

Knowledge, attitudes and practices towards breast feeding among mothers attending under-five clinic at chipokota mayamba urban clinic in Ndola , Zambia

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Received: 17-07-2017 / Revised: 29-07-2017 / Accepted: 13-08-2017

ABSTRACT

Background: Exclusive breast feeding (EBF) is the best nutrition for babies during the first six months of life, thus it is an unrivaled practice of providing ideal food for the healthy growth and development of infants. However, providing EBF remains a major challenge in Africa and many other countries worldwide despite implementation of programmes such as the global initiative to increase political commitment and investment towards breastfeeding by WHO and UNICEF. The objective of this study was to assess the knowledge, attitudes and practices towards EBF among mothers attending under-five clinic at Chipokota Mayamba Clinic in Chifubu, in Ndola Zambia. **Method:** A cross-section study was conducted in which 400 mothers were recruited using a simple random sampling method. A pre-tested questionnaire was administered to the respondents as a data collection tool. Data was first entered in Microsoft® Excel database for storage and was later exported to Statistical Package for Social Sciences (SPSS) version 20 for analysis. **Results:** Forty-seven percent (47%) were knowledgeable about the benefits of EBF and fifty three percent (53%) lacked knowledge on EBF. Majority of the respondents were between twenty to twenty nine (20-29) years of age representing fifty eight percent (58%) of the participants while those thirty to thirty nine (30-39) years of age had fifteen percent (15%) distribution. Those above forty (40) years represented two percent (2%) and twenty five percent (25%) were less than twenty (20) years of age. Fifty-one percent (51%) of the mothers weaned their babies between three to six (3-6) months, thirty three percent (33%) between six and twelve (6-12) months old and lastly sixteen percent (16%) between zero to three (0-3) months of age of the babies. **Conclusion:** The results from this study indicate that the level of total knowledge score regarding breastfeeding is poor among mothers attending under-five clinic at Chipokota Mayamba clinic. Major concerns are; inadequate knowledge on advantages of breastfeeding, frequency of breastfeeding, and storage of breast milk. The findings showed that limited education was a major factor for lack of knowledge about breastfeeding compared with other factors such as marital status, family income, and age

Key words: Exclusive breastfeeding, Knowledge, Attitudes, Practices, Infant, Under-five clinic

Introduction

Breast milk is not only regarded as a source of nutrition for babies but also a source of emotional bond between the mother and the baby.

Exclusive breast feeding is defined as an infant consumption of human milk with no supplementation of any kind, that is, no water, juice, non-human milk or solid food except for vitamins, minerals and medications prescribed by a physician [1]. Exclusive breastfeeding in first six months of life is particularly beneficial for infants and mothers especially in the developing countries. This is because lack of adherence to this practice can cause serious health deficits such as stunting, underweight, gastrointestinal infections, pneumonia, childhood obesity, or poor

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neurodevelopment and ultimately leads to increased infant mortality [2]. The consequences of not exclusively breastfeeding are further documented in the study the study done by the World Bank and the Zambian government called 'Nutrition at a Glance' which revealed that 45% of children under the age of five were stunted and 15% were underweight and 5% are wasted, therefore, malnutrition rates in Zambia have remained unchanged since early 1990s [3]. According to UNICEF; infant, neonatal and under-five mortality rates due to malnutrition arising from the EBF in Zambia were 7034 and 119 per 1,000 live births. It is also worth noting that each year under nutrition is implicated in about 40% of the 11 million deaths of under-five children in developing countries, and the lack of immediate and exclusive breastfeeding in infancy causes an additional 1.5 million of these deaths [4]. A study by Nyangati revealed that pre-lacteal feeds and the inconsistency of EBF contributes to under nutritional among children of 0-6 months [5]. Among the factors influencing the knowledge and practices of EBF include, maternal education, marital status, both maternal and child age, maternal employment status, health factors (place of delivery and maternal chronic illness), cultural beliefs and unawareness of EBF and its benefits. Despite the benefits obtained from exclusive breast feeding, it is also very important to consider the infants that are born of HIV positive mothers in terms of mother to child transmission of HIV. The programs that support EBF are often threatened by health concerns such as this and the question that may often arise is, "can HIV positive mothers exclusively breastfeed?" HIV positive nursing mothers can exclusively breast feed, with proper counseling that includes the general information about the risks and benefits of breastfeeding their babies. WHO recommends the promotion and support of breastfeeding in conjunction with antiretroviral (ARV) interventions as the strategy that will most likely give infants born to HIV-infected mothers the greatest chance for HIV-free survival [6]. This enables infants of HIV infected mothers to be breastfed with a low risk of transmission of (1-2%). HIV infected mothers and their infants living in areas where diarrhea, pneumonia and malnutrition are still common causes of infant and child mortality can therefore gain the benefits of breastfeeding with minimal risks of HIV transmission WHO (2010) with prompt weaning and the introduction of appropriate complementary foods. According to WHO (2009), breastfeeding must be interrupted after six months based on evidence showing that the risk of HIV transmission through breastfeeding increases gradually the longer the period a mother breastfeeds. [7]

Due to the consequences of the lack of EBF highlighted earlier, the government of Zambia in collaboration with other stakeholders such as, the Non-Governmental Organizations and the Church has embarked on a number of measures that promote expansion programs to increase breastfeeding and improve appropriate young child feeding, such as the Baby Friendly Hospital initiative, Child health week (a Biannual Program), immunization programs and delivery of health education on nutrition. These programs present an opportunity to reach children under the age of five. The government also promotes stunting prevention through community based interventions targeted to pregnant women and children under the age two before the problem worsens into severe acute malnutrition. To enable mothers in establishing and sustaining exclusive breastfeeding for six months, WHO and UNICEF recommends the Initiation of breastfeeding within the first hour of life, exclusive breastfeeding- the infant only receives breast milk without any additional food or drink, not even water, breastfeeding on demand- That is as often as the child wants, day and night and No use of bottles, teats or pacifiers [8]. This study will sought to determine the knowledge, attitudes and practices among these nursing mothers in order to promote the uptake of Exclusive Breastfeeding and improve the wellbeing and survival of the infants and children.

Materials and methods

Ethical considerations

Ethical clearance was obtained from Tropical Disease Research Centre (TDRC) ethics committee. The information gathered from this study was strictly confidential. The research information will be disseminated to relevant authorities and with no direct link to participants since anonymity shall be maintained. The study participants will be recruited based on their willingness to participate.

Study design and study site.

Chipokota Mayamba health center is located in Chifubu constituency of Ndola district. This health center has both Mother Child Health and TB clinics the clinic is located away from the main clinic, and has a catchment of 50828 people and does about 127 antenatal bookings per month and handles between 300-400 antenatal mothers. This department looks after the wellbeing of children, nursing and expectant mothers. The clinic offers prenatal and postnatal

services at large such as prevention of mother to child transmission of HIV (PMTCT). The gathering of data ranged from a simple observation at the clinic to collection of information through questionnaire from various mothers at the clinic. The method of research determined how the data was collected. Questionnaire was used to recover raw data in this case.

Sample size and data collection

The mothers that attend the under-five sessions at Chipokota Mayamba made up the sampling frame for this study. Thus four (400) questionnaires were distributed. To establish the knowledge, attitudes and practices of exclusive breastfeeding among mothers attending under-five sessions at Chipokota Mayamba clinic in Chifubu, the researcher target a sample size of 400 respondents. Out of the 400 questionnaires administered only 369 were validated and 31 were rejected for incompleteness. This gave a 92% return rate.

Data entry and data analysis

The data was obtained using structured questionnaires that had been pre-tested. The questionnaire was administered to the mothers during the under-five

clinic with the aid of an interpreter if need be. Structure of the questionnaire contained sections that covered socio-demographic data of the mother and other section to covered the levels of knowledge, attitude and practice of EBF. The survey was constructed as an interviewer-administered questionnaire with rating and closed end questions. Quantitative data was entered into the computer for analysis using Microsoft excel and exported to SPSS for analysis. The SPSS was used to process the frequencies and percentages which were used to discuss the findings. Tables, pie charts and bar graphs were used to present the data.

Results

The current study sought to determine the age distribution of nursing mothers attending under-five clinics. A total of 400 women were interviewed using a questionnaire. Out the 400 women attending under-five clinic, the youngest mother interviewed was 17 old. The age distribution of the respondents is represented in table 1 below. Table 2 shows the age distribution of children who attended under-five clinic.

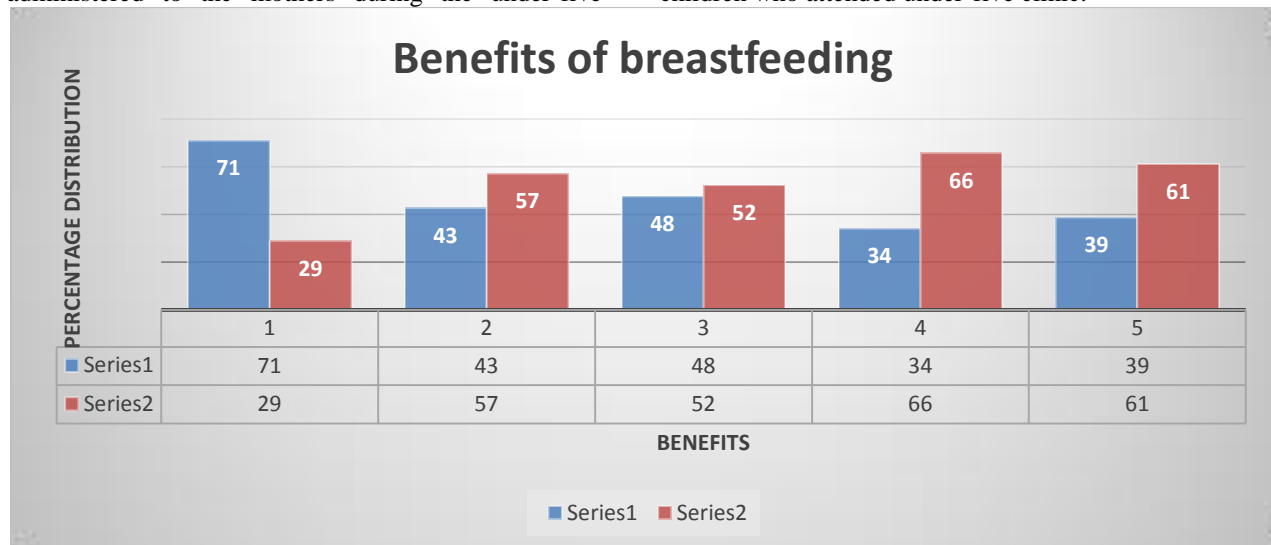


Fig 1: Benefits of breast feeding

Table 1: Age distribution of Mothers attending under-five clinic

Age Range(years)	Frequency	Percentage Distribution n=(%)
0-19	91	25
20-29	215	58
30-39	56	15
>40	7	2
Total	369	100

Table 2: Ages of babies

Age range(months)	Frequencies	Percentage distribution n= (%)
0-6	149	40
7-12	118	32
13- 18	78	21
19-24	24	7
Total	369	100

Out of all the respondents in the study, 82 women had weaned their babies. Their age distribution is show in figure 2 below.

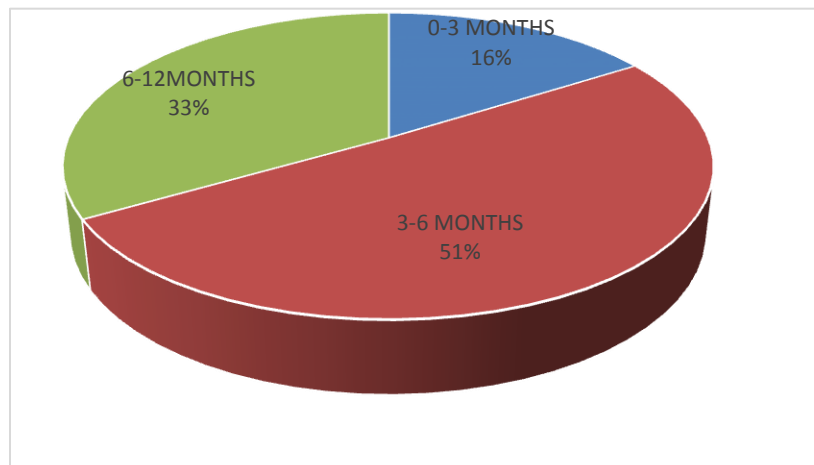


Fig 2: Age babies stopped breastfeeding

Figure 3 shows the percentage of women’s source of income and figure 3 shows the level of education of all the respondents.

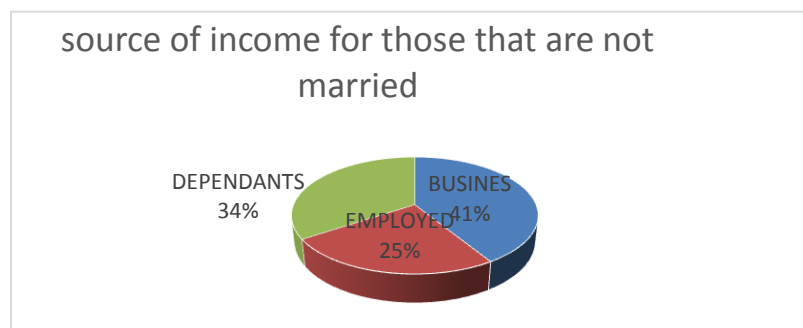


Fig 3: Source of income

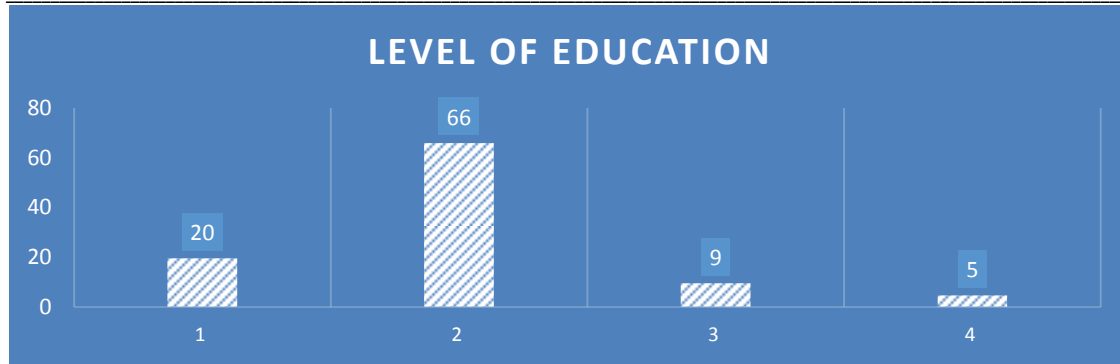


Fig 4: Level of Education

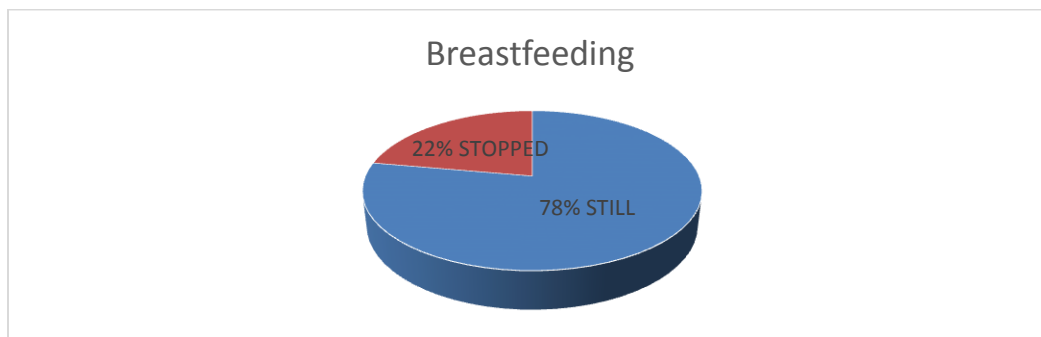


Fig 5: Status on Breast feeding

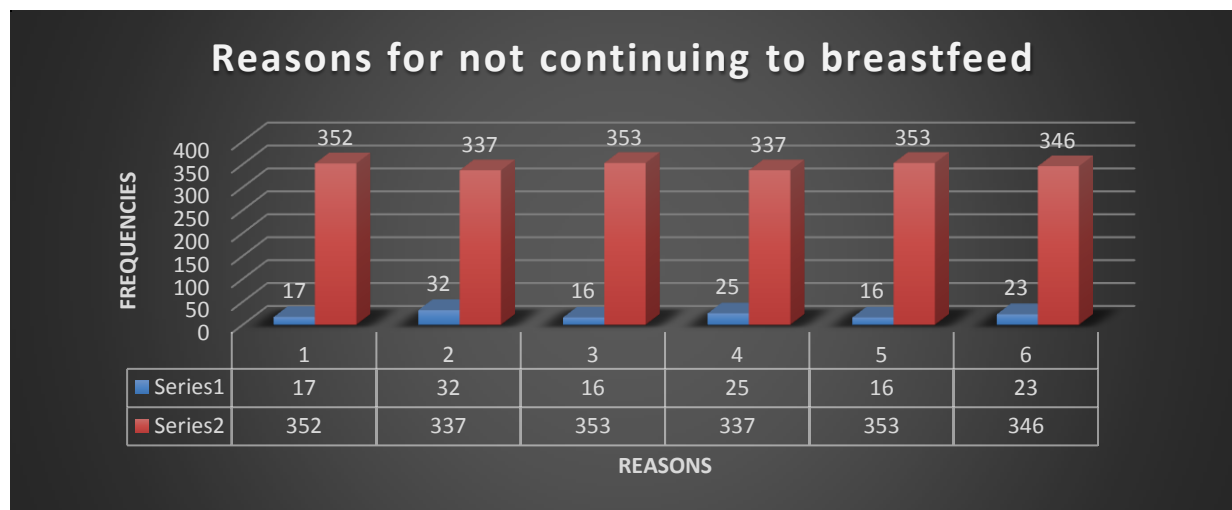


Fig 6: Reasons for not continuing to breastfeed

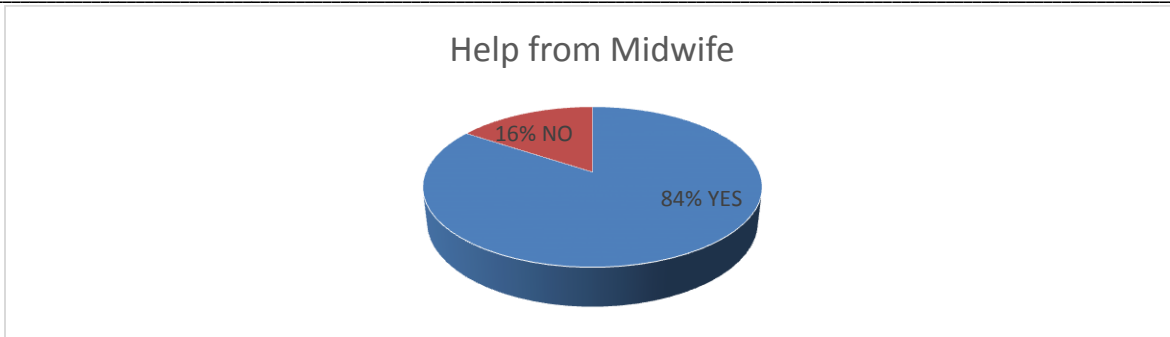


Fig 7: Help from Midwives

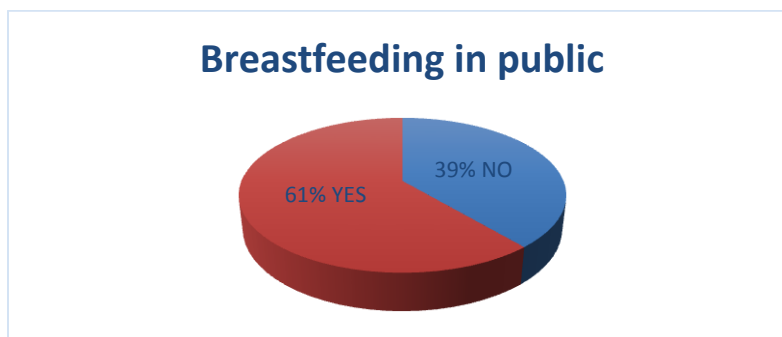


Fig 8: Breast feeding in Public

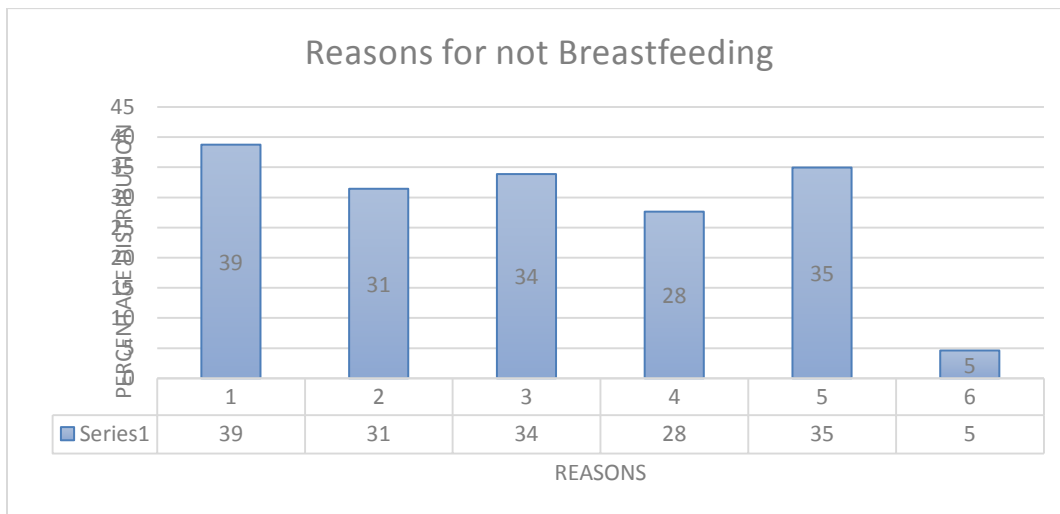


Fig 9: Reasons for not breastfeeding in public

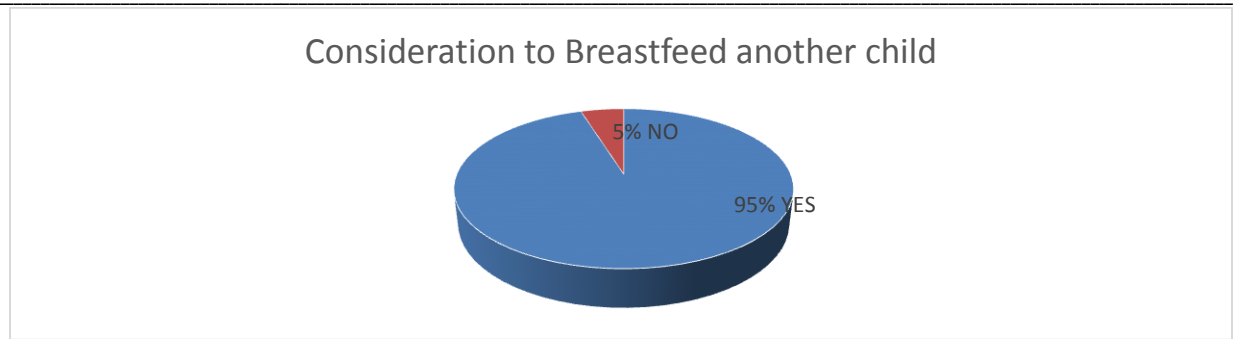


Fig 10: consideration to breastfeed another child

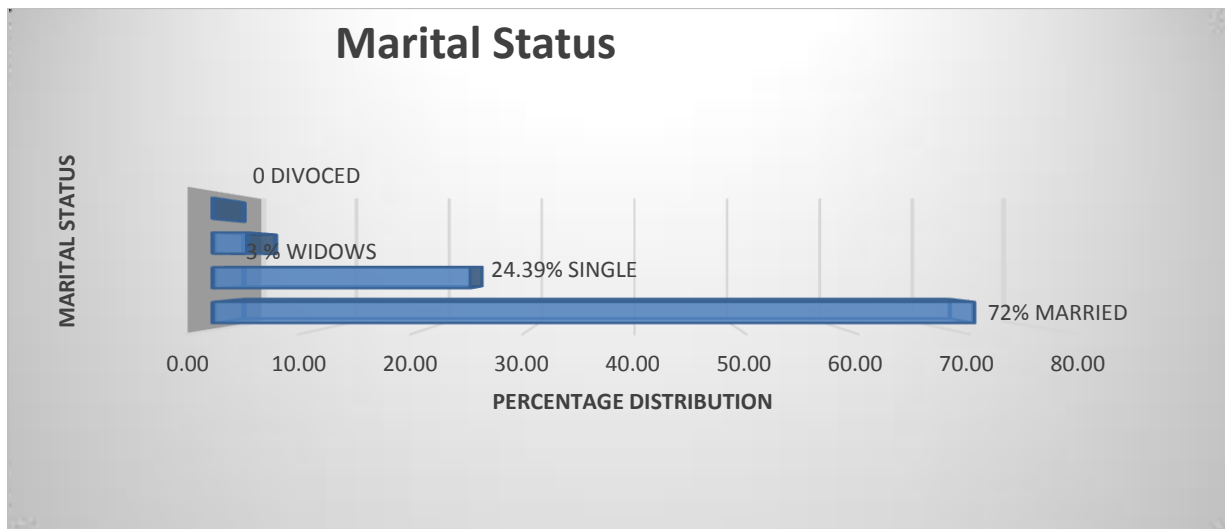


Fig 11: Marital Status

Table 3: reasons to breastfeed another child

Reason	Distribution	Percentage Distribution
Increases the relationship between the mother and child	125	34
It's the right of the child	102	28
It's just normal	54	15
For the child to be healthy	50	14
It's my child so I just have to breastfeed him/her	38	10
Total	369	100

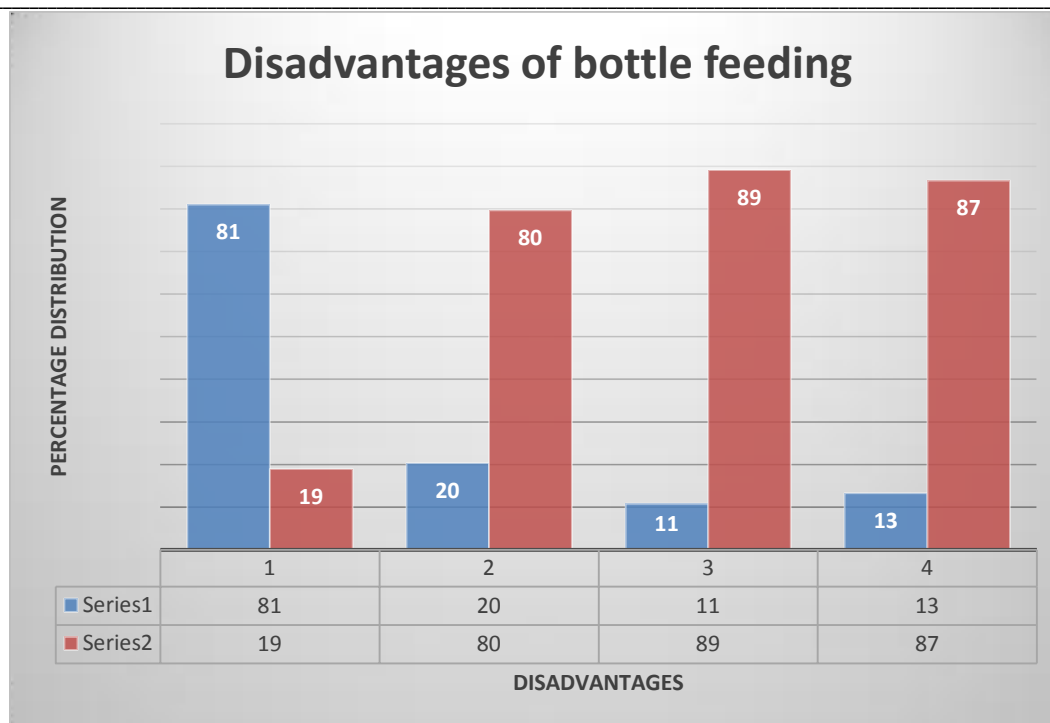


Fig 12: Disadvantages of bottle feeding

Discussion

As indicated in figure 1 majority of the respondents did not have knowledge on the benefits breastfeeding. It was established that only seventy one percent (71%) (1) had knowledge that breastfeeding was a source of infant nutrition. With respect to its cost it had a percentage representation of fifty seven (57%) (2) did not agree that it was a cheap to breastfeed were represented with forty three percent (43%) (2) Indicated that it was cheap to breastfeed. The study further reviewed that only forty eight percent (48%) (3) Stated that breastfeeding increase the immunity of the babies, as fifty two percent (52%) (3) Stated that it did not have any impact on the immunity of the baby. It was also reviewed that only thirty four percent (34%) (4) Indicated that breastfeeding helps in brain development and that the majority with a representation of sixty six percent (66%) (4) Did not state so. Lastly it was established that thirty nine percent (39%) (5) Indicated that to be full was the reason they breastfeed their babies as a benefit and sixty one percent (61%) (5) rejected it as not one of the benefits of breastfeeding.

The study reviewed that the majority of the respondents were between twenty to twenty nine (20-

29) years of age. This age group had a fifty eight percent (58%) representation while those thirty to thirty nine (30-39) years of age had fifteen percent (15%) distribution. Those above forty (40) years had two percent (2%) representation and it was further reviewed that twenty five percent (25%) were less than twenty (20) years of age. This was an indication that a lot of young girls were falling pregnant at a tender age and this has an effect on the rate of breastfeeding and early stoppage. It was also reviewed as tabulated that most of the respondents had fallen pregnant whilst in school or just completing secondary education if at all they were going to school. It was also clear that early marriages are still going on in some parts of Zambia as most of the respondents were still minors. It is further established that there is need to enforce the law that will protect early child marriages in some urban areas as most of the concentration is devoted to rural areas.

From the distribution shown in the Table 2, the study reviewed that forty percent (40%) of the babies of mothers attending under five sessions at Mayamba clinic were between the age range of zero to six (0-6) months, thirty two percent (32%) were within the age range of seven to twelve (7-12) months, twenty one percent (21%) within the age brackets of thirteen to eighteen (13-18) months and lastly nineteen to twenty

four (19-24) months with a percentage distribution of seven percent (7%). It was established that from the age distribution as the child gets older the lower the attendance rate among the mothers. It was further established that mothers were very committed to attend the under-five session when their babies were younger and the older they become the less committed they became. In a point of fact there were more of mothers attending under five sessions with babies under the age of one years old.

From figure 2 the study established that fifty one percent (51%) of the mothers had stopped breastfeeding between three to six (3-6) months, thirty three percent (33%) between six and twelve (6-12) months old and lastly sixteen percent (16%) between zero to three (0-3) months of age of the babies.

From figure 3 the study established that of the one hundred and two (102) respondents that were not married forty one percent (41%) were doing some form of business which provided some sort of income to them on a monthly basis, thirty five (35%) were dependents meaning they depended of their guardian to provide for them with their needs and lastly twenty five (25%) of the respondents were employed

The study further reviewed that the majority of the respondents thirty three (33%) had less than five hundred (K500) as monthly income which is an indication that most of the respondents had lower breastfeeding rates. This figure is even less than the minimum monthly food basket figure per household in Zambia. However, the study further reviewed that only eleven percent (11%) had more than two thousand and five hundred kwacha (K2500) as the monthly income. In addition, only eleven percent (11%) had an income of one thousand five hundred Kwacha (K1500) to two thousand kwacha (K2000). The list was eight percent (8%) with one thousand kwacha to one thousand five hundred (K1000 to K1500).

Education plays a key role in ones live. This can be seen in the way people make judgments and reason towards different situation. The study further sought to determine the educational attainment of the respondents. In view of this the study as indicated in the figure 4 above reviewed that majority of the respondents had attained secondary level of education as indicated with sixty six percent (66%) followed by 20% primary level of education then tertiary with nine percent (9%) and lastly only five percent (5%) had not been to school. While each factor is a determinant of health in its own right, income, education and employment are interconnected as education helps people move up the socioeconomic ladder. Income, education and employment impact breastfeeding through a variety of ways. For example: it was

reviewed that education helped parents understand the health benefits of breastfeeding hence those that had gone beyond secondary education had a higher rate of breastfeeding as compared to those that had low educational attainment.

This could be that better educated parents are more likely to seek out information about health practices such as breastfeeding hence the prolonged rate on EBF. It is also indicated that Having more education increased parents' understanding of how they can promote their own health through their own actions. It was further reviewed that those that had attained post-secondary education and to a lesser extent secondary education parents were able to evaluate how their behaviors would harm or improve their health hence the positive attitude towards Exclusive breastfeeding. Therefore, the researcher further concludes that Parents who have a higher socioeconomic status may have more resources that help them live a healthier lifestyle. Furthermore, the study reviewed that Parents who are employed, have a higher level of education, and a higher income may have a more positive attitude towards breastfeeding.

Breast milk being an ideal food for physical and mental growth and development of all infants, the study sought to determine whether mothers that attend antenatal at Mayamba clinic do breastfeed exclusively. However, it is very clear that breastfeeding contains all essential nutrients including carbohydrates, essential fats, proteins, minerals, and immunological factors. Exclusive breastfeeding (EBF) means providing only breast milk to the infants; no other liquids or solids including water, except oral rehydration solution or drops/syrups of vitamins, minerals, or medicines. Breast feeding is very important for public health and epidemiological studies because it has an important role in many different countries Zambia inclusive. In this vein the study reviewed that eighty nine percent (89%) did so and only eleven (11%) were not breastfeeding.

The results seemed to indicate that women who had a higher level of education or their partner had a higher level of education, were more likely to initiate breastfeeding and breastfeed longer. The results of this study suggest that paternal education is important in addition to the mother's education.

Amongst those that stated that they had breastfed their babies, the study further sought to determine as to whether they were still breastfeeding their babies. In view of this according to the findings of the study as indicated in the figure above seventy eight (78%) were still breastfeeding and only twenty two percent (22%) were not for various reasons to be discussed later.

The study further reviewed that of the seventy eight (78%) that continued to breastfeed their children their babies received significant benefits of EBF not only for infants but also for the mother and society. It was established that due to exclusive breastfeeding which was done by the 78% mothers breast milk helped their babies in physical, neurological, and cognitive development thereby reducing risks of allergies, infection, and non-communicable diseases during later stages of their development. Therefore, breast feeding is considered as a cost effective infant-feeding method for families and society can reduce the risk of communicable and non-communicable childhood diseases. The compound bar graph presented in figure 4.8 was used to show the variations of responses among the respondents with regards to reasons they had stopped breastfeeding. From figure 4.8 Bars under 1 represent the reason Busy to breastfeed, 2 Advise from the Doctor, 3 can afford to buy baby formula, 4 its stressful and lastly 5 being modernization. The bars under 6 represented other reasons as shown above.

The study reviewed that only seventeen percent (17%) were busy to breastfeed, thirty two percent (32%) were advised by the doctor, sixteen percent (16%) can afford to buy baby formula, twenty five percent (25%) stated that it was very stressful, sixteen percent (16%) that's what every woman is doing and lastly twenty three percent (23%) stated other reasons.

It was established that the midwifery in health centers do help nursing mothers to breastfeed the babies in most cases as indicated in the chart above were eighty four percent (84%) indicated that they have received help from these practitioners where as sixteen percent (16%) indicated that they do not receive any help. It is clear that the health service providers at Chipokota Mayamba clinic work directly with vulnerable families and they do realize that they have an important role to play in promoting breastfeeding among nursing mothers hence their effort to help them to do so.

It was reviewed as indicated in figure 8 that sixty one percent (61%) of the respondents do breastfeed their babies in public and that only thirty nine percent (39%) were not conformable to breastfeed in public.

The study further sought to establish the reasons as to why they would not breast feed in public. The distribution of the various reasons for feeling uncomfortable to breastfeed in public as depicted in figure 4.11 were that thirty nine percent (39%) under bars (1) where shy to do so, thirty five percent (35%) under bars (5) stated that it was unhealthy, thirty four percent (34%) under bars (3) it was to protect their integrity, thirty one percent (31%) under bars (2) to do with tradition and lastly twenty eight percent (28%) (4) advise from the Medical practitioner.

The study further advises that in order for women to have the freedom to have positive and fulfilling breastfeeding experiences, the message of shame and self-consciousness that arises from society's restrictive and sexist cultural norms needs to be changed. However, not only are personal challenges, partner support, and working all detrimental to the success of prolonged breastfeeding, but breastfeeding in public is also seen as an obstacle to overcome. Society has its own set of norms, values, and standards, and it is important to be aware of these if one hopes to overcome them or change them. It was clear that the majority had some knowledge on the benefits of breastfeeding. The study established that ninety five percent (95%) of the respondents were willing to breastfeed their children if they were to have another child. Only five percent (5%) were not willing to do so. It also went further to establish as to why the ninety five percent (95%) felt they would breastfeed their children if they had another baby and also those that did not feel so. The finding was that of the ninety five percent (95%) the distribution of the finding is tabulated in table 3. However, of the five percent (5%) that were not comfortable the study reviewed that one hundred percent (100%) of them were sick and that they were on ART hence the reason they could not do so. From the data presented in the figure 11 the study reviewed that seventy two (72%) of the respondents were married and that none of the respondents was divorced. This gave a clear indication that most of the children were not raised by single parents as they were married and that only twenty four (24%) were single. It is further reviewed that most of the children experienced their parents love and care and that only a few did not have that experience.

From the data obtained in figure 12 the study reviewed that eighty one percent (81%) of the respondents indicated that one of the disadvantages of bottle feeding was higher risk of diarrhea and nineteen percent (19%) rejected that it was associated with any risk of diarrhea, twenty percent (20%) indicated that it had higher risk of death from diseases and eighty percent (80%) stated that it was not associated to that, eleven percent (11%) indicated high risk of obesity while eighty nine percent (89%) indicated not and lastly thirteen percent (13%) indicated that it was source of high risk of heart disease while the majority with the percentage representation of eighty seven percent (87%) stated that it was not.

Conclusion

The benefits of breastfeeding are well established. The results from this study indicate that the level of total

knowledge score regarding breastfeeding is poor among mothers attending under-five clinic at Chipokota Mayamba clinic. Major concerns are; inadequate knowledge on advantages of breastfeeding, frequency of breastfeeding, and storage of breast milk. The findings showed that limited education was a major factor for lack of knowledge about breastfeeding compared with other factors such as marital status, family income, and age. A minimum level (secondary) of education of mothers seems to be directly related to good knowledge about breastfeeding. Maternal education has a very significant impact on overall knowledge about breast milk. Traditions have also influenced the attitude of mother on when and where to breastfeed from. Mothers with higher education were found to have more knowledge regarding breast milk, as compared to mothers with lower education and illiterate ones. In this sample of mothers, better access to medical staff at delivery, and increased maternal education has the potential to improve infant feeding practice toward compliance with the WHO guidelines, and to save the lives of children, leading to enhanced economic prosperity and quality of life. Health education on EBF including information on techniques and advantages of EBF should be provided to mothers and their family. The ideal period for counseling mothers about EBF is the period during ANC and PNC. Thus, they could give health education while counselling mother during ANC and PNC. Also, in order to promote knowledge about benefit of EBF, it would be effective to broadcast from the radio. Promotion of EBF would be a best approach to prevent from undernourishment or malnourishment in child population where people cannot afford formula and nutrition supplement. EBF is healthy and cost effective methods of feeding.

Recommendations

A number of strategies can be implemented by health care and service professionals that promote the equitable distribution of breastfeeding related benefits throughout the communities serviced by the clinic. The following are the recommendation of the study

Source of Support: Nil

Conflict of Interest: Nil

1. Peer counselors support and encourage women to breastfeed and normalize breastfeeding.
2. Combined peer and professional support offered in hospital, at home and over the telephone. This provides women with the benefits of social support and the normalizing of breastfeeding while also addressing negative symptoms such as breast discomfort, fatigue, depression and anxiety.
3. Lactation consultants educate women about the benefits of breastfeeding and help them identify and overcome perceived barriers to breastfeeding

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