

CHAPTER 4

4. RESULTS OF THE STUDY

The subjects for this study were involved mothers in Harisiddi village, Nepal. The total sample taken for the study were 120 mothers which was more than calculated sample size. The finding of the study based on the complete questionnaire which was obtained by the direct interview of mother at the community setting. Thus the study analyzed the data for 120 mothers..

The first part of the questionnaire is concern with socioeconomic characteristics data of mother in Harisiddi village regarding their age, ethnic group, religion, education, occupation, type of family, annual income and number of the child now.

4.1 SOCIOECONOMIC CHARACTERISTICS :

Table 4.1.1 Frequency and Percentage distribution of socioeconomic data:

Items	Frequency (NO)	Percentage (%)
Age of the mothers (yrs)		
1. < 19	3	2.50
2. 20 - 24	44	36.66
3. 25 - 29	50	41.66
4. 30 - 34	15	12.50
5. 35 - 39	6	5
6. > 40	2	1.66
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Total	120	100
Total mean age = 26 SD = 4.56		
Age groups of the child (mon)		
1. 6 - 11	43	35.83
2. 12 - 17	22	18.33
3. 18 - 23	11	9.16
4. 24 - 29	24	20
5. > 30	20	16.66
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Total =	120	100
Total mean age = 17.84 SD = 9.20		
Ethnic group		
1. Newar	95	79.22
2. Brahman	5	4.22
3. Chhetry	10	8.34
4. Other	10	8.33
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Total	120	100

Items	Frequency (NO)	Percentage (%)
Religious groups		
1.Hindu	103	85.83
2.Buddhist	15	12.53
3.Christian	1	0.83
4.Other	1	0.84
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Total	120	100
Mother education		
0.Unable to read	40	33.30
1.Primary school	31	25.83
2.High school	21	17.52
3.Other	28	23.33
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Total	120	100
Mother occupation		
1.Housewife	79	65.83
2.Agriculture	23	19.22
3.Selfbusiness	18	15.01
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Total	120	100
Husb. occupation		
1.Agriculture	16	13.33
2.Selfbusiness	62	51.74
3.Labor	37	30.83
4.Other	5	4.22
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Total	120	100
Type of family		
1.Single	45	37.51
2.Joint	75	62.52
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Total	120	100

Items	Frequency (NO)	Percentage (%)
Annual income of family		
1.16000 - 27000	34	28.33
2.28000 - 39000	39	32.50
3.40000 - 51000	19	15.82
4.52000 - 63999	18	15.00
5.64000 - 75000	2	1.66
6.76000 - 87000	2	1.66
7. > 88000	6	5.00
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Total	120	100
Total mean of income = 41488.33 SD = 21280.708		
Children Number		
1.One	40	33.33
2.Two	50	41.66
3.Three	23	19.23
4.Four	4	3.33
5.Five	3	2.53
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Total	120	100
Total mean of children = 2 SD = 0.94		

In table no. 4.1 the mothers age group they were involved with selection criteria regardless of their age. Table ahead shows that age of mother is categorized into six groups, with equal five interval and less than 19 years as well as more than 40 years. We saw that majority of mothers were 20 - 29 years of age (44 %, 50 %). It means most of the mothers were mature enough to answer the question with their

own decision. Some mothers (12.5 %) were between 30-34 years of age. Least were young mothers below 19 years (2.5 %), 30-39 years (5 %) and mothers age above 40 years (1.66 %). In the study, more mothers (59.17 %) were below mean age of 26 years.

Children in the study were involved with the age limitation of 6 - 36 months. Child age group was categorized into five with six equal interval and more than 30 months. We can see that majority of children, 35.83 % were 6-11 months. So, most of the children were under the age of one, may be mothers of this age group shouts for more supplementary feeding information. Because under one year child needs special feeding care whereas by the age of one year child can share food from the family pot with the family. In the age group between 12-17 months were 18.33 %. Above 2 years children were 36.66 %. Least children (9.16 %) were between 18-23 months.

In this study ethnic group is categorized into four groups they were Newar, Brahman, Chhetry and Other. Majority of mothers were Newar (79.2 %) and least were Brahman (4.2 %), Chhetry (10 %), and other ethnic group (10 %). Therefore, Newari culture might have more influence over mother's child feeding way.

Religion of mothers are categorized into four groups that were Hindu, Buddhist, Christian and Other. Maximum mothers 85.8 % were Hindu. Some mothers were Buddhist (12.5 %), Christian (0.8 %), and other religion (0.8 %).

About the education of the mothers, it was categorized into four groups, they were unable to read, primary school, high school, and other. 25.8 % mothers in the study had primary education. Least mothers (17.5 %) had high school education which was highest level of education among those mothers in the study. Some mothers (23.3 %) had other or informal education class attended. Most saddest group was 33.33 % of mothers who could not attend school and were unable to read. It might have a great impact in the study.

Mothers occupations were categorized into three groups, they were housewife, agriculture and selfbusiness. Majority of the mothers 65.8 % were housewife. It show that most of the mothers had no income generation which might effect the child nutrition. 19.2 % were in agriculture and Least mothers had selfbusiness (15 %).

Husbands occupations were categorized into four groups, they were agriculture, self business, labor, and other. More than half of the husbands, 51.7 % were in self

business. This is one of the best occupation as a source of income in this village. Some of them were labor (30.8 %) and 13.3 % husbands were in agriculture. Least husbands had other or office job (4.2 %).

Type of family were categorized into two groups, they are single and joint family. Among total mothers, more than half mothers (62.5 %) had joint family and less mothers (37.5 %) had single family. It shows that more mother's knowledge and practice in supplementary feeding will be guided by the senior family member.

Income were categorized into 7 groups according to the ranging of the income in Nepali Rupee. Most of the families (28.33 %, 32.5 %) were earning Rs. 16000 - 39000 which was below the total mean income Rs. 41000. And, least families (15.82 %, 15 %, 1.66 %, 1.66 %, 5 %) had income above mean score. Therefore, economic status of the village was relatively poor.

Number of children that mother had were categorized into five groups, 1,2,3,4,and 5. Most of the mothers (33.33 %, 41.66 %) in the study had one to two children which was equal to or less than total mean score 2. Least mothers (25 %) had more than two children above the mean.

Second part of the questionnaire used with the purpose of assessing the knowledge of the mother on different aspects of supplementary feeding of the child. There are four sections under the part of the knowledge. They are following:

Section I : Was concern of other's thinking about when should supplementary feeding introduced to the child. There were two questions to assess the mother's awareness.

Section II: contained ten questions to find out mother's knowledge about what are the type of supplementary food.

Section III : had five questions to get the mother's response about the concept that how to prepare supplementary food.

Section IV : contained five questions related to mother's knowledge about how frequently she should feed supplementary food to the child. All total there were 22 questions in knowledge portion.

In obtaining knowledge score from the mother,

regarding a specific aspects of the knowledge a score was secured in each of the aspect. Mother's response to each item were secured in terms of number. Yes answer equal to 1 and No equal to 0. Few items were with reverse score, yes answer equal to 0 and No equal to 1.

4.2 MOTHER'S KNOWLEDGE ON SUPPLEMENTARY FEEDING:

Table 4.2.1 Mothers knowledge on supplementary feeding age of the child:

Items	Knowledge			
	Correct No	%	Incorrect No	%
1.At what age do you think you should introduce solid food ?	53	44.16	73	55.83
2.Do you think it is necessary to introduce supplementary food at specific child age ?	70	58.33	50	41.66

Table 4.2.1 show that as a knowledge on supplementary feeding age of the child, more than half mother (58.33 %) were aware of necessity of specific child age to introduce supplementary food. But less than half mothers (44.16 %) had correct understanding of exact correct child age to introduce

supplementary food, whereas, more than half of them (55.8 %) had wrong notion. This might be the target group of mother in necessity of supplementary feeding education.

Table 4.2.2 Mother's knowledge on types of supp. food:

Items	Knowledge			
	Correct		Incorrect	
	No	%	No	%
1. Is supplementary food necessary for the child ?	75	62.53	45	37.53
2. Does cereal staple help children for growth and development ?	69	57.53	51	42.53
3. Does some oil or ghee added to food gives much energy ?	77	64.20	43	35.83
4. Does baby needs supp. food in boxes ?	65	54.16	55	45.83
5. Do you know starchy food gives only energy ?	57	47.50	63	52.52
6. Are peas and beans important food for the child growth ?	66	55.00	54	45.00
7. Are dark green leafy vegetables important to make your child's blood rich in iron ?	67	55.83	53	44.16
8. Are food like egg, fish and meat help children grow strong ?	70	58.33	50	41.66
9. Do you know fruit is important for keeping eyes healthy ?	65	54.16	55	45.83
10. Does child needs breast feeding with supplementary feeding ?	77	64.23	43	35.83

Table no. 4.2.2 show more than half mother's

correctly understand importance of oil or ghee (64.2 %). 62.5 % mothers think supplementary food is necessary of the child. Most mothers had correct knowledge of type of supplementary food which were cereal staple (57.5 %), animal protein (58.33 %), Peas and beans (55 %) and fruits (54.16 %). 54.16 % mothers think commercial food is does not need for the baby. Many mothers (64.2 %) in this study think to continue breast feeding. It indicated that mothers in this village had quite right knowledge of type of supplementary food.

Table 4.2.3 Mother's knowledge on preparation of supplementary food:

Items	Knowledge			
	Correct		Incorrect	
	No	%	No	%
1.Does the first food for the baby should be soft ?	57	47.53	63	52.5
2.Do more expensive supp. food has more nutrition ?	63	52.52	57	47.5
3.Is it good to prepare staple porridge for the baby's first food ?	72	60.00	48	40
4.Should porridge be thick enough for the energy ?	67	55.83	53	44.16
5.Is mixed preparation food very nutritious for the child ?	71	59.16	49	40.83

Table 4.2.3 showed that more than half of the mothers

had correct thinking about preparation of staple porridge first time, 60 % and thick enough porridge 55.83 % respectively. Most mothers agreed on nutrition value of mixed preparation of supplementary food (59.16 %) and expensive supplementary food (52.5 %). Contrarily, less than half mothers had correct understanding of first soft food for the child (47.5 %), whereas, most of them had wrong thinking (52.5 %). Statistical tests indicates that there is association between number of child and prepare staple porridge for the first time, significance at Pvalue .051. Knowledge about thick enough porridge and education is associated at Pvalue .057. Mother's understanding of child's first soft food and number of children has is significantly related at pvalue .037.

Table 4.2.4 Mother's knowledge on frequency of supplementary feeding:

Items	Knowledge			
	Correct		Incorrect	
	No	%	No	%
1. Do you think it will take 1/2 month for a baby to learn to eat soft food ?	59	49.16	61	50.83
2. Do you think it is enough to feed gruel or porridge twice a day for 4 to 6 months infants ?	61	50.83	59	49.16
3. Does the child needs frequent feeding because they grow very fast ?	70	58.33	50	41.66
4. Do you think it is enough to feed supplementary food 4 times a day to the child aged 6 to 9 month ?	72	60.00	48	40.00
5. Does baby needs something to eat every two hours ?	57	47.53	63	52.53

Above table no.4.2.4 indicates, most of the mothers accept twice a day gruel or porridge feeding to six or eight months child is enough. It gives 60 %, highest proportion of mother. 58.33 % mother shows correct understanding that child needs frequent feeding because of rapid growth. Least mothers of 49.16 % have correct knowledge about child takes one or two months to learn to eat soft food whereas, 50.83 % mothers had incorrect knowledge. 50.83 % mothers think that it is enough to feed child porridge twice a day for 4-6 months

infant. less mothers (47.5 %) correctly understand need of two hourly feeding. Whereas, more mothers (52.5 %) did not understand it.

Third part: the questionnaire is concern about practice of mother on supplementary feeding of the child. It also contain four main aspects of supp. feeding practice:

Section I Assess the practice of mothers on supp. feeding with two items.

Section II Assess what are the type of supp. food mother use to offer to the child. It contains eight questions.

Section III Assess how do mother prepare supp. food for their child with nine questions in it.

Section IV Assess how often mother do feed the child supp. food with eleven questions.

Most of the items are based on WHO, UNICEF guideline and training packages. Thus the result are in consonance of above guideline packages. All total there were 30 questions from four aspects of supp. feeding. Few items are added to obtain more information about general practice of supp. feeding without exactly discriminating correct or not. All the score of each items are secured except descriptive one.

Each item has score of alternative answer, Yes equal to one and No equal to Zero. And score of each item turn out to be 100 %. In order to come to the conclusion, correct and incorrect answers were compared.

4.3 MOTHER'S PRACTICE ON SUPPLEMENTARY FEEDING:

Table 4.3.1 Mother's practice on supplementary feeding age of the child:

Items	Knowledge			
	Correct No	Correct %	Incorrect No	Incorrect %
1. At what age do you first add solid food to the child other than the breast milk ?	51	42.53	69	57.53
2. Why did you start supplementary food to the child ? * Baby is growing	42	35.00	78	65.00

Above table 4.3.1 showed that less mothers (42.5 %) only added solid food as a supplementary food at the correct age of the child. Whereas, more mothers (57.5 %) did it at the incorrect age of the child. This is one of the most important aspect of the supplementary feeding. This proportion of mothers are in must need of nutrition education. 35 % mothers started supplementary feeding with appropriate

practice, reasoning baby is growing and 65 % started due to other reasons.

Table 4.3.2 Mother's practice on type of supplementary food:

Items	Practice			
	Correct No	%	Incorrect No	%
1. Did you give local staple porridge to your child as a first food ?	78	65.00	42	35.00
2. Do you give meat, egg and fish to your child regularly ?	44	36.73	76	63.33
3. Do you give peas and beans as a food to the child regularly ?	57	47.50	63	52.53
4. Do you give dark green leafy vegetable to the child in diet regularly ?	62	51.66	8	48.33
5. Do you give fruit to the child regularly ?	49	40.83	71	59.16
6. Do you give child oil or gee in food regularly ?	75	62.50	45	37.53
7. Do you give your child mixed diet regularly ?	67	55.83	53	44.16
8. Do you continue breast feeding along with supplementary feeding ?	82	68.33	38	31.66

Table 4.3.2 indicates, majority of mothers preferred to continue breast feeding along with supp. feeding. This is

one of the higher proportion of 68.33 % mother and it was significantly associated to income at Pvalue .05. One of the important type of supp. food, local staple which is used by most of the mothers, 65 % and it was statistically significant with education at P-value .032.

62.5 % mother used oil/ghee to child diet. Rest of the type of supplementary food: animal protein/peas, beans, and fruit which are good for growth and development of the child, less than half mothers, 36.7 %, 47.5 %, and 40.83 % respectively offered to their children. Animal protein and pea/beans are associated with education and number of the child. Animal protein with education and number of child significant at P-value .02, Pvalue.000 respectively. Peas/bean with education related at P-value .00. Regular fruit is related with number of child and wife's occupation at Pvalue .05. Food like dark green leafy vegetable (51.66 %) and mixed diet were given to the child quite regularly. Result shows that there is association between regular mixed diet and income, significant at P-value .01.

Table 4.3.3 Mother's practice on preparation of supplementary food:

Items	Practice			
	Correct		Incorrect	
	No	%	No	%
1. Do you prepare semisolid food for 4-6 month baby ?	71	59.16	49	40.83
2. Do you cook thick enough for the child ?	60	50.00	60	50.00
3. Do you cook green leafy vegetable chopping it for your baby ?	65	54.16	55	45.83
4. Do you prepare special meat, fish and egg for your child ?	39	32.50	81	67.50
5. Do you add oil or ghee when you prepare baby's food ?	67	55.83	53	44.16
6. Do you prepare multimix food for the children ?	51	42.50	69	57.50
7. Do you prepare suitable food for the child from the family pot ?	80	66.66	40	33.33
8. Do you mash the food for infants age between 6 to 8 months ?	77	64.16	43	35.83
9. Do you mince or chop the food for the infant aged 9 to 11 months ?	43	35.83	77	64.16

According to table no 4.3.3 a large proportion of 66.66 % mothers widely practice preparation of suitable food from the family pot and let the child share family food. Most

of the mother, 64.16 % use to mash food for the infant which is easiest method of preparation of food, it is significantly associated with mother's age and number of children . Most mothers, 59.16 % prepared semisolid food for 4 - 6 months baby, and it is significant to the income. More than half mothers had correct knowledge of preparation of porridge 50 %, green leafy vegetable (54.16 %) and need of adding oil or gee into the food 95.83 %). In this village less than half of mothers prepare multimix food (42.5 %). Only 35.83 % mothers mince or chop the food for 9 to 11 months infant and it is associated with number of children at P-value .03. Result shows that 32.5 % mothers prepare special meat, fish and eggs for the child and it is significantly associated with mother's age and number of children at Pvalue .03 and .05 respectively.

Table 4.3.4 Mother's practice on frequency of supplementary feeding:

Items	Practice			
	Correct		Incorrect	
	No	%	No	%
1. How often did you give fruit to the child ? *2 or 3 times a week = *2 or 3 times a month = *Sometimes =		59.16 % 30.83 % 10 %		
2. How often did you give meat to the child ? *2 or 3 times a week = *2 or 3 times a month = *Sometimes =		63.33 % 18.33 % 18.33 %		
3. Did you feed staple food twice a day at the child age 4 - 6 months ?	60	50.00	60	50.00
4. Did you give 1 or 2 spoonful of porridge to the infant at the beginning ?	55	45.83	65	54.00
5. Do you feed at least 3-4 times a day staple with other food for 6-9 months baby ?	69	57.53	51	42.00
6. By about child is 12 months do you give food that is cooked for the rest of the family ?	80	66.66	40	33.33
7. Do you feed the child staple and other food 4-6 times a day at age of 12 months ?	79	65.83	41	34.16
8. Do you gradually increase the amount of food from the family pot for 2 years child ?	79	65.83	41	34.16

Items	Practice			
	Correct		Incorrect	
	No	%	No	%
9. Does two years old child eat half as much as adult ?	15	12.53	105	87.33
10. Do you wash hand before each feeding of the child ?	118	98.33	2	16.44
11. Do you have any problem regarding supplementary feeding ?				
No problem =	58.44	%		
Yes problem =	41.62	%		
* Feeding =	23.33	%		
* Time =	11.70	%		
* Money =	10.83	%		
* Cooking =	8.33	%		
* Child crying=	3.33	%		

The table 4.3.4 Majority of mothers, 66.66 % started baby on family food by the age of 12 month. Most of the mothers, 65.83 % fed staple and other food four to six times a day at 12 months of age and 65.83 % increased amount of food by 2 years of age. 57.5 % mothers feed 3 to 4 times a day staple and other food for 6 to 12 months baby. And 50 % mothers had correct practice of feeding staple twice a day for 4 to 6 months baby. Few mothers, 45.83 % started with small amount of porridge. 41.6 % mothers only brought the problem related to supp. feeding and 58.4 % did not mention of any

problem. Just few mothers, 12.5 % agreed that 2 years old child can eat as much as adult and 87 % did not admit it.

Result show that most of the mothers, 59.16 % offered fruit two to three times a week to the children, 30.83 % mothers gave fruits two to three times a month and least mother, 10 % gave fruit to the child sometimes only. In relation of meat, most of the mothers 59.16 % gave two to three times a week, 18.33 % mothers gave two to three times a month and another 18.33 % mothers gave sometimes only. Majority of mothers in Harisiddi village, 98.3 % used to wash hand before each feeding of the child.

4.4 STATISTICAL TEST:

4.4.1 T-test for continuous data:

Items	Socioeconomic Charact.	Statist. test T-test Pvalue	
Knowledge:			
1.First soft food	No. of child.	2.11	.04.
2.Staple porridge first food.	No. of child.	1.97	.05
3.Four times supplementary feeding for 6-8 month baby.	Income	-2.11	.04
4.Two hourly feeding.	Mother's age	-1.95	.05
Practice:			
6.Local staple porridge as a first food.	Mother's age	-2.15	.04
7.Regular animal protein.	No. of child	2.04	.05
8.Regular peas and beans.	No. of child	1.93	.05
9.Regular fruit	No. of child	1.97	.05
10.Regular mixed diet.	Income	2.81	.01
11.Continue breast feeding	Income	2.03	.05
12.Semisolid food for 4-6 months baby.	Income	-.25	.02
13.Thick enough porridge.	Income	1.81	.05
14.Prepare special meat, fish and eggs.	No. of child Mother's age	2.04 2.61	.05 .01
15.Mash food for 6-8 month baby.	No. of child	2.85	.01
16.Mince of chop food for 9 - 11 months baby.	Mother's age No. of child	3.11 2.19	.01 .03
17.Staple and other food 4-6 times for 12 mon baby.	Mother's age No. of child	2.09 2.70	.04 .01

4.4.2 Chi-square test for nominal data:

Items	Socioeconomic Characteristic	Statistical test	
		χ^2	P-value
1. Peas beans for growth.	Education.	10.77	.02
2. Animal protein help grow strong	Education.	7.64	.05
3. Expensive supp. food nutritious	Education.	8.52	.04
	Wife occupation.	9.12	.03
4. Porridge thick for energy.	Education.	7.52	.05
5. Child age for solid food.	Husband occupation	4.13	.02
6. Local staple porridge as a first food.	Education.	8.74	.03
7. Regular peas and beans.	Education.	21.37	.00
8. Regular fruit.	Wife occupation.	12.15	.01
9. Regular mixed diet.	Wife occupation.	9.73	.02
10. Add oil, ghee	Husband occupation	7.44	.05
11. Prepare suitable food from family pot.	Husband occupation	8.23	.04
12. Staple food twice a day for 4-6 months baby.	Education.	9.35	.02
	Wife occupation.	4.42	.01
13. Two yrs child eat half as much as adult	Wife occupation	12.71	.01
	Husband occupation	9.12	.03

* Significant at pvalue .05.

Table no 4.4.2 show that in order to find out association between variables of interest, statistical tests T-test used for all the continuous data and chi-square used for all the nominal data. In above table only significant association are presented at Pvalue < .05.