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**DEPARTMENT OF FOOD TECHNOLOGY, HUMAN NUTRITION AND CONSUMER
SCIENCES**

DEGREE PROGRAM: BSc. HUMAN NUTRITION

**RESEARCH TITLE: CHILD-FEEDING PRACTICES OF UNDER-FIVE YEARS
CHILDREN AMONG WOMEN FOOD VENDORS IN MBEYA CITY,
TANZANIA**

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ABSTRACT

A study was conducted to assess child-feeding practices of under-five years' children among women food vendors in Mbeya city, Tanzania. Cross-sectional study involving 50 women food vendors was carried out in Mbeya city in Mbeya region in Tanzania to assess child-feeding practices of under-five years' children among women food vendors. A structured questionnaire with both close and open ended questions was administered to collect data of child feeding practices and demographic information. Respondents were selected using non-probability sampling method specifically Convenient or accidental sampling and sample of 50 respondents were obtained. Data were coded and analysed by using Statistical Product for Service Solutions, version 20 (SPSS). After analysis it was found that majority of selected women food vendors (96%) go to work early in the morning and they also go back home very late in the evening. Percentage of exclusive breastfeeding for first six months and breastfeeding of children for at least 2 years were 70% and 56% respectively. Overall responsive feeding practices were found to be good except for responding promptly to child's hunger and satiety which indicated 54% of women do not respond promptly to child's hunger and satiety. Attitudes of selected women food vendors towards feeding practices based on recommended practices of child feeding were found to be good and the strategy which was found to be mostly used by respondents to care for their children when working was to go with their children at working place. It was concluded from this study that

DECLARATION

I, Charles Lawrence Msigwa do hereby declare to the Senate of Sokoine University of Agriculture that, this is my own original work, and has not been submitted nor is it being currently submitted for a degree award in any other university.

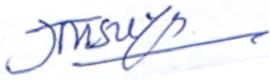


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22/11/2019

Date

The above declaration is confirmed by



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(Supervisor)

22/11/2019

Date

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

Street foods generally refer to ready-to-eat foods and beverages prepared either at home or on the streets and sold by vendors, especially on streets and other public places (Muleta and Ashenafi, 2001). These foods include meat, fish, fruits, vegetables, grains, cereals, frozen produce and beverages. This food industry provides a significant amount of employment, mainly to those with little education and training and often responsible for the feeding of millions of people with a wide variety of foods daily that are relatively cheap and easily accessible. Food vendors in urban areas woke up early in the morning normally at 4.30 am. They first visit the local markets where they buy foodstuffs such as vegetables, tomatoes, rice, flour and onions. Secondly, they go to their work place to prepare breakfast, lunch and dinner (McGee and Yeung, 1977; Ray, 2014; Saha, 2011).

In Tanzania, urban setting settlements there have been booming of local eateries where significant number of people eats daily; these food vendors is known as Mama Ntilie in Swahili and they are the main food suppliers at this setting. However, they are poorly regulated, operated, poor sanitary environment and hygiene practices raise serious questions about health of the food consumers (Mafuru, 2018).

Malnutrition refers to deficiencies, excesses, or imbalances in a person's intake of energy and/or nutrients. There are 4 broad sub-forms of undernutrition: wasting, stunting, underweight, and deficiencies in vitamins and minerals. Undernutrition makes children in particular much more vulnerable to disease and death. Low weight-for-height is known as wasting. It usually indicates recent and severe weight loss, because a person has not had enough food to eat and/or they have had an infectious disease, such as diarrhea, which has caused them to lose weight. A young child who is moderately or severely wasted has an increased risk of death, but treatment is possible. Low height-for-age is known as stunting. It is the result of chronic or recurrent undernutrition, usually associated with poor socioeconomic conditions, poor maternal health and nutrition, frequent illness, and/or inappropriate infant and young child feeding and care in early life. Stunting holds children back from reaching their physical and cognitive potential. Children with low weight-for-age are known as underweight. A child who is underweight may be stunted, wasted, or both (WHO, 2018).

In 2016, an estimated 155 million children under the age of 5 years were suffering from stunting, while 41 million were overweight or obese. Around 45% of deaths among children under 5 years of age are linked to undernutrition. These mostly occur in low- and middle-income countries. At the same time, in these same countries, rates of childhood overweight and obesity are rising (WHO, 2018). According to the 2015-16 TDHS-MIS, 34% of children under age 5 are stunted or short for their age, a sign of chronic malnutrition. Five percent of young children are wasted or too thin for their height, a sign of acute malnutrition while, at the other extreme, 4% are overweight or over nourished. Fourteen percent of children are underweight or too thin for their age. Data show that

the prevalence of stunting and underweight has been decreasing in Tanzania steadily since 1996. In contrast, the prevalence of wasting has remained virtually unchanged between 1999 and 2016. Stunting increases markedly with a child's age, reaching a level of 40% or more among children age 18-47 months. One in six children age 24-35 months is severely stunted. Children considered very small (51%) or small (46%) at birth are more likely to be stunted than those described as being average or large (33%). Stunting is higher in Tanzania Mainland (35%) than in Zanzibar (24%). Considering zonal differences, the prevalence of stunting is very high in the Southern Highlands (45%) and South West Highlands (43%) zones.

Appropriate infant and young child feeding (IYCF) practices include early initiation of breastfeeding within the first hour after birth, exclusive breastfeeding in the first 6 months of life, continued breastfeeding through age 2, introduction of solid and semisolid foods at age 6 months, and gradual increases in the amount of food and frequency of feeding as the child grows older. It is also important for young children to receive a diverse diet that includes eating foods from different food groups in order to satisfy the growing micronutrient needs (WHO, 2008).

Fifty-nine percent of infants under 6 months are exclusively breastfed in Tanzania. Exclusive breastfeeding declines rapidly with age; only 27% of infants age 4-5 months are exclusively breastfed compared with 84% of infants age 0-1 month and 59% of infants age 2-3 months. Contrary to recommendations, some infants under age 6 months consume other liquids in addition to breastmilk, which may be plain water (11%) and other milk (4%). More than one-fifth of infants under age 6 months are fed complementary foods (22%) in addition to breast milk. Fortunately, only 3% are fed using a bottle with a nipple (TDHS-MIS, 2015-2016)

1.2 Problem Statement

Urban population growth has stimulated a rise in the number of street food vendors in many cities throughout the world. Migration from rural areas to urban centers has created a daily need among many working people to eat outside the home. Demand for relatively inexpensive, ready-to-eat food has increased as people, especially women, have less time to prepare meals (Gashaw, 2015).

Despite of many advantages that people in town gets due to easy and low price of foods offered by women food vendors, the question rise, how do these women food vendors feed their children and most of the time they stay and/or moving along the roads, food markets, restaurant "mamalishé". Since they use most of time in food vending it means less time is used by food vendors to feed their children, they have low knowledge on how to feed properly their children, as well as lack of government support and its consequences lead to increased undernutrition rate at national level and regional level (Mbeya region)

According to the 2015-16 TDHS-MIS, 34% of children under age 5 are stunted or short for their age, a sign of chronic malnutrition. Five percent of young children are wasted or too thin for their height, a sign of acute malnutrition while, at the other extreme, 4% are overweight or over nourished. Fourteen percent of children are underweight or too thin for their age.

The prevalence of stunting is very high in the Southern Highlands (45%). With regional patterns, Rukwa (56%), Njombe (49%) and Ruvuma (44%) regions have the highest prevalence of stunting. And Mbeya region with 38% of children under age 5 are stunted, and the prevalence of stunting in Mbeya is higher by 4% compared to the overall prevalence of stunting in Tanzania which is 34% (TDHS-MIS, 2015-2016), and the high rate of undernutrition in Mbeya can be attribute to poor feeding practices of women food vendors who lack enough time and knowledge to practice responsive feeding practices.

1.3 Study Justification

The purpose of this study is to assess child-feeding practices among selected women food vendors in Mbeya city. Mbeya city is one of the districts in Mbeya region. Mbeya region is one of the regions in Tanzania with high malnutrition rate, it has stunting rate higher than overall prevalence of stunting in Tanzania by 4%. The study will include women food vendors only since most of studies assessing child-feeding practices includes low income women in general and not child-feeding practices of women food vendors only.

The study will be designed to include only selected women food vendors around Mbeya city and assessment of their feeding practices will be done so as to identify different copying strategies they use to care their children, child feeding attitudes of women food vendors, comparison of challenges they face during different seasons of the years and how the practice responsive feeding practices. Finally, findings will be disseminated to the local government and food vendors so as to raise awareness about the importance of breastfeeding children exclusively for first six months, and continuing breastfeeding together with provision of other foods, as well as the importance of practicing responsive feeding when feeding under five children. Also to provide suggestions for the local government to create or improve working environment of women food vendors that will help to create supportive environment for women food vendors to feed their children comfortably thereafter reducing the prevalence of undernutrition in Mbeya and Tanzania.

1.4 Research Objectives

1.4.1 General objective

To assess child-feeding practices of under-five years' children among women food vendors in Mbeya city

1.4.2 Specific objectives

- i. To identify feeding variations in different working conditions
- ii. To assess the extent to which women food vendors practice responsive feeding
- iii. To determine the attitudes of women food vendors toward recommended feeding practices
- iv. To identify coping strategies used by respondents in providing care for their children when working.

1.5 Research Questions

1. What are the feeding variations of Women food vendors in different working conditions?
2. What is the extent to which women food vendors practice responsive feeding?
3. What are the attitudes of women food vendors toward feeding practices based of recommended practices of child feeding?
4. What are the different coping strategies used by respondents in providing care for their children when working?

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Recommendation On Child Feeding Practices

WHO and UNICEF recommend: early initiation of breastfeeding within 1 hour of birth, exclusive breastfeeding for the first 6 months of life; introduction of nutritionally-adequate and safe complementary (solid) foods at 6 months together with continued breastfeeding up to 2 years of age or beyond and no use of bottles, teats or pacifiers. However, many infants and children do not receive optimal feeding. For example, only about 36% of infants aged 0–6 months worldwide were exclusively breastfed over the period of 2007-2014 (WHO, 2018)

2.1.1 Early Initiation of breastfeeding within 1 hour of birth

Initiation of breastfeeding after birth is an integral part of the safe delivery procedure (WHO, 2009) and is widely known as the most important practice that should not be ignored. Immediate skin-to-skin contact helps regulate newborns' body temperature and exposes them to beneficial bacteria from their mother's skin. These good bacteria protect babies from infectious diseases and help build their immune systems. Skin-to-skin contact immediately after birth until the end of the first breastfeeding has many other benefits as well. It has been shown to increase the chances that babies are breastfed, to extend the length of breastfeeding, and also to improve rates of exclusive breastfeeding (Selim, 2018).

2.1.2 Exclusive breastfeeding for the first 6 months of life

WHO recommendations Infants should be exclusively breastfed for the first six months of life to achieve optimal growth, development and health. Breastfeeding has many health benefits for both the mother and infant. Breast milk contains all the nutrients an infant need in the first six months of life. Breastfeeding protects against diarrhea and common childhood illnesses such as pneumonia, and may also have longer-term health benefits for the mother and child, such as reducing the risk of overweight and obesity in childhood and adolescence. Exclusive breastfeeding means that the infant receives only breast milk. No other liquids or solids are given– not even

water – with the exception of oral rehydration solution, or drops/syrups of vitamins, minerals or medicines (WHO, 2019).

Exclusive breastfeeding for six months has several advantages over exclusive breastfeeding for 3-4 months followed by mixed breastfeeding; These advantages include a lower risk of gastrointestinal infection for the baby, more rapid maternal weight loss after birth, and delayed return of menstrual periods (WHO, 2011)

2.1.3 Introduction of nutritionally-adequate and safe complementary (solid) foods at 6 months together with continued breastfeeding up to 2 years of age or beyond

Around the age of 6 months, an infant's need for energy and nutrients starts to exceed what is provided by breast milk, and complementary foods are necessary to meet those needs. An infant of this age is also developmentally ready for other foods. If complementary foods are not introduced around the age of 6 months, or if they are given inappropriately, an infant's growth may falter. Guiding principles for appropriate complementary feeding are:

- Continue frequent, on-demand breastfeeding until 2 years of age or beyond;
- Practice responsive feeding (for example, feed infants directly and assist older children. Feed slowly and patiently, encourage them to eat but do not force them, talk to the child and maintain eye contact);
- Practice good hygiene and proper food handling;
- Start at 6 months with small amounts of food and increase gradually as the child gets older;
- Gradually increase food consistency and variety;
- Increase the number of times that the child is fed: 2–3 meals per day for infants 6–8 months of age and 3–4 meals per day for infants 9–23 months of age, with 1–2 additional snacks as required;
- Use fortified complementary foods or vitamin-mineral supplements as needed; and
- During illness, increase fluid intake including more breastfeeding, and offer soft, favorite foods (WHO, 2018)

Not breastfeeding or weaning prematurely is associated with health risks for mothers as well as for infants. Epidemiologic data suggest that women who do not breastfeed face higher risk of breast cancer and ovarian cancer, as well as obesity, type 2 diabetes, metabolic syndrome, and cardiovascular disease (Stuebe, 2009).

2.1.4 No use of bottles, teats or pacifiers

Nipple confusion, also called nipple preference, occurs when breastfed babies are given artificial nipples such as bottle nipples and pacifiers too soon after birth. A baby learns to suck differently on different types of nipples. The shape of a pacifier or bottle nipple is not the same as the shape of the nipple on a mother's breast. The flow of milk from a bottle nipple, whether it's pumped breast milk or formula, is different, as well. When the baby gets used to the difference in the sucking pattern or the difference in flow, the baby may become confused and begin to have difficulty sucking at the breast or refuse the breast altogether (Nagin, 2018).

2.2 Infant and Young Child-Feeding Practices Tanzania

Appropriate infant and young child feeding (IYCF) practices include early initiation of breastfeeding within the first hour after birth, exclusive breastfeeding in the first 6 months of life, continued breastfeeding through age 2, introduction of solid and semisolid foods at age 6 months, and gradual increases in the amount of food and frequency of feeding as the child grows older. It is also important for young children to receive a diverse diet that includes eating foods from different food groups in order to satisfy the growing micronutrient needs (WHO, 2008).

2.2.1 Initiation of breastfeeding

It is recommended that children be put to the breast immediately or within 1 hour after birth and that pre-lacteal feeding (feeding newborns anything other than breast milk before breast milk is regularly given) be discouraged. In Tanzania, 98% of last-born children who were born in the 2 years before the survey (2010), were breastfed at some point in their life. More than half (51%) of the infants were breastfed within 1 hour after birth, and 93% were breastfed within 24 hours after delivery. Fourteen percent of the infants were given a prelacteal feed (TDHS-MIS, 2015-16).

Initiation of breastfeeding within 1 hour after birth less practised in Simiyu (26%), Geita (28%) and Mara (30%) regions. Tanga (80%), Manyara (76%) and Njombe (75%) had the highest percentages of children breastfed within 1 hour after birth. Prelacteal feeding was practiced most often in Tabora (31%) and least often in Rukwa (2%). About six in ten children born in health facilities were breastfed within 1 hour of birth compared to only four in ten children delivered elsewhere. Only one in ten children born in a health facility was given a prelacteal feed compared to slightly more than two in ten children who were born outside a facility. Prelacteal feeding was less common among children whose mothers have at least some secondary education (11%) compared to those whose mothers have no education (19%), and among children in the highest wealth quintile 12% compared to children in the lowest quintile 18% (TDHS-MIS, 2015-16).

About six in ten children born in health facilities were breastfed within 1 hour of birth compared to only four in ten children delivered elsewhere. Only one in ten children born in a health facility was given a prelacteal feed compared to slightly more than two in ten children who were born outside a facility. Prelacteal feeding was less common among children whose mothers have at least some secondary education 11% compared to those whose mothers have no education 19%, and among children in the highest wealth quintile 12% compared to children in the lowest quintile 18% (TDHS-MIS, 2015-16).

2.2.2 Exclusively breastfeeding

Fifty-nine percent of infants under 6 months are exclusively breastfed in Tanzania. Exclusive breastfeeding declines rapidly with age; only 27% of infants age 4-5 months are exclusively breastfed compared with 84% of infants age 0-1 month and 59% of infants age 2-3 months. Contrary to recommendations, some infants under age 6 months consume other liquids in addition to breastmilk, which may be plain water (11%) and other milk (4%). More than one-fifth of infants under age 6 months are fed complementary foods (22%) in addition to breast milk. Fortunately, only 3% are fed using a bottle with a nipple. Data from DHS surveys indicate that exclusive breastfeeding among children under age 6 months has been steadily increasing, from 26% in 1991-92, to 41% in 2004-05, to 50% in 2010 and 59% in 2015-16 (TDHS-MIS, 2015-16).

A study conducted by the Tanzania Food and Nutrition Centre in Kagera, Mbeya and Kilimanjaro, revealed a large knowledge gap in terms of the recommended duration of EFB among Health Service Providers (HSP) as only 26.5% could recall the 4–6 month EBF recommendation (TFNC, 2005)

2.3 Factors that Influence Feeding Practices

Women, in general, are less likely to choose to breastfeed if they are of low socio-economic status, are less educated, have language, literacy or cultural barriers limiting access to impartial information, are young mothers (less than 25 years of age), smoke (which may be linked to that fact that smoking inhibits lactation capacity); feel that breastfeeding labels them solely as a mother and they want to re-establish their identity as an individual; or are depressed (Breastfeeding Coalition Tasmania, 2015)

2.3.1 A conceptual framework of factors affecting breastfeeding

The conceptual framework proposes three levels of factors that influence breastfeeding practices: individual, group and society.

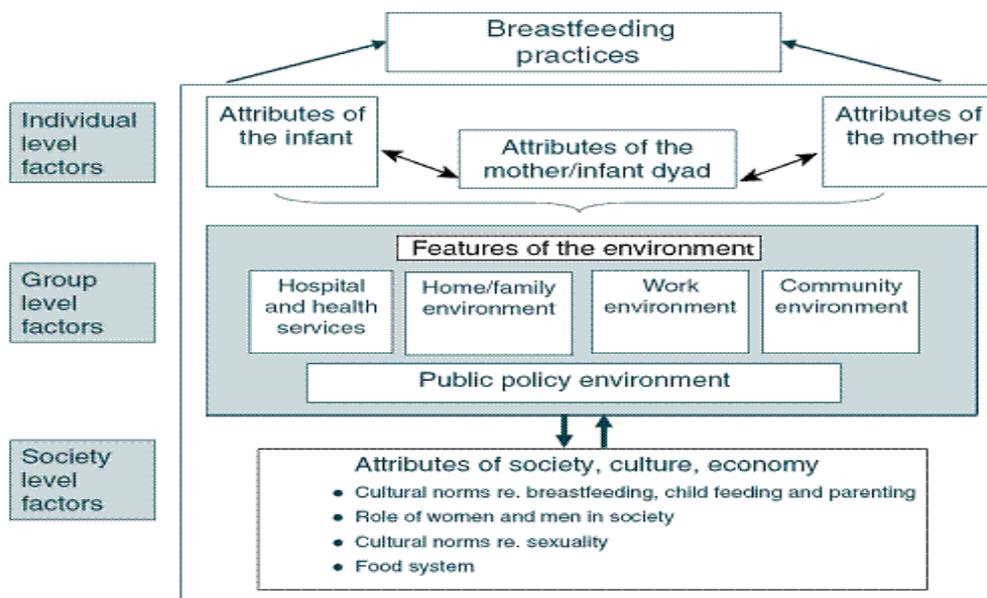
Individual level factors relate directly to the mother, infant, and the ‘mother-infant dyad’. They include the mother’s intention to breastfeed, her knowledge, skills and parenting experience, the birth experience, health and risk status of mothers and infants, and the nature of early interaction between mother and infant (Webb, 2005).

Group level factors are the attributes of the environments in which mothers and infants find themselves, the attributes that enable mothers to breastfeed. Environments with a direct influence on mothers and infants include: The hospital and health facilities environment, in which practices and procedures such as infants routinely rooming-in with mothers to allow demand feeding, postpartum skin-to-skin contact and providing professional support with breastfeeding technique difficulties influence the early feeding experience and the follow-up care and support; The home and peer environment, where physical and social factors such as size of household, parity, family circumstances, partner attitudes and support, and peer support affect the time, energy and resolve that mothers have for breastfeeding; the work environment, in which policies, practices and facilities such as work hours and flexibility, facilities and policies that enable on-site expressing and storing of breastmilk influence mother’s ability to combine work and breastfeeding; the community environment, which signals the extent to which breastfeeding is recognized as a norm, and reinforced by facilities and policies in public places, for example parenting rooms in shopping centers and entertainment venues, ‘breastfeeding friendly’ public transport, restaurants; the public policy environment, which modifies how each of these environments influence mother’s feeding decisions. For example, benefits such as maternity and paternity leave, childcare allowances and health insurance have a significant impact on the hospital, home, and work environments that in turn, influence infant feeding decisions directly (Webb, 2005).

Societal level factors influence the acceptability and expectations about breastfeeding and provide the background or the context in which mothers’ feeding practices occur. These include cultural norms regarding breastfeeding, child feeding, and parenting; the role of women in society, including how working outside the home is valued; the extent to which men’s social role includes support for breastfeeding mothers; the extent to which exposing breasts for feeding is complicated

by cultural norms regarding sexuality; and the economic importance of products such as breastmilk substitutes and complementary foods in the food system (Webb, 2005).

Figure1. Framework indicate different factors that are more likely to affect breastfeeding practices



(Webb, 2005)

2.4 Working Condition of Food Vendors

Vendors in town centre earn more than those in the periphery (Zobida Habib *et al.*, 2011). However, better locations attract more vendors, and thus increased competition that reduces individual revenues (Tillerman, 2012). Most vendors lack formal entrepreneurial training and business experience, which leads to poor financial management, poor or nonexistent sale records, inability to seek expert advice and mobilize resources, limited business networks (Kindo, 2016; Maingwa, 2015; Milanzi, 2011). Seasonal price fluctuations increase operation costs for vending and decrease the flow of customers resulting in declining incomes (Tillerman, 2012).

Gender seems to affect business performance. Indeed, female vendors tend to have lower profit than male vendors (Zobida Habib *et al.*, 2011). Studies have shown that female food vendors have higher labor burden and less chances to develop their business as opposed to men because most of them juggle both street vending, home keeping, and child caring, which limits their mobility and business hours (Maingwa, 2015; Tillerman, 2012).

In Tanzania, women are viewed by the bank system as a high risk in investment since they lack control over land and other properties which formal financial institutions view as collateral (Kindo, 2016). Limited access to financial credit and the dependence on informal, volatile and unreliable sources of financial capital are significantly hindering the development and sustainability of street food businesses, and those who start with under capitalization, usually continue with poor management of working capital (Maingwa, 2015)

CHAPTER THREE

3.0 METHODOLOGY

3.1 Description of Study Area

Mbeya Region originally belonged to the southern Highlands Province. In 1963, the Southern Highlands Province was split into two regions namely, Mbeya and Iringa. In 1972, Mbeya Region was extended to incorporate Sumbawanga District which before then belonged to the Western Province. However, the inclusion of Sumbawanga District into Mbeya Region did not last long because in 1974 Sumbawanga District was separated and accorded full Regional status. It is located in the South Western Corner of the Southern Highlands of Tanzania. The Region lies between Latitude 7° and 9° 31' South of Equator, and between Longitudes 32° and 32° and 35° East of Greenwich. Mbeya region lies to its East at an altitude of 475 meters above sea level at Rungwe higher attitude. Mbeya shares borders with countries of Zambia and Malawi to the immediate South; Rukwa region to the West; Tabora and Singida regions to the North; while Iringa lies to its East, with Tunduma and Kasumulu in Mbozi and Kyela districts respectively being main entries and/or exist into neighbouring countries of Malawi and Zambia. The Regional spacing area covers 63,420 Sq.kms, which is 6.4% of the total area of the united Republic of Tanzania. Out of the Regional surface areas, 61,868 Sq.Kms is dry land, about 57,000Sq.Kms arable land; and 1.757 Sq.Kms. is covered with water (Mbeya Region socio-economic profile, 1997). Mbeya City Council had a total population of 266 422 people. The City population growth rate was 4.0% per annum compared to the national average of 2.9% per annum. Population projection for year 2009 is approximately 352 511 people of which 183 306 are females and 169 205 were males. The major economic activities in the City include commerce and trade, agriculture and livestock keeping, small-scale industrial production and service provision for example transport hotel, medical and

civil service. It is estimated that 33.3% of City residents depend on agriculture for their livelihood while 21% are employed in the public sector which is mainly service provision. About 43.4% are engaged in the informal sector which is mainly small scale production, petty trade and selling of agricultural crops whereas 2.3% are home works and others. Income per capita is estimated at Tshs. 675 000 per annum which is equivalent to US\$ 675 a little bit higher by Tshs. 75 047 (\$75) to the internationally accepted poverty line of Tshs. 600 000, or about US\$ 600 per annum (census, 2012).

This study will be conducted in Mwanjelwa street which is located in Mbeya city. Women food vendors in Mwanjelwa market, Kabwe and Mwanjelwa bus stop, will be assessed on the extent to which they practice responsive feeding, and also determining their attitudes of feeding practices based on recommended feeding practices

3.2 Research Design

3.2.1 Research approach

A community based cross sectional study was conducted and this was due to limited time and fund. The study aimed at generating data on current child feeding practices among women food vendors in Mwanjelwa street as well as current knowledge of factors that are affecting feeding care of children

3.2.2 Sampling

3.2.2.1 Sampling procedure

Non-probability sampling specifically Convenient or accidental sampling was applied in selecting participants of the study.

A sample size of 50 women food vendors was selected randomly, and they were asked to respond questions (both close ended and open ended).

Easily accessible women food vendors who have or had children and willing to participate were selected and included in a study

Men food vendors were not being included in the study as well as women food vendors who were not willing to participate the study

3.3 Data Collection

3.3.1 Primary data

Primary data was collected by means of face to face interview with women food vendors using questionnaires with closed and open ended questions

3.3.2 Secondary data

Secondary data of infant feeding and young child feeding, focusing on coping strategies used by low income women to care for their children when working, attitudes of women food vendors towards feeding practices, responsive feeding practices and feeding variations in different working conditions was collected from different sources including journals, health reports, websites, several published and unpublished governmental reports and books.

3.4 Data Analysis

Responses of participants in questionnaire were checked to see if there is any mistake during collection, and corrections were employed then data were coded to the language which is understandable to the computer. Quantitative data obtained after collecting attitudinal responses of women food vendors toward feeding practices using five point Likert scale, and other quantitative responses were analyzed using statistical package for social sciences (SPSS) software and Microsoft excel to know what are child-feeding practices of under-five years' children that are practiced women food vendors in Mbeya city

3.5 Ethical Consideration

In order to conduct this study, the permission letters from Sokoine University of Agriculture and Mbeya Municipal were provided. Also all measure of research ethics such as the participants will be asked to give consent so that they voluntarily participate and right to privacy.

CHAPTER FOUR

4.0 RESULTS

This chapter presented the results from the study area. Based on specific objectives, this chapter comprises the following sections: socio-demographic characteristics, characteristics of respondents' working conditions, feeding characteristics, responsive feeding and coping strategies used by respondents to care for their children when working.

4.1 Socio-demographic Characteristics

4.1.1 Age categories

Table 1 summarizes age categories of sampled women food vendors. The largest age category (42%) were between the ages of 21 – 25 years, followed by 28% of between 26-30 years. Few were falling into the rest age categories.

Table 1: Age categories of selected women food vendors

Characteristic	Frequency	%
Age of mothers (years)		
<21 years	7	14.0
21 - 25 years	21	42.0
26 - 30 years	14	28.0
31 - 35 years	5	10.0
Total	50	100.0

4.1.2 Marital status

Table 2 summarizes marital status categories of selected women food vendors. Majority of sampled women food vendors (58%) were married, 30% of them were single, 6% of them were widowed and 6% were separated.

Table 2: Marital status

Marital status	Frequency	%
Married	29	58.0
Single	15	30.0
Widowed	3	6.0
Separated/divorced	3	6.0
Total	50	100.0

4.1.2 Education levels

Table 3 summarizes education levels of selected women food vendors. Majority of them (64%) had incomplete primary level, 26% of them completed primary, 4% of them did not complete O-level and 6 % of selected women food vendors completed O-level.

Table 3: Education Level

Education level	Frequency	%
Incomplete primary	32	64.0
Complete primary	13	26.0
Incomplete o-level	2	4.0
Complete o-level	3	6.0
Total	50	100.0

4.1.3 Ethnic group and parity

Table 4 summarizes ethnic groups and parity of selected women food vendors. About 40% of women food vendors were Nyakyusa, 24% of them were Ndali, 12% were Safwa and 8% of them were Nyiha while 16% of them were from other ethnic groups. Majority of selected women food vendors involved in the study (72%) had a parity of 1-2 births, 26% of them had parity between 3-4 children while 2% of them had parity of 5 – 6 births.

Table 4: Ethnic group and parity

Characteristic	Frequency	%
Ethnic group		
Nyakyusa	20	40.0
Ndali	12	24.0
Safwa	6	12.0
Nyiha	4	8.0
Others	8	16.0
Total	50	100.0
Parity categories		
1 - 2 children	36	72.0

3 - 4 children	13	26.0
5 - 6 children	1	2.0
Total	50	100.0

4.2 Characteristics of Respondents' Working Conditions

Table 5 shows the characteristics of the respondents' working conditions. Majority of selected women food vendors (96%) go to work early in the morning and few of them (4%) go to work afternoon. Most of selected women food vendors (82%) return home after 1P.M and few of them (18%) return home before 1P.M.

Table 5: Characteristics of respondents' work conditions

Characteristic	Frequency	%
Time to go work		
Morning	48	96.0
Afternoon	2	4.0
Total	50	100.0
Time to return home from work		
before 1PM	9	18.0
after 1PM	41	82.0
Total	50	100.0

4.3 Feeding characteristics

Table 6 summarizes feeding characteristics of selected women food vendors. High proportion of women food vendors (56%) did not breastfed their children for at least 2 years, while 44% of women food vendors breastfeed their children for at least 2 years. Majority of women food vendors (70%) did not breastfed their children exclusively for first six months and few of them (30%) breastfeed their children exclusively for first six months.

Table 6: Feeding characteristics

Characteristic	Frequency	%
Breastfeeding for at least 2years		
Yes	22	44.0
No	28	56.0
Total	50	100.0
Exclusive breastfeeding for first six months		
Yes	15	30.0
No	35	70.0
Total	50	100.0

4.4 Responsive Feeding

Table 7 summarizes responsive feeding among women food vendors. Large proportion of women food vendors (54%) do not assist feeding older children who can feed themselves while only 46% feed infant and assist feeding young children. More than half of selected women food vendors (54%) respond promptly to child's hunger and satiety and only 46% of them do not respond promptly to child's hunger and satiety. Majority of women (54%) do not feed their child slowly and patiently and also large proportion of women food vendors (60%) do not encourage their children to eat without forcing them. High proportion of women food vendors (64%) do not ensure minimal destructions when feeding children and 36% of them ensure minimal destructions when feeding children.

Characteristic	Frequency	%
Feeding your infant and/or assist feeding older children who can feed themselves		
Yes	23	46.0
No	27	54.0
Total	50	100.0
Respond promptly to child's hunger and satiety		
Yes	27	54.0

No	23	46.0
Total	50	100.0
Feed your child slowly and patiently		
Yes	23	46.0
No	27	54.0
Total	50	100.0
Encourage your child without forcing		
Yes	20	40.0
No	30	60.0
Total	50	100.0
Ensuring minimal destructions when feeding child		
Yes	18	36.0
No	32	64.0
Total	50	100.0

4.5 Attitude of Women Food Vendors Towards the Recommended Practices of Child Feeding

Table 8 summarizes the attitudes of women food vendors towards the recommended practices of child feeding. Forty-four percent of women said that breastfeeding a child within first hour after birth it is moderately important and 0% of them said breastfeeding a child within first hour after birth is unimportant. Most of women (56%) said it is important to exclusively breastfeed a child first six months of life while none of them said it is little important or unimportant. About 36% of women food vendors strongly agreed that to increase fluid including breastfeeding a child has illnesses while none of them strongly disagreed to increase fluid including breastfeeding a child has illnesses. 46% of women food vendors feed children sometimes while none of them do not feed their children at all.

Table 8: Attitude of women food vendors towards the recommended practices of child feeding

Characteristic	Frequency %	
Importance of breastfeeding your child within first hour after birth		
very important	9	18.0
Important	18	36.0
moderately important	22	44.0
little important	1	2.0
Importance of exclusively breastfeeding for first six months of life		
very important	14	28.0
Important	28	56.0
moderately important	8	16.0
Agreeing that it is crucial to increase fluid including breastfeeding when child is sick		
strongly agree	12	24.0
Agree	13	26.0
moderately agree	18	36.0
Disagree	7	14.0
Frequency of feeding complementary foods after six months of age		
very frequently	3	6.0
Frequently	18	36.0
Sometimes	23	46.0
very rarely	6	12.0

4.6 Coping Strategies Used by Respondents to Care for Their Children When Working

Table 9 summarizes coping strategies used by women food vendors. Majority of women food vendors (68%) go with their children at working places, 14% of them leave their children to their grandmothers, while few of them; leave their children to the father (8%), go with assistants to

working places (6%), leave their children to their father (2%) and others leave their children to other relatives (2%).

Table 9: Coping Strategies Used by Women Food Vendors

Strategies used to ensure child is getting adequate care	Frequency		%
I go with child at work	34	68.0	
I go with an assistant	3	6.0	
I leave the child home with his/her sisters and brothers	4	8.0	
I leave the child to his father	1	2.0	
I leave the child to other relatives	1	2.0	
I leave the child to grandmother	7	14.0	
Total	50	100.0	



CHAPTER FIVE

5.0 DISCUSSION

This chapter discusses the findings from the study area. Based on specific objectives, this chapter comprises the following main subsections: feeding variation in different working condition, feeding characteristics, responsive feeding, attitude of women food vendors towards feeding practices based on recommended practices of child feeding and coping strategies used by respondents to care for their children when working

5.1 Feeding Variation in Different Working Conditions

It was noted that 96% of studied respondents go to work early in the morning and also 82% of them return from work at late evening and they work for more than 8 hours a day. This finding was similar to that conducted by Saha (2011) who reported that nearly 54% of the vendors work for such prolonged durations, next most significant proportion of vendors (nearly 23%), have been found to be putting in 12-15 hours of work per day and significantly smaller percentage of vendors (14%) spend 5-8 hours in vending their products, thus, the vendors have mostly been found to be working for prolonged durations. Another study conducted on street vendors in Durban, South Africa by Mkhize, Dube, & Skinner (2013) reported that street vendors have over nine hours a day for a six-day working week. This make food vendors to work for the long time and they get little time to care for their children properly

5.2 Feeding Characteristics

5.2.1 Breastfeeding for at least 2years

In this study 44% of studied women food vendors were found to breastfeed their children for at least 2 years of age. This finding was low as compared to that of Veghari, Ahmadpour-Kacho and Zahedpasha_(2014) who indicated that 57.4% of northern infants in the north of Iran were breastfed at 19-24 months. The finding by Akinyinka *et al.*, (2016) which indicated that 12.3% of respondents continue to breastfeed for up to 2 years or more was low as compared to the finding of this study (44%). The finding from this study was similar to that of TDHS (2016) which indicated that 43% of children in Tanzania are being breastfed up to 2 years of age.

5.2.2 Exclusive breastfeeding for first six months

In this study 30% of selected women food vendors breastfed their children exclusively for first six months of age. The low percentage of women who breastfed their children exclusively for first six months was expected due to the nature of working conditions of women food vendors. Finding in this study was found to be low as compared to TDHS (2016) which was 59% of under-five children are exclusively breastfed but the finding in this study correspond to the finding by Mistry *et al.*, (2008) where 33% of Low-Income Vietnamese American women breastfed their children exclusively for the first six months. Exclusive breastfeeding practices on this study was found to be different from that conducted by Nkrumah (2017) on Maternal work and exclusive

breastfeeding practice in Efutu Municipal, Ghana indicated that majority of mothers working in the informal sector of employment practiced exclusive breastfeeding (84%) compared to their counterparts in the formal sector of employment (16%). The study by Akinyinka (2016) indicated that 41.4% of selected respondents practiced exclusive breastfeeding for 6 months and this finding was higher compared to the finding in this study.

5.3 Responsive Feeding

In overall the practice of responsive feeding practices of selected women food vendors was not good since more than half of selected respondents were not practicing responsive feeding practices, that is; 54% of respondents were not assisting on feeding older children who can feed themselves, 54% respondents did not feed their children slowly and patiently, 64% respondents do not ensure minimal distractions when feeding children, and 60% respondents were forcing children to eat but more than half of respondents (54%) were responding promptly to child's hunger and satiety. This kind of results on responsive feeding was expected due to nature of working environment where women food vendors are working. One food vendor stated:

“I don't have time to stay with my child and feed him slowly, since most of time am walking around bus stand selling fruits and when I have some few minutes I force my child to eat so that I can go back to do my businesses”

Several explanations can be offered for why many mothers encouraged eating even after the children indicated that they were done. For low income mothers, food security is often an issue Alaimo *et al.*, (2001). When mothers are in a position to provide their child with a good meal, they may encourage their children to eat, even if the child has indicated that he or she is finished.

5.4 Attitude of women food vendors towards feeding practices based on recommended practices of child feeding

The findings of this study showed the most of mothers have positive feeding attitudes based on recommended practices of child feeding. Aspects of attitudes were discussed as follows:

5.4.1 Importance of breastfeeding your child within first hour after birth

In this study large proportion of selected women food vendors agreed that it is important to breastfeed a child within first hour after birth and only few of them (2%) said it is little important. Finding on this study was similar to that of Leshi *et al.*, (2016) indicated that large proportion (78.8%) of selected mothers agreed that “mother should breastfeed her baby within one hour of delivery” and 11.8% of them disagreed. The study by Akinyinka & Olatona (2016) indicated that 41.1% agreed that breastfeeding should be initiated within an hour of delivery and this finding was

different from the finding of this study which indicated that all selected women food vendors agreed that it is important to breastfeed a child within first hour after birth

5.4.2 Importance of exclusively breastfeeding for first six months of life

In this study all of the selected respondents agreed “it is important to exclusively breastfeed a child for the first six months of life”. This finding was high compared to that of Kamath *et al.*, (2016) which indicated 51.4% of respondents disagreed that “breast milk only is not sufficient for a baby in the first 6 months of life” and 37.8% of them agreed that “breast milk only is not sufficient for a baby in the first 6 months of life”. Study by Chogo (2015) indicated most of the respondents (91.6%) agreed on infants have to only feed breast milk up to 6 month and this finding was also similar to the finding from this study.

5.4.3 Agreeing that it is crucial to increase fluid including breastfeeding when child is sick

In this study it was found that large proportion of mothers agree that it is crucial to increase fluid including breastfeeding when child is sick and 16% of them disagreed. This finding was higher compared to that by Vijayalakshmi, Susheela, & Mythili (2015) which indicated that 4.6% of caregivers perceived breast milk to harm the child when breastfed. According to Kamath *et al.*, (2016) indicated that 17% mothers agreed that breast milk protects babies from diseases while in this study it was found that 84% of selected women food vendors agreed that it is crucial to increase fluid including breastfeeding when child is sick

5.4.4 Frequency of feeding complementary foods after six months of age

In this study it was found that, 46% of select women food vendors had attitude that frequency of feeding complementary foods after six months of age should be sometimes, 12% rarely and the other participants agreed that complementary foods should be given frequently (42%). Finding by Chogo (2015) was different from the finding of this study since 93% of selected group agreed that it important to give their children frequently fruits and vegetables but in this study only 42% of selected women food vendors agreed that “it is important to feed complementary foods frequently”

5.5 Coping strategies.

One of the objective was to identify coping strategies used by respondents in providing care for their children when working. Among the women food vendors surveyed more than half of them (68%) used the strategy of going with their children at working place. Other strategies that were found in this study includes; going with the assistant at working place, leaving the child home with

his/her sisters and brothers, leaving the child to his father as well as leaving the child to other relative and leaving the child to grandparents but these interventions were less used by selected women food vendors. One respondent stated:

“Most of time I wake up early in the morning and I move to working place but also I return home very late around 7A.M, then I usually go with my child at working place so that I can make sure my child eat enough amount of food”

Finding from this study was found to be slightly different from that conducted by Nkrumah (2017) which indicated that, 57% of respondents were going to work place with their children while from this study 68% of selected women food vendors were found to go with their children at workplace.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

There is worldwide emphasis on proper child feeding practices of under-five children for various groups in communities, through literature review it showed that low income women have been included on different studies aiming at studying child feeding practices of under-five children and food vendors are not studied as an independent group. Low percentage of exclusive breastfeeding, continual breastfeeding up to at least 2 years and low practice of responsive feeding practices found in this study suggested that women food vendors use most of their time selling fruits, vegetables and cooked foods and they get less time to breastfeed their children and they ending up giving them foods before they reach six months as well as they do not continue to breastfeed up to at least 2 years. Women food vendors prefer the strategy of going at work with their children to ensure children are being given foods as their mothers are working since go early to work and they return home very late. On the other hand, women food vendors shown to have good attitude towards the recommended practices of child feeding which shows that women food vendors know what should be done since they are taught during clinic visits but they fail to implement effectively due to the nature of their working condition. This suggest that, the government of Tanzania and Non-governmental organizations (NGOs) still has long way to go in providing supportive environment, education and behaviour change to food vendors that will promote exclusive breastfeeding, continuation of breastfeeding up to 2 years and responsive feeding practices.

6.2 Recommendations

Based on the findings of this study the following recommendations are written down for the government, Non-Governmental Organizations, researchers and other agencies so as to improve child feeding practices in Tanzania.

1. Local government should construct buildings where food vendors who are selling fruits, manufactured foods (such as soft drinks and biscuits) and cooked foods around bus stands can get rest as well as they can get supportive environment for breastfeeding children.
2. Policy makers should establish policies that will ensure food vendors are given conducive environment to feed their children without any destruction or being forced to move from one place to another.
3. Low income and high income food vendors should be trained on the importance of paying special attention to young children
4. Food vendors and other low income women should be trained on best feeding practices for under-five children as well as consequences that their children will face due to early initiation of complementary foods (under the age of six months).
5. Further studies should be under-taken in various places in Tanzania so that policy makers may have wide knowledge on different factors that should be addressed so as to come up with the policy that is favouring working condition food vendors
6. Nutrition interventions projects/programmes should be strengthened in communities so as to ensure all beneficiaries are being covered and benefit.
7. Nutrition communication materials such as; posters, audio-visuals, brochures, billboards, video spots, and radio spots emphasizing on proper child-feeding practices should be developed so as to raise awareness towards proper child feeding practices.

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