CHAPTER:ONE
INTRODUCTION

1.1 Background of the Study

The time between a child's birth and 2 years of age is a critical window of opportunity to ensure the child's development through optimum feeding practices. Even mild or moderate undernutrition during this period can cause irreversible damage. As an infant completes 6 months of age, a mother's milk is no longer sufficient to fulfil the child's increasing nutritional need. Suboptimal breastfeeding and poor complementary feeding practices are responsible for under nutrition among young children. Optimal infant and young child feeding can have the potential to prevent an estimated 19 % of all under-five deaths, more than any other single preventive intervention. Therefore, World Health Organization (WHO, 2021) has recommended core indicators for infant and young child feeding (IYCF), of which timely introduction of soft, solid or semi-solid foods, minimum dietary diversity, minimum meal frequency, and minimum acceptable diet are related to late infancy, and thereafter up to 2 years of age .

Early introduction of supplementary feeding is a very common cultural practices in the South Asian region including Nepal which has a historically high burden of under-nutrition . The Nepal Demographic and Health Survey (NDHS) 2016 reported about 83 % of children aged 6–8 months children were introduced to complementary foods in Nepal .

Nepal has a high burden of under-nutrition among young children. IYCF practices are to be monitored continuously to provide evidence-based decision-making in interventions designed to reduce under-nutrition in Nepal. Few previous studies have reported on the time of introduction of complementary feeding, meal frequency, meal diversity and acceptable diet. Maternal education has been found to be associated with timely introduction of complementary feeding, minimum meal frequency, minimum dietary diversity, and minimum acceptable diet . Other determinants that have been associated with complementary feeding practices are household wealth status, geographical location, exposure to media, maternal age, and the utilization of antenatal and postnatal visits. While most of the studies reported based on the national surveys,

these national reports do not necessarily reflect the every diverse ethnic communities of Nepal . Additional information is needed to provide more evidence to monitor progress at the local level. The current study aimed to measure the prevalence of timely initiation of complementary feeding and minimum acceptable diet, and the factors associated with these infant feeding practices in Western Nepal.

Nutrition is important and essential determinant of health status of the people, especially of the children. Infant feeding practices differ among these caste/ethnic groups which are influenced by traditional and cultural beliefs. Mothers are the main cultural channels through which the child is fed. Child feeding practices affect their nutritional status. Adequate food and nutrition are essential for proper growth and development of children to ensure optimal work capacity and adequacy to the immune mechanism and resistance to infection. Growth of 90% of the brain and 50% of the physical growth occurs in the first five year of life(W.Lindzi,2019). So, good food is important for child during this period to achieve good health.

Nepal is a small Himalayan Nation nestled between China and India. It has various ecological regions where 79.42 of the population lives in rural areas (CBS-2011). Nepal consists of different caste/ethnic groups with different cultural practices, beliefs and taboos. Among different caste/ethnic groups, major different caste/ethnic groups are Brahmin, Chhetri, Newar, Magar, Gurung, Tamang, Tharu, Rai, Limbu, Dalits and others.

After 5-6 months of life, breast milk alone is not sufficient for child and so some other food should be started in addition as complementary food . If complementary feeding isn't done properly and in proper time, it may cause malnutrition in children in terms of deficient growth and development, malnutrition is one of the major causes of morbidity and mortality of under 5 years children.

A childhood mortality study in America showed that nearly half (45%) of under-five mortality rate is found to have malnutrition as underlying or associated cause of death (WHO, 2020). In Nepal, it is estimated that nearly half of children are suffering from malnutrition in Nepal (DoHS, 2020).

Traditionally, complementary feeding begins with rice feeding ceremony in our country when children are given their first meal. Culturally acceptable and scientifically

approved time for introducing complementary food is 5-6 months of age.The common traditional complementary food in Nepal includes porridge, dhiro, khichari, maar. Among them, maar and khichari are high in energy and nutrients. Other traditional food which has been found to be nutritious is "Sarbottam Pitho ko lito"

Since ethnicity can influence the complementary feeding practices in children so knowledge regarding it may be useful in planning need-based intervention in mothers.

1.2. Statement of the Problem

Malnutrition is a significant health problem for infants and young children in Nepal. Thirty-six percent of children under age5 are stunted (short for their age), 10% are wasted (thin for theirheight), 27% are underweight (thin for their age), and 1% are overweight (heavy for their height).Fifty-five percent of children under age 2 are breastfedwithin 1 hour of birth, and 66% of children under age 6 months are exclusively breastfed.Forty-seven percent of children age 6-23months receive meals with the minimum recommended diversity (atleast four food groups), 71% receive meals at the minimum frequency,and 36% meet the criteria of a minimum acceptable diet.(NDHS,2016)

World Health Organization (WHO,2021) has recommendedfor further research in priority areas to broaden the range of effective interventions andprogrammaticapproaches to improve complementary feeding. The most recent estimates of the global burden of malnutrition in under 5 children are that 178million (one-third of all children) are stunted, 112 million are underweight, 55 million are wasted (19million having severe acute malnutrition) and 13 million children are born each year with intrauterinegrowth retardation (Ramji, 2019). In this world, 800 million people are suffering fromundernourishment and about 170 million infants and young children are underweight. More than 5million children die each year as a result of under-nutrition. The level ofchildhood malnutrition is exceptionally high in South Asia, ranging from 45-48% in India, Bangladeshand Nepal , 38% in Pakistan and 30% in Sri Lanka (Wijesinghe, 2020).

Appropriatefeeding practices, therefore, include timely initiation of feeding of solid and semi-solid foods from age6 months and to improve the quantity and quality of

foods children consume, while maintainingbreastfeeding (UNICEF, WHO, 2018).There are limited studies on knowledge and practices about complementary feeding. Thefindings of this study will be useful for the health planning and policy to improve feeding practices incountry. The Knowledge on feeding practices of infants and young children is essential for improvinghealth and nutrition program in a country. Promotion of optimal breast feeding and complementaryfeeding has been expected as a key priority of Ministry of Healthand population. The aim of the studywas to identify the knowledge of mothers concerning complementary feeding and to assess the factorsinfluencing the practice of complementary feeding for improve the child feeding practice and reducechild mortality and morbidity.

Complementary feeding practices greatly depend on cultural habits and ethnicity.The nutritional status of the child can be influenced by complementary feeding practices. Inappropriate infant feeding practices result in feeding difficulties and malnutrition ultimately leading to increased morbidity and mortality in children. Complementary feeding practices greatly depend on cultural habits and ethnicity.In Nepal, it is estimated that nearly half of children are suffering from malnutrition in Nepal (DoHS, 2020).

Exclusive breastfeeding in the first 6 months and introduction of complementary feeds at 6 months with continued breastfeeding for at least 2 years can decrease infant mortality by 19% (WHO, 2018). Complementary feeding bridges the gap that arises in breast milk after 6 months.

Widespread ignorance and misconceptions in different caste/ethnic groups regarding complementary food frequently result in improper management of infant feeding. Improper complementary may result in retarded physical and mental development of young child with long term effects.Mother plays an important role in preparing and serving food to child. So, they must know which foods are necessary for their child, how to give and when to give extra food. Similarly, illiteracy and other socio-cultural and socio-economic factors also plays a vital role in inappropriate practice of breast feeding and complementary feeding in different caste/ethnic groups. So, caste/ethnicity can influence the complementary feeding practices in children. Knowledge regarding it may be useful in planning need-based intervention in mothers.

Knowledge on feeding practices of infants and young children is crucial for undertaking or improving health and nutrition programmes in a country.

Following are the research questions, whose answer is trying to get from the field.

- What is the appropriate age of starting complementary food among different Caste/Ethnic groups?
- What are the different ways of preparing complementary foods among different Caste/Ethnic groups?
- What is the frequency of breast feeding while giving complementary foods different Caste/Ethnic groups?

1.3. Objectives of the Study

The general objective of the study is to compare the complementary feeding practices in children among different caste/ethnic groups. The specific objectives are following :

- To know the time of starting complementary food in children among different caste/ethnic groups.
- To know the ways of preparing complementary foods in different Caste/Ethnic groups.
- To know the frequency and duration of breastfeeding practices during complementary feeding among different Caste/Ethnic groups.

1.4. Rationale of the Study

- Many researches showed that Nutritional status of the children are directly affected by complementary feeding practice in developing countries like Nepal. This study will help to find out the existing complementary feeding practices among different ethnic groups.

- The findings of study will help the health workers to give need-based health education and make mothers aware about proper complementary feeding practices.

- This study will help to prevent problems caused by improper complementary feeding practices.

- This study will be helpful as a baseline study for further research.

1.5. Limitations of the Study

- Only six weeks' time was allocated for data collection so the sample size was small that might lead the sampling error and decrease the validity of the study.
- The sample size was small and the study was conducted in only one setting so the findings of the study could not be generalized in other settings.

1.6. Organization of the Study

This dissertation was made up of5chapters. First chapter introduce about complementary feeding. It is divided into sub chapterbackground of the study, statement of the problem, research question, objective of the study, rational of the study. In the second chapter, literatures will be reviewed which shows the existing complementary feeding status, knowledge, attitude & behavior towards complementary feeding. Third chapter gives in-depth knowledge about research methods. It explains about rational of the selection of the study area, the research design, nature and sources of data and sampling procedure, data collection technique and tools, data processing and analysis and limitation of the study. Fourth chapter explains the socio-economic and demographic characteristics of the respondents including all the findings of the study.The last chapter deals with summary and conclusion.

CHAPTER: TWO

REVIEW OF LITERATURE

2.1. Theoretical Review

The concept of the word "weaning" has now changed to complementary feeding for the simple reason that, with the introduction of other nutritious food, breastfeeding needs to continue in the babies for a period of two years.The period between five months and three years is generally known as the weaning period. Ideally during this period gradual change from a total breast milk diet to an appropriately modified adult mixed diet takes place. The majority of mothers lack the knowledge regarding ideal feeding practices. There is a gap in knowledge and practice regarding duration of exclusive breastfeeding and initiation and continuation of ideal complementary feeding. The rate of complementary feeding is on declining trend. Emphasis given to educate mothers about complementary feeding practices can be very useful.

Introduction supplementary food too early before 5 months), using dirty utensils (e.g., feeding bottles) and letting the infant more around unsupervised means that she/ he is more exposed to infection. After six months, breast milk can no longer supply infant total calorie, protein, minerals and vitamins requirements but it does continue to add high quality protein and calcium to the infant's diet and supplies some of the other nutrients.

There are different Caste/Ethnic groups in Nepal. They are; Brahmin/Chhetri, Gurung, Magar, Newar, Dalit, Madhesi People. Etc. Each Caste/Ethnic Group have their own breast feeding and complementary feeding Practices. Caste/Ethnicity, level of literacy, occupational status, family size, food adequacy, breast feeding pattern, age of starting complementary feeding, type of complementary food given to child etc. are the major factors which influence appropriate introduction of complementary foods. In addition to this socio-cultural factor directly affects feeding practice as well as the health of children.

Inappropriate quality, quantity, frequency and consistency of complementary foods can make the child more susceptible to infection, slower in recovery after illness and mortality higher. A study conducted by Shrestha (2019)showed that mothers who are

engaged in service are more likely to initiate complementary feeding early. Ethnically, Dalits whose economic status is low and were engaged in outdoor activities like labor do not manage their time for caring and rearing of their child and hence start early complementary food. In the same way the feeding status of children were mostly affected who live in nuclear and extended family.Likewise, Mothers who breast feed exclusively to their children appropriately the complementary feeding on time and continue their breast feeding upto 2 years or more.

A study conducted by Chapagain(2013)showed that complementary feedingpractices and inappropriate feeding practices in oursociety were related with thelack of proper knowledge among mothers regardingcomplementary feeding. Other determinants were mother's education, type of family, religion,mothers'profession, and whether or not feeding advicewas received during immunization. Similarly, father'seducation, family income was also affecting factors with the inappropriate feeding practices. So, emphasis should be given to the mother's education,mothers profession and giving education in immunization clinicforappropriate infant andyoung child feeding.

Ethnically, some of the Caste/Ethnic group did not celebrateand some celebrate feeding ceremony of their child. But some do not celebrate due to their low economic status and traditionally there may be no practice of celebrating and there may be other reasons.Practice of introducing complementary food by celebrating rice feeding ceremony can lead to appropriate feeding.In Nepal, the breast and complementary feeding is not provided in the demand basis, Babies are feed when they cry only. Similarly, most of the mothers are well known about Sarbottam Pitho but they prefer to buy from commercial market instead of prepare by self even if they can.

2.2. Review of Previous Literature

A study conducted in Nepal revealed more than half (56.81%) mothers fed their children complementary food of appropriate consistency;(33.27%) fed with recommended frequency and (75.82%) with the appropriate amount. But only (15.82%) among all were actually feeding their child appropriate complementary food in sufficient amount and with required frequency. The important factor affecting the ideal feeding practice was lack of knowledge and ignorance. Education of mother, type of family, profession of father, whether mother is a housewife or job holder was other important factors. Majority of Nepali mothers lack knowledge about ideal feeding

practices as well as they did not fed appropriately. Emphasis should be given to educate mothers about complementary feeding practices and immunization clinics can be very useful for the purpose.Chapagain(2013)

A community-based cross-sectional study was conducted among 237 mothers having children aged 6-23 months in Bhaktapur Municipality. Out of the 237 children, 54.8% were boys and 42.2% were girls. In this study the 61% were breastfed within 1 hour of birth, 33% were given pre-lacteal feeding, 19% were given complementary feed on time, 55.3% had good minimum meal frequency, and 47.70% were given minimum number of food groups and 26.5% were practicing good minimum acceptable diet. Total Kcal intake supplied is equal to WHO recommended standard however, triggering 84% of participants included processed food as a part of complementary feeding which is never the good practice.Dharel(2020)

The majority of mothers lack the knowledge regarding ideal feeding practices as calorie intake was equal to WHO recommendation. There was a gap in knowledge and practice regarding duration of exclusive breastfeeding and initiation and continuation of ideal complementary feeding. The rate of complementary feeding was found on declining trend. Emphasis given to educate mothers about complementary feeding practices can be very useful for the purpose.Child feeding practices were found poor mainly because of gap between knowledge and practice, level of awareness and somewhat influenced by cultural and social norms as well.(Ulak,2020)

Data showed that many infants and young children do not receive optimal feeding. Globally, only 29% of infants and young children 6–23 months of age met the criteria of dietary diversity. A study was conducted to examine IYCF practices and identify the determinant factors in Nepal.It was found that children whose mothers had secondary or higher education were more likely to meet the daily requirement. Mothers who visit four ANC clinic have more knowledge about dietary requirements. Using the 2016 Nepal DHS, the latest national study, the study aims to identify the factors at the individual-, household-, and community-levels associated with inadequate food group consumption and dietary diversity among children aged 6–23 months in Nepal.(NDHS ,2016)

A study was carried out in South India in which 802 mothers of children over 1 year of age were interviewed. Study group is considered as a representative sampling of

economic, cultural and ethnic groups. 5.5%, 11.7% and 22.8% children were breastfed for less than1 month, 2 month and 6 months respectively. Literate mothers feed for short period where illiterate feed for a long time. Majority of cases use 50% diluted buffalo milk as liquid feed supplementation before 6 months but introduction of semi-solid and solid food was delayed. This was particularly among illiterate mothers. Thus, educating mothers regarding the role of breastfeeding and benefits of supplementary feeding would improve infant nutritional status. Ghosh S(2016)

Knowledge about Infant and Young Child Feeding practice in mothers improved timely initiation of complementary feeding in children aged 6-24 months in rural population. About 53.8% and 4.6% of children were found with timely initiation of complementary feeding and had minimum dietary diversity, respectively. Complementary feeding practice is lower in mothers who lacks knowledge regarding IYCF. Thus, efforts should be strengthened to boost mother's IYCF knowledge.(Biks*et al. (2018)*

More than half (50.6%) of children were given complementary foods at six months of age. Only 8.5% of youngchildren aged 6–23 months were fed with appropriate complementary foods. The proportion of mothers who reportedthat they know that a baby of 6–23 months old should be fed two or three times was only 75.8%. Governmentemployed mothers and mothers who attended postnatal care were less likely to practice inappropriate complementary feeding. Mothers having children withbirth intervals less than 35 months were more likely to practice inappropriatecomplementaryfeeding whencompared to mothers of children with birth intervals greater than 35 months.Considerable proportions of infants and young children were not appropriately fed with complementaryfoods as per WHO recommendations. Being a government employee mother, attending postnatal care and having achild with birth interval greater than 3 years were associated with appropriate complementary feeding. Therefore, it isimportant to encourage postnatal care utilization and incorporate complementary feeding advice during postnatalvisits. Epheson et al. (2018)

Despite having effectively implemented the Infant and Young Child Feeding (IYCF) programme,recent studies that utilized nationally representative data from the Nepal Demographic and PopulationHealth Survey (NDHS) in 2016 demonstrated that two thirds of Nepalese mothers exclusively breastfedchildren for ≤5 months, initiated

breastfeeding within an hour of childbirth, and that 16% ofmothers did not introduce complementary foods at 6–8 months. Furthermore, breast feeding andcomplementary feeding practices vary dramatically across Nepal. Therefore, it is essential thatprogram managers and policy makers understand local and regional child feeding practices, as wellas factors affecting these practices, before establishing customized strategies aimed at improvingthe health and nutritional status of younger Nepalese children. The present study was undertakento identify maternal factors associated with infant feeding practices and to determine the effects ofmaternal care service utilization on infant feeding practices in rural areas of Southern Nepal. (NDHS 2016)

A study conducted in Greece showed only 39% of babies, are fed during the first sixmonths of their lives exclusively with mother's milk. This reviews the studies about cultural practices and beliefsfor breastfeeding. The research question is on whether cultural and social factors influence breast feeding practices or not. The process of breastfeeding is often not determined by biological factors, but it is mainly basedon the habits and behaviors existing in each society. Views on the function of female breasts,the quality of mother's milk as well as traditional practices related to breastfeeding are some of the reasonsthat lead to how much this process is accepted by the mothers.: Public health policies worldwide must take into account and study the cultural status of asociety in order to create favorable conditions for the initiation and duration of breastfeeding. National School of Public Health, Athens, Greece (Volume 6, Issue 2 (April – June 2012)

A study carried out in developing countries show that the early introduction of complementary foods increases infant morbidity and mortality, as a result of the reduced ingestion of protective factors present in breast milk, in addition to the fact that complementary foods are an important source of contamination for infants. From the nutritional view point, the early introduction of complementary foods can bring some disadvantages since these foods in addition to replacing part of bicast milk; often have a lower nutritional value than breast milk, e.g. foods that are bulky or extremely diluted (Monte , 2016).

According to a study done in Vietnam, findings revealed that children from mothers who were laborers or farmers and housewives had a greater prevalence of stunting,

underweight and wasting than those from mothers who worked in office or were housewives.This is because working mothers rarely get time to take care of their children. They also leave their children at home with other siblings who may neglect feeding them following the right frequency.(Nguyen and Kam, 2016).

Children tend to breastfeed less often when complementary foods are introduced, so breastfeeding needs to be actively encouraged to sustain breast milk intake. The nutritional impact of breastfeeding is most evident during periods of illness, when the child's appetite for other foods decreases but breast milk intake is maintained It thus plays a key role in preventing dehydration and providing nutrients required for recovery from infections like anemia and malnutrition.Brown. (2018).

Caste/ethnicity was highly associated with not consuming foods. Children from Terai/Madhesi Other caste, Janajati and Dalits had higher prevalence of not consuming grains, roots and tubers, dairy products, and eggs. Similarly, children from Dalits and Janajati had not meet the daily nutrition requirement than those from Brahmin/Chhetri. Reports on health and caste/ethnicity in Nepal showed that Dalits, Muslims, and Terai/Madhesi Other castes, constituting 28% of Nepal's population, had poor health and nutrition indicators. Children from Brahmin/Chhetri were more likely to receive different food groups than those from other caste/ethnic groups, except for flesh foods. This may reflect their religious beliefs. In the same way, the cultural and environmental factors regarding IYCF, from Brahmin/Chhetri perceived poultry to be unclean. Overall, low consumption among children from certain caste/ethnic groups may indicate inequality in diverse diets across ethnicity and caste. Nutritional programs need to consider various cultural practices and conditions of caste/ethnic groups.Baek(2019).

The overall prevalence of appropriate complementary feeding practices was very low (41%) which haveimpact on the health of infants and young children andindicated the importance of immediate action to promote appropriate complementary feeding.Educatedmothers, good economic status, husband and family members role in caring and rearing of children and smallerfamily size were factors that can increase appropriate complementary feeding practice.Kassaet al. (2016).

A study in Bhaktapur showed that majority (91.90%)mothers initiated fed Lito as a complimentary feeding in six months whereas Daal Bhat (46.80%Cerelacs33.90%),

Cow/ Buffalo Milk (21%) before sixmonths as complementary feeding.This study found that 86.90% participants hadknowledge on commercial food and practiced asa complimentary food. They have been practicedcommercial complementary food as Lito, Horlicks,Cerelacs, powder milk, Biscuits etc. It seems that thetrend of using marketed weaning food is increasingMohammad (2016).

The study in India showed great difference in two mother groups regarding complementary feeding. Mothers with higher education, those from wealthier households and mothers who made frequent ANC visits (95%) were more likely to have appropriate complementary feeding practices compared with mothers with no schooling, those from poorer households and mothers who made no ANC visits across Indian regions. This study suggests that efforts to improve complementary feeding practices must be context-specific and should target mothers with vulnerabilities, including those from poorer socioeconomic backgrounds and no ANC visits.Dhami (2019).

A study in Kathmandu revealed approximately one- fourth (24.6%) of children 6–23 months age had consumed a commercially produced complementary food in the prior day. Twenty- eight percent of mothers prefer home based breastmilk substitutes, and 20.1% prefer commercially produced breastmilk substitutes. Consumption of commercially produced snack food products after 6 months was high at 74.1% of children. Promotions for these same commercially produced snack food products were highly prevalent in Kathmandu Valley, reported by 85.4% of mothers. In order to improve diets during the complementary feeding period, development of national standards for complementary food products is recommended. Nutritious snack options should be promoted for the complementary feeding period. Consumption of commercially produced snack food products should be discouraged.Pries (2016)

According to NDHS ,2016 the most commonly consumed foods are made from grains (71%among breastfeeding children and 97% among non- breastfeeding children), followed by food made fromlegumes and nuts (54% among breastfeeding children and 78% among non- breastfeeding children), andfood made from roots and tubers (44% among breastfeeding children and 62%among non-breastfeedingchildren.Among breastfeeding children age 6-23 months, 3% consumed infant formula, 47% consumed

othermilk, and 47% consumed other liquids. Among non-breastfeeding children, 3% consumed infantformula, 73% consumed other milk, and 58% consumed other liquids.

2.3. Research Gap

This review of literature revealed that complementary feeding practices greatly influence the nutritional status of the children. Whatever I found in the literature review part related to my topic shows that good nutrition is necessary for good health and it helps to children for proper growth and development. Likewise, after 5-6 months of life a child needs extra food along with breast milk. The period between five months and three years is known as complementary feeding period. Ideally during this period, a gradual change from total breast milk to family diet takes place. Further the complementary feeding period is very critical for the young child. The late introduction of complementary food to child and infrequent and improper complementary feeding leads to malnutrition in young children.

Traditionally complementary feeding begins with the rice feeding ceremony where children receive their first solid meal. The ceremony is performed at 5 months of age for a girl and six months for a boy. Thus, the main causes of malnutrition are inappropriate feeding practice after the rice feeding ceremony. To overcome such problems, complementary feeding practices should be appropriate.

Study brings up the fact that complementary feeding practices are by and large inappropriate in our society which seem to be strongly associated with the lack of proper knowledge among mothers regarding complementary feeding. Other associated variables are mother’s education, type of family, religion, mother’s profession, and whether or not feeding advice was received during immunization. However, father's education, family income and sex of child were not associated with the inappropriate feeding practices. The findings highlight the importance of mother's education, profession and giving education in immunization clinic for the infant and young child feeding. Emphasis should be given to educate mothers about breast feeding and complementary feeding practices during immunization.

Similar types of study were not specifically conducted in the area. I found mothers occupation mostly in Dalit respondents affect complementary feeding because they

have to go daily wages to earn. Low level of education affects exclusive breast feeding as well as appropriate initiation of complementary foods in all Caste/Ethnic groups. In the same way more than 90% respondents said that they were breastfeed their baby, but a case study found that she did not breastfeed her children because due to caesarian section breast milk was not produced at the time of delivery; her family members oppose her not to breast feed when she was able to produce breast milk. This was due to the superstitious belief that delayed breast milk causes disease in children. Almost all Caste/Ethnic group start to feed complementary food at appropriate time but some Dalit respondents introduce in the day of naming ceremony and they did not celebrate rice feeding ceremony due to their low economic status. Likewise,almost half of respondents use sarbottam pitho as a complementary food but two third of them brought it from commercial market as it can be easily prepared in home by using local ingredients. I found the above-mentioned statements in my study that it fulfills the research gap of the study area.

When looking into the breastfeeding issue from a more anthropological-social point of view, we observe that each Caste/ethnic cultural practices and beliefs prevailing in a society are the ones that determine to a considerable degree which procedure will be considered natural and, therefore, accepted by people. For this reason, health public policies and, more specifically, the promotion and support policies of breastfeeding worldwide must always take into consideration the cultural status of a society, that is the attitudes and beliefs prevailing in a place about diseases and health, the traditional practices related to diet, the values and ideals promoted by the society so that the said practices can be more effective and efficient for the implementation of the objectives of public health.

CHAPTER: THREE

RESEARCH METHODOLOGY

This chapter specify the design of the study, population and setting, sampling, instruments, data collection, data analysis and other details of the research work.

3.1. Rationale of the Selection of the Study Site

As I am well known about the health sector of Nepal; I am deeply interested to learn about the complementary feeding practices, I found Syangja District Hospital is more feasible to me to conduct my thesis as I am the proper resident of the district. Likewise, no other such types of study were not conducted in the study area as well as I think my study contribute even in some way so, I choose this place for my study. In Nepal, it is estimated that nearly half(45%) of under 5 years child are malnourished [Department of Health Service (DoHS, 2020)]. Thus, poor nutritional status among young children has been acknowledged as one of the major problems in our country.

The nutritional status of the child can be influenced by complementary feeding practices. Inappropriate infant feeding practices result in feeding difficulties and malnutrition ultimately leading to increased morbidity and mortality in children. Complementary feeding practices greatly depend on cultural habits and ethnicity.

Widespread ignorance and misconceptions regarding complementary food frequently result in improper management of infant feeding. Improper complementary may result in retarded physical and mental development of young child with long term effects.

Mother plays an important role in preparing and serving food to child. So, they must know which foods are necessary for their child, how to give and when to give extra food.

This study attempts to reflect the children's status in terms of socio-economic and demographic characteristics, at the same time what are the root causes and consequences of diverse complementary feeding practices among different ethnic groups in society.

The significance of this research is somewhat to fulfill the research gap in this area as well as helpful to make plan and policy to reduce social exclusion in the society. It is also useful even for planners, policy makers, NGO/ INGOs, and other organization, in relation to the formulation of plan for complementary feeding practices among children. It may be helpful for the re students. Therefore, the research is significant to address cause and effect of diverse complementary feeding practices in Nepal.

3.2. Research Design

Descriptive and analytical research design was used to find out the complementary feeding practices in children among different caste/ethnic groups in MCH clinic in Syangja District Hospital.

3.3 Nature & Sources of Data

The Nature of data was descriptive &analytical in nature. The sources of data collection were First hand data i.e., Primary Data, the researcher collect himself by administrating Interview Schedule to the respondent, Case Study& Second hand data i.e. Secondary Data from Health post records & reports, FCHV registers, Health Centre reports & annual health reports.

3.4. Universe & Sampling

First of all, I have seen all the records for 6 months in HMIS register that how many mothers attend MCH clinic per week. I found more than 50 mothers attend the clinic per week. So, in six weeks we can predict that 300 cases visit the clinic. I took 33 percent sample as a representative So, a total of 100 mothers with 2 years child and attending MCH clinic in Syangja District Hospital were sampled for the study. Twenty-five samples from each caste/ethnic group were selected by using non-probability purposive sampling. I have conducted my field work from 2077/02/01 to 2077/03/15 (45 days) in MCH clinic of Syangja District Hospital. MCH clinic is conductedin specific days per week i.e Monday and Thursday, whether everyone can get MCH facilities whole the days excluding Saturday. Major population comprises Brahmin/ Chhetri, Magar, Gurung and Dalit are in Syangja. So, I decided to select these caste/ethnic groups for the study. Altogether 100 respondents i.e., 25 from each

Caste/Ethnic group were selected for study. I have continued my study until it reaches 25 from each caste/ethnic group.

3.5. Data Collection Tools & Techniques

Administrative approval was obtained from the concerned authorities. Verbal informed consent were obtained from all participants to ensure the right to subject and the researcher himself collected the data.

Following data collection tools and techniques will be used to collect the primary data.

Interviewed Schedule

This method is very famous and its validity may be acquired by cross verification. So, it is frequently used in social research as a practical method. The samples were counted and the format of questionnaire was prepared. Then Interview Schedulewasadministered with the mothers of under 2 aged children with the help of the focal person of the organizations. Through this method, information will be gathered using both open- ended and close questionnaire.

Case Study

Two cases study were done to investigate in great detail as opposed to trying to gather a representative sample from the target population. In this method, study was focused on a case that was exceptional.

3.6. Data Analysis and Presentation

The data was edited, coded and entered Manually. The data was analyzed and calculated by using descriptive statistics. The findings were presented in different tables.

CHAPTER:FOUR

DATA ANALYSIS AND INTERPRETATION

As my thesis topic is related to complementary feeding, the targeted population was the mothers of under two children. I choose Syangja District Hospital as my study area. It is Located at Syangja district headquarter at Syangja Bazar, Gandaki Province Nepal. The hospital conducts specifically two Maternal and Health Clinics per week. Even though the service is provided each day normally excluding Saturday. The study was done in mothers who have their children's from 5 months up to 2 years of age.This chapter presents the analysis and interpretation of data obtained from the mothers after taking personal interview with them by using semi-structured questionnaire. In order to facilitate the interpretations, the analyzed data were organized and presented in tables according to the objectives of the study.

4.1 Age Distribution

Demographically, there are mothers of different age groups ranging from 15 to more than 30 years. The age distribution of the respondents can be clearly seen from the mentioned table no. 4.1**.**

Table: 4.1: Caste/ethnicity wise age distribution of mothers (n=100)

Age (in years)	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
15-19	1	4.0	4	16.0	3	12.0	1	4.0	9	9.0
20-24	9	36.0	7	28.0	8	32.0	8	32.0	32	32.0
25-29	12	48.0	11	44.0	8	32.0	9	36.0	40	40.0
≥ 30	3	12.0	3	12.0	6	24.0	7	28.0	19	19.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

The table 4.1 showed that majority of the mothers (40%) were of 25-29 years age group and only 9% of the respondents fell in 15-19 years age group. Ethnically, it shows that majority of the Brahmin/chhetri (48%) fell in 25-29 years age group. Similarly, 44% of Magar, 36% of Dalit and 32% of Gurung fell in this age group. Only 4% of Brahmin/Chhetri, Magar and Dalit and 3% of Gurung were of 15-19 years age group.

4.2. Occupation of the Respondents

Occupation affects the complementary feeding practices indirectly. The occupation of the respondents include business, farmer, housewife and service. Occupational analysis of the respondents can be clearly understood from Table 4.2.

Table 4.2: Distribution of Mothers by Occupation (n=100)

Occupation	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	**%**	**Frq**	**%**	**Frq**	**%**	**Frq**	**%**	**Frq**	**%**
Business	3	12.0	1	4.0	2	8.0	2	8.0	8	8.0
Farmer	1	4.0	3	12.0	-	-	3	12.0	7	7.0
Housewife	17	68.0	21	84.0	23	92.0	20	80.0	81	81.0
Service	4	16.0	-	-	-	-	-	-	4	4.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

The table 4.2 indicates that majority of the mothers (81%) were housewife and only 4% of them were service holders. Ethnically, majority of Gurung (92%), Magar (84%) Brahmin/Chhetri (68%) and Dalit (81%) was housewife. And only 16% of Brahmin/Chhetri was service holders. The above table depicts the number of housewives are more than others. Especially, housewife from dalit community were spending their time mostly on labour wages, so they tend to feed complementary food lessthan others due to time limitation in caring of their babies,

4.3. Educational Status

The major cause of malnutrition is Illiteracy in developing countries like Nepal. Level of education can also influence the feeding practices. The educational status of the mothers can be clearly seen from the following table 4.3.

Table 4.3. Educational status of the respondents (n=100)

Educational status	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Illiterate	1	4.0	1	4.0	1	4.0	10	40.0	13	13.0
Primary	2	8.0	7.0	28.0	3	12.0	9	36.0	21	21.0
Secondary	12	48.0	13.0	52.0	17	68.0	6	24.0	48	48.0
Higher level	10	40.0	4.0	16.0	4	16.0	-	-	18	18.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

The table 4.3 shows that majority of the mothers (87%) were literate and only 13% of the mothers were illiterate. Among literates majority of the mothers (48%) had completed secondary education and only 18% had completed higher education. Ethnically, 96% Brahmin/Chhetri, Magar and Gurung were literate. Similarly 87% of Dalit were literate.the above table also signifies that there is low level of education among dalit community. This may be due to primarily early marriage system in their culture.

4.4. Settlement Pattern of the Respondents

Each respondents attending the MCH clinic were asked about whether they reside in urban or rural setting. The place of residence of the respondents can be illustrated from the following table 4.4.

Table:4.4 Resident of respondent (n=100)

Residence	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Rural	10	40.0	9	36.0	7	28.0	16	64.0	46	46.0
Urban	15	60.0	16	64.0	18	72.0	9	36.0	54	54.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

According to table 4.4, majority of the mothers (54%) were from urban area and 46% were from rural area. Ethnically, 72% Gurung, 64% Magar, 60% Brahmin/Chhetri and 54% Dalit were from urban areas.

4.5. Religion

Nepal is a country with different caste and religion. The major religion followed by the respondents were Hindu, Buddhist and Christian which is shown in the following table 4.5.

Table 4.5 : Distribution of Mothers according to Religion (n=100)

Religion	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Hindu	25	100	19	76.0	25	100	25	100	94	94.0
Buddhist	-	-	4	16.0	-	-	-	-	4	4.0
Christian	-	-	2	8.0	-	-	-	-	2	2.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

The table 4.5 reveals that all of Brahmin/Chhetri, Gurung and Dalit (100%) were Hindu. Likewise, among Magar, 76% of them were Hindu, 16% were Buddhist and 8% were Christian.

4.6. Distribution of Mothers According to Type of Family

The type of family and number of members in the family i.e the size of the family can also affect the complementary feeding. The pattern of family can be easily understood from the mentioned table 4.6

Table 4.6:Distribution of Mothers according to Type of family (n-=100)

Typeof family	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Nuclear	10	40.0	12	48.0	9	36.0	9	36.0	40	40.0
Joint	11	44.0	10	40.0	13	52.0	11	44.0	45	45.0
Extended	4	16.0	3	12.0	3	12.0	5	20.0	15	14.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

The table 4.6 shows that majority of the mothers (45%) were in joint family, 40% of them were in nuclear family and only 14% of them were in extended family. Ethnically, majority of Brahmin/Chhetri (40%), most of Gurung (52%) and majority of Dalit (45%) were in joint family but majority of Magar (48%) lived in nuclear family. The respondents living in each type of family are almost the same. We can clearly say that children from Nuclear family can get appropriate complementary feeding both in quality and quantity than that of Joint and Extended Family. However the caring and rearing of children is good enough in Joint and Extended family than the Nuclear.

4.7. Food Sufficiency

The amount of food required affects the complementary feeding practices. The adequacy of food for the respondents can be shown on the following table 4.7

Table4.7: Distribution of Mothers according to Adequacy of Food(n=100)

Adequacy of food	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Adequatefor whole year	18	72.0	18	72.0	16	64.0	10	40.0	62	62.0
Not adequate for whole year	7	28.0	7	28.0	9	36.0	15	60.0	38	38.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

The table 4.7 indicates that majority of the respondents (62%) had adequate food for whole year and only 38% of them had not adequate food for whole year. Ethnically, majority of Brahmin/Chhetri and Magar (72%) had adequate food for whole year andonly64% and 40% of Gurung,Dalit had adequate food for whole year respectively.Food adequacy determines the quantity and quality of food served to child as complementary food. The main reason of not having food adequacy was due to lack of agricultural land in dalit community. Similarly, most of the Brahmin/Chhetri,Gurung and Newar have their own land but they have no additional members to work in the land. So, due to low economic status, illiteracy and food adequacy issues; the complementary feeding is more affected in dalit community.

4.8. Age and Sex Distribution of Children

The age and sex distribution shows the number of children and their age from each respondent's mother. Childrens with different aged groups were categorized as 5-9 months upto 2 years and differentiated as male and female which can clearly understood from the following table 4.8

Table 4.8. : Age and Sex distribution of Children (n=100)

Characteristics	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Age(in months)										
5-9	8	32.0	10	40.0	8	32.0	7	28.0	33	33.0
10-14	10	40.0	10	40.0	11	44.0	10	40.0	41	41.0
15-19	5	20.0	5	20.0	4	16.0	4	16.0	18	18.0
20-24	2	8.0	-	-	2	8.0	4	16.0	8	8.0
Sex										
Male	14	56.0	13	52.0	18	72.0	13	52.0	58	58.0
Female	11	44.0	12	48.0	7	28.0	12	48.0	42	42.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

According to table4.8, majority of the child (41%) were of 10-14 months age group and only 8% of them were of 20-24 months age group. And majority of the child (58%) were male and 42% were female. Ethnically, it was found that majority of the Brahmin/Chhetri, Magar and Dalit (40%) and 44% Gurung were of 10-14 months age group. And 72% Gurung, 56% Brahmin/Chhetri, 52% Magar and Dalit children were male.

4.9. Breast Feeding Practices

Feeding breast milk to baby is called breast feeding. Even single drop of water is not required for the baby during first 6 months which is called Exclusive Breast feeding. The existing breast-feeding status of the respondents can be clearly seen from the following table no 4.9.

Table:4.9 Breast Feeding Practices of Respondents (n=100)

Response	**Brahmin/ Chhetri**		**Magar**		**Gurung**		**Dalit**		**Total**	
	Frq	**%**	**Frq**	**%**	**Frq**	**%**	**Frq**	**%**	**Frq**	**%**
Breast Feeding	23	92.0	24	92.0	23	92.0	23	92.0	93	93.0
Not Breast Feeding	2	8.0	1	4.0	2	8.0	2	8.0	**7**	7.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

The table 4.9 shows that majority of the mothers (93%) were breastfeeding their child. Ethnically, 96% of Magar, 92% of Brahmin/Chhetri, Gurungand Dalit were feeding their children with breast milk at present. Majority of mothers breastfeed their child. Some mothers who were having existing pre-medical conditions and mothers who delivered baby by Caesarean Section were not able to breast feed their baby due to their family restriction.

CASE STUDY-1

Harimaya, a 18 years old female from Brahmin family came to attend Immunization Clinic in District Hospital Syangja, had complete her primary level of education and was married a year ago and have a 11 month male child. her husband was well educated and a service holder worked in a cement company and she live in a joint family. As she was literate she did her Antenatal Check up by let her family unknowingly even her husband. But her father in law supports her in seeking health behavior practices but he was working abroad.

After she delivered her baby at hospital, she was not able to produce breast milk immediately due to unknown causes. But after a while she was able to produce breast milk, but her family members restrict to feed her baby by saying it was due to a taboo that she was not able to produce breast milk and said that she cannot feed because breast milk produced after many days of delivery is not good enough for baby, so it is good to feed buffalo's milk. So, she fed her baby buffalos milk instead of breast milk. She introduces complementary feed from 6 months and she used to feed Sarbottam Pitho from commercial market as well as rice, dal and vegetables. Her baby did not get any problems regarding complementary feeding but her family members restrict to give fruits to her baby as fruits tend to cause cold and allergies.

In conclusion, there are many factors affecting breast feeding and complementary feeding. These factors are highly associated with literacy status, attitude towards foods and feeding practices of the entire family. To overcome challenges regarding breastfeeding and complementary feeding; we can apply the interventions related to advantages of breastfeeding, duration and frequency of feeding, timely initiation and use of various types of complementary foods.

4.10. Plan for Continuing Breastfeeding

Breast feeding should be fed Exclusively to the children's below 6 months and it should be continuedeven after introducing complementary food. i.e., 2 years. The table 4.10 shows the mothers plan to continue to breastfeed their children.

Table no:4.10 Plan for Continuing Breastfeeding (n=93)

Duration	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Up to six months	-	-	-	-	-	-	1	4.3	1	1.0
Up to 1 year	1	4.3	1	4.2	-	-	-	-	2	2.0
Up to 2 year	15	65.2	10	41.7	14	60.9	4	17.4	43	46.0
As long as child feeds	7	30.5.	13	54.1	9	39.1	18	78.3	47	51.0
Total	**23**	**100**	**24**	**100**	**23**	**100**	**23**	**100**	**93**	**100**

Source: Field Survey, 2077

According to table 4.10, majority of the mothers (46%) planned to continue to breast feed their child up to 2 years and only 1% of the mothers planned to continue breast feeding their child up to 6 months. Ethnically, majority of Brahmin/Chhetri (65.2%), Gurung (60.9%) planned to continue to breast feed their child up to 2 years. Similarly, 45.80% Magar and 56.5% Dalit planned to continue breast feed their child as long as child feeds. From the above table majority of Dalit respondents tend to breast feed their babies as long as child demand because most of them were housewife and they can feed their child in the morning and evening even if they were busy in labor wages in the day time. Likewise, most of the respondents from Brahmin/Chhetri breastfeed up to 1 year because of busy schedule in their business and service. In the same way some of Gurung and Magar respondents said that breast feeding to child more than 2 year tend to change their body figures so they were not able to breastfeed their child more than 2 years.

4.11. Age of Starting Complementary Food to Child

Fully breastfeed babies for 5-6 months need extra food rather than breast milk for their normal growth and development. The status of respondents regarding the age

introducing the complementary feeding can be easily understood from the following table 4.11.

Table 4.11. Age of Starting Complementary Food to Child(n=100)

Age	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	**%**	**Frq**	**%**	**Frq**	**%**	**Frq**	**%**	**Frq**	**%**
Below 5months	2	8.0	-	-	-	-	5	20.0	7	7.0
From 5months	4	16.0	7	28.0	6	24.0	3	12.0	20	20.0
From 6months	17	68.0	13	52.0	17	68.0	11	44.0	58	58.0
>Six Months	2	8.0	5	20.0	2	8.0	6	24.0	15	15.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

The table 4.11 shows that majority of the mothers (58%) started giving complementary food to child after 6 months of age followed by 20% after 5 months of age. It was found that 8% of mothers fed their child with complementary food before 5 months of age. Ethnically, majority of Brahmin/Chhetri and Gurung (68%), Magar (52%) and Dalit (44%) introduced complementary food from 6 months. Similarly, it was also found that, 20% of Dalit 8% of Brahmin/Chhetri and 4% of Gurung initiated giving complementary food before 5 months of age. In the same way 24% of Dalit introduced complementary feed after 6 months as they Exclusively breast feed their babies.Most of the respondents from each Caste/Ethnic group start complementary feeding from 6 months and or above. However some dalit respondents start complementary feed from below 5 months due to low level of education regarding feeding as well as their busy work schedule. Similarly they said that complementary feeding starts from naming ceremony.

4.12. Age of Celebrating Rice Feeding Ceremony

Nowadays, most of the Caste/ethnic groups celebrate rice feeding ceremony while introducing complementary foods to their children. The age of celebrating Rice Feeding Ceremony is shown in the following table no. 4.12.

Table 4.12. Age of Celebrating Rice Feeding Ceremony of child(n=100)

Age	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	**%**	**Frq**	**%**	**Frq**	**%**	**Frq**	**%**	**Frq**	**%**
At 5months	7	28.0	10	40.0	7	28.0	-	-	24	24.0
At 6months	16	64.0	10	40.0	15	60.0	6	24.0	47	47.0
Do not celebrate	2	8.0	5	20.0	3	12.0	19	76.0	29	29.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

The table 4.12 indicates that majority of the respondents (47%) celebrated "Rice Feeding Ceremony" at 6 months followed by 24% at 5 months. Ethnically, it was found that majority of Dalit (76%) did not celebrate Rice Feeding Ceremony of their child. First and foremost, the practice celebrating rice feeding ceremony in Dalit is dominated by their economic status as they feel it will cost more to conduct the ceremony. But nowadays it was well practiced by many societies; and very few of the families tend to practice rice feeding ceremony as well as it has been explored.

4.13. Types of Complementary Food given to Child

Complementary feeding should be start from liquid to semi-solid to solid foods. These feeding practices can be differed in each caste/ethnic groups. The type of complementary foods given can be categorized and presented in the following table no. 4.13.

Table no. 4.13. Types of Complementary Food given to Child (n=100)

*Complementary food	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Jaulo	11	16.4	9	15.5	10	14.9	3	6.0	33	14.0
Cerelac	11	16.4	10	17.2	15	22.4	7	14.0	43	18.0
Dal,rice ,vegetable	20	29.8	24	41.4	18	26.9	20	40.0	82	34.0
Sarbottam Pitho	17	25.4	8	13.8	16	23.9	7	14.0	48	20.0
Others	**8**	**11.9**	**7**	**12.0**	**8**	**11.9**	**13**	**26.0**	**37**	**15.0**
Fruits	5	7.5	2	3.4	1	1.5	5	10.0	13	5.0
Roti	2	3.0	2	3.4	1	1.5	4	8.0	9	4.0
Meat and egg	1	1.5	3	5.2	6	9.0	4	8.0	14	6.0
Total	**67**	**-**	**58**	**-**	**67**	**-**	**50**	**-**	**242**	**-**

Source: Field Survey, 2077

*Multiple Responses

The table 4.13 shows that majority of the respondents (34%) preferred giving dal, rice and vegetable. Likewise, 20% preferred giving Sarbottam Pitho and only 14% of them gave Jaulo to their child. Ethnically, 41.4% of Magar, 40% of Dalit, 29.8% of Brahmin/Chhetri and 26.9% of Gurung preferred giving dal, rice and vegetables. Among all ethnic groups, majority of Brahmin/Chhetri (25.4%) preferred giving Sarbottam Pitho. Majority of the respondents in all Caste/Ethnic groups prefer Dal, rice and vegetable whereas more than half of the Brahmin/Chhetri tend to feed Sarbottam Pitho as they prepared in home by themselves. Similarly more than half of Dalit respondents prefer homemade fruits like cucumber, papaya,roti meat and egg.

4.14. Frequency of Giving Complementary Food to Child

Initially children should receive complementary foods 2-3 times a day between 6-8 months and increase to 3-4 times daily between 9-11 months and 12-24 months. Additional nutritious snacks should also be offered 1-2 times per day for ages 12-24 months as desired. The frequency of giving complementary feeding to the child is clearly mentioned in the given table no. 4.14.

Table:4.14 Frequency of giving Complementary Food to Child(n=100)

Frequency	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Twice a day	4	16.0	5	20.0	1	4.0	10	40.0	20	20.0
Thrice a day	15	60.0	14	56.0	15	60.0	9	36.0	53	53.0
Four times a day	3	12.0	2	8.0	5	20.0	6	24.0	11	11.0
As per demand of child	3	12.0	2	8.0	5	20.0	6	24.0	16	16.0
Total	**25**	**100**	**25**	**100**	**25**	**100**	**25**	**100**	**100**	**100**

Source: Field Survey, 2077

According to table 4.14, majority of the respondents (53%) gave complementary food to their child three times a day and only 11% of them fed their child four times a day. Ethnically, 60% of Brahmin/Chhetri and Gurung and 56% of Magar fed their child thrice a day but 40% of Dalit fed their child twice a day. Most of the dalit respondents were housewives but due to low economic status they have to go for labour wages to earn money. There is also food insufficiency due to lack of agricultural land. So they feed twice a day.

4.15. Practices of Feeding Sarbottam Pitho

In Nepal this is known as super-flour porridge or sarbottam pitho ko lito. It can be made easily in home. The flour is made from:two parts pulse-soybeans are best,but other small beans, grams and peas can also be used. One part whole grain cereal such as maize or rice. The existing practice of respondents regarding feeding Sarbottam Pitho is shown in the following table no. 4.15.

The Question was administered in the respondents who practiced to feed sarbottam pitho.

Table 4.15 : Practices of Feeding Sarbottam Pitho (n=48)

Response	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	**%**	**Frq**	**%**	**Frq**	**%**	**Frq**	**%**	**Frq**	**%**
Prepared by self	12	48.0	3	12.0	5	20.0	5	20	25	52.0
Bought from shop	5	20.0	5	20.0	11	44.0	2	8.0	23	48.0
Total	**17**	**68**	**8**	**32**	**16**	**64**	**7**	**28**	**48**	**100**

Source: Field Survey, 2077

According to table 15, it was found that, majority of the mothers (52%) did not feed their child with Sarbottam Pitho and only 48% of them feed their child with it. Among them 52% prepared Sarbottam Pitho by self at home and 48% of them bought it from shop. Ethnically, almost halfof Brahmin/Chhetri (48%) preferred to feed their child with Sarbottam Pitho.Similarly (44%) of Gurung use Sarbottam Pitho from commercial market. The main reason for such differences is ignorance among Gurung respondents. Likewise,Dalit respondents prepare Sarbottam Pitho by themselves instead of buying from market because they feel it is expensive.

CASE STUDY-2

Kamali brought her two-year-old son, Arjun, to the District Health Office with tears in her eyes. She brought him there after he had received treatment from local traditional healers. Arjun had diarrhea all the time, had lost his appetite and had been constantly losing weight.

Arjun was immediately referred to the Nutrition Programme of UMN. He had severe weight loss and looked just ‘skin and bones. He was irritable, very slow, dehydrated and was crying all the time. It was a clear case of severe protein energy malnutrition. Arjun’s mother, Kamali, was advised about his situation and given suggestions for feeding him.

Three days later, UMN staff visited his home and talked with his mother about the family situation. They discovered that she was not aware of the importance of good child feeding and hygiene practices.

The nutrition programme staff taught the mother how to prepare super-flour porridge. She was encouraged to feed Arjun this porridge four to five times a day (fortified with ghee or oil) along with other food, fruits and vegetables. During later home visits, Kamali was given practical suggestions regarding weaning foods, feeding sick children, personal hygiene, balanced diet and nutritious local foods. The nutrition field staff also monitored Arjun’s weight during regular home visits.

Arjun gained weight slowly but steadily. When he returned to the nutrition unit for a check-up visit, he was a different child – happy and full of energy. He had gained weight, could walk easily, his appearance had improved and he wanted to

To conclude, knowledge, attitude and practice regarding health seeking behavior adversely affects breast feeding and complementary feeding in children. Similarly,KAP regarding breast feeding and complementary feeding affects child nutritional status. So from this study we can easily interpret that practical knowledge regarding weaning foods, feeding sick children, personal hygiene, balanced diet and

nutritious local foods can make desirable change in feeding practices as well as good health of children's.

4.16. Problems Developed by Children During Complementary Feeding Period and Treatment Modalities

Many children can suffer from common problems while introducing complementary foods. 58% respondents said that there were no any problems arise after introducing complementary foods, while 42% said that children were suffered from diarrhoea, vomiting and food refusal and they prefer some of the treatment modalities which can be seen in following table no. 4.16

Table 4.16 : Problems Developed by Children during Complementary Feeding Period and Treatment Modalities

(n=42)

*Response	Brahmin/ Chhetri		Magar		Gurung		Dalit		Total	
	Frq	%	Frq	%	Frq	%	Frq	%	Frq	%
Problems										
Diarrhoea	6	35.3	4	30.8	5	41.7	9	44.0	24	44.4
Vomiting	3	17.6	3	23.0	4	33.3	2	75.0	12	22.2
Food refusal	8	47.0	6	54.5	3	25.0	1	16.6	18	33.3
Treatment										
Home remedies	2	11.1	1	9.0	4	36.4	2	15.4	9	17.0
Health personnel	7	38.9	5	45.5	4	36.4	9	69.2	25	47.1
Traditional healers	2	11.1		-		-	1	7.7	3	5.7
Using play therapy	7	38.8	5	45.4	3	27.3	1	7.7	16	30.2

Source: Field Survey, 2077

*Multiple responses

Table 4.16 shows that, majority of the mothers (44.3%) stated that their child had diarrhoea followed by food refusal (33.3%) during the complementary feeding period. And majority of the mothers (47%) had seeked help from health personnel. Ethnically, it was found that majority of Dalit child (75%) developed vomiting. Similarly, 44% Dalit, 41.7% Gurung, 35.3% Brahmin/Chhetri and 30.8% Magar developed diarrhoea. However, the preference of treatment was health personnel or health centers, but initially all Caste/Ethnic group practice home remedies, Traditional healers and using play therapy.

CHAPTER:FIVE

SUMMARY AND CONCLUSION

5.1. Summary and Findings

The study found that majority of the mothers (40%) was of 25-29 years age group. Caste/Ethnically, it was found that majority of Brahmin/Chhetri (48%) were of 25-29 years of age group. Similarly, 44% of Magar, 32% of Gurung and 36% of Dalit were of this age group.majority of the child (41%) were of 10-14 months age group and only 8% of them were of 20-24 months age group. And majority of the child (58%) were male and 42% were female. Ethnically, it was found that majority of the Brahmin/Chhetri, Magar and Dalit (40%) and 44% Gurung were of 10-14 months age group. And 72% Gurung, 56% Brahmin/Chhetri, 52% Magar and Dalit children were male. The study also found that 45% ,40% and 15 % respondents were from joint, nuclear and extended family respectively.

The study showed that 81% of the mothers were housewife and only 4% of them were service holders. Ethnically, 92% Gurung, 84% Magar, 81% of Dalit and 68% of Brahmin/Chhetri were housewife. Only 16% Brahmin/Chhetri were service holders. Likewise, 87% of mothers were literate and 13% of them were illiterate. Ethnically, 96% of Brahmin/Chhetri, Magar, Gurung and 60% of Dalit were literate. Similarly, 45% of the mothers lived in joint family and 40% lived in nuclear family and 14% in extended family. Sixty two percent of the mothers said that they had adequate food for whole year and 38% of them did not have.

While assessing the breast-feeding practices among the mothers, it was found that 93% of the mothers had practiced breast feeding to their child at present. In this study, it was found that 46% of mothers were planning for continuing breastfeeding up to 2 years and 38% planned for breastfeeding their child as long as child wishes to feed.

While assessing the complementary feeding practices among different Caste/ethnic groups in study area, it was found that 68% Brahmin/Chhetri and Gurung child; 52% Magar child and 44% Dalit child were introduced complementary food from 6 months which is considered appropriate age for child. It was also found that in majority

(20%)Dalit child were feed before 5 months of age. The reason behind this may be because of higher illiteracy rate of Dalit (40%).

Weaning food in Nepal traditionally begins with the rice feeding ceremony (pasni) where children receive their first meal. The ceremony is performed at 5 months of age for a girl and six months for a boy. Similarly, in the study it was found that majority of mothers (47%) celebrated 'Rice Feeding Ceremony' of their child at 6 months followed by 24% at 5 months. Thus, most of them celebrated it at 5-6 months of age which could be considered appropriate as per our custom.

The study done by R, Mohammad (2016) found that majority of the mothers (34%) fed their child with dal, rice and vegetables and 48% of them fed Sarbottam Pitho. Ethnically, majority of Brahmin/Chhetri (25.4%) and 13.8% Magar and 23.9% Gurung preferred to feed Sarbottam Pitho to their child. Thus, it was found that the most common complementary food given to child were dal, bhat and vegetables and Sarbottam Pitho. Most of the mother respondents practice dal, rice and vegetable as complementary feeding. Only 48% out of total respondents prefer Sarbottam Pitho. Similarly, astudy in Bhaktapur showed that majority (91.90%)mothers initiated fed Lito as a complimentary feeding in six months whereasDaal Bhat (46.80%Cerelacs33.90%), Cow/ Buffalo Milk (21%) before sixmonths as complementary feeding .

The study was found that majority of the children (53%) were fed with complementary food three times a day whereas 20% were fed twice a day and 16% were fed as per the demand of child and 11% were fed four times a day. The important factors in weaning are frequency of feeding and the variety of food offered to the child.

Similarly, in this study, it was found that majority of the child (44.4%) developed diarrhoea during complementary feeding period. Ethnically, majority of Dalit (44%) developed diarrhoea. This might be because of unhygienic foods intake as well as early initiation of complementary food that is below 5 months (20%). And the most common treatment modalities used by them were seeking help from health personnel (47.1%), 17% of them practiced home remedies and only 5.7% seeked help from traditional healers. This might be because most of the mothers were literate (87%) and were aware of it.

5.2. Conclusion

The study reveals majority of the respondents were housewife in all Caste/Ethnic group and among them most Dalit respondents were illiterate. From sociological point of view, we can see that the family size, level of education, occupation are the ones that determine the initiation, frequency and duration of breast-feeding practices. Some mother respondents said that they were not able to breastfeed for two years as they feel breast feeding for a long time alter the shape of body and it looks not good. So,Inadequate knowledge and inappropriate practice have negative effects on child health. Therefore, providing knowledge and practice of breast feeding their children should be enhanced for the sake of children's as well as mother's health.

Similarly, initiation of complementary feeding at the recommended time of six months was seen in the majority of children of different Caste/Ethnic groups. However, the quantity and variety of complementary feeding was insufficient. Advice about breast feeding and complementary feeding during antenatal check-ups and postnatal visits might improve feeding practices.Time to initiate into complementary feeding was affected by maternal employment, family educational status and birth preparednessability to know the exact time to introduce complementary feeding, and husband support. Therefore, focusing on parents with no formal education are important to improve timely initiation into complementary feeding.Advice about breast feeding and complementary feeding during antenatal check-ups and postnatal visits might improve feeding practices.

Likewise,most of the respondents from each Caste/Ethnic group prefer dal, rice and vegetable as complementary food but using fruits, meat and egg as a complementary food is very low in all groups. In the same way the frequency of giving complementary feeding is not satisfied as some of the respondents feed only two times a day. More than half of the mother practiced Sarbottam Pitho as a complementary feeding but almost approximately half of them brought from commercial market even if it can be prepared in home by easy method through homemade ingredients. So, it is recommended that there should be awareness creation on society by counseling and giving health education to boom their knowledge and practice of timely initiation of complementary feeding, using variety foods as alternative feeding, preparing complementary foods in home by using local ingredients. This will promote healthy feeding practices as well as good health of children.

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ANNEX

INTERVIEW SCHEDULE

I am Dilip Subedi, now I am doing a research work on **"Comparison of Complementary Feeding Practices among different Caste/Ethnic Groups"**. I shall take some information from you by asking question. I expect your participation and promise you that all information will be kept secured and only used for research purpose. Your participation in this study is voluntary and you can leave interview at any time. Thank you very much for your kind cooperation.

Thank you for your cooperation

Name of investigator: Interview

Date……

1. Name of the respondent:……..

2. Age:…….

3.Caste/ Ethnicity:

a) Brahmin /Chhetri b) Gurung/Magar

c) Newar d) Dalit(Kami/Damai/Sarki)

4. Occupation

a) Business b) Farmer

c)Housewife d) Service

5. Educational Status

a) Illiterate b) Primary

c) Secondary d) Higher Level & Above

6. Residence of Mother

a) Rural b) Urban

7. Religion

a) Hindu b) Buddhist

c) Christian

8. Type of family

a) Nuclear b) Joint c) Extended

9. Adequacy of Food

a) Adequate for Whole Year b) Not adequate for whole year

10. Age Distribution of Children

a) 5-9 b) 10-14 c) 15-19 d) 20-24

11. Sex distribution of children

a) Male b) Female

12. Breast feeding practice of mother

a) Breast feeding b) Not Breast Feeding

13. Plan for Continuing Breast Feeding

a) Upto 6 months b) Upto 1 Year

c) Upto 2 Year d) Upto 5 Year

e) As long as child feeds

14. Age of Starting Complementary food to child

a) less than 5 month b) From 5 Month

c) From 6 Month d) From 9 Month

e) From 1 Year

15. Age of celebrating Rice Feeding Ceremony of Child

a) At 5 Month b) At 6 Month

c) Do not celebrate

16. Type of Complementary Food given to Child

a) Jaulo b) Cerelac c) Dal, Rice & Vegetable

d) Sarbottam Pitho e)Others……. Fruits, Roti, Meat& Egg

17. Frequency of giving Complementary foods to Child

a) Twice a day b) Thrice a day

c) Four times a day d) As per demand of child

18. Practices of Feeding Sarbottam Pitho

a) Prepared by Self b) Brought from Shop

19) Problem developed by Children during Complementary Feeding Period:

a) Diarrhoea b) Vomiting

c) Food Refusal d) Others

20. Treatment Modalities/Preference of treatment

a) Home Remedies b) Health Personnel

c) Traditional Healers d) Using Play Therapy

21. What suggestion would you want to give for betterment of Complementary Feeding Practices?

(……..)