RISK FACTORS OF SEVERE ACUTE MALNUTRITION AMONG INFANTS IN HELIWA DISTRICT

A PROJECT REPORT

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Submitted to the Department of Nutrition and Food Engineering in the partial fulfillment of B.Sc. Nutrition and Food Engineering

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APPROVAL

This Project "**Risk Factors of Severe Acute Malnutrition among Infants in Heliwa District"** submitted by Yasmin Abdiwahab Abdullahi to the Department of Nutrition and Food Engineering. Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Nutrition and Food Engineering and approved as to its style and contents. The presentation has been held in 00/11/2023.

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Finally, I must respectfully appreciate our parents' unwavering patience and support.

DECLARATION

We now certify that I completed this project under the guidance **of Dr. Nizam Uddin, an associate professor and the head of the NFE** department at Daffodil International University. I further declare that no portion of this report or this project has ever been submitted for consideration for a degree or certificate elsewhere.

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ABSTRACT

The primary goals were to gauge caregivers' familiarity with SAM in newborns in the Haleiwa district. Additionally, it details the cultural and socioeconomic aspects of SAM in Infants in the Haleiwa district.
A cross-sectional descriptive research design was employed. The target population was represented in a sample size of 50, and semi-structured questionnaires were the primary data collection method. SPSS was also employed as a method of data analysis.

According to the results, women made up 42 out of the respondents (84%) while men made up the remaining 8 out of the respondents (16%). The majority of the respondents, 25, (50%) were between the ages of 21 and 26; the next group, 12, (24%) were separated or divorced; the following group, 8, (16%) were widowed; and the remaining three, (3%) were single. The least number of respondents, 4, (8%) were between the ages of 33 and 38; and the majority, 27, (54%) were married.

And finally, most of the responders knew something about SAM. For instance, because the majority of responders were relatively young, they may lack the knowledge and expertise necessary to care for children, ensure their nutritional status, and prevent severe acute malnutrition. However, a sizable proportion of responders reported that their kids were at an increased risk of getting SAM. The Haleiwa district and the nation as a whole should place a strong emphasis on health promotion, education, information, and knowledge regarding good child nutrition. The district's medical staff should place a strong emphasis on health education and SAM awareness.

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CHAPTER 1

1.1 Introduction

The majority of countries in Latin America, the Near East, and Africa today have SAM as their most serious nutritional problem when it comes to young children. Several of them Due to the rise in the number of light children from 195 million in 1975 to an expected 200 million by the end of 1994, one-third of the world's population under the age of five is still regarded as being overpopulated. *[2]*.

Stunting is linked to a poorer level of cognitive development and advanced mortality. Stunting prevention is likely to have significant positive effects on health, education, and the economy *[3]*.
Therefore, the first and most significant manifestation of SAM is the
failure to grow appropriately.
From the least severe to the most severe clinical illnesses, the term "severe acute malnutrition," or "SAM," is used to describe a broad spectrum of conditions.
According to the current theory, the cause of most SAM is inadequate or sparse food and ene rgy intake rather than a deficiency in any particular vitamin.
According to the World Health Organization (WHO), malnutrition is the direct outcome of ei ther a lack of complaints or a timid salutary input.
One of the Southern African nations with the most stable economies is Botswana, which sup ports initiatives like the UN Millennium Development Goals, one of which is to reduce the n umber of hungry people by 50% by 2015 *[4]*.
In Somalia, malnutrition has a wide range of effects on infants, young children, adolescent gi rls, and women.
The rights of young children to survival, development, and the highest achievable quality of health are violated, and it limits inclusive development and the overall strength of the country Although the nutritional condition has improved over the past five years, children in Somalia continue to experience multiple nutritional deficits.
Although there has been a progressive increase in malnutrition on a national level (periodic r ate of reduction of 0.8% between 2011 and 2015), the humanitarian situation in Somalia is sti ll dire and unstable, as evidenced by the public global acute malnutrition estimate in the past five years ranging between 12 and 19 percent.
Somalia's malnutrition rates continue to be among the highest in the world.
According to UNICEF's 2018 report, 232,000 children under the age of 5 are expected to be very acutely malnourished out of 1.2 million children that are forecast to be acutely glutted in 2018. *[5]*.

1.3 Problem Statement

At the moment, the most prevalent nutritional issue among young infants throughout much of Asia, Latin America, the Near East, and Africa is SAM. By the end of 1994, the expected number of light children had risen from 195 million in 1975 to 200 million, making up approximately one-third of all children under the age of five worldwide. *[2]*

Health and development depend heavily on nutrition. More nutrition is linked to improved maternal, infant, and child health, more robust criminal justice systems, safer pregnancies and deliveries, and a reduced risk of non-communicable diseases *[5]*.

Thus, to improve child health programs and nutritive therapies, the study will identify the causes of severe acute malnutrition in neonates in the Haleiwa district of Mogadishu. It will also pinpoint ways to influence cooperation with families and health providers.

To adequately explain the factors that have impeded factors to SAM, the experimenter decided to take over this study for the following reasons. It is anticipated that when this study is carried out and fulfilled successfully, it will be a significant factor in severe acute malnutrition among babies in the Haleiwa quarter.

As an alternative, providing conversation and health communication with evidence-based knowledge on limits to lessen the situation allows for the elimination of SAM. Finally, as it expands knowledge of severe acute malnutrition, the data produced by this study is helpful to experimenters, nanny academics, and the community regarding the variables causing severe acute malnutrition in the Haleiwa quarter.
Infection, severe vulnerable-repression, and reductive adaptation are only a few of the major physiological effects of GAPS malnutrition. *[6]*

As researchers gather information from the findings, which point out the gaps in the causes of severe acute malnutrition among babies in the Heliwa quarter, the study also serves as a prenatal database for follow-up studies. The experimenter uses the study to help her meet one of the requirements for receiving a Bachelor's degree in nannying.

1.4 The study's justification

Even though everyone has the fundamental right to sufficient nutrition, hunger is nevertheless a leading cause of death and chronic illness. The long-term impacts of undernutrition in infancy can cause permanent, intergenerational impairment, and women and children are often more vulnerable to this effect (WHO, 2005).

Encyclopedias include the combined effects of malnutrition and rotundity as one of the main reasons for demise and impairment.
52 million children under five experienced acute malnutrition in 2011, 165 million underweight children, and 43 million obese or overweight children. Not only does nonage malnutrition negatively impact cognitive development, academic performance, and productivity, but it also accounts for about one-third of child fatalities under the age of five. 200 million children are not developing to their maximum potential because of repression and nutritional deficiencies (WHO, 2010).
Optimizing nutrition is essential to achieving the Millennium Development Goals (MDGs) and advancing sustainable development. Keeping a balanced diet is a crucial part of managing and avoiding non-communicable diseases. (1980, WHO)

In Somalia, reports of malnutrition have increased recently. Despite Somalia's recent economic progress, malnutrition remains a serious public health concern, and little is known about the socioeconomic risk factors for severe acute malnutrition. It is therefore anticipated that the scientific understanding this study provides would help refine the mechanisms underlying malnutrition. It will highlight problems with the availability of nutrient-dense, adequate foods that are readily available locally.
This will be achieved by raising knowledge of the importance of a balanced diet, which is essential for children's food health because they might not be literate or have access to enough information. There will be improvements in children's health and a decline in the number of deaths from Acute and severe malnutrition. *[7]*

Additionally, this research will assist in underline the current findings and provide fresh ideas and suggestions. The study may potentially serve as a source of future information for other researchers focusing on protein-energy deficiency.

1.5 Significance of the study

Did the suggested study succeed in bridging the cultural and communication gaps that exist between families, the community, and medical professionals to promote cooperation in the early diagnosis, treatment, and management of malnutrition in children?
The research will additionally provide the inclusion of new data and the updating of previously gathered information concerning the risk factors for severe acute malnutrition in children under five. The findings of the study will be used to enhance and develop new child nutritional intervention programs in the Heliwa quarter.

1.6.1 General objective

The study's main goal was to identify the causes of severe acute malnutrition in infants in the Heliwa district to create plans for enhancing children's welfare and health.

1.6.2 Specific objective

1) To determine the level of awareness among carers about SAM in infants in the Heliwa district.
2) To identify the socioeconomic determinants of Severe acute malnutrition in Infants in the Heliwa district.
3) To determine how cultural factors of severe acute malnutrition in Infants in the Heliwa district.

1.7Research Question

1) How much expertise does the carer have about SAM among Infants in the heliwa district?
2) How do socioeconomic factors of SAM among Infants in the Heliwa district?
3) What are the cultural factors of SAM among Infants in the Heliwa district?

1.8 Scope of the Study

1.8.1 Content scope

The study focuses on factors to severe acute malnutrition among infants in the Heliwa district

1.8.2 Geographical scope

This study was carried out in Heliwa district, Mogadishu

1.8.3 Time scope

This study was intended to cover the study from 25 February 2023 to July 2023

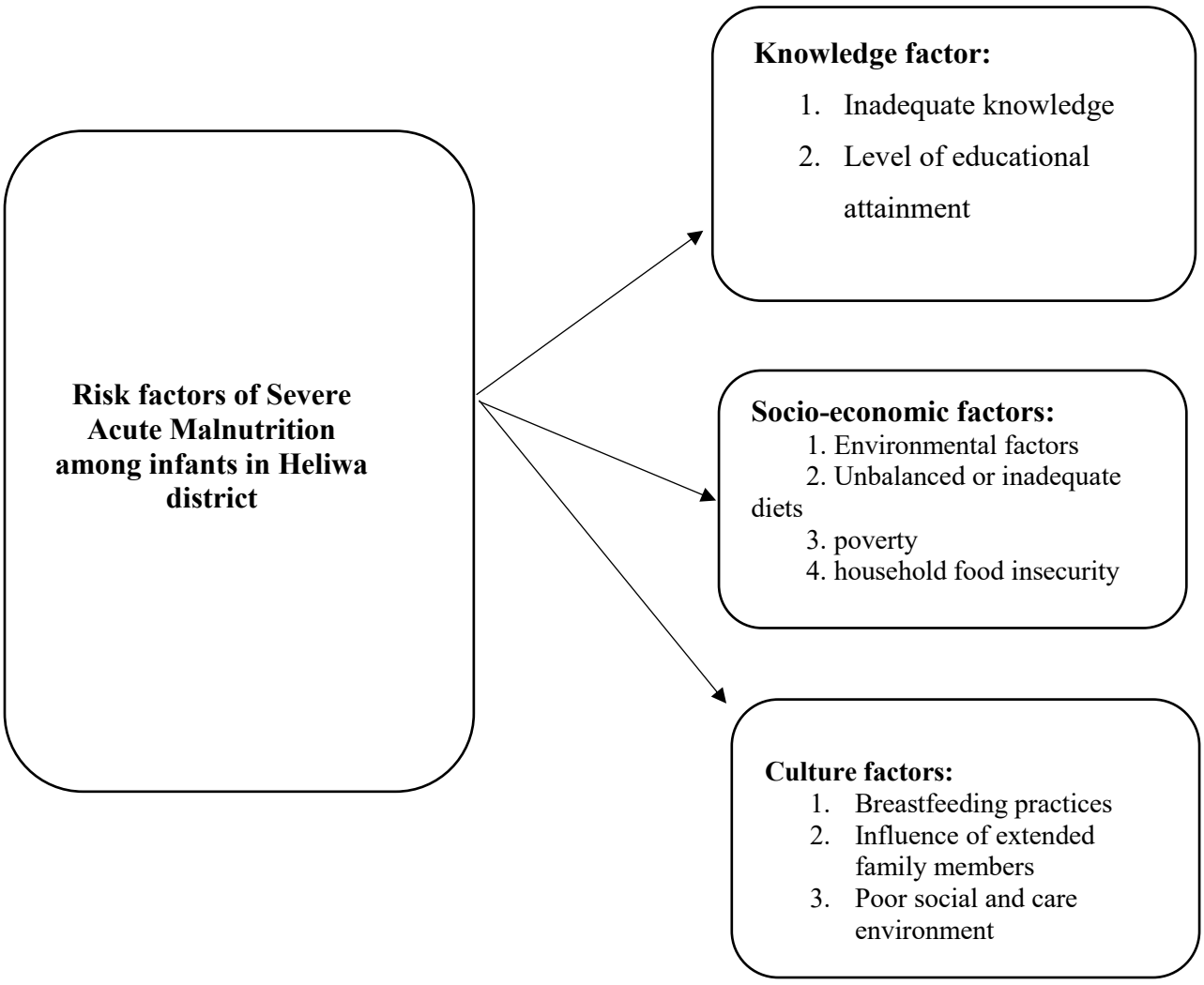
1.9 Limitations of the Study

Since this is the researcher's first research project, the study may have additional restrictions as a result of their inexperience. A language barrier that made it difficult for respondents to the questionnaire to understand was another significant disadvantage that was discovered throughout the research procedure. However, the researcher employed straightforward language that any respondent could comprehend simply and readily to increase the validity of the study. The absence of comparable research for comparison was the current study's ultimate shortcoming.

1.10 Conceptual framework

Dependent variable:

Independent variable



CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

The terms "malnutrition" and "nutrition" are derived from each other. Mal is shorthand for "bad," "complaint," or "complaint."

Thus, inadequate nutrition, a complaint about nutrition, or a nutrition issue are all considered forms of malnutrition. *[8]*

Rotundity and several degenerative and cardiovascular disorders are brought on by overnutrition or consuming excessive amounts of particular foods (fats, sugars, and meliorated carbs). This is typical of some elites in developing nations as well as undernourished nations in the West.

When the body's nutritional requirements aren't met, it's known as undernutrition *[9]*.

One can experience either acute or chronic undernutrition (light, wasting, and micronutrient scarcities). The cadaverous growth metric known as habitual Since malnutrition (height for age index of undernutrition) illustrates the cumulative effect of events that lower nutritional status, it is a helpful tool for analyzing a society's nutritional state. It is, however, weight for height or wasting that determines acute malnourishment. *[14]*

Acute or chronic malnutrition is also possible. Protein-energy, another name for severe acute malnutrition (SAM), can range in severity from mild to serious to potentially fatal.

SAM is an acronym for starvation. Weight-for-height below (- 3 z-score), MUAC (medial upper arm circumference) below 115 mm for children aged 6-59 months, or the existence of bilateral pitting edema are the criteria used to identify SAM (WHO, 2005).

Nearly all forms of malnutrition have a direct or indirect link to the main causes of death in every nation. Long-term impacts of maternal and pediatric malnutrition include impaired cognitive function, decreased productivity, impaired reproductive health, and increased vulnerability to metabolic disorders, infections, and heart disease. *[10]*.

2.2 Social and financial factors affecting kids less than five years old in SAM

2.2.1 Concerns about the environment

Changes in diet can have a direct or indirect negative impact on people's health and nutritional status due to environmental toxins from agricultural and man-made substances such as radionucleotides, heavy metals, and organochlorines. Agroecosystems are protected from uncultivated food sources by fungicides and dressings; extra chemicals may make them unsafe for human consumption. In traditional food systems located far from the primary fungicide

application regions, patient organic adulterants (POPS) that are spread in the air may pose a threat.

2.2.2 diets that are too low or too high

Severe acute malnutrition can cause digestive issues, other medical conditions, or erratic or limited diets. disorders, according to a study that summarized the relationship between nutritional status and child survival and quantified its worldwide impact. However, even in situations where food is abundant, poor eating habits can lead to malnutrition. *[11]*.

The overconsumption of unhealthy foods was another factor identified by *[12]* as having an impact on severe acute malnutrition in children under the age of five. More specifically, it was recognized that eating more calories than necessary might result in protein energy malnutrition (PEM), much as eating too many calories and too many poor foods frequently causes shortages of vital vitamins and minerals, which in turn causes starvation *[2]*.

2.2.3 Lack of resources.

In the African Sub-Saharan, children from low-income families were more likely to suffer from severe acute malnutrition. Because of their low purchasing power, these families struggle to make ends meet (Roy et al. 2008).

For the most disadvantaged people in society, the government needs to think about creating food safety nets. Such safety nets for comparable households can be provided in the shape of complementary amounts of fresh food and other essentials. Iron, iodine, zinc, and vitamin A scarcities are among the primary indicators of malnutrition in underdeveloped countries, in addition to micronutrient deficiency. Severe acute malnutrition is a result of multiple circular variables, including poverty, ignorance, overcrowding, and a high rate of separation. It was also shown Those parents who had a significant number of dependents were more likely to suffer from severe acute malnutrition because they could not afford to buy all the food their kids needed.

2.3.4 Home food insecurity

Availability of wholesome food and awareness of suitable feeding procedures are equally important for a mother and her child (UN, 2012).

Food insecurity or scarcity in the home is a key component in numerous philanthropic extremes. People that are displaced frequently have typical fare supply cut off (Bhalani, 2006). There is no agreement on evaluation methodologies, even though some organizations, like have developed techniques especially for assessing food insecurity, such as the World Food Programmer. Comparing the prevalence of acute protein-energy malnutrition in children is a straightforward way to evaluate ménage food instability in a glutted society. under two years old to that of children between two and four years old. Even while severe malnutrition in older children is less common, both adults and older children would be grossly overfed if food instability were a serious issue.

2.3 Culture-related factors to severe acute malnutrition (SAM) in children less than 5 year

2.3.1 practices for breast

the importance of breastfeeding, mother salutary restriction, the timing of the introduction of complementary foods, and hydrolyzed formulas as creative factors that could harm children's protein and energy malnutrition by prolonging bone feeding and delaying the introduction of complementary foods were proven in a study. It also demonstrated the benefits of early nutritional interventions on the onset of a tropical complaint in infants and young children under five years old. Additionally, *[17]*.

concluded that the maturity of civic housing maters did not exercise acceptable bone feeding, and the nonage who bone fed were not willing to bone feed up to the needed duration, which could impact severe acute malnutrition. These findings were made in their research on the practices of bone feeding in civic and pastoral health centres, as well as the effects of baby-friendly sanitarium action in Ile-Ife, Nigeria. Breastfeeding mothers do confront challenges even in prosperous nations. Two of them are the societal pressure to avoid nursing in public and the absence of workplace amenities that support breastfeeding. All the same, when paid leave isn't available for new mothers or doesn't cover enough time for the six months of exclusive breastfeeding that the WHO recommends, young mothers usually have little choice but to go back to work and cease breastfeeding. The UN (2012).

2.3.2 Effects of Family Members Who Are Not Close

An investigation concerning childcare practices and the nutritional status of children aged 0- 2 found that leaving infants with relatives before they are old enough to cease bone feeding could have a serious negative impact on severe acute malnutrition if the child refuses to accept appropriate relief feeding and care. *[*18*]*.

insufficient social and environmental care was often accompanied by insufficient feeding practices for children.

2.3.3 Inadequate public and ecological attention

Inadequate home careers given to sick children and poor access to healthcare.

Additionally, it was observed that one of the causes of severe acute malnutrition (SAM) was an overreliance on traditional remedies rather than contemporary medications *[19]*

2.4 Knowledge of mothers/caretakers about SAM

2.4.1 Inadequate knowledge

showed that most parents in Nighen, Vietnam, who participated in a survey on the nutritional state and traits of malnutrition in children under five were ignorant about the causes and available treatments for protein-energy malnutrition. *[15]*

Babington and Patel's (2008) study on the feeding patterns of Vietnamese mothers came to

similar conclusions, stating that moms of little infants needed to be old enough to comprehend severe acute malnutrition and how to avoid it. Furthermore, the majority of parents could not name the essential components of the daily allotment suggested for kids under five or a balanced diet. It is also mentioned that to achieve their nutritional demands, moms and young women must overcome several underlying challenges. In addition to limited cultural norms that lead to inconsistent and/or inadequate access to adequate nutrition, these barriers include a lack of awareness about healthy diets and child care, as well as a lack of access to a wide variety of reasonably priced, nutritious foods, health care, and cleanliness.

2.4.2 Academic achievement level

Malnutrition has three main causes: poverty, unstable food sources, and misinformation. Poor feeding practices that result in severe acute malnutrition have been linked to low maternal education levels. Parents who have higher education are more likely to make sure their kids are fed and cared for properly *[6]*.

CHAPTER 3
MATERIALS AND METHODS

3.1 Study design

This study's design, a descriptive cross-sectional one, was chosen because it is simple to implement and does not necessitate repeated analysis of the data collected from respondents over time.

3.2 Study Area

One of the oldest and busiest districts in Banadir province, Heliwa is one of the seventeen districts that make up the area and is located geographically to the north of Mogadishu. The terrain is mostly plateau with little but high ground and lots of bulk sand. It was the largest district of the city and was bordered by the Indian Ocean and Karan in the east. It also has a boundary with the Bal ‘ad district in the north and is near the old Yaqshid district. The tropical environment was cold and rainy in the spring, which was unsuitable for very satisfactory agricultural productivity. In the winter, it was extremely hot and the temperature was rather high, but in the summer and the fall, a gentle breeze would blow through the night, cooling the air. Bal 'ad and Wahara’ade roads are the two main thoroughfares in the district.

3.3 Study Population

According to estimates from UNICEF Staff (2014), the Heliwa District has the largest population, with over 700,000 people living there. Because our country's management was not ideal, no district's population could be accurately counted by a central authority. One of Banadir province's seventeen districts, Heliwa is one of the most populous and historic areas. It is located to the north of Mogadishu City.

3.4 Sampling frame

3.4.1 Inclusion criteria

Women of childbearing age and caretakers with newborns made up the study's respondents. They were locals of the Heliwa district.

3.4.2 Exclusion criteria

The study did not include respondents who met the aforementioned inclusion requirements but declined to voluntarily participate in it, those with mental illnesses, or temporary inhabitants of the Heliwa district.

3.5 Sampling method

The sampling method was non-probability sampling, namely convenience sampling. It is said to be the most straightforward technique for selecting a sample from a larger population.

3.6 Sample size

The sample size is always calculated or drawn from the categories of respondents in the study area and population.

The sample size is 50 respondents.

3.7 Type of data

The date type was quantitative because it gives numeric information about the study.

3.8 Method of data collection

This study used a questionnaire so the questionnaire is the instrument used for this study.

Since the questionnaire makes it easy to reach a large population and collect more raw date

3.9 Data analysis

The results were manually coded, revised, and tallied by the researcher using Microsoft Excel and SPSS. Following that, tables, pie charts, and graphs were used to show the results.

After that, the investigator evaluated and wrote a report on the study's findings.

3,10 Ethical issues in research

Data and reports were completed, and the information was provided honestly without respect to any conflicts of interest. All respondents requested permission, were informed of the study's goal, and were guaranteed our commitment to maintaining respondents' privacy. The university gave us the okay to move forward

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Results

Results of the survey were provided in this chapter. The researcher employed surveys to gather information. To assess and present the results, tables, figures, and graphs were used. Employing percentages and frequency. The study involved interviewing a sample of 50 respondents.

Table 4.1: What gender are you?

Gender	Frequency	Percent
Male	9	16%
Female	41	82%
Total	50	100%

Findings showed that the majority of the respondents 41(82%) were women and the rest of the respondents 9(18%) were male.

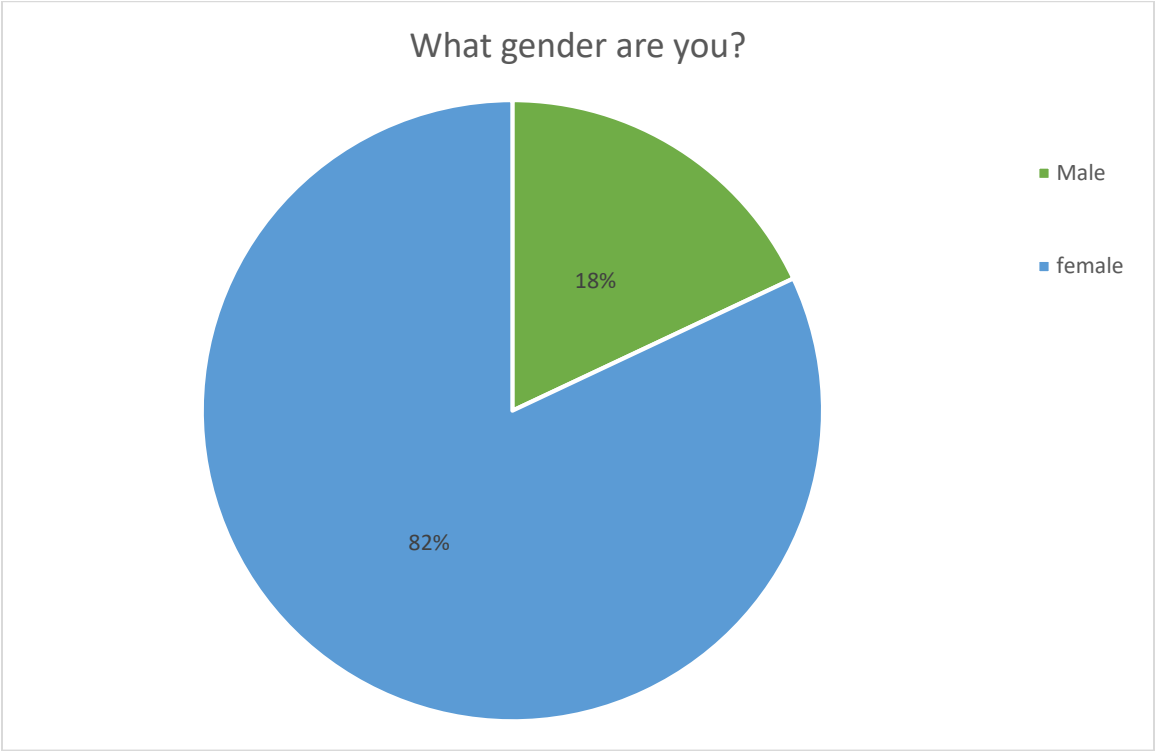


Figure 4.1 What gender are you?

Table 4.2: what is your age

Age	Frequency	percent
13-20	10	20%
21-26	25	50%
27-32	10	20%
33-38	4	8%
>38	1	2%
Total	50	100%

The majority of the respondents 25(50%) were aged 21-26 years while 10(20%) were aged between 13-20, and 27-32, while the least 4 (8%) were 33-38 and 1 (2%) was above 38.

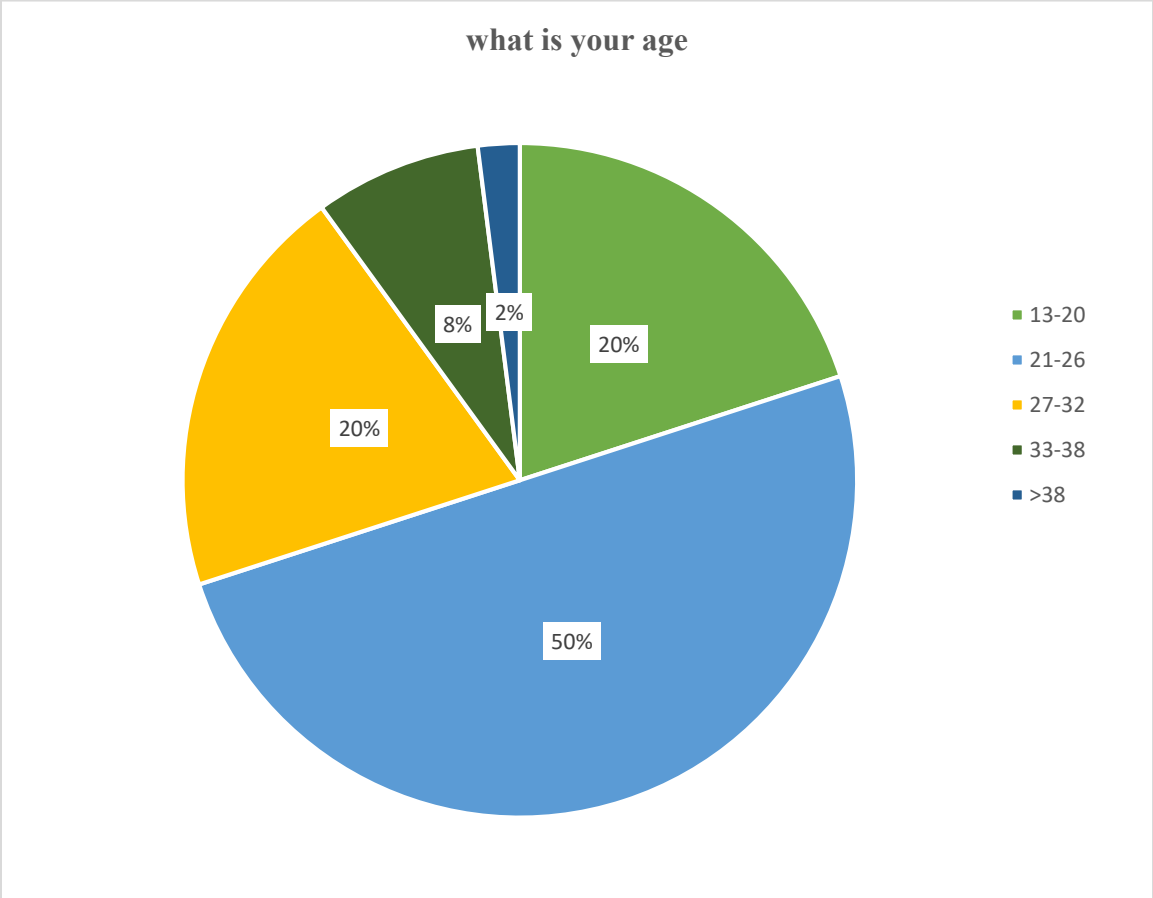


Figure 4.2 what is your age?

Table 4.3: What degree of education do you have?

What degree of education do you have?	Frequency	Percent
None	9	18%%
Primary	30	60%
Secondary	8	16%
Tertiary /university	3	6%
Total	50	100%

The majority of the respondents 30(60%) were primary level, while the next respondents 9(18%) Were illiterate and 8(16%) were secondary level while the remaining 3(6%) were university level.

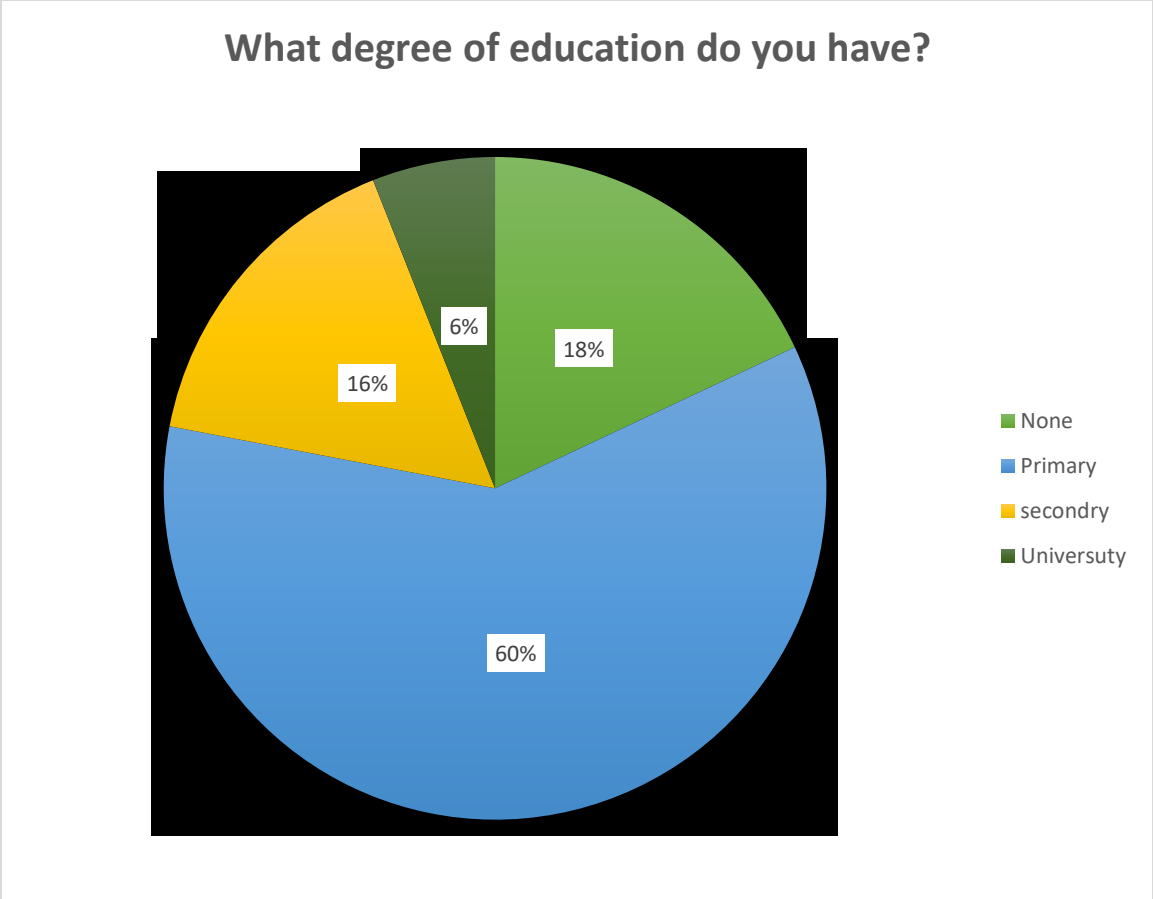


Figure 4.3 What degree of education do you have?

Table 4.4: What is the status of your marriage?

What is the status of your marriage?	Frequency	Percent
Single	3	6%
Married	27	54%
Widowed	8	16%
Separated/divorced	12	24%
Total	50	100%

The majority of the respondents 27(54%) were married while the next respondents 12(24%) were Separated/divorced, 8(16%) were widowed and the rest of respondents 3(6%) were single.

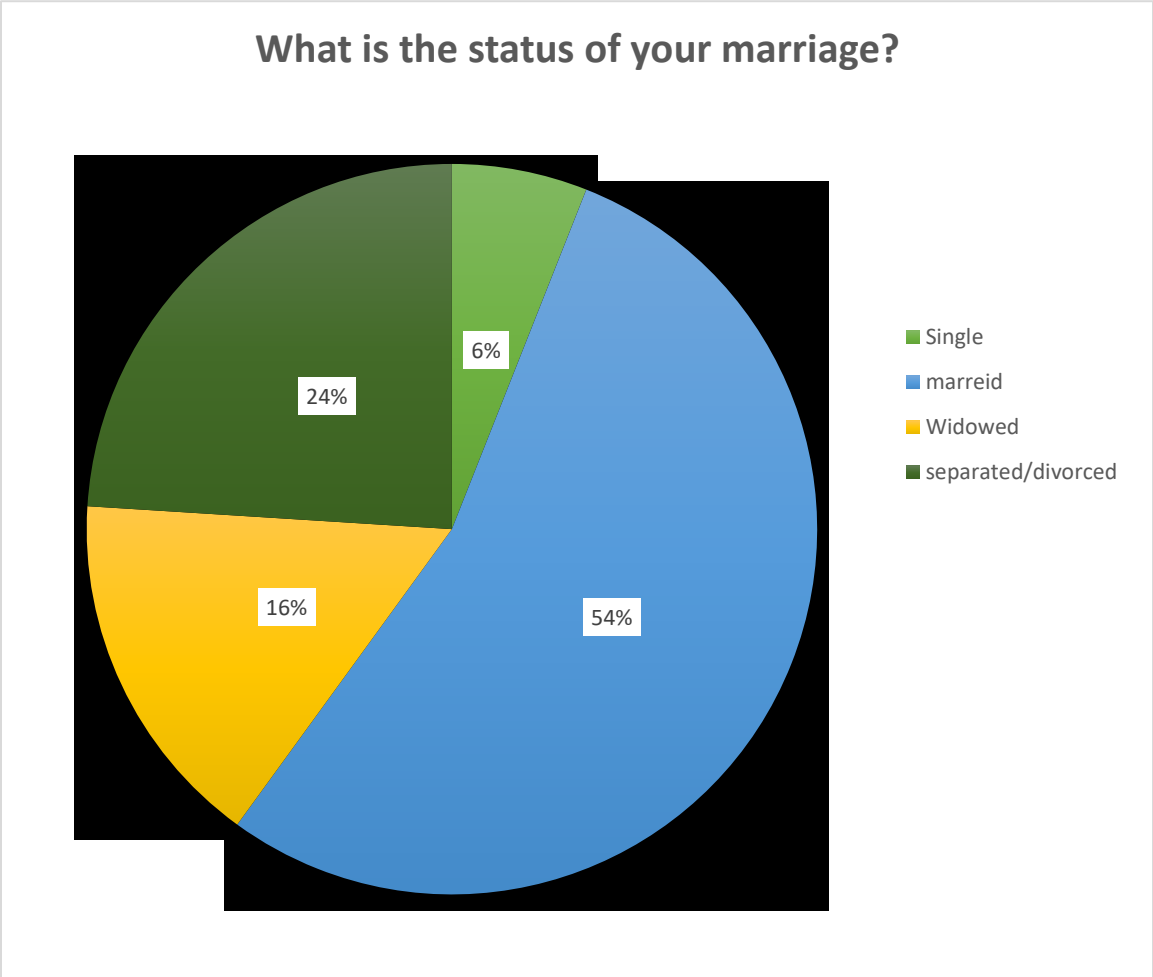


Figure 4.4 What is the status of your marriage?

Table 4.5: What is your line of work?

What is your line of work?	Frequency	Percent
Housewife	21	42%
Civil servant	3	6%
Self-employed	6	12%
Business	20	40%
Total	50	100%

Findings showed that the majority of the respondents 21(42%) were housewives while the next
Respondents 20(40%) were business, while the next 6(12%) were self-employed and the remaining respondents 3(6%) were civil servant.

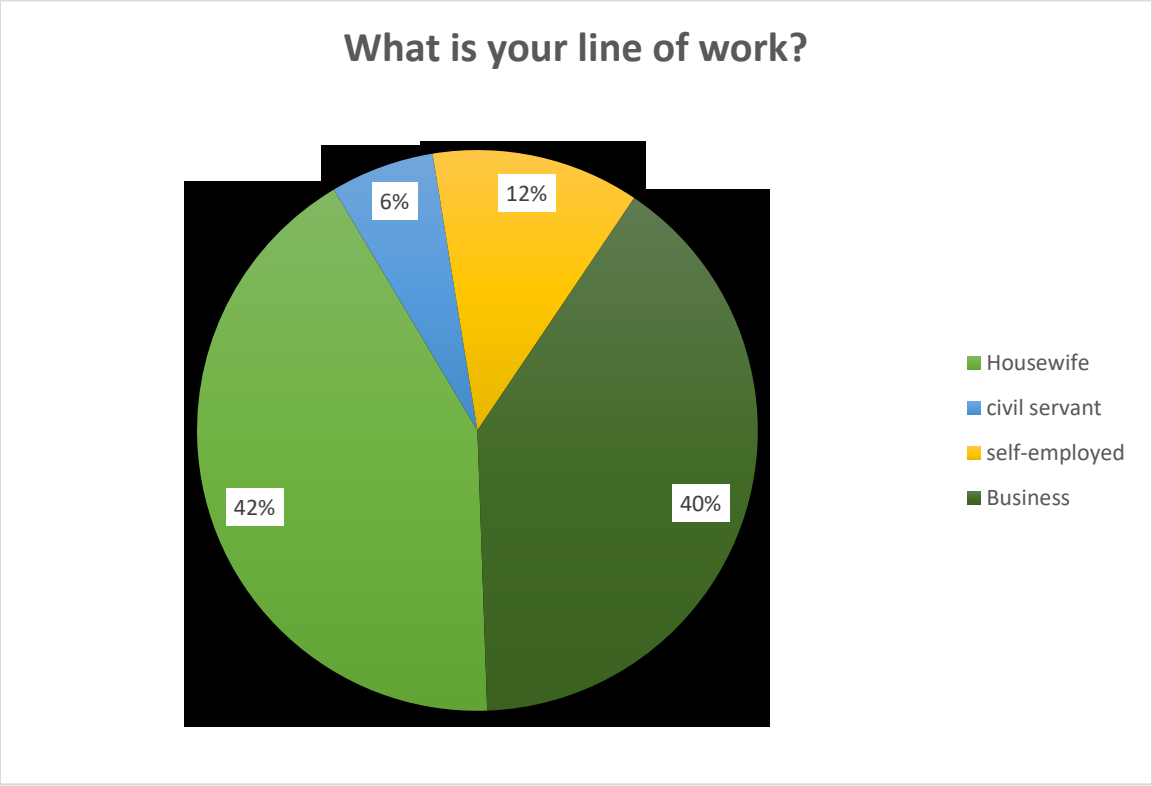


Figure 4.5 What is your line of work?

Table 4.6 How do you feel about the child?

How do you feel about the child?	Frequency	Percent
Mother	38	76%
Guardian	4	8%
Father	8	16%
Total	50	100%

Most of the participants in the survey 38(76%) were moms, whereas the next respondents 8(16%) were fathers and the rest of the respondents 4(8%) were guardians.

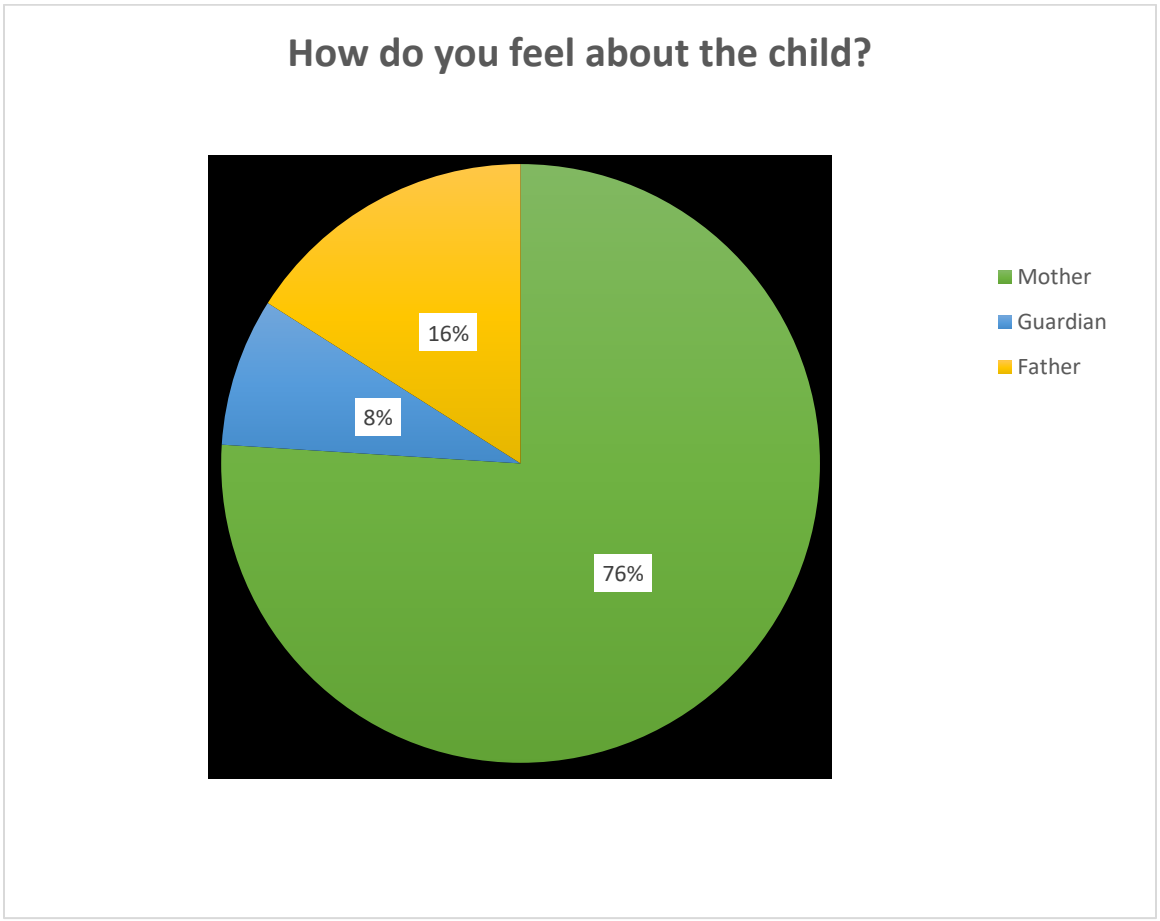


Figure 4.6 How do you feel about the child?

Table 4.7: Do you remain with your kids?

Do you remain with your kids?	Frequency	Percent
yes	42	84%
no	8	16%
Total	50	100%

The majority of responders, or 42 (84%) of the total, stayed with their children, while the least number, or 8 (16%), did not.

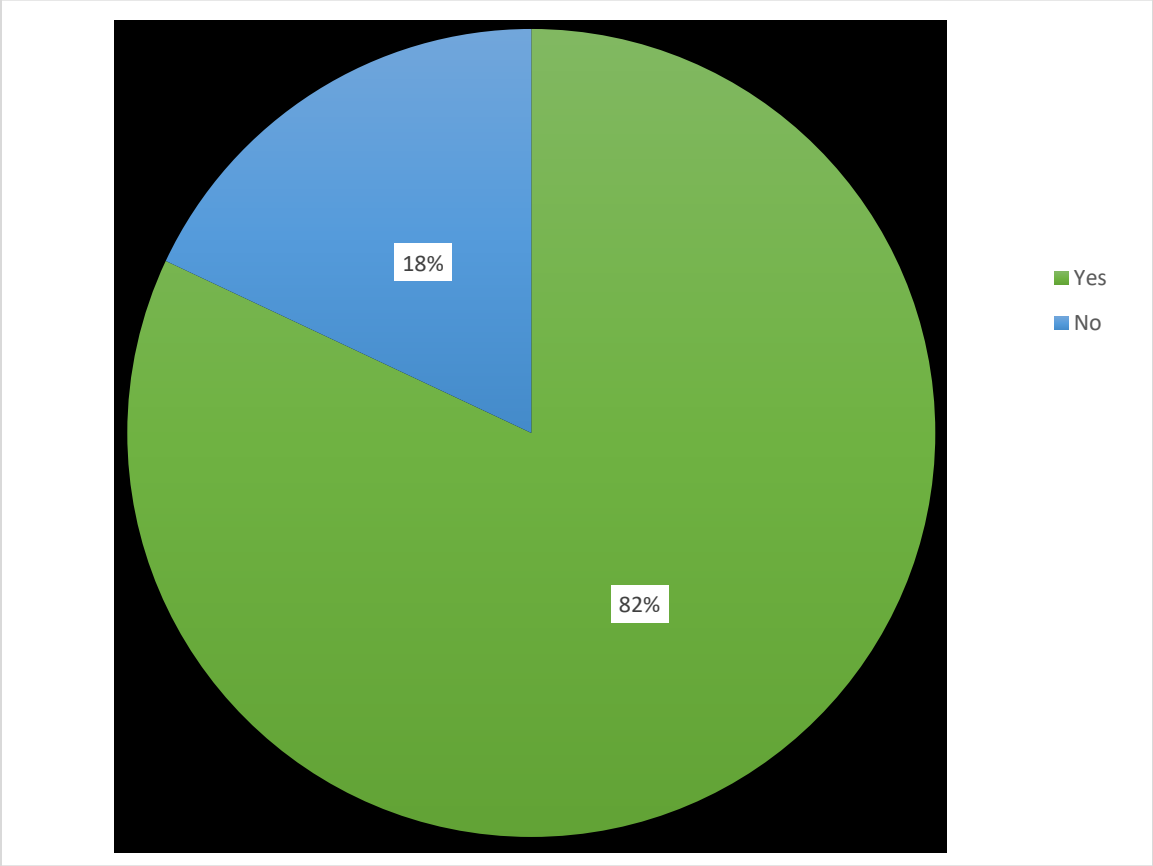


Figure 4.7 Do you remain with your kids?

Table 4.8: What does severe acute malnutrition mean to you?

What does severe acute malnutrition mean to you?	Frequency	Percent
The child's growth is poor.	15	30%
The kid refuses to eat.	7	14%
The kid is not putting on weight.	12	24%
That kid is a waste.	4	8%
The kid's body is enlarged.	2	4%
I don't know	10	20%
Total	50	100%

The results demonstrated that most of the respondents were aware of what SAM meant. Of the respondents, 15 (30%) thought it meant that the child was not growing properly, 12 (24%) thought it meant that the child was not gaining weight, and 10 (20%) had no idea what SAM meant. 4 (8) thought it meant that the child was wasted, and the remaining 2 (4%) thought it meant that the child's body was swollen.

Table 4.9: How long did you breastfeed your kids?

How long did you breastfeed your kids?	Frequency	Percent
3 months	37	74%
5 months	13	36%
Total	50	100%

Of the 40 respondents who breastfeed their children exclusively, 37(74%) do so for 3 months, and the remaining 13(36%) do so for 5 months.

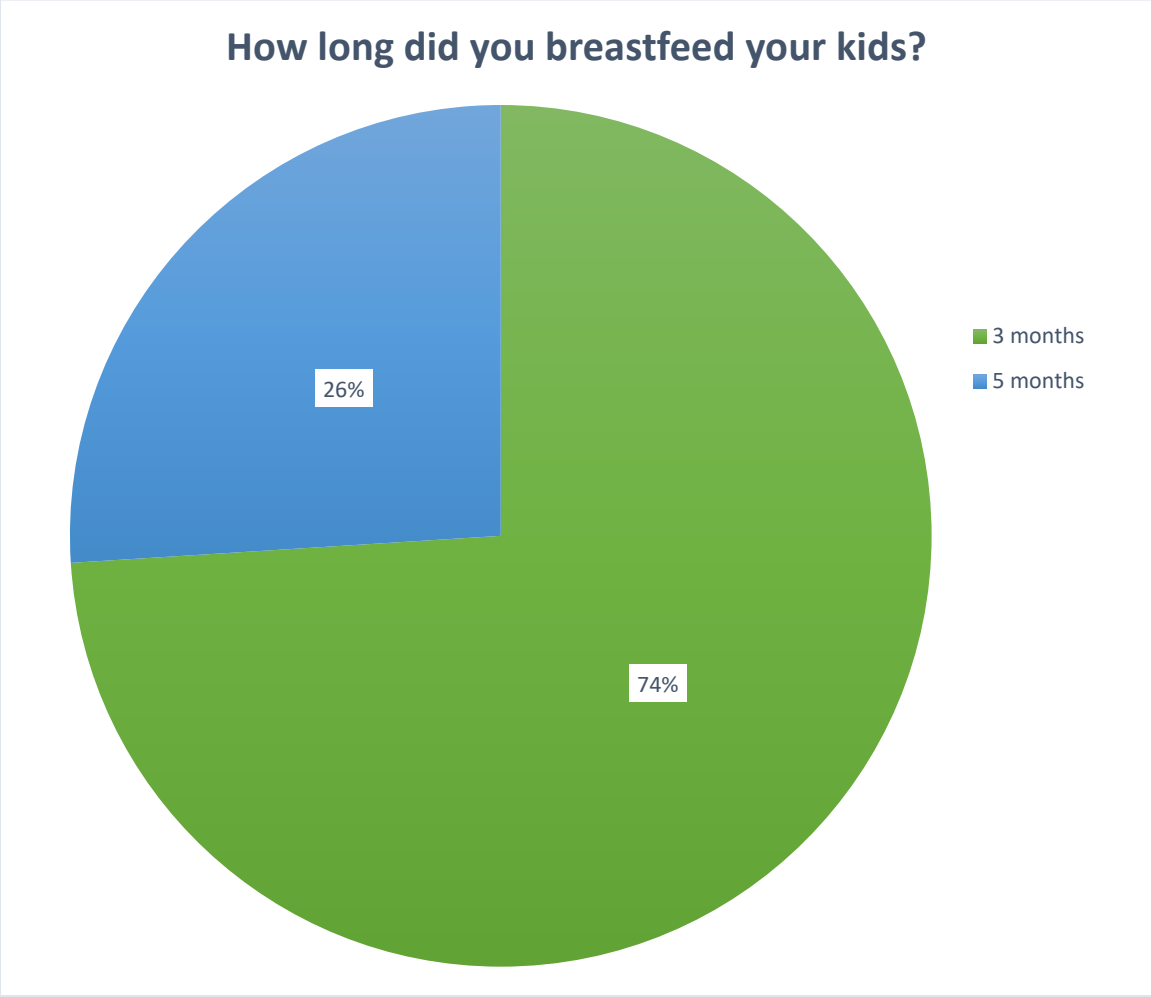


Figure 4.9 How long did you breastfeed your kids?

Table 4.10 Do you give your child breast milk?

Do you give your child breast milk?	Frequency	Percent
Yes	38	76%
No	12	24%
Total	50	100%

According to the pie chart, 12(24%) none of the participants exclusively breastfed their children, whereas 38(76%) of the respondents did so.

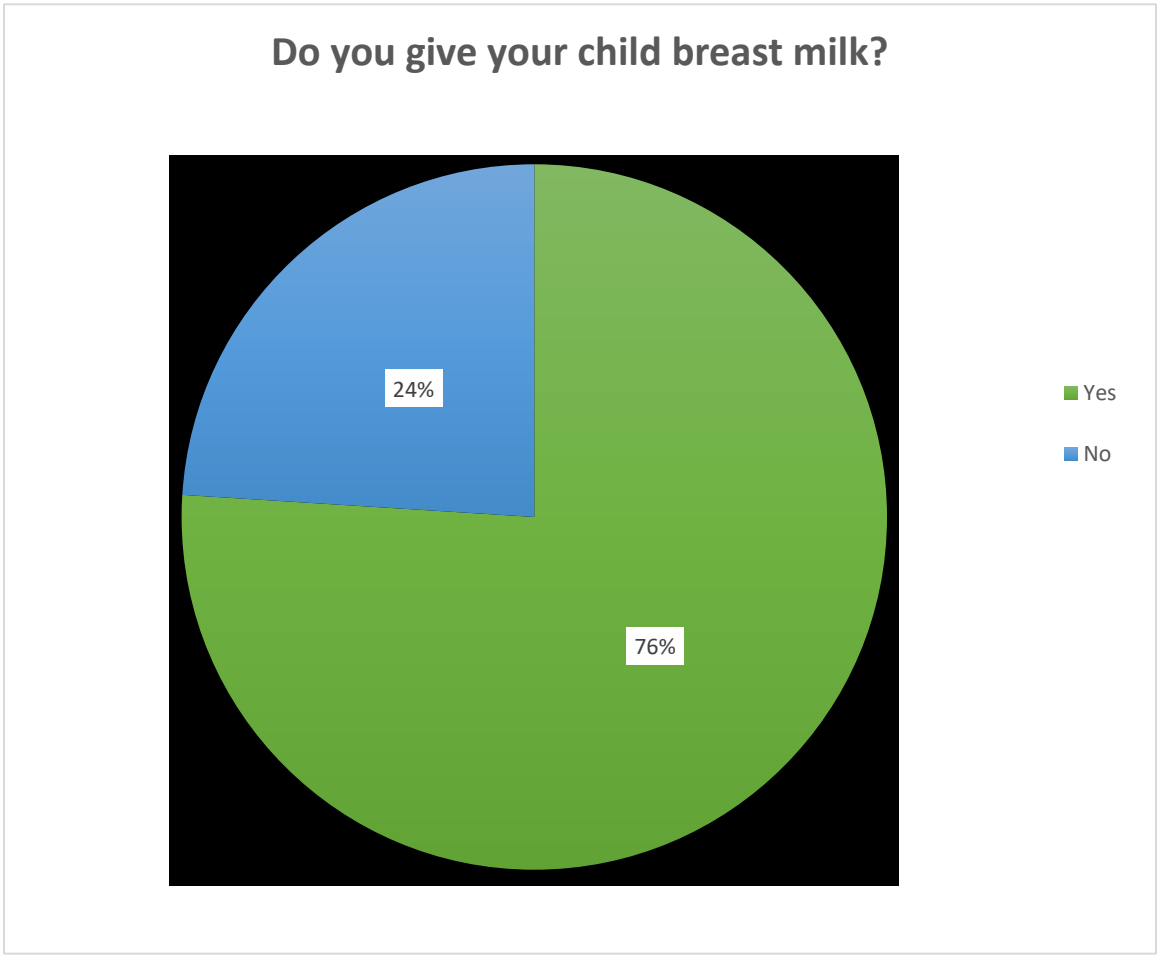


Figure 10: Do you give your child breast milk?

Table 4.11: In a 24-hour period, how many times do you breastfeed your kid?

In a 24-hour period, how many times do you breastfeed your kid?	Frequency	Percent
2 Times	15	30.0%
3 Times	25	50.0%
As much as the child wants	10	20.0%
Total	50	100%

Half of the responders 25(50%) breastfed their children three times in 24 hours, 15 (30%) breastfed twice, and 10 (20%) breastfed as often as the child requested.

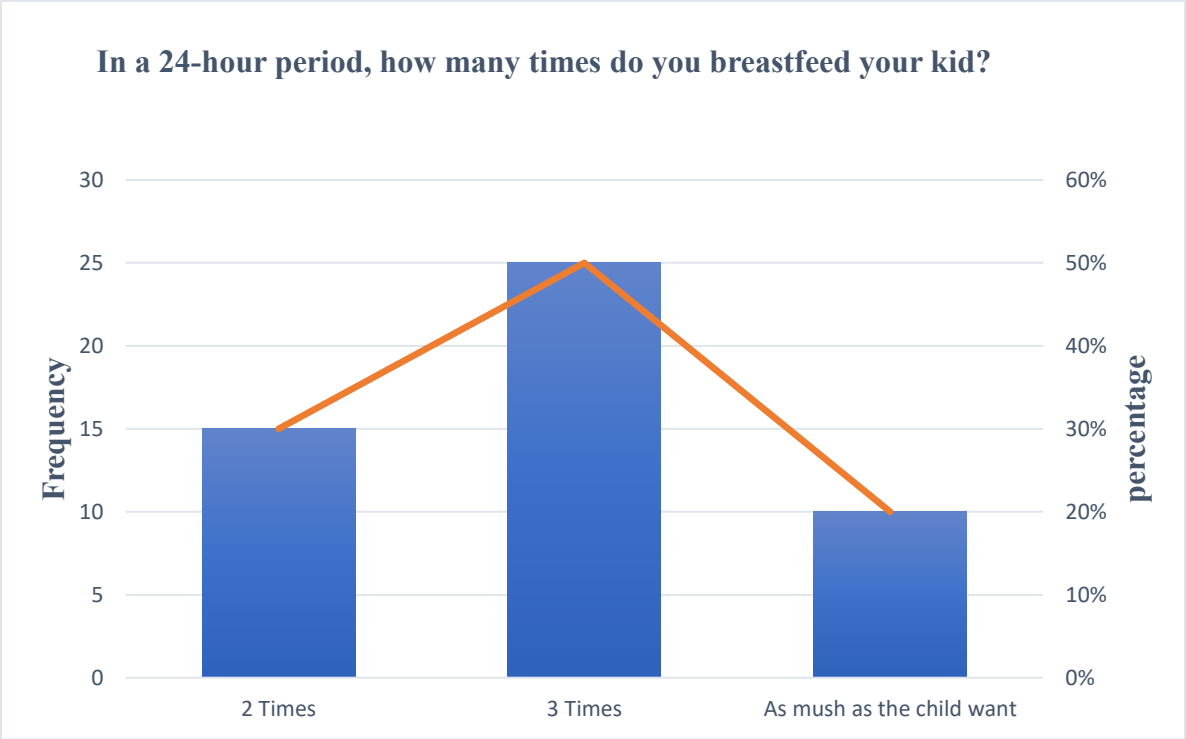


Figure 4.11: In a 24-hour period, how many times do you breastfeed your kid?

Table 4.12 When do you begin introducing different foods to your child?

When do you begin introducing different foods to your child?	Frequency	Percent
2 months	4	8.0%
4 months	16	32.0%
6 months	25	50.0%
After 6 months	5	10.0%
Total	50	100%

Half of the respondents 25(50%) stated that they started introducing other meals at 6 months of age. This was followed by 16 (32%) who said 4 months, 5(10%) who said after 6 months, and 4(8%), who said 2 months.

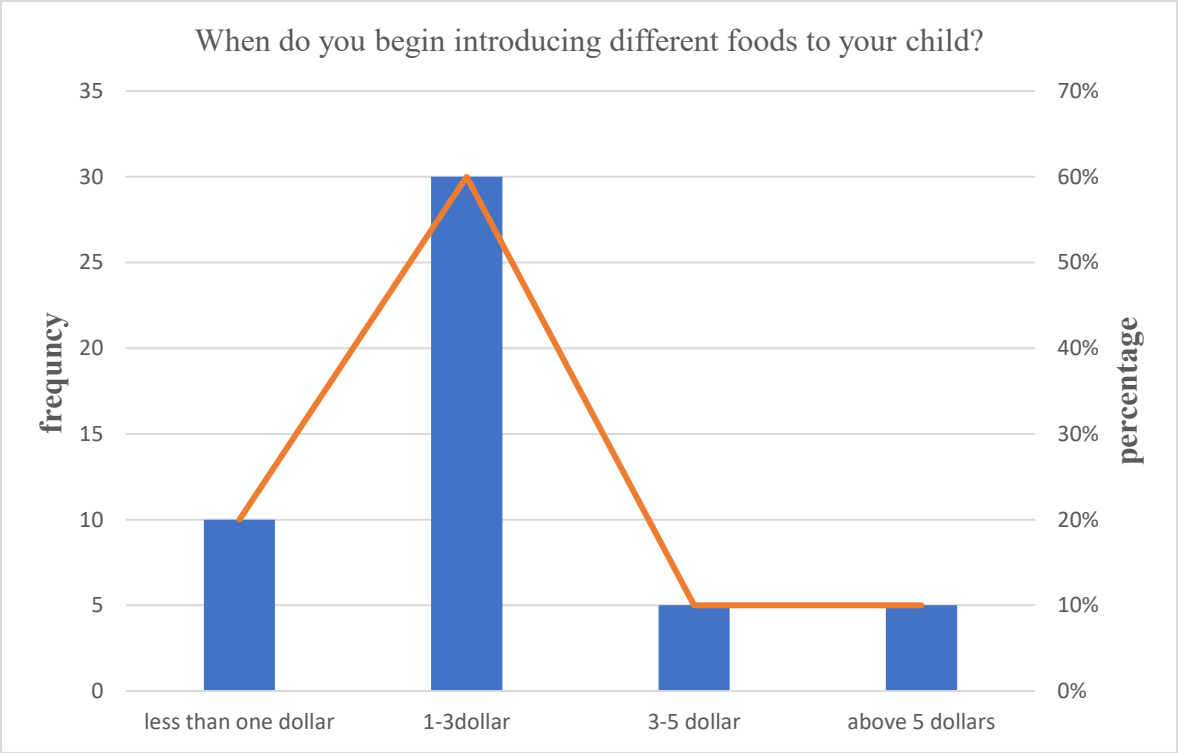


Figure 4.12: When do you begin introducing different foods to your child?

Table 4.13: For feeding the youngster, what do you use?

For feeding the youngster, what do you use?	Frequency	Percent
Cup bottle	17	34.0%
Cup	33	66.0%
Total	50	100%

The children were fed from cups by 33 (66%) of the respondents, whereas the fewest, 17 (34%), indicated using bottles.

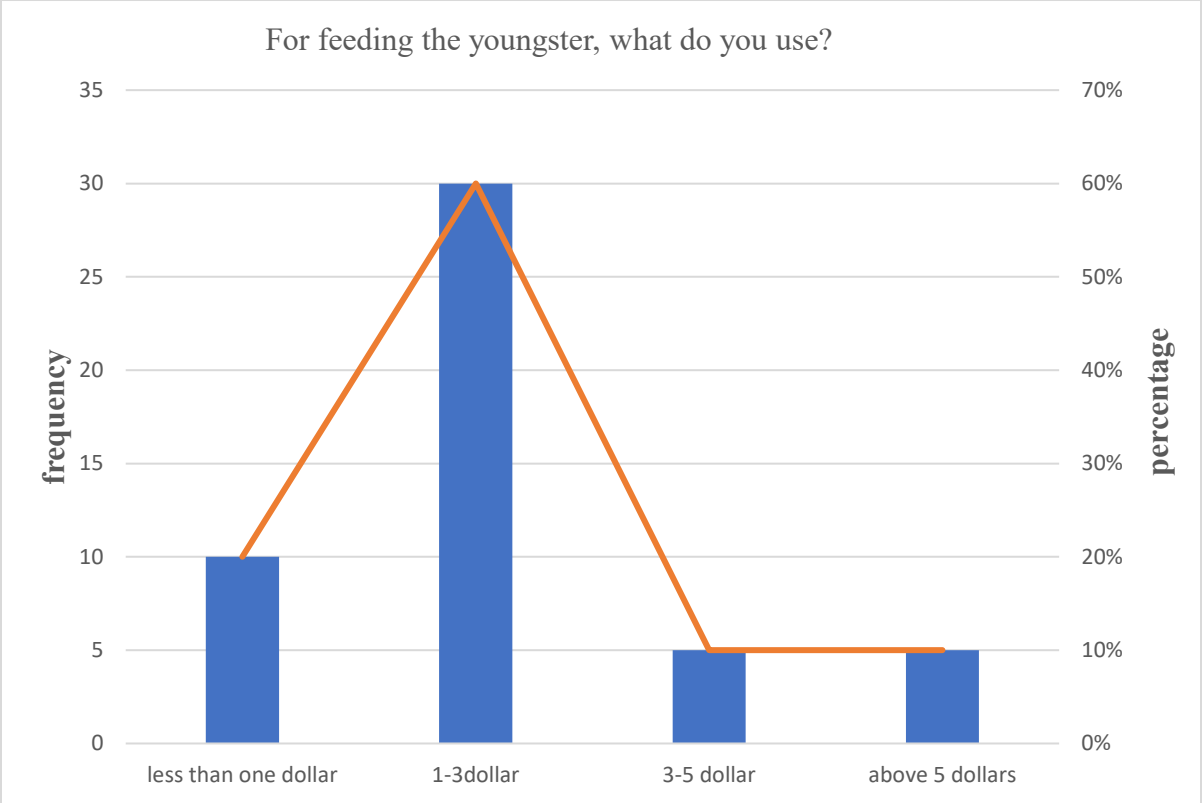


Figure 4.13 For feeding the youngster, what do you use?

Table 4.14: How much do you make each day?

How much do you make each day?	Frequency	Percent
Less than one dollar	10	20.0%
1-3 dollar	30	60.0%
3-5 dollar	5	10.0%
Above 5 dollars	5	10.0%
Total	50	100%

Most of the respondents 30(60%) reported having a daily income of 1-3 dollars, followed by 10 (20%) who had an income of less than 1 dollar, 5(10%) with an income of 3-5 dollars while 5(10%) had an income of above 5 dollars.

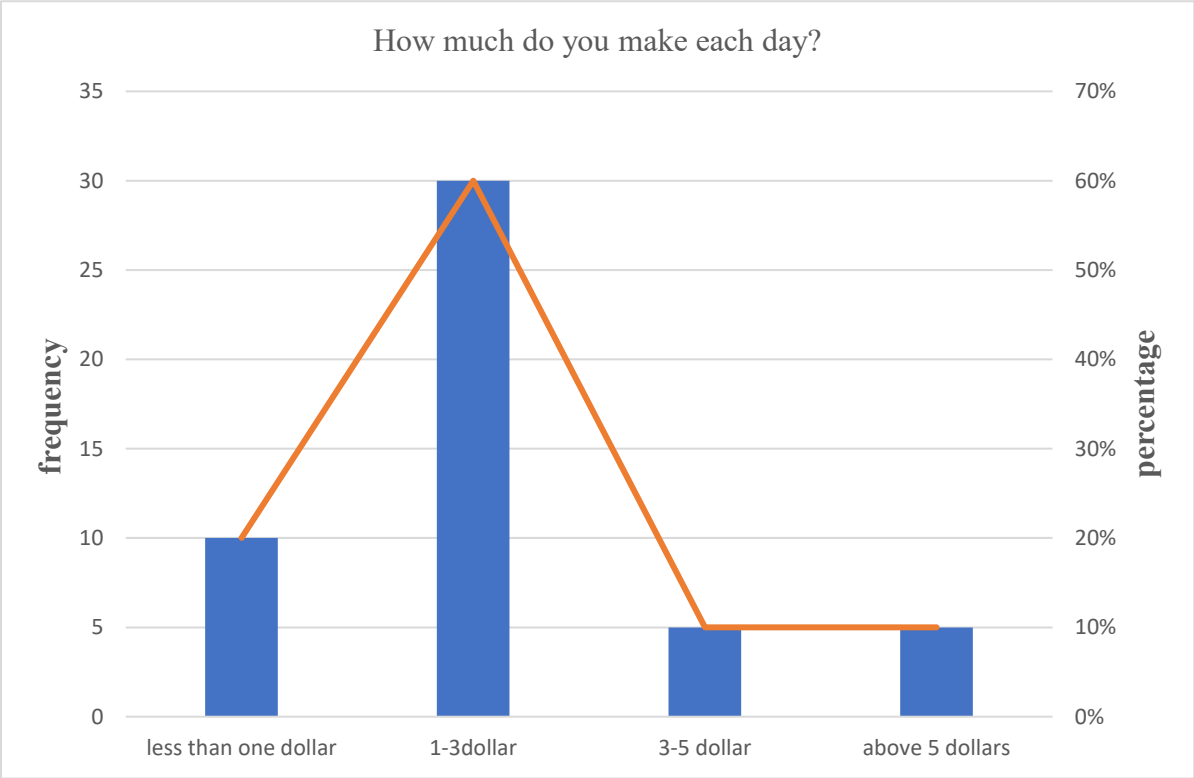


Figure 4.14 How much do you make each day?

Table 4.15: Do you believe your child eats enough food?

Do you believe your child eats enough food?	Frequency	Percent
Yes	35	70%
No	15	30%
Total	50	100%

The majority of the respondents 35(70%) believed they were providing adequate meals for their kids, whereas the least 15(30%) they did not get enough food.

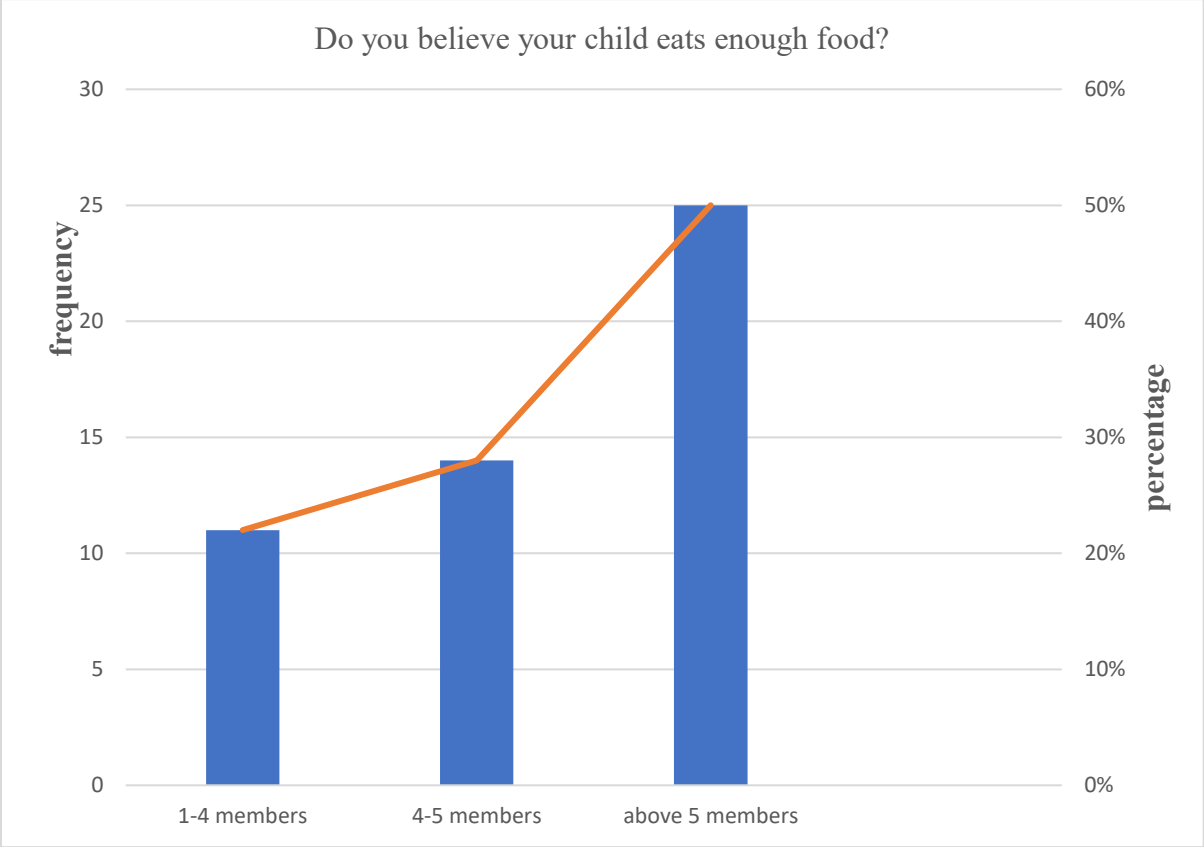


Figure 4.15 Do you believe your child eats enough food?

Table 4.16: The reasons behind the responder children's inadequate food intake

IF NO WHY	Frequency	Percent
Inadequate finances	27	54%
Lack of time	4	8%
We don't have enough food	19	38%
Total	50	100%

Most of the individuals who responded 27(54%) cited sufficient funding as a justification, while 19(38%) mentioned lack of time for an adequate supply of food, and the least respondent 4(78%) mentioned a lack of time

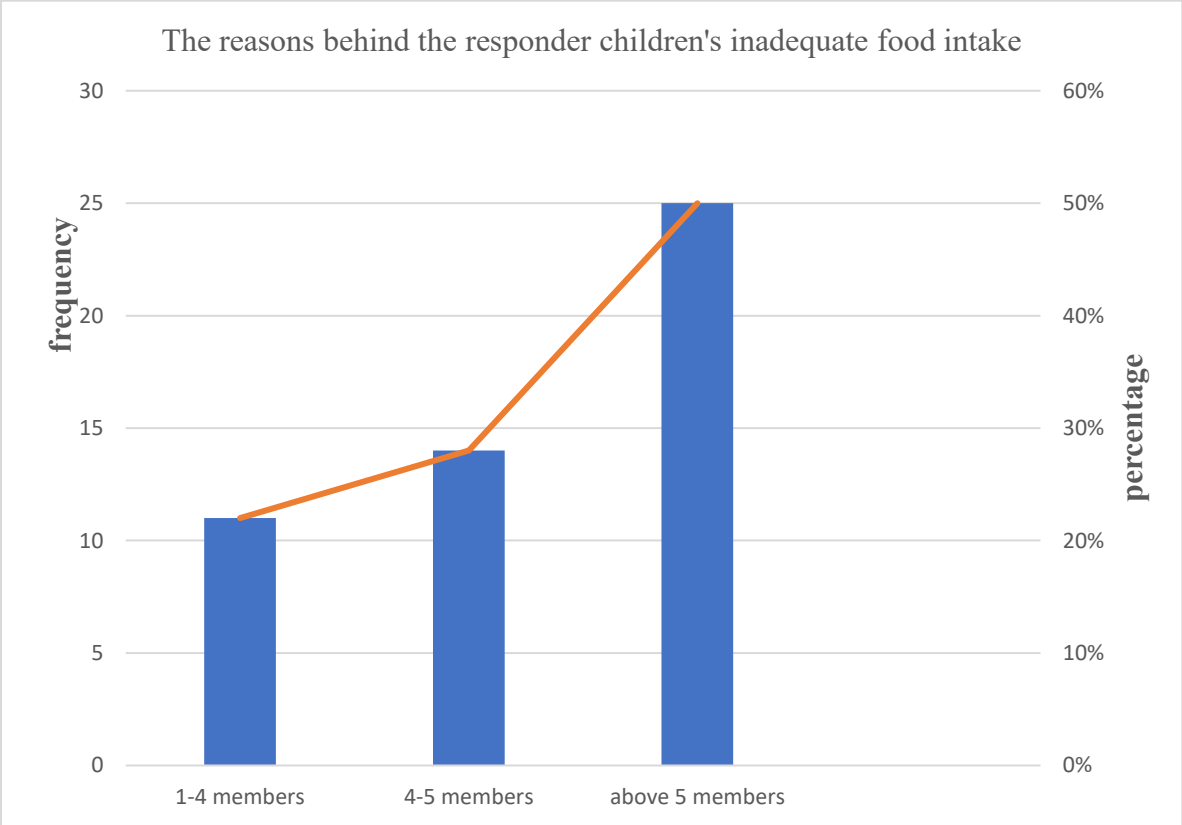


Figure 4.16 The reasons behind the responder children's inadequate food intake

Table 4.17: What are your thoughts about breastfeeding?

What are your thoughts about breastfeeding?	Frequency	Percent
Important practice	45	90%
Non-important practice	5	10%
Total	50	100%

The majority of the respondents 45(90%) mentioned that breastfeeding is an important practice
In their culture, the least 5(10%) said that breastfeeding is not an important practice in their culture.

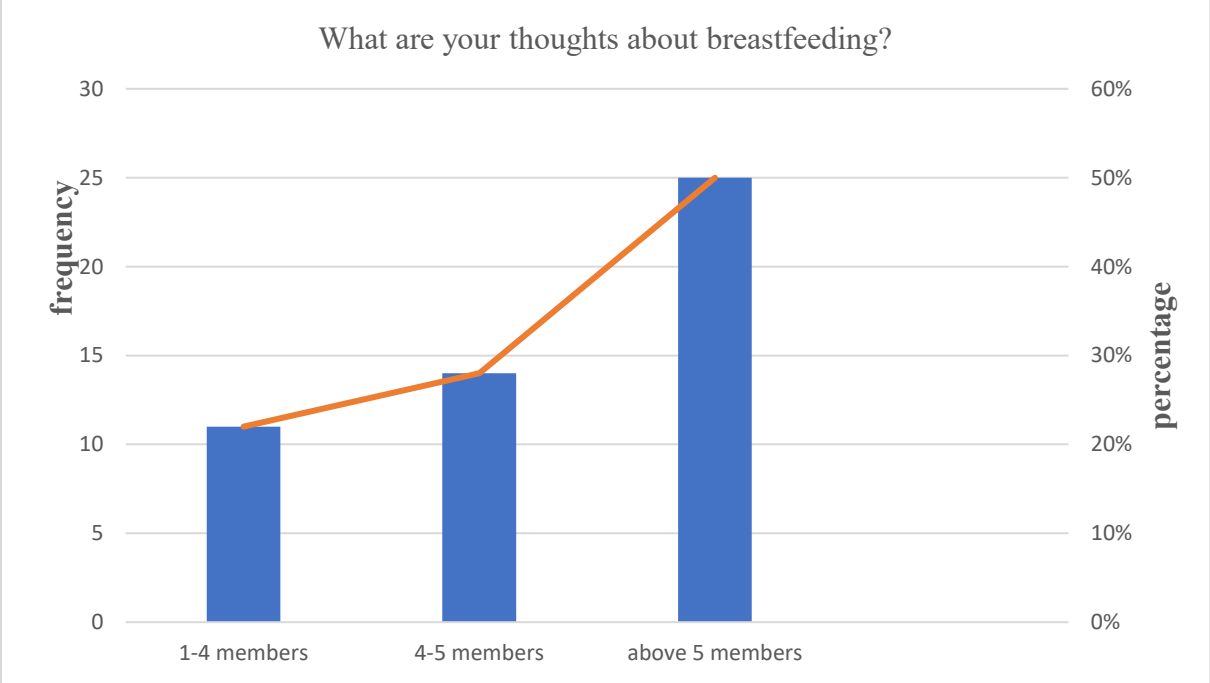


Figure 4.17: What are your thoughts about breastfeeding?

Table 4.18: In your culture, when does a baby start consuming something other than breast milk?

In your culture, when does a baby start consuming something other than breast milk?	Frequency	Percent
Less than six months	12	24%
Six months	32	64%
Above one year	6	12%
Total	50	100%

The majority of the respondents 32(64%) stated that their way of life permitted the Weaning food introduction at 0-6 months, followed 12(24%) who mentioned less than six months, while 6(12%) mentioned the above one year.

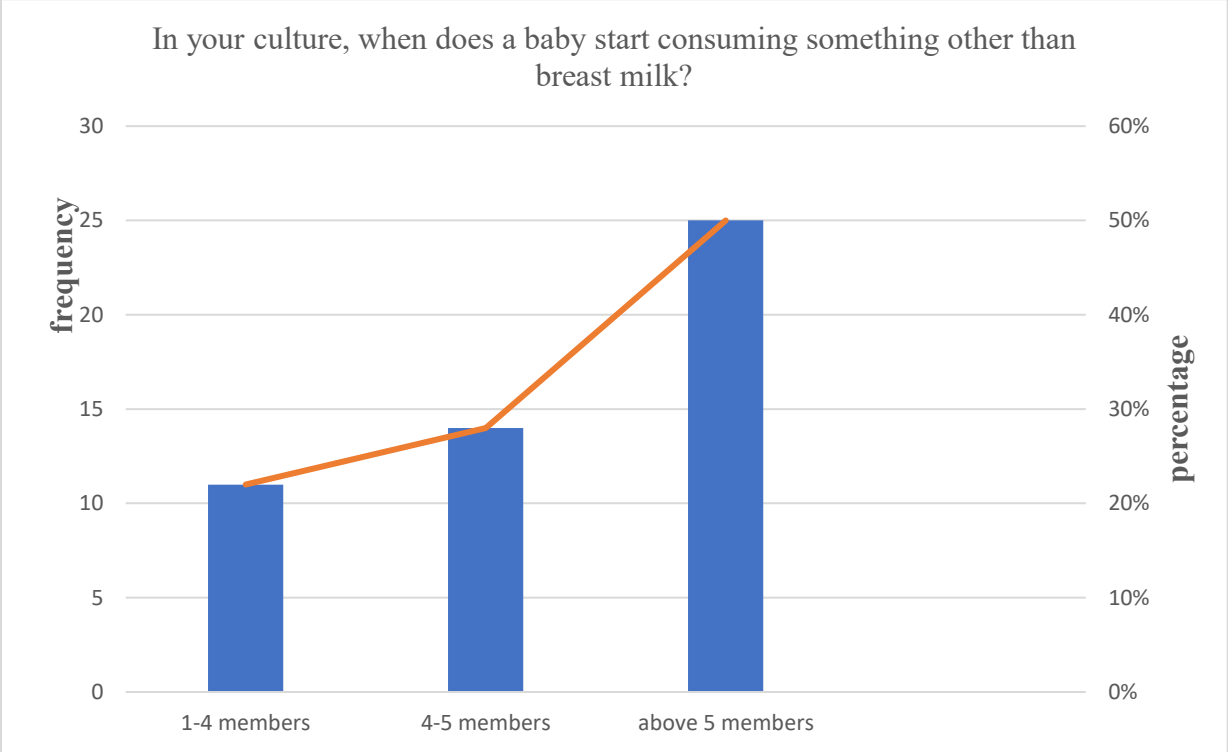


Figure 4.18 In your culture, when does a baby start consuming something other than breast milk?

Table 4.19: In the event that your child becomes ill, where do you take them?

In the event that your child becomes ill, where do you take them?	Frequency	Percent
Traditional healer	3	6.0%
To the hospital or clinic in the area	43	86.0%
Give herbal medicine	4	8.0%
Total	50	100%

Results indicated that most of the participants 43(86%) reported taking the children clinic in the area followed by 4(8%) who mentioned giving children herbal medicine, and the least 3(6%) mentioned bringing the kids to the traditional

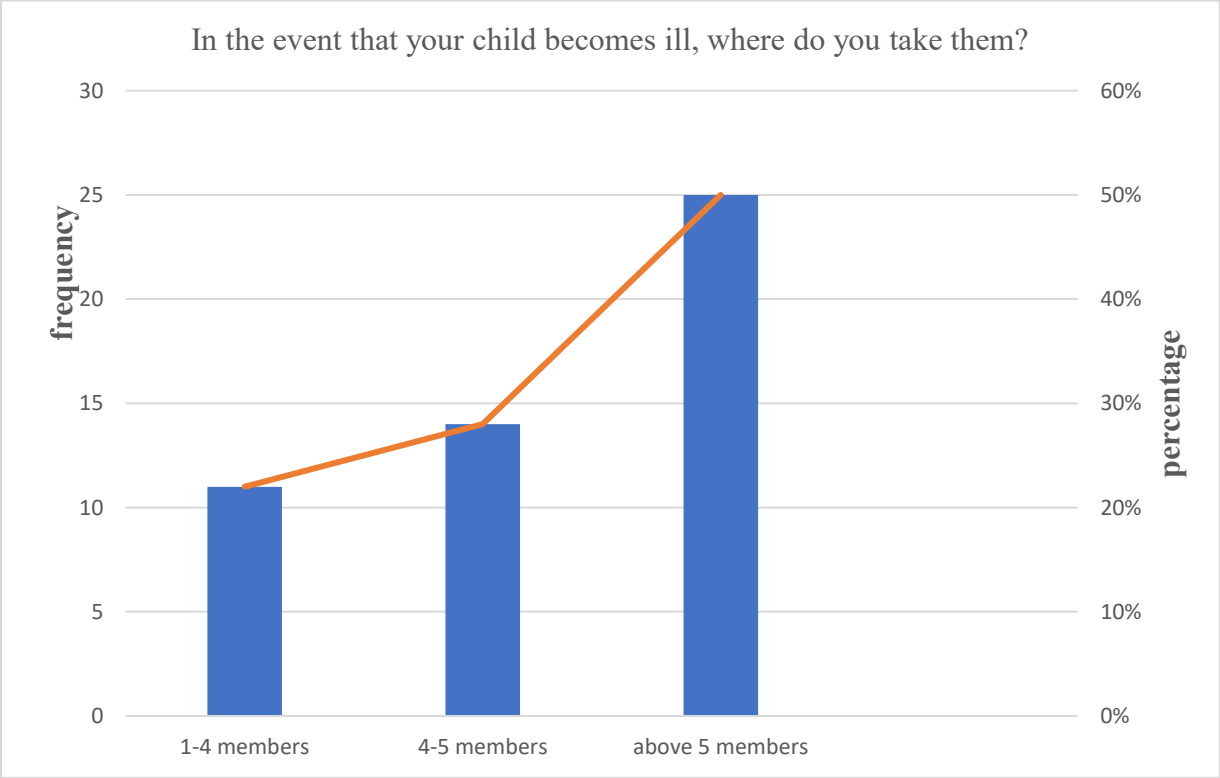


Figure 4.19: In the event that your child becomes ill, where do you take them?

Table 4.20: When your child is sick, do you receive help from your spouse or family?

When your child is sick, do you receive help from your spouse or family?	Frequency	Percent
Yes	14	28%
No	36	72%
Total	50	100%

Of the respondents, the majority 36(72%) did not receive any support from family members, whilst 14(28%) received material and financial support from family members.

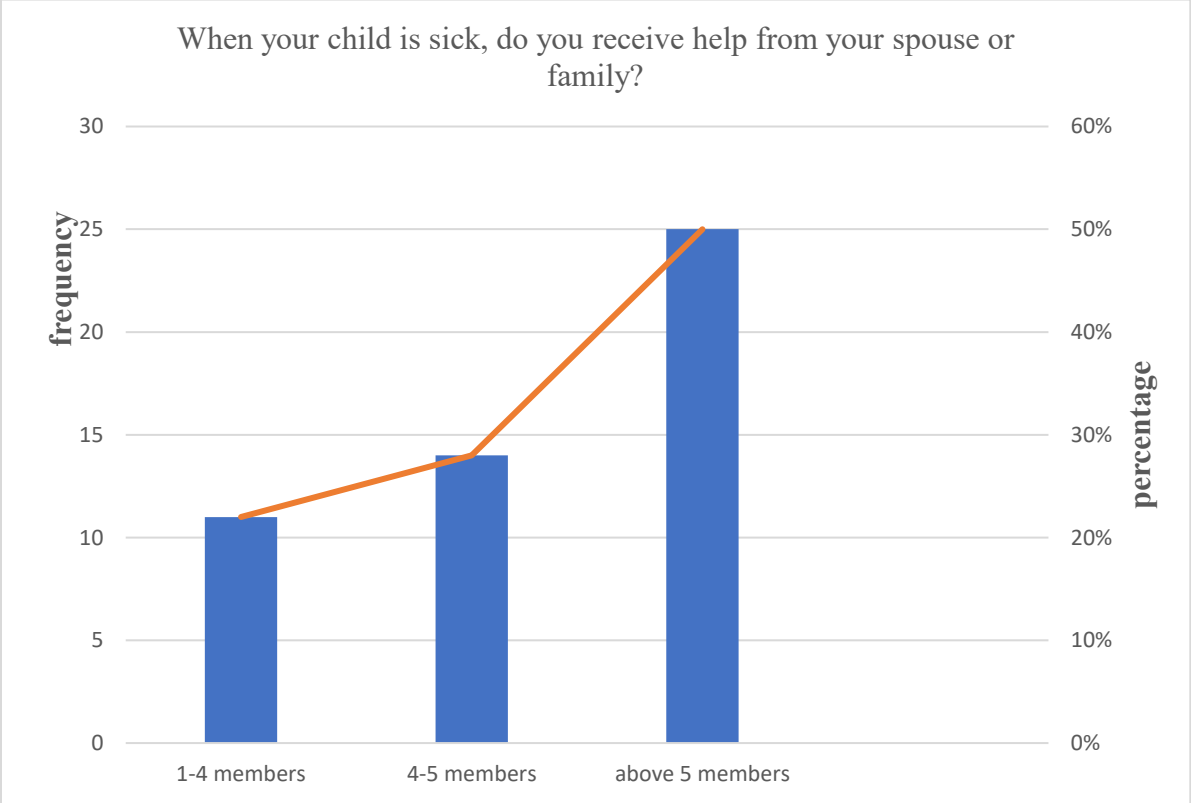


Figure 4.20: When your child is sick, do you receive help from your spouse or family?

Table 4.21: What is the number of members in your family?

What is the number of members in your family?	Frequency	Percent
1-4 members	11	22%
4-5 members	14	28%
Above 5 members	25	50%
Total	50	100%

Half of the respondents 25(50%) mentioned 5 members, followed by 14(28%) who reported 4-5 members while the least 11(22%) said that their family consists of 1-4 members.

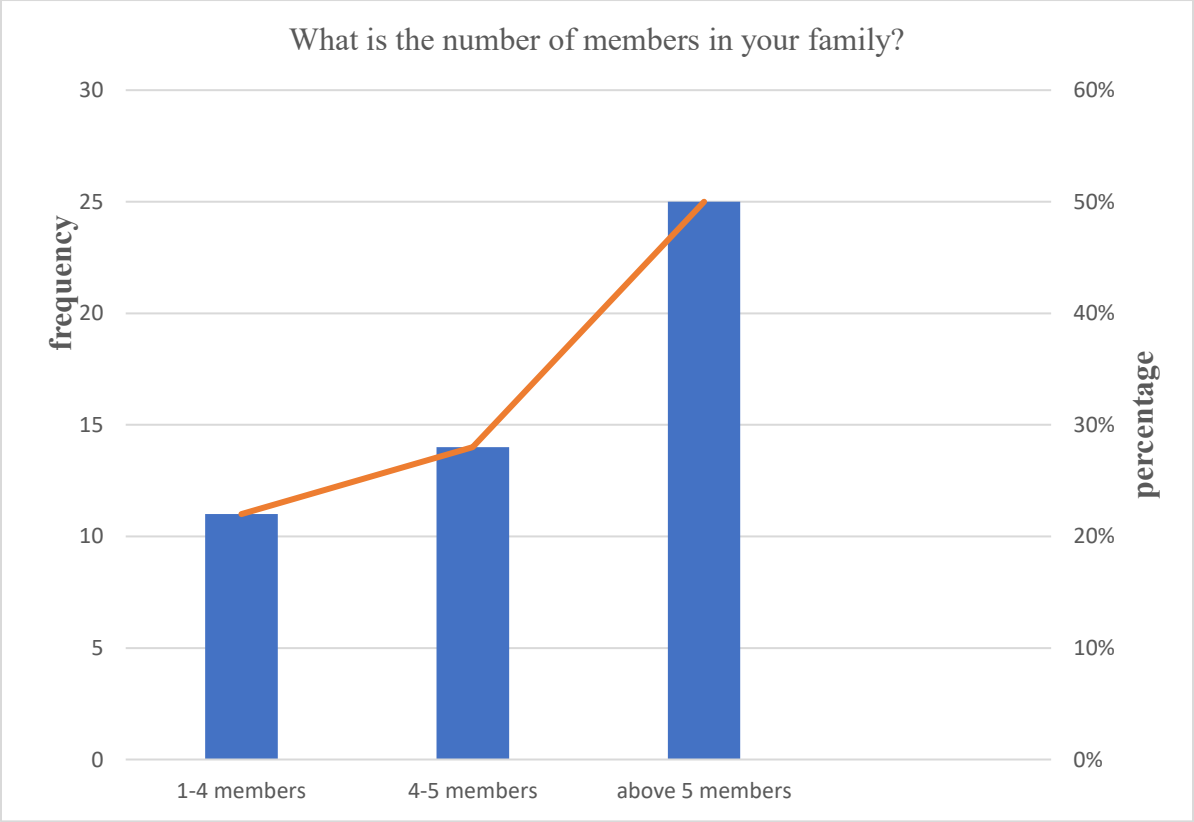


Figure 4.21 What is the number of members in your family?

4.2 DISCUSSION

Findings showed that the majority of the respondents 41(82%) were women and the rest of the respondents 9(18%) were male.

The majority of the respondents 25(50%) were aged 21-26 years while 10(20%) were aged between 13-20, and 27-32, while the least 4 (8%) were 33-38 and 1 (2%) was above 38.

The majority of the respondents 30(60%) were primary level, while the next respondents 9(18%) They were illiterate and 8(16%) were secondary level while the remaining 3(6%) were university level.

Most of the individuals who responded 27(54%) were married while the next respondents 12(24%) were Separated/divorced, 8(16%) were widowed and the rest of the respondents 3(6%) were single.

Findings showed that the majority of the respondents 21(42%) were housewives while the next Respondents 20(40%) were business, the next 6(12%) were self-employed and the remaining respondents 3(6%) worked as public servants.

Most of the participants in the survey 38(76%) were moms, whereas the next respondents 8(16%) were fathers and the rest of the respondents 4(8%) were guardians.

Most responders, or 42 (84%), stayed with their children, while the least number, or 8 (16%), did not.

The results demonstrated that most of the respondents were aware of what SAM meant. Of the respondents, 15 (30%) thought it meant that the child was not growing properly, 12 (24%) thought it meant that the child was not gaining weight, and 10 (20%) had no idea what SAM meant. 4 (8) thought it meant that the child was wasted, and the remaining 2 (4%) thought it meant that the child's body was swollen.

Of the 40 respondents who breastfeed their children exclusively, 37(74%) do so for 3 months, and the remaining 13(36%) do so for 5 months.

According to the pie chart, 12(24%) none of the participants exclusively breastfed their children, whereas 38(76%) of the respondents did so.

Half of the responders 25(50%) breastfed their children three times in 24 hours, 15 (30%) breastfed twice, and 10 (20%) breastfed as often as the child requested.

Half of the respondents 25(50%) stated that they started introducing other meals at 6 months of age. This was followed by 16 (32%) who said 4 months, 5(10%) who said after 6 months, and 4(8%), who said 2 months.

The children were fed from cups by 33(66%) of the respondents, whereas the fewest, 17 (34%), indicated using bottles.

Most of the respondents 30(60%) reported having a daily income of 1-3 dollars, followed by 10 (20%) who had an income of less than 1 dollar, 5(10%) with an income of 3-5 dollars while 5(10%) had an income of above 5 dollars.

The majority of the respondents 35(70%) believed they were providing adequate meals for their kids, whereas the least 15(30%) did not get enough food.

Most of the individuals who responded 27(54%) cited sufficient funding as a justification, while 19(38%) mentioned lack of time for an adequate supply of food, and the least respondent 4(8%) mentioned a lack of time.

The majority of the respondents 45(90%) mentioned that breastfeeding is an important practice
In their culture, the least 5(10%) said that breastfeeding is not an important practice in their culture.

stated that their way of life permitted32(64%) reported that their culture allowed the Weaning food introduction at 0-6 months, followed by 12(24%) who mentioned less than six months, while 6(12%) mentioned the above one year.

Results indicated that most of the participants 43(86%) reported taking the children clinic in the area followed by 4(8%) who mentioned giving children herbal medicine, and the least 3(6%) mentioned bringing the kids to the traditional

Of the respondents, the majority 36(72%) did not receive any support from family members, whilst 14(28%) received material and financial support from family members.

Half of the respondents 25(50%) mentioned 5 members, followed by 14(28%) who reported 4-5 members while the least 11(22%) said that their family consists of 1-4 members.

CHAPTER 5

CONCLUSION, RECOMMENDATION, AND IMPLICATIONS

5.1 Conclusion

In conclusion, the majority of respondents knew something about SAM. For instance, because the majority of responders were relatively young, they may lack the knowledge and expertise necessary to care for children, ensure their nutritional status, and prevent severe acute malnutrition. However, a sizable portion of respondents' infants were at an increased risk of getting SAM because of the following:

- Some women did not exclusively breastfeed their children and introduced other food to them sooner than the WHO-recommended time.
- Most respondents had poor socioeconomic class; they claimed to earn between one and three dollars per day.

5.2 Recommendations

- The following recommendations were made to lessen and assist with severe acute malnutrition in Mogadishu's Haleiwa quarter:
- The Ministry of Health should prioritize health creation, education, knowledge, and mindfulness about appropriate child nutrition in the Haleiwa quarter and the nation at large.

- Healthcare professionals should emphasize health education and SAM mindfulness in the quarter of

- Active involvement and dedication to the community. Babies should only breastfeed for six months, eat a balanced diet, wean their kids using the recommended foods at the recommended age, and participate in additional revenue-generating activities. By doing these things, they can make sure that they have the money to buy the recommended foods and maintain food security in their homes.

- Additionally, healthcare professionals must conduct more research on this issue.

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Appendix I: Questionnaire

Factors to severe acute malnutrition among infants in Heliwa district, Mogadishu

I'm a student of Bachelor of Nutrition and Food Engineering at Daffodil International University.

I'm carrying out research to assess factors to the risk factors of severe acute malnutrition in Heliwa district, Mogadishu

What gender are you?

- ☐ Male
- ☐ Female

How old are you?

- ☐ 13-20
- ☐ 21-26
- ☐ 27-32
- ☐ 33-38
- ☐ >38

What degree of education do you have?

- ☐ None
- ☐ Primary
- ☐ Secondary
- ☐ University

What is the status of your marriage?

- ☐ Single
- ☐ Married
- ☐ Widowed
- ☐ Separated/divorced

What is your line of work?

- ☐ Housewife
- ☐ Civil servant
- ☐ Self-employed
- ☐ Business

How do you feel about the child?

- ☐ Mother
- ☐ Guardian
- ☐ Father

Do you remain with your kids?

- ☐ Yes

☐ No

What does severe acute malnutrition mean to you?

☐ The child's growth is poor
☐ The kid refuses to eat.
☐ The kid is not putting on weight.
☐ That kid is a waste.
☐ The kid's body is enlarged.

How long did you breastfeed your kids?

☐ 3 months
☐ 5 months

Do you give your child breast milk?

☐ Yes
☐ No

In a 24-hour period, how many times do you breastfeed your kid?

☐ 2 times
☐ 3 times
☐ As much as the child want

When do you begin introducing different foods to your child?

☐ 2 months
☐ 4 months
☐ 6 months
☐ After 6 months

For feeding the youngster, what do you use?

☐ Cup bottle
☐ Cup

How much do you make each day?

☐ Less than 1 dollar
☐ 1-3 dollar
☐ 3-5 dollar
☐ Above 5 dollars

Do you believe your child eats enough food?

☐ Yes
☐ No

The reasons behind the responder children's inadequate food intake

☐ Inadequate finances
☐ Lack of time
☐ We don’t have enough food

What are your thoughts about breastfeeding?

- ☐ Important practice
- ☐ Non-important practice

When does a baby start consuming something other than breast milk in your culture?

- ☐ Less than 6 months
- ☐ Six months
- ☐ Above one year

When your child is sick where do you take him or her?

- ☐ customary healer
- ☐ To the hospital or clinic in the area
- ☐ Give natural remedies.

When your child is sick, do you receive help from your spouse or family?

- ☐ Yes
- ☐ No

What is the number of members in your family?

- ☐ 1-4 members
- ☐ 4-5 members
- ☐ Above 5 members

Map of Somalia

APPENDIX III: Map of Mogadishu

RISK FACTORS OF SEVERE ACUTE MALNUTRITION AMONG INFANTS IN HELIWA DISTRICT

ORIGINALITY REPORT

17%	15%	5%	10%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	dspace.daffodilvarsity.edu.bd:8080 Internet Source	3%
2	Submitted to Daffodil International University Student Paper	2%
3	Submitted to Kampala International University Student Paper	1%
4	Submitted to Western Governors University Student Paper	<1%
5	Submitted to University of Durham Student Paper	<1%
6	orca.cf.ac.uk Internet Source	<1%
7	www.scirp.org Internet Source	<1%
8	biblio.ugent.be Internet Source	<1%
	studyexcell.com	