selected 110 respondents from mothers with children, a systematic sampling method was applied. Data was obtained using a pre-tested questionnaire via face-to-face interviews. Using SPSS, data analysis was performed and used to define the corresponding chi-square factor. Graphs and tables provided the details.

### **Duration of Study:**

The study will be done from November 2020 to January 2020.

### **Work plan:** proposal submission

(1 month) → data processing

(3months) → thesis compile

(1 month) thesis compile (1 month).

### **Pre-testing**

Data will be collected through the questionnaire and adopt a similar translation for making the obtained plan for data collection and participation for ensuring the understandability as well as clarity for the content of the questionnaire perfectly. It is important to collect the data through different activities and measure the specific size to change the pattern with specific questions.

### **Target population**

The target population was the rural community of Lahore. For doing this research the target area of research is Deena Nath community Lahore from which the data will be collected to concern the practical operations and meeting the subjective requirements for indicating services. Motherhood feeding practices are elaborating through the questionnaire from the people. This study is conducted to explore the significant factors that influence the stimulated practices of bottle feedings. The basic identification of this study is to

feed the practice in Lahore to obtain the data that will concern the feasible invention to alleviate the issues.

### **Inclusion criteria**

The inclusion criteria were mothers who have an infant, who are residents of the rural community of the Lahore mothers expressed the willingness to participate in this study were included after taking the consent.

### **Exclusion criteria**

The exclusion criteria were mothers living in the rural community, do not show the willingness to participate in this study, and all other people of the community were excluded from the study.

### **Sampling Technique**

Systematic sampling techniques were used to collect the data.

## **Variables**

### **Dependent variables**

Infants, Mothers

### **Independent**

Utilization, bottle feeding practices

### **Sample Size**

110 was the sample size.

## **Sample size determination and sampling procedure**

Epitool Software Calculated Size The estimated proportion of bottle feeding practises was 0.923. (Kebebe and Assaye 2017). And the significance level was 0.05% with an approximate sample size of 110. with a 0.95% confidence level.

Estimate proportion	0.923
Desired precision of estimate	0.05
Confidence level	0.95
Population size	N/A

#### Sample size for defined inputs needed

Large population	110
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Since sample size 110

#### Data collection techniques

Assess various families of the community to identify problems. Data was gathered using a pre-tested, standardized questionnaire administered by the interviewer. The questionnaire was carried out in a face-to-face interview. This is the basic tool to

collect data from people and make them aware of them. Women are the main target of this research so the data will collect from women to conduct the research.

#### Data Processing and Analysis

Using chi square, the relation between the outcome variables (bottle feeding) and independent variables was explored by data processing and interpretation. To explain the study's variables, frequency distribution, cross-tabulations and graphs were used. In text, charts and graphs, the results were presented.

#### Ethical considerations

Permission obtains from the Department of the Lahore School of Nursing. This study will conduct ethical clearance so the Faculty of health creates the formal letter to obtain the research and the university also issue a letter to create formal research. A letter can help to conduct the research and make people more confident about different practices and consider the objectives to conduct the proper study plan. The responses for refusing participants can be terminated through the legal process.

## RESULTS

		<i>f</i> (%age)
Age of Mothers	20-24 Years	20 (18.2%)
	25-29 Years	46 (41.8%)
	30-34 Years	18 (16.4%)

	>35 Years	26 (23.6%)
	<b>Total</b>	<b>110 (100%)</b>
Religion	Muslims	82 (74.5%)
	Christian	28 (25.5%)
	<b>Total</b>	<b>110 (100%)</b>
Educational status of the Mothers	Illiterate	44 (40.0%)
	Primary	14 (12.7%)
	Secondary	28 (25.5%)
	Above secondary	24 (21.8%)
	<b>Total</b>	<b>110 (100%)</b>
Educational status of the husband	Illiterate	34 (30.9%)
	Primary	18 (16.4%)
	Secondary	24 (21.8%)
	Above Secondary	34 (30.9%)
	<b>Total</b>	<b>110 (100%)</b>
Occupational Status of Mothers	House wife	84 (76.4%)
	Employee	18 (16.4%)
	Maid	8 (7.3%)
	<b>Total</b>	<b>110 (100%)</b>
Occupational Status of Husband	Daily Labor	58 (52.7%)
	Farmer	10 (9.1%)
	Employee	42 (38.2%)
	<b>Total</b>	<b>110 (100%)</b>
Monthly Family Income (Rs)	10000-14000	36 (32.7%)
	15000-19000	28 (25.5%)
	20000-24000	14 (12.7%)
	25000-29000	20 (18.2%)
	>30000	12 (10.9%)
	<b>Total</b>	<b>110 (100%)</b>

### Socio demographic characteristic of the Participants.

Total 110 mothers were participated in the study. Age of the participants were mostly 25-29 years. 82 (74.5%) participant were Muslims. Approximately 44 (40.0%) female participants were illiterate and others were mix of primary, secondary and above secondary education. Education of the husbands were more educated than female. Most female were house wives but husbands were daily workers and employees. Mostly participants' income were 10000 to 14000. As all sociodemographic results are shown in the Table# 01. The Chi-square analyses showed that there was a significant association between bottle-feeding practices with the educational status of the mother  $\chi^2 (5.966) = .113, p > 0.05$  occupational status of the mother  $\chi^2 (.631) = .730, p > 0.05$  and monthly family income  $\chi^2 (2.320) = .677, p > 0.05$ , results are shown in the Table# 02.

## Association between sociodemographic and Currently Bottle feeding practice

**Table# 02 Currently Bottle feeding practice**

	Age Group	Yes <i>f</i> (%)	No <i>f</i> (%)	Total <i>f</i> (%)
Age of Mothers	20-24 Years	19 (95%)	1 (5.0%)	20 (100%)
	25-29 Years	46 (100%)	0 (0.0%)	46 (100%)
	30-34 Years	18 (100%)	0 (0.0%)	18 (100%)
	>35 Years	25 (96.2%)	1 (3.8%)	26 (100%)
Religion	Muslims	80 (97.6%)	2 (2.4%)	82 (100%)
	Christian	28 (100%)	0(0.0%)	28 (100%)
Educational status of the Mothers	Illiterate	44 (100%)	0 (100%)	44 (100%)
	Primary	14 (100%)	0 (0.0%)	14 (100%)
	Secondary	26 (92.9%)	0 (0.0%)	26 (100%)
	Above secondary	24 (100%)	0 (0.0%)	24 (100%)
Educational status of the husband	Illiterate	34 (100%)	0 (0.0%)	34 (100%)
	Primary	18 (100%)	0 (0.0%)	18 (100%)
	Secondary	23 (95.8%)	1 (4.2%)	24 (100%)
	Above Secondary	33 (97.1%)	1 (2.9%)	34 (100%)
Occupational Status of Mothers	House wife	82 (97.6%)	2 (2.4%)	84 (100%)
	Employee	18 (100%)	0 (0.0%)	18 (100%)
	Maid	8 (100%)	0 (0.0%)	8 (100%)
Occupational Status of Husband	Daily Labor	57 (98.3%)	1 (1.7%)	58 (100%)
	Farmer	10 (100%)	0 (0.0%)	10 (100%)
	Employee	41 (97.6%)	1 (2.4%)	42 (100%)
Monthly Family Income (Rs)	10000-14000	35 (97.2%)	1 (2.8%)	36 (100%)
	15000-19000	28 (100%)	0 (0.0%)	28 (100%)
	20000-24000	14 (100%)	0 (0.0%)	14 (100%)
	25000-29000	19 (95.0%)	1 (5.0%)	20 (100%)
	>30000	12 (100%)	0 (0.0%)	12 (100%)

### Obstetrics Condition of the Respondents

From total of the study participants the number of child three were 34(30.9%) other were mix of two, four and >five. Majority 74 (67.3%) of the child age >five months. 97(88.2%) (ANC) follow up while you are pregnant for this last-child. 82 (74.1%) received advice on advantage of breast feeding during ANC follow up. The majority of the respondent 94(85.5%) were give birth at hospital and 16 (14.5%) were give birth at home, among those were give birth at hospital 42(38.2%) of respondents was give birth vaginally and 44 (40.0%) were by caesarean section and 24(21.8%) were episiotomy. 88 (80.0%) of the respondents was assisted by doctor 22(20.0%) were Traditional birth attendant. Around half of (64 58.2%) PNC follow up for last-child and 46(41.8%) were not, results are shown in the (Table #03)

<b>Table#03 Obstetrics Condition of the Respondents</b>			
		Frequency ( <i>f</i> )	Percentage (%)
Number of Children	One	20	(18.2%)
	Two	26	(23.6%)
	Three	34	(30.9%)
	Four	20	(18.2%)
	>Five	10	(9.1%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
Age of youngest child	1-2 Month	4	(3.6%)
	3-4 Months	4	(3.6%)
	5-6 Months	8	(6.8%)
	8-9 Months	20	(17.1%)
	>9 Months	74	(67.3%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
Antenatal Care (ANC) follow up while you are pregnant for this last-child	Yes	97	(88.2%)
	No	13	(11.8%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
What you advised during Antenatal Care (ANC) follow up	About advantage of breastfeeding	82	(74.1%)
	About the hazards of bottle-feeding	28	(25.5%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
Where did your delivery for the last child	Hospital	94	(85.5%)
	Home	16	(14.5%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
Mode of delivery for the last child	Vaginally	42	(38.2%)
	Cesarean section	44	(40.0%)
	Episiotomy	24	(21.8%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
Assisted you during delivery of last-child	Doctor	88	(80.0%)
	Traditional birth attendant	22	(20.0%)
	<b>Total</b>		
Postnatal Care PNC follow up for last-child	Yes	64	(58.2%)
	No	46	(41.8%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>

### **Child feeding practices of the respondents**

The overall prevalence of bottle feeding practices in the study area was 108 (98.2%). Among mothers who bottle feed their infants, the reason to starting bottle feeding were mothers return to work, availability of formula milk, inadequate breast milk and ill of mothers which accounts 66 (56.4%), 22 (20.0%) respectively. Around half 54(49.1%) of respondents feeds there infant 4-5

time per day. 22(20.0%) mothers clean bottle twice per day after every feed 76(69.1%), before every feed 10(9.1%), and once-daily 2(1.8%).majority of mother 72(65.5%) were clean the bottle by boiling and other 38(34.5%) rising with water and soap. Majority of mother 102(92.7%) were use additional food with the bottle-feeding and others 8(7.3%). 52 (47.7%) and 20(18.5%) mothers were use cow milk and formula milk and 38 (34.5%) were buffalo milk for bottle feeding respectively. Around half 50(45.5%) until the baby discontinuous other mix of up to two year and up to 1 year, results are shown in the (Table #04)

<b>Table#04 Child feeding practices of the respondents</b>			
		Frequency ( <i>f</i> )	Percentage (%)
Is the child currently bottle-feeding	yes	108	(98.2%)
	No	2	(1.8%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
Reason to start bottle feeding	Mother return to work	22	(20.0%)
	Inadequate breast milk	66	(56.4%)
	Availability of formula milk	22	(20.0%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
Did you think the breastfeeding per day	When the mother fills comfortable	4	(3.6%)
	2-3 time	20	(18.2%)
	4-5 time	54	(49.1%)
	6-7 time	10	(9.1%)
	When the child crying	22	(20.0%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
How many times child bottle feeding per day	2-3 times	46	(41.8%)
	4-5 times	26	(23.6%)
	6-7 times	26	(23.6%)
	More than 8 times	12	(10.9%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
How many times do you have to clean the bottle per day	After every feed	76	(69.1%)
	Before every feed	10	(9.1%)
	Two times per day	22	(20.0%)
	Once-daily	2	(1.8%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
How do you keep clean the bottle	Boiling	72	(65.5%)
	Rising with	38	(34.5%)

	water and soap		
	Only rising the water	0	(0.0%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
Did you offer additional food with the bottle-feeding	Yes	102	(92.7%)
	No	8	(7.3%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
What kind of fluid are you offering to the baby with the bottle-feeding	Cow milk	52	(47.3%)
	Buffalo milk	38	(34.5%)
	Formula milk	20	(18.2%)
	<b>Total</b>	<b>110</b>	<b>(100%)</b>
How long did you offer the bottle-feeding	Up to 1 year	10	(9.1%)
	Up to Two year	50	(45.5%)
	Until the baby discontinuous	50	(45.5%)
	<b>Total</b>	<b>110</b>	<b>100%</b>

### Factors associated with bottle feeding practices

Factors associated with bottle feeding practices Chi-square analyses were done to identify factors associated with bottle feeding practices The Chi-square analyses showed that there was a significant association between bottle-feeding practices with the educational status of the mother  $\chi^2 (5.966) = .113, p > 0.05$  occupational status of the mother  $\chi^2 (.631) = .730, p > 0.05$  and monthly family income  $\chi^2 (2.320) = .677, p > 0.05$ , but there is a significant association between bottle feeding practice's with the age of the mother is  $\chi^2 (2.918) = .404, p > 0.05$ . results are shown in the (Table #05)

### Association between bottle-feeding practices and Socio-demographic characteristic of the respondent

<b>Table #05 Bottle-feeding practice</b>							
Variables		Yes		No		$\chi^2$	p- value
		No	(%)	N0	(%)		
Age of Mothers							
	20-24 Years	19	9.4	1	0.5	<b>2.918</b>	<b>.404</b>
	25-29 Years	46	22	0	0		

	30-34 Years	18	8.9	0	0		
	>35 Years	25	12.4	1	0.5		
<b>Religion</b>							
	Muslims	80	39.9	2	1	.696	.404
	Christian	28	13.9	0	0		
<b>Educational status of the Mothers</b>							
	Illiterate	44	21.9	0	0	5.966	.113
	Primary	14	6.9	0	0		
	Secondary	26	12.9	0	0		
	Above secondary	24	12	0	0		
<b>Educational status of the husband</b>							
	Illiterate	34	16.9	0	0	1.945	.584
	Primary	18	9	0	0		
	Secondary	23	11.4	1	0.5		
	Above Secondary	33	16.4	1	0.5		
<b>Occupational Status of Mothers</b>							
	Housewife	82	40.9	2	1	.631	.730
	Employee	18	8.9	0	0		
	Maid	8	3.9	0	0		
<b>Occupational Status of Husband</b>							
	Daily Labor	57	28.5	1	0.5	.263	.877
	Farmer	10	5	0	0		
	Employee	41	20.4	1	0.5		
<b>Monthly Family Income (Rs)</b>							
	10000-14000	35	17.4	1	0.5	2.320	.677
	15000-19000	28	13.9	0	0		
	20000-24000	14	6.9	0	0		
	25000-29000	19	9.4	1	0.5		
	>30000	12	6	0	0		

Chi-square analysis showed that there were a significant association between bottle feeding practice's with the place of delivery  $\chi^2 (.347) = .556$ ,  $p > 0.5$  but there is no significant association between bottle-feeding practices and several children ANC follow up and PNC follow up, results are shown in the (Table #06)

**Association between bottle-feeding practices and obstetrics condition of the mother.**

<b>Table #06 Child feeding practices of the respondents</b>							
Variables		Yes		No		X <sup>2</sup>	p-value
		Yes	(%)	No	(%)		
<b>Number of children</b>							
	One	19	9.4	1	0.5	3.565	.468

	Two	26	13	0	0		
	Three	34	16.9	0	0		
	Four	19	9.3	1	0.5		
	>five	10	4.8	0	0		
Age of the youngest child							
	1-2 month	4	1.9	0	0	1.5 21	.823
	3-4 month	4	2	0	0		
	5-6 month	8	3.9	0	0		
	7-8 month	19	9.4	1	0.5		
	>9 month	73	36.4	1	0.5		
ANC follow up while you are pregnant for this last child							
	Yes	95	47.4	2	1.8	.27 3	.601
	No	13	6.4	0	0		
What you advised during ANC follow up							
	About advantage of breastfeeding	81	40.4	1	0.5	.64 7	.421
	About hazard of bottle feeding	27	13.4	3	1.5		
Where did you delivery for last child							
	Hospital	92	45.9	2	1	.34 7	.556
	Home	16	7.9	0	0		
Mode of delivery for the last child							
	Vaginally	42	20.9	0	0	1.5 70	.456
	Caesarean section	43	21.8	1	0.5		
	Episiotomy	23	11.9	1	0.5		
Assisted you during delivery last child							
	Doctor	86	42.4	2	1	.50 9	.475
	Traditional birth attendant	22	10.9	0	0		
PNC follow up for last child							
	Yes	62	30.9	2	1	1.4 64	.226
	No	46	22.9	0	0		
Reason to start bottle feeding							
	Mother return to work	21	10.9	1	0.5	1.3 58	.507
	Inadequate breast milk	65	32.4	1	0.5		
	Availability of formula	22	10.9	0	0		

	milk						
<b>Did you think the breast feeding</b>							
	2-3 time	20	9.9	0	0	1.5 47	.818
	4-5 time	53	26.9	1	0.5		
	6-7 time	10	9.9	0	0		
	When the mother feel comfortable	4	1.9	0	0		
	When the child crying	21	10.4	1	0.5		
<b>How many times child bottle feeding per day</b>							
	2-3 times	45	22.4	1	0.5	1.3 35	.721
	4-5 times	26	23	0	0		
	6-7 times	25	12.4	1	0.5		
	More than 8 times	12	5.9	0	0		
<b>How many times do you have to clean the bottle per day</b>							
	After every feed	75	37.4	1	0.5	4.3 02	.231
	Before every feed	22	10.9	0	0		
	Two times per day	9	4.4	1	0.5		
	Once-daily	2	1	0	0		
<b>How do you keep clean the bottle</b>							
	Boiling	71	35.4	1	0.5	.21 5	.643
	Rising with water and soap	37	18.4	1	0.5		
	Only rising the water	0	0	0			
<b>Did you offer additional food with the bottle-feeding</b>							
	Yes	100	49.8	2	1	.16 0	.689
	No	8	3.9	0	0		
<b>What kind of fluid are you offering to the baby with the bottle-feeding</b>							
	Cow milk	50	24.4	2	1	2.2 72	.321
	Buffalo milk	20	9.9	0	0		
	Formula milk	38	18.9	0	0		
<b>How long did you offer the bottle-feeding</b>							
	Up to 1 year	9	4.4	1	0.5	4.6 85	.096
	Up to Two year	50	25	0	0		

	Until the baby discontinuous	49	28.4	1	0.5		
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**Discussion**

The majority of 110 mothers participated in the study were between 25-29years, 46 (41.8%) were also mainly illiterate, but their husbands were more educated compared to wives. The family's socio-economic status was mostly poor. In this study majority mothers who have three children and visited during pregnancy at least once (97). Mostly mothers delivery occur in hospital and were advised that advantage of breast feeding to their children. Among mothers who feed on bottles, 97(88.3%) During their gestation cycle of the index child, mothers had the opportunity to attend the antenatal clinic and 45 (57.0%) they gave birth at a health hospital. Only from those mothers who delivered their index child in health facilities 94 (85.5%) They have a recommendation during their delivery about breast-feeding and the dangers of bottle-feeding. The reason given was different from the research conducted in Holeta. (Mokori, Schonfeldt et al. 2017).

Most of the mothers were having three or more children 64 (58.2%) and youngest child was less 46(42.1%) than three. A study was conducted in Ethiopia in 2019 by Sheka Shemsi Seid et al. a total of 222 mothers In which about 50% female have three or more children 146(65%) and the youngest child

less than three is 76(35.9%). It shows that in my study female have less three children but more children less than two as compared to Ethiopia. In my study mostly the age of the child >9 months 74(67.3%) but in Ethiopia the age of the children >9months 25(11.2%) so in my study show that the age of children >9 months is more as compared to Ethiopia and the majority of child's in is currently on bottle feeding. This study found that 97(88.2%) females visit the doctor during pregnancy but other study found that 197(88.7) the comparison of both studies almost same. Majority 94(85.5%) of mother delivery for the last child in the hospital and 16(14.5%) were give birth at home. 66(60.0%) deliveries occur in the hospital with vaginally and episiotomy 44(40.0%) were by cesarean section A study was conducted in Ethiopia the participants 212 (95.4%) they gave delivery at hospital and 10 (4.5%) Giving birth at home, including giving birth at the hospital, 182 (81.9%) Participants gave birth vaginally, and 40 (18%) It was via the caesarean section. It shows that in my study mothers were delivery for the last in the hospital is more as compared to Ethiopia also in my study the mother 44(40.0%) were by cesarean section and the other studies fund that the 40(18%) were by cesarean section so the finding shows that the prevalence in my study is

greater as compare to other studies. Respectively the difference could be due to the difference study period, study design and sample sizes, the finding of the current study. Doctor were assisted 88(80.0%) mostly mothers during delivery of last child. A study was conducted in Ethiopia in 2019 by Sheka Shemsi Seid et al. a total of 222 mothers In which Doctor were assisted 212(95.4%) mostly mothers during delivery of last child. So the study shows that in Ethiopia doctor were assisted 212(95.4%) mostly mothers during delivery of last child is more as compared to my study. Most of the mother were having the child less than one year and were currently breastfeeding but also start bottle feeding as well due to inadequate breast milk (Mokori, Schonfeldt et al. 2017).

In this study found that mothers return to work inadequate breast milk 22(20.0%) Inadequacy of breast milk was the key explanation for the mothers who began bottle feeding practices to begin bottle feeding. 66(56.4%) and availability of formula milk 22(20.0%). Research conducted in urban Libya indicated that inadequacy of breast milk was the key reason for the selection of feeding bottles (55.9%) And the state of the breast or nipple (mothers ill) (8.4%) But Jimma's study showed that inadequate breast milk was the biggest reason to start feeding bottles

(70.9%)(Mokori, Schonfeldt et al. 2017). It has been noted that the most common reasons for adopting bottle-feeding practices are insufficient production of milk (71%), maternal employment (11.2%), Social taboos like an infant not gaining weight (5.2%), constipation or loose stools (3.3%), Maternal systemic disorder (3.6%), and the presence of twins. The findings of this study are consistent with others in that several authors have mentioned the perception of inadequate mother's milk as the key reason for bottle-feeding Cultural factors have also been reported in the literature as mothers feel embarrassed to breastfeed in front of strangers due to lack of privacy(Andea, Nida et al. 2015). Identifying the reasons for bottle-feeding is of vital importance for the design of future breast-feeding education messages. Consequently, the shortage of breast milk, the workload of mothers and the availability of formula milk were the main factors leading to bottle-feeding among the factors identified in this survey.(Andea, Nida et al. 2015). This study found that the 74(67.3%) mothers who introduced bottle feeding in the >9 months it is clear that first 1-2 Months only 4(3.6%), 3-4moths 4(%), 5-6months 8(6.8%) and 7-8months were 20(17.8%). The period in which bottle-feeding was introduced within the first six months and the reasons for bottle-feeding have been stated to be discussed in future

intervention programmes. Its mean majority mothers breastfeed plus bottle feeding their children 4-5 times breastfeeding and 2-5 times bottle feeding per day. During follow up mostly female were taught about the advantages of breastfeeding 82 (74.1%) and hazards of bottle feeding 28 (25.5%). A study was conducted in Ethiopia in 2019 by Sheka Shemsi Seid et al. a total of 222 mothers were participated During follow up mostly female were taught about the advantages of breastfeeding 187 (84.2%) It shows that in my study during follow up mostly female were taught about the advantages of breastfeeding is less as compared to Ethiopia.72(65.1%) clean the bottle with boil water 76(69.1%) after every feed. Another study conducted at Holeta 90(40.5%) clean the bottle with boil water 50(22.5%) after every feed so the good practice of cleaning bottle in my study were higher as compared to other studies. Majority 90(81.8%) mothers feed their baby with cow milk and buffalo milk until their baby discontinuous around half 50(45.5%). The Community-based cross-section analysis conducted in Bangladesh has shown that the proportion of 142(63.9%) mothers feed their baby with cow milk until their baby discontinuous bottle feeding was 157(70.7) (Smith 2019).so the findings of my study is lower as compared to Bangladesh. Over the years, there have been

no sufficient improvements in the supply of bottles that may be attributed to lack of action and preventive measures. In my research The Chi square analyses showed that there was a strong correlation between bottle feeding activities and the mother's educational status  $X^2(5.966) = .113, p>0.05$  Mother's occupational status  $X^2(.631) = .730, p>0.05$  and monthly family income  $X^2(2.320) = .677, p>0.05$ .. There is significant association between bottle feeding practices with age of the mother is  $X^2(2.918) = .404, p>0.05$ . There is a strong association between bottle feeding patterns and demographics. The study found that socio-demographic variables such as mother's educational status, mother's occupational status, monthly family income and place of delivery were correlated with bottle feeding in line with this study and the other study also stated that bottle feeding practices were higher among mothers with a better educational history and a relatively high monthly income (Smith 2019) This finding was also inconsistent with another study conducted near the capital city of Ethiopia in the town of Holeta, which showed that bottle feeding was related with infant age, mother age, and number of infants, lack of previous bottle feeding advice, and lack of post-natal care. The observed discrepancy may be attributed to the difference in the study setting and composition of the study

population as this study was conducted in a remote town where there could be a lack of knowledge of the danger of bottle feeding. So the significant association in this study is greater as compared to Ethiopia and other

## CONCLUSION

The study found that among mothers who were significantly higher in their level of education and among those who were government workers, bottle-feeding habits were high. It is important to emphasize health education about the benefits of exclusive breastfeeding for the first >9 months. In rural area Lahore, the study showed a high use of bottle feeding among mothers with children between 6 and 24 months of age. In order to prevent bottle-feeding and to enhance child survival, urgent action is required to assist, promote and educate all mothers on breastfeeding, with special attention to those in rural areas.

## Recommendations

This study was on the assessment of the utilization of bottle-feeding practices of mothers in the Community of Lahore. All the people of the Community give a good and appropriate response even though they have very little the utilization of bottle-feeding practices. This study give the outcome related the utilization of bottle-

studies. In contrast to the study conducted around the country's capital city, more governmental and non-governmental organizations focused on maternal and child health are not widely accessible in this city.

feeding practices and associated factors over all assess that Community does not have enough awareness about it. There is the change the behavioral change educational and communicational strategies so that the mothers in the community improve the practices related factors.

## Limitations

For those who did not practise bottle feeding during the study period, this study defined both the existing prevalence of bottle feeding and plans to practise bottle feeding in the future as a limitation. Current purpose, however can change with time and, despite its significance for current action, may be vulnerable to inaccurate prediction. In addition, the study did not examine the reason why prevalence of bottle feeding varied among different socio-demographics which needs further research on the subject. However our studies identify key risk factors associated with bottle feeding. During data collection faced some difficulties from the community, peoples were not cooperative mostly mothers said

that they do not have time to answers my

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