Effect of Community Infant and Young Child Feeding Counseling on Infant Feeding Knowledge, Attitudes and Practices in Harare City 2013

Faith Kamusono

Dissertation Submitted in Partial Fulfillment of Master in Public Health Degree University of Zimbabwe

Master of Public Health Program College of Health Sciences Department of Community Medicine University of Zimbabwe

August 2013
Declaration

I, Faith Kamusono, certify that this dissertation is my original work and has been prepared in accordance with the guidelines of the Master of Public Health Program, University of Zimbabwe. I further attest that this work has not been submitted, in part or in full, for any other degree at any university and/or any publication.

Signature________________________________Date______________________

I, having supervised and read this dissertation, I am satisfied that this is the original work of the author in whose name it is being presented. I confirm that the work has been completed satisfactorily for presentation in the examination.

Name of Academic Supervisor:_____________________________________

Signature________________________________Date______________________

Chairman of the Department of Community Medicine, University of Zimbabwe

Signature________________________________Date______________________
ABSTRACT

Effect of Community Infant and Young Child Feeding Counseling on Infant Feeding Knowledge, Attitudes and Practices in Harare City 2013

F. Kamusono¹, P. Chonzi², S. Mungofa², T. Marufu¹, V. Chikwasha¹

¹University of Zimbabwe, Department of Community Medicine
²Harare City Health Department

Background

A preliminary review of nutrition reports for Harare City revealed that set targets for exclusive breastfeeding rate, timely initiation of breastfeeding, median duration of breastfeeding and stunting were not met. All these are a consequence of poor infant feeding knowledge, attitudes and practices on the child. This study aims to find out the effect of community infant and young child feeding counseling on maternal knowledge attitudes and practices on optimal infant feeding in Harare City.

Methodology

A prospective cohort study was conducted in Harare City on pregnant and lactating women. The exposure was receiving counseling in community infant and young child feeding. Interviewer administered questionnaires, key informant interviews, focus group discussions and record reviews were used to collect data.
Results

Mothers who received counseling in community infant and young child feeding had better knowledge on optimal infant and young child feeding at endpoint (mean knowledge score = 7.8, SD = 1.36) compared to the unexposed group (mean knowledge score = 5.4, SD = 1.53) and this was statistically significant (p = 0.005). Community infant and young child feeding counseling had an effect on timely initiation of breastfeeding, giving water, exclusive breastfeeding and giving solids. Most of the respondents, 92% in the exposed group had a positive attitude towards optimal infant and young child feeding practices as compared to the non-exposed group.

Conclusion

Community infant and young child feeding counseling has an effect on knowledge, attitudes and practices on optimal infant feeding amongst women in Harare City, 2013.

Key Words

Infant, exclusive, breastfeeding, exposed, unexposed, base-line, end-point, knowledge, attitudes, practices
ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my academic supervisors Dr. T. Marufu and Mr. V. Chikwasha for the technical guidance and support they gave me throughout the study.

I would also like to thank the counselors who counseled the caregivers on optimal infant and young child feeding. I would want to thank the nutritionist of the City of Harare for the support she gave me throughout the study, the study participants for participating in the study and the health promoter coordinators for supporting the study.

My sincere gratitude also goes to my field supervisors Dr. S. Mungofa and Dr. P. Chonzi for the support that they gave me throughout the study. My special thanks also goes to the Health Studies Office for the technical guidance and support that they gave me for the study to be conducted.

I would also like to acknowledge the Centre for Disease Control and Prevention (CDC) for funding the MPH Program.

Faith Kamusono
# TABLE OF CONTENTS

Declaration............................................................................................................................... i
ABSTRACT................................................................................................................................. ii
ACKNOWLEDGEMENTS ........................................................................................................... iv
List of figures .................................................................................................................................... vii
List of Tables ..................................................................................................................................... viii
ABBREVIATIONS ........................................................................................................................ x

CHAPTER 1 ........................................................................................................................................ 1
INTRODUCTION ............................................................................................................................ 1
  2.1 Background Information............................................................................................................... 1
  1.2 Statement of the Problem .............................................................................................................. 5
  1.3 Research Question ......................................................................................................................... 6
  1.4 Justification .................................................................................................................................. 6

CHAPTER 2 ........................................................................................................................................ 7
LITERATURE REVIEW ..................................................................................................................... 7
  2.1 Public Health Significance ............................................................................................................. 7
  2.2 Literature review................................................................................................................................ 7

CHAPTER 3 ........................................................................................................................................ 12
OBJECTIVES AND HYPOTHESES .............................................................................................. 12
  3.1 Broad Objective .......................................................................................................................... 12
  3.2 Specific objectives ......................................................................................................................... 12
  3.3 The hypothesis ........................................................................................................................... 13
# METHODS AND MATERIALS

## 4.1 Introduction

## 4.2 Study Design

## 4.3 Study setting

## 4.4 Study Population

## 4.5 Sample size

## 4.6 Sampling plan

## 4.7 Data collection techniques and instruments

## 4.8 Follow up plan

## 4.9 Inclusion and Exclusion Criteria

## 4.10 Measurement of variables

## 4.11 Methodology for Qualitative Data Collection

## 4.12 Permission to proceed and Ethical considerations

## 4.13 Data collection and Data analysis

## 4.14 Study Limitations

## RESULTS

## DISCUSSION

## CONCLUSIONS AND RECOMMENDATIONS

References
Appendices .......................................................................................................................... 49

Appendix 1: English Questionnaire .................................................................................. 49
Appendix 2: Shona Questionnaire ..................................................................................... 59
Appendix 3: Key Informant Interview Guide ...................................................................... 69
Appendix 4: Focus Group Discussion Guide ...................................................................... 70
Appendix 5: English Consent Form .................................................................................. 71
Appendix 6: Shona Consent Form .................................................................................... 75
Appendix 7: Records Review ............................................................................................ 80
Appendix 8: JREC Approval Letter .................................................................................. 81
Appendix 9: MRCZ Approval Letter .................................................................................. 82

List of figures

Figure 1: Conceptual framework for determinants of Infant and Young Child Feeding Practices .............................................................................................................. 3
Figure 2: Follow up plan ................................................................................................... 16
List of Tables

Table 1: Demographic characteristics of the exposed group and unexposed group at baseline .......................................................................................................................... 23
Table 2: Maternal Age and Parity amongst the Exposed and Unexposed groups at baseline .......................................................................................................................... 24
Table 3a: Knowledge score of optimal IYCF amongst the Exposed and Unexposed groups at baseline .......................................................................................................................... 25
Table 4: Knowledge score of optimal IYCF amongst the Exposed and Unexposed groups at endpoint .......................................................................................................................... 28
Table 5: Knowledge among the exposed and unexposed groups on optimal infant and young child feeding practices at baseline .......................................................................................... 25
Table 6: Knowledge among the exposed and unexposed groups on optimal infant and young child feeding practices at endpoint .......................................................................................... 26
Table 7: IYCF practices among the exposed and unexposed groups at baseline ................................................................. 29
Table 8: IYCF practices among the exposed and unexposed groups at endpoint ................................................................. 30
Table 9: Logistic Regression for Practices Independently Associated with community Infant and Young Child Feeding Counseling in Harare City, 2013 ......................................................................................... 32
Table 10: Attitudes among the exposed and unexposed groups towards exclusive breastfeeding at baseline ......................................................................................................................... 33
Table 11: Attitudes among the exposed and unexposed groups towards exclusive breastfeeding at endpoint ......................................................................................................................... 33
Table 12: Attitudes among the exposed and unexposed groups towards exclusive breastfeeding at baseline ......................................................................................................................... 34
Table 13: Attitudes among the exposed and unexposed groups towards exclusive breastfeeding at endpoint ................................................................. 36

Table 14: Program Indicators at endpoint.................................................................................................................. 38

Table 15: Thematic analysis of qualitative data ...................................................................................................... 39
ABBREVIATIONS

ANC  Antenatal care
CDC  Center for Disease Control
cIYCF  Community Infant and Young Child Feeding
DHS  Director of Health Services
EBF  Exclusive Breastfeeding
EDD  Expected date of Delivery
FCH  Family Child Health
FGD  Focus Group Discussion
HIV  Human Immunodeficiency Virus
HP  Health promoters
HSO  Health Studies Office
JREC  Joint Research Ethics Committee
MOH &CW  Ministry of Health & Child Welfare
MPH  Masters’ in Public Health
MRCZ  Medical Research Council of Zimbabwe
WHO  World Health Organization
χ²  Chi-square
ZDHS  Zimbabwe Demographic Health Survey
CHAPTER 1
INTRODUCTION

2.1 Background Information

Adequate nutrition is essential for children’s health and development. Globally it is estimated that under nutrition is responsible, directly or indirectly, for at least 35% of deaths in children less than five years of age. Under nutrition is a major cause of disability which prevents surviving children to reach their full development potential\(^1\). It is estimated that 32% or 186 million children who are five years and below are stunted and about 10%, or 55 million, are wasted in developing countries. Unless massive improvements in child nutrition are made, it will be difficult to achieve Millennium Development Goal number four: To reduce child morbidity and mortality by two thirds by 2015\(^1\).

Zimbabwe is not on target for achieving both MDG 1 (underweight) and Target 4 (<5 mortality). It is estimated that 12, 000 (preventable) child deaths per year are attributable to under nutrition in Zimbabwe. Nationally, stunting (chronic malnutrition) is at 33.3%, and between 20-29.9% in Harare City. In Zimbabwe, the national exclusive breastfeeding rate is at 5.8%\(^2\).

It is a global priority that breastfeeding be promoted and supported. Breastfeeding promotion and support is also an important child-survival intervention. Although exclusive breastfeeding is being advocated for, most of the mothers are unable to practice
it in reality. The most common reasons for early discontinuation of breastfeeding include lack of confidence in mothers' ability to breastfeed, difficulties in infant latching and suckling, pain in the breast and soreness of the breast, perceptions that the milk is not enough and lack of individualized support and encouragement from health workers in early post discharge period. These problems can be overcome if the woman is informed about the benefits of breastfeeding during her antenatal visits and thus, she can be prepared mentally for exclusive breastfeeding.

Early breastfeeding practices determine the successful establishment and duration of breastfeeding. Moreover, during the first three days after delivery, colostrum, an important source of nutrition and protection for the newborn, is produced and should be given to the newborn while awaiting the letdown of regular breast milk. Thus, it is recommended that children be put to the breast immediately or within one hour after birth and that prelacteal feeding (feeding newborns anything other than breast milk before breast milk is regularly given) be discouraged. The Ministry of Health and Child Welfare promotes rooming-in of all new infants in maternity hospitals and breastfeeding within the first hour of birth to foster bonding and protect children from harsh external environments.

In Harare City, there is a total of 230 health promoters distributed over the districts. They play a crucial role in health education and promotion covering areas of nutrition, environmental health, home based care and counseling in issues to do with health. Their role is to give health education to the community, identify cases which need referral to
the clinic, give breastfeeding counseling, encourage caregivers to go with their children for immunizations and growth monitoring among others. In nutrition, their role is to give nutrition education to the community, to identify cases which need referral to the hospital and to follow up the cases.

**Figure 1: Conceptual framework for determinants of Infant and Young Child Feeding Practices**

The community IYCF counseling package is a generic resource designed to equip community workers (CWs) or primary health care staff to support mothers, fathers and
other caregivers to optimally feed their infants and young children. The training component of the package is intended to prepare community workers with technical knowledge on the recommended breastfeeding and complementary feeding practices for children from 0 up to 24 months, enhance their counseling, problem solving and reaching-an-agreement, that is, negotiation skills and prepare them to effectively use the related counseling tools and job aids.

Community infant and young child feeding counseling aims to raise the counselors’ awareness on the importance of optimal breastfeeding and complementary feeding for children 0–23 months, contact points for meeting with caregivers to discuss and support optimal infant and young child feeding practices. It also aims to increase knowledge amongst the counselors so as to enable them to help mothers and caregivers to optimally feed their infants and young children less than two years of age. It also enhances the skills of the counselors to support caregivers. These skills include listening and learning, building the mother’s or caregiver’s confidence, providing support and practical help and negotiating if modification of a behaviour is needed. Describing practices and messages on feeding of the sick child less than six months and greater than six months of age is also enhanced by the community infant and young child feeding package.

The knowledge, attitudes and practices of the caregiver towards optimal infant and young child feeding play a major role. It is to the interest of public health that the problem is addressed. This study therefore seeks to assess whether community infant and young child feeding counseling has an effect on optimal infant and young child feeding. If it
proves to have an effect in our own setting, then it can be cascaded to all communities to help achieve the goal towards reducing child morbidity and mortality.

1.2 Statement of the Problem

A preliminary review of nutrition reports revealed that there are poor practices on infant and young child feeding by mothers in Harare City. The exclusive breastfeeding rate was at 5.8%, against the national target of 70%. Timely initiation of breastfeeding was at 61.9% against the national target of 75%, the median duration of breastfeeding was at 17 months against the national target of 24 months and the prevalence of stunting was between 20-29.9% against a target of below 2.3%\(^5\) for the period January to December 2011. Young children are generally not being provided with adequate complementary foods in terms of frequency and diversity. All these are a consequence of poor infant feeding knowledge, attitudes and practices on the child. Mothers seem not to be utilizing the health education that they are given during routine family and child health talks. The community infant and young child feeding program uses a one on one approach method and there is individual follow up from pregnancy through lactation, complementary feeding and weaning. Counselors are conducting the program through home visits and there is high loss to follow up of the mothers. It is against this background that we set to find out whether community infant and young child feeding counseling has an effect on knowledge, attitudes and practices on optimal infant feeding amongst women in Harare City, 2013.
1.3 Research Question
Does community infant and young child feeding counseling have an effect on knowledge, attitudes and practices on optimal infant feeding amongst women in Harare City, 2013?

1.4 Justification
The community infant and young child feeding counseling program has worked in other countries such as India and Malawi. In Zimbabwe, it was piloted in Gokwe and no evaluation was done to assess whether it works in our own setting or not. It was then cascaded to other districts including Harare City and no baseline study was done. This study therefore seeks to assess whether the community infant and young child feeding program works in our own setting.
CHAPTER 2
LITERATURE REVIEW

2.1 Public Health Significance

Malnutrition is a matter of public health concern. If not addressed it will lead to child morbidity and mortality which millennium development Goal number 4 “Reduce child morbidity and mortality by two-thirds” is seeking to address. This study seeks to find out if community infant and young child feeding can help alleviate this problem in our own setting. One in every three children in Zimbabwe has chronic malnutrition. If this is not addressed during the “window of opportunity”, that is, during pregnancy and during the first two years of life, it may become irreversible. Chronic malnutrition (stunting) can result in poor mental development and reduced performance in school in children, who are the future for tomorrow. This is a consequence of poor optimal infant and young child feeding practices.

2.2 Literature review

The World Health Organization recommends timely initiation of breastfeeding, that is, within one hour of giving birth. Instead of putting the new born baby in its own coat bed, rooming-in is now encouraged, where the mother and the baby sleep together and share the same bed. This encourages bonding between the mother and the baby and it also helps to keep the baby warm. As soon as the mother gives birth, she is encouraged to put the
baby onto the breast and start to breastfeed. She is also given support on good positioning and attachment of the baby during breastfeeding to encourage proper suckling. At hospital this is done by the nurses and in the community, the infant feeding counselors, in our case, the health promoters help support the mother on proper positioning and attachment of the baby during breastfeeding.

Lauer JA and Betran AP in their study, “Deaths and years of life lost due to suboptimal breast-feeding among children in the developing world: a global ecological risk assessment” reported that globally, it is estimated that over one million of newborn infant lives could be saved each year by initiating breastfeeding within the first hour of life. In developing countries alone, early initiation of breastfeeding was reported to save as many as 1.45 million lives each year by reducing deaths mainly due to diarrheal disorders and lower respiratory tract infections in children.

A recent trial by Edmond KM, et al entitled, “Delayed breastfeeding initiation increases risk of neonatal mortality” revealed that timely initiation of breastfeeding for the newborns within the first hour of life could reduce neonatal mortality by 22%, which would contribute to the achievement of the Millennium Development Goals.

In a randomized controlled trial by the International Centre for Diarrhoeal Disease Research in Dhaka, Bangladesh, they found that peer counselors can effectively increase both the timely initiation of breastfeeding within the first hour of life and the duration of exclusive breastfeeding for the first six months of life. They recommended incorporation
of peer counselors in mother and child health programs in developing countries\textsuperscript{9}. On top of timely initiation of breastfeeding within the first hour of life and exclusive breastfeeding for the first six months of life, Zimbabwe also recommends continued breastfeeding for two years or more.

In a randomized controlled study which was done in Mexico, where they assessed the efficacy of home-based peer counseling to increase the proportion of exclusive breastfeeding among mothers and infants residing in peri urban Mexico City, they found that early and repeated contact with peer counselors was associated with a significant increase in exclusive breastfeeding and the duration of breastfeeding\textsuperscript{10}.

A study by Anderson A. K found that a well-structured and intensive breastfeeding support which was provided by hospital and community-based peer counselors was effective in improving exclusive breastfeeding rates among low-income, inner-city women in the United States\textsuperscript{11}. Although breastfeeding support and education were being provided by public health and other health care staff to pregnant and nursing mothers, breastfeeding incidence, duration, and exclusive breastfeeding rates still remained low among the low-income groups, which were over-represented by minority communities in the United States\textsuperscript{11}.

In a study which was done in Zimbabwe by Banda M, they found that peer nutrition education with combined routine infant feeding counseling was effective in improving maternal breastfeeding knowledge. The study showed that a peer nutrition education
program had a significant impact on breastfeeding knowledge and attitudes. The intervention and comparison groups were basically similar at baseline. Following the peer nutrition education program, the intervention group reported higher levels of knowledge and more positive attitudes than the comparison group. They concluded that peer counselors can effectively increase maternal breastfeeding knowledge.\textsuperscript{12} For one to be able to practice optimal infant and young child feeding practices, they ought to be knowledgeable on it in order to practice it.

In an effort to combat malnutrition in Zimbabwe, the Baby Friendly Hospital Initiative was launched in 1999. This was a twenty hour training which aimed at equipping health workers to support mothers to timely initiate breastfeeding in the first hour of life and optimally feed their children. The initiative included the ten steps towards successful breastfeeding\textsuperscript{13} and these are: To have a written breastfeeding policy that is routinely communicated to all health care staff, train all health care staff in skills necessary to implement this policy, inform all pregnant women about the benefits and management of breastfeeding, help mothers initiate breastfeeding within the first hour of life, show mothers how to breastfeed and maintain lactation, even if they should be separated from their infants, give newborn infants no food or drink other than breast milk, unless medically indicated, practice rooming in, encourage breastfeeding on demand, give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants and to foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic\textsuperscript{14}. 
The Infant and Young Child Feeding forty eight hour course was also initiated following the Baby Friendly Hospital Initiative. The aim was to equip health workers the knowledge and skills to help mothers optimally feed their children. The objective was to protect, promote and support breastfeeding, exclusively for six months and continued breastfeeding for two years or beyond. A community focused approach, the community infant and young child feeding was then initiated to ensure a continuum of care from the health facility to the community.

Various factors affect optimal infant and young child feeding. These include maternal choices and opportunity to action the choices. Optimal infant and young child feeding practices is also affected by the caregivers’ infant and child feeding knowledge, physical and social support during pregnancy, delivery and post-partum. The caregivers ought to have the knowledge on optimal infant and young child feeding practices in order to optimally utilize them.

Socio-demographic factors also affect effect of the community infant and young child feeding program. Cultural attitudes, family, medical, national and international policies also have an effect on the performance of the program. Health service related factors such as anti-natal attendance also affect access to health education.
CHAPTER 3
OBJECTIVES AND HYPOTHESES

3.1 Broad Objective

To determine the effect of community IYCF counseling program on knowledge, attitudes and practices on optimal infant feeding amongst women in Harare City, 2013.

3.2 Specific objectives

1. To compare the knowledge, attitudes and practices on optimal infant and young child feeding among mothers who have received counseling in community infant and young child feeding and those that have not.

2. To compare timely initiation of breastfeeding within the first hour of life among mothers who have received counseling in community infant and young child feeding and those that have not.

3. To compare proportion of new-borns given supplementary feeds from birth to the time of the second interview among mothers who have received counseling in community infant and young child feeding and those that have not.
3.3 The hypothesis

Community infant and young child feeding counseling has an effect on knowledge, attitudes and practices on optimal infant feeding amongst women in Harare City, 2013.
CHAPTER 4

METHODS AND MATERIALS

4.1 Introduction
This chapter covers our materials and methods.

4.2 Study Design
A before and after study was conducted.
The exposure was receiving counseling in community infant and young child feeding

4.3 Study setting
Harare City Health Department, Clinics and their catchment areas

4.4 Study Population
Pregnant and lactating women, health promoters/counselors, nutritionists, health promoter coordinators

4.5 Sample size
Using stat calc in epi-info, at 95% confidence level and 80% power, using a study by Banda M et al, ‘The Effect of a Peer Nutrition Education Programme on Maternal Knowledge on Breastfeeding in Mazowe and Bindura Districts’ where they found out that 56.1% in the control group had the knowledge on risks of not exclusive breastfeeding
and 81.2% in the intervention group had the knowledge. The minimum sample size calculated was 120 women.

4.6 Sampling plan

Women coming for their antenatal visits meeting the inclusion criteria were consecutively recruited into the study. Harare City is divided into eight districts. One district was randomly selected to receive the counseling, this was the Northern district. Another district was randomly selected not to receive the counseling; this was the North Western district. Of the five suburbs in the Northern district, one was randomly selected to receive the counseling, Hatcliff suburb and of the seven suburbs in the North Western district, one was randomly selected not to receive the counseling, Marlborough suburb.

4.7 Data collection techniques and instruments

Interviewer administered questionnaires were used to collect data on optimal infant and young child feeding knowledge, attitude and practices from mothers.

Key informant interviews were conducted using a key informant guide to find challenges and how best the program could be improved.

Two Focus group discussions were conducted with health promoters to find community attitudes and practices towards optimal infant and young child feeding.

Seven Health Promoter registers were reviewed to assess data quality (completeness of registers, timeliness of reporting and accuracy)
4.8 Follow up plan

Baseline data was collected using an interviewer administered questionnaire to both groups before the follow up. The follow up period was eight weeks. Each mother received four visits. Follow ups were done after every two weeks, that is, following the first visit, the mother received the second visit after two weeks. All mothers were recruited when they were pregnant. Baseline information was collected before the first visit and endpoint information was collected after delivery which was after the fourth visit. The counselors followed up the mothers through home visits. The questionnaire that was used at baseline was the same questionnaire that was used at endpoint (after delivery, regardless of the child’s age, that is, eight weeks and above) - at the end of the study. In Harare city, the counseling program is practiced in high density and medium density suburbs of the city.

Figure 2: Follow up plan

Baseline: Administer questionnaire for the first time

Group 1: Exposed to cIYCF counselling

Outcomes of interest present

Group 2: Not exposed to cIYCF counselling

Outcomes of interest not present

Endpoint: Administer the same questionnaire the second time

Compare
A questionnaire was administered at baseline to both groups. The 1\textsuperscript{st} group consisted of mothers who were exposed to counselling on community IYCF and the 2\textsuperscript{nd} group consisted of mothers who were not exposed to counselling on community IYCF. After the baseline, the 1\textsuperscript{st} group received counselling on community IYCF and the 2\textsuperscript{nd} group did not receive counselling on community IYCF.

The selection of the women in both groups took place at the same time. The follow up period was eight weeks. These follow ups were done through home visits by the counsellors. Four sessions were done through the 8 weeks and the interval between one session and the next was two weeks. Counselling cards were discussed in these sessions. After the eight weeks, the same questionnaire was administered to both groups. The outcomes from both groups were compared.

4.9 Inclusion and Exclusion Criteria

4.9.1 Inclusion Criteria

A woman 32 weeks pregnant resident in Harare City from December 2012 to September 2013 and had not received counseling on community infant and young child feeding.

4.9.2 Exclusion Criteria

Women who reside out of Harare City who had received counseling on community infant and young child feeding.
4.10 Measurement of variables

4.10.1 Knowledge – The knowledge of the optimal infant and young child feeding practices was measured by correct answers to define exclusive breast feeding, mentioning benefits of exclusive breastfeeding, duration of exclusive breastfeeding, correct age of introduction of water, introduction of solids, correct age of weaning, feeding of the sick child, benefits of iron antenatal, and importance of complementary feeding. Multiple choice questions were used. Collected data was reviewed.

4.10.2 Attitudes

Mothers’ attitudes were assessed using a seven point likert scale comprising of strongly agree = +2 /agree = +1 /neutral = 0 /disagree = -1 /strongly disagree = -2 to the following questions:

- Breast milk is not enough for the baby in the first six months of life
- If a baby cries a lot it means it is hungry and needs other food
- Giving cooking oil in the first six months of life helps the baby
- A baby needs water (even sips) in the first six months of life
- Mothers who are HIV positive should breastfeed their babies
- Breastfeeding can make a woman feel important
- Breastfeeding can stop mothers form doing their household chores
- Breastfeeding is embarrassing
- Exclusive Breastfeeding is a difficult way to feed infants
- It is ok to breastfeed in public

A seven point likert scale was used to assess attitudes
4.10.3 Early Initiation of Breast milk
This was measured by assessing whether breastfeeding was initiated within the first hour of life among all mothers.

4.10.4 Early introduction of solids and/ water
This was measured by assessing whether water or solids were introduced from birth to the time of the second interview among all mothers.

4.10.5 Breastfeeding support groups
This was measured by assessing whether a mother had attended breastfeeding support groups among all mothers.

4.10.6 HIV testing
History of HIV testing was taken by the time of enrollment and by the second interview among all mothers.

4.11 Methodology for Qualitative Data Collection
Focus group discussions of six women(counselors) using a focus group discussion guide were conducted. They ranged from one to one and a half hours. In-depth interviews with key informants(nutritionist, health promotion officer, health promotion co-ordinator, sister in charge) were also conducted. Data was collected through a recorder by hand on
paper transcripts using coloured pens. Field notes were also used. A homogeneous group of health promoters was purposively sampled into the study. The data was analyzed using thematic analysis and coding.

4.12 Permission to proceed and Ethical considerations

4.12.1 Permission to proceed

Permission to conduct the study was sought from the Health Studies Office and from the Harare City Health Director of Health Services.

4.12.2 Ethical considerations

1. Informed written consent was sought from all persons interviewed during the study. Participants were free to refuse to participate without any consequences arising from their refusal.

2. Confidentiality of responses was assured and maintained. All data collected was treated confidential.

3. Ethical approval was sought from Medical Research Council of Zimbabwe (MRCZ) and Joint Research Ethics Committee (JREC)

4. The researchers took necessary measures to avoid disrupting the daily patient care activities through making appointments.

5. Completed questionnaires were kept under lock and key.
6. The other pregnant women received routine health education from health facilities.

4.13 Data collection and Data analysis

4.13.1 Data collection
All participating health facilities were notified prior to the visit and an introductory letter was carried by the researcher. In case of refusal to participate by the selected respondent, another was selected. At baseline, data was collected at health facilities where the mothers were coming in for their antenatal visits. At endpoint, data was collected through home visits.

4.13.2 Data analysis
Quantitative data was captured and analyzed using the Epi-info statistical package. Microsoft excel was used to generate graphs. Qualitative data was put into Microsoft office word and analyzed by theme.

4.14 Study Limitations
Reported information from the mother was relied upon. It was not possible to verify the infant feeding practices that they were practicing at their homes. Since the information at baseline was assessed based on the previous experiences, there was a possibility of recall bias since some caregivers had to recall their experiences which happened years back. And the records that they had did not have information on
how long they exclusively breastfed, how early they initiated breastfeeding, when they weaned their children and when they introduced water and solids.

There is also a possibility that those who were exposed to community infant and young child feeding counseling could report ideal practices at endpoint interview which they may not be really practicing since they now knew what should be done basing on the knowledge they acquired from the counseling sessions.
CHAPTER 5
RESULTS

Table 1: Demographic characteristics of the exposed group and unexposed group at baseline

<table>
<thead>
<tr>
<th>Variable</th>
<th>Exposed</th>
<th>Unexposed</th>
<th>( \chi^2 ) p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>3 (3)</td>
<td>4(3)</td>
<td>0.124</td>
</tr>
<tr>
<td>Secondary</td>
<td>55(46)</td>
<td>47(39)</td>
<td></td>
</tr>
<tr>
<td>Tertiary</td>
<td>2(2)</td>
<td>9(8)</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>56 (47)</td>
<td>59(49)</td>
<td>0.176</td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>0</td>
<td>1 (1)</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>2 (2)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Cohabiting</td>
<td>2 (2)</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Source of Income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal employment</td>
<td>5 (4)</td>
<td>6(5)</td>
<td>0.545</td>
</tr>
<tr>
<td>Informal employment</td>
<td>7(6)</td>
<td>4(3)</td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>47(39)</td>
<td>50(42)</td>
<td></td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apostolic</td>
<td>14(12)</td>
<td>14 (17)</td>
<td>0.584</td>
</tr>
<tr>
<td>Non-apostolic</td>
<td>46(38)</td>
<td>45(38)</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>0(0)</td>
<td>1(1)</td>
<td></td>
</tr>
</tbody>
</table>

There were no statistically significant differences in demographic profile between the exposed and unexposed groups. The groups were comparable.
Table 2: Maternal Age and Parity amongst the Exposed and Unexposed groups at baseline

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency n(%)</th>
<th>Exposure</th>
<th>Unexposed</th>
<th>$\chi^2$ p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;25</td>
<td>26 (22)</td>
<td>25 (21)</td>
<td>0.862</td>
<td></td>
</tr>
<tr>
<td>25-34</td>
<td>31 (26)</td>
<td>33 (28)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35-44</td>
<td>3 (3)</td>
<td>2 (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>28 (23)</td>
<td>25 (21)</td>
<td>0.331</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>17 (14)</td>
<td>25 (21)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2+</td>
<td>15 (13)</td>
<td>10 (9)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There were no statistically significant differences in maternal age and parity between the two groups. The groups were comparable. Feeding practices for parity zero mothers was only assessed after child birth.
Table 3: Knowledge among the exposed and unexposed groups on optimal infant and young child feeding practices at baseline

<table>
<thead>
<tr>
<th>Variable</th>
<th>Exposed n (%)</th>
<th>Unexposed n (%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correct definition of exclusive breastfeeding</td>
<td>23 (38)</td>
<td>25 (42)</td>
<td>0.710</td>
</tr>
<tr>
<td>Timely initiation of solids</td>
<td>49 (82)</td>
<td>48 (80)</td>
<td>0.820</td>
</tr>
<tr>
<td>Timely initiation of water</td>
<td>30 (50)</td>
<td>31 (52)</td>
<td>0.860</td>
</tr>
<tr>
<td>Correct duration of breastfeeding</td>
<td>22 (37)</td>
<td>23 (38)</td>
<td>0.850</td>
</tr>
<tr>
<td>Benefits of iron supplementation</td>
<td>47 (78)</td>
<td>48 (80)</td>
<td>0.820</td>
</tr>
<tr>
<td>HIV + mothers can bear children</td>
<td>43 (72)</td>
<td>44 (73)</td>
<td>0.840</td>
</tr>
<tr>
<td>HIV + mothers can breastfeed</td>
<td>45 (75)</td>
<td>34 (57)</td>
<td>0.030</td>
</tr>
<tr>
<td>Benefits of EBF</td>
<td>38 (63)</td>
<td>27 (45)</td>
<td>0.190</td>
</tr>
<tr>
<td>Complementary feeding benefits</td>
<td>43 (72)</td>
<td>53 (88)</td>
<td>0.810</td>
</tr>
<tr>
<td>Timely initiation of breastfeeding</td>
<td>14 (23)</td>
<td>12 (20)</td>
<td>0.280</td>
</tr>
<tr>
<td>First feed to be given to a baby</td>
<td>58 (97)</td>
<td>56 (93)</td>
<td>0.710</td>
</tr>
<tr>
<td>How to care for a sick child</td>
<td>52 (87)</td>
<td>59 (98)</td>
<td>0.100</td>
</tr>
</tbody>
</table>

At baseline, there were no statistically significant differences in terms of knowledge on optimal infant and young child feeding practices between the exposed and un-exposed groups. The groups were comparable.
Table 4: Knowledge among the exposed and unexposed groups on optimal infant and young child feeding practices at endpoint

<table>
<thead>
<tr>
<th>Variable</th>
<th>Endpoint</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exposed</td>
<td>Unexposed</td>
</tr>
<tr>
<td>Correct definition of exclusive breastfeeding</td>
<td>54 (90)</td>
<td>20 (33)</td>
</tr>
<tr>
<td>Timely initiation of solids</td>
<td>60 (100)</td>
<td>53 (88)</td>
</tr>
<tr>
<td>Timely initiation of water</td>
<td>55 (92)</td>
<td>32 (53)</td>
</tr>
<tr>
<td>Optimal duration of breastfeeding</td>
<td>48 (80)</td>
<td>21 (35)</td>
</tr>
<tr>
<td>Benefits of iron supplementation</td>
<td>57 (95)</td>
<td>54 (90)</td>
</tr>
<tr>
<td>HIV + mothers can bear children</td>
<td>54 (90)</td>
<td>47 (78)</td>
</tr>
<tr>
<td>HIV + mothers can breastfeed</td>
<td>53 (88)</td>
<td>36 (60)</td>
</tr>
<tr>
<td>Benefits of EBF</td>
<td>54 (90)</td>
<td>16 (27)</td>
</tr>
<tr>
<td>Benefits of complementary feeding</td>
<td>56 (93)</td>
<td>58 (97)</td>
</tr>
<tr>
<td>Timely initiation of breastfeeding</td>
<td>52 (87)</td>
<td>11 (18)</td>
</tr>
<tr>
<td>First feed to be given to a baby</td>
<td>60 (100)</td>
<td>60 (100)</td>
</tr>
<tr>
<td>How to care for a sick child</td>
<td>60 (100)</td>
<td>60 (100)</td>
</tr>
</tbody>
</table>

At end point, there were statistically significant differences between the two groups on knowing the correct definition of exclusive breastfeeding, timely initiation of solids, timely initiation of water, optimal duration of breastfeeding, knowing that HIV positive mothers can breastfeed, benefits of exclusive breastfeeding and timely initiation of breastfeeding. All of the respondents knew the first feed to be given to a baby and how to care for a sick child in both groups.
Table 5: Knowledge score of optimal IYCF amongst the Exposed and Unexposed groups at baseline

<table>
<thead>
<tr>
<th>Knowledge Score</th>
<th>Exposed</th>
<th>Unexposed</th>
<th>$\chi^2$</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>09 (15)</td>
<td>06 (10)</td>
<td>0.569</td>
<td></td>
</tr>
<tr>
<td>Fair</td>
<td>44 (73)</td>
<td>44 (73)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>07 (12)</td>
<td>10 (17)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In terms of knowledge on optimal infant and young child feeding, the mean knowledge scores at baseline were 6.1 (SD = 2.23) in the exposed group while in the unexposed group it was 5.7 (SD = 2.35), a non-significant statistical difference in knowledge levels between the two groups (p = 0.569).

When the responses on knowledge on optimal infant and young child feeding were aggregated and put on a likert scale of 1-10 where a score of 0-4 was poor, 5-7 was fair and 8-10 was good knowledge, there were no statically significant differences in terms of knowledge levels between the two groups at baseline (p-value = 0.569). It is important to note that at baseline, the majority of the respondents (73%), had fair knowledge on optimal infant and young child feeding in both groups.
In terms of knowledge on optimal infant and young child feeding, the mean knowledge scores at end-point were 7.8 (SD = 1.36) in the exposed group while in the unexposed group it was 5.4(SD = 1.53) with a value of (F-exact < 0.001), a statistically significant difference in knowledge levels between the two groups.

When the responses on knowledge on optimal infant and young child feeding were aggregated and put on a likert scale of 1-10 where a score of 0-4 was poor, 5-7 was fair and 8-10 was good knowledge, there was a statically significant difference in terms of knowledge levels between the two groups at endpoint [ p-value = 0.0000]. It is important to note that at endpoint, the majority of the respondents (62%), had good knowledge on optimal infant and young child feeding in the exposed group whilst the majority of the respondents (77%) in the unexposed group had fair knowledge on optimal infant and young child feeding.
Table 3: IYCF practices among the exposed and unexposed groups at baseline

<table>
<thead>
<tr>
<th>Exposure Status</th>
<th>IYCF Practice</th>
<th>Relative Risk</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
<td>Absent</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Timely initiation of breastfeeding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>20</td>
<td>12</td>
<td>1.56</td>
<td>0.96 – 2.54</td>
</tr>
<tr>
<td>No</td>
<td>14</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Giving solids</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td>18</td>
<td>1.31</td>
<td>0.80 – 2.14</td>
</tr>
<tr>
<td>No</td>
<td>20</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Giving water</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>05</td>
<td>27</td>
<td>0.91</td>
<td>0.31 – 2.70</td>
</tr>
<tr>
<td>No</td>
<td>06</td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Attending a breastfeeding support group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>0</td>
<td>60</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>60</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At baseline, there were no statistically significant differences between the two groups in terms of their practices on optimal infant and young child feeding. The groups were comparable.
Table 4: IYCF practices among the exposed and unexposed groups at endpoint

<table>
<thead>
<tr>
<th>cIYCF</th>
<th>IYCF Practice</th>
<th>IYCF Practice</th>
<th>Relative Risk</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counseling</td>
<td>Present</td>
<td>Absent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Done</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Timely initiation of breastfeeding

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Absent</th>
<th>Relative Risk</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>54</td>
<td>6</td>
<td>1.69</td>
<td>1.31 – 2.17</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>No</td>
<td>32</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Giving solids

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Absent</th>
<th>Relative Risk</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2</td>
<td>58</td>
<td>0.18</td>
<td>0.04 – 0.79</td>
<td>0.008</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Giving water

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Absent</th>
<th>Relative Risk</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>7</td>
<td>53</td>
<td>0.19</td>
<td>0.09 – 0.40</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>No</td>
<td>36</td>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exclusive breastfeeding

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Absent</th>
<th>Relative Risk</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>53</td>
<td>7</td>
<td>2.2</td>
<td>1.60 – 3.05</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Attending a breastfeeding support group

<table>
<thead>
<tr>
<th></th>
<th>Present</th>
<th>Absent</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>0</td>
<td>60</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Administering the questionnaire to both groups was because we wanted to compare if there were any differences in infant and young child feeding practices between the two
groups. Those who were exposed to infant and young child feeding counseling were 1.69 times more likely to initiate breastfeeding timely (within the first hour of birth) than those who were not exposed to counseling. The association was statistically significant (p < 0.001).

Those who were exposed to counseling were 0.18 times more likely, thus 82% less likely to introduce solid foods to their children from birth to the time they had their second interview (before six months) than those who were not exposed. The association was statistically significant (p = 0.008). Receiving counselling was protective.

Those who were exposed to counseling were 0.19 times more likely, thus 81% less likely to introduce water to their children from birth to the time they had their second interview (before six months) than those that were not exposed. The association was statistically significant (p < 0.001). Receiving counselling was protective.

Those who were exposed to counseling were 2.2 times more likely to exclusively breastfeed their children than those that were not exposed. The association was statistically significant (p < 0.001).

No one went for the breastfeeding support groups from both the exposed and unexposed groups.
Table 5: Logistic Regression for Practices Independently Associated with Community Infant and Young Child Feeding Counseling in Harare City, 2013

<table>
<thead>
<tr>
<th></th>
<th>Relative Risk</th>
<th>95% CI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timely initiation of breastfeeding</td>
<td>1.69</td>
<td>1.31 – 2.17</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Giving water</td>
<td>0.19</td>
<td>0.09 – 0.40</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Giving solids</td>
<td>0.18</td>
<td>0.04 – 0.79</td>
<td>0.008</td>
</tr>
<tr>
<td>Exclusive breastfeeding</td>
<td>2.20</td>
<td>1.60 – 3.05</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Those who were exposed to infant and young child feeding counseling were 1.69 times more likely to initiate breastfeeding timely than those who were not exposed to counseling. The association was statistically significant (p < 0.001).

Those who were exposed to counseling were 0.19 times more likely, thus 81% less likely to introduce water to their children from birth to the time they had their second interview (before six months) than those that were not exposed. The association was statistically significant (p < 0.001). Receiving counselling was protective.

Those who were exposed to counseling were 0.18 times more likely, thus 82% less likely to introduce solid foods to their children from birth to the time they had their second
interview (before six months) than those who were not exposed. The association was statistically significant ($p = 0.008$). Receiving counselling was protective. Those who were exposed to counseling were 2.2 times more likely to exclusively breastfeed their children than those that were not exposed. The association was statistically significant ($p < 0.001$).

No one went for the breastfeeding support groups from both the exposed and unexposed groups.

Table 6: Attitudes among the exposed and unexposed groups towards exclusive breastfeeding at baseline

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Exposed</th>
<th>Unexposed</th>
<th>$\chi^2$</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>30 (50)</td>
<td>19 (32)</td>
<td>0.009</td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td>17 (28)</td>
<td>12 (20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative</td>
<td>13 (22)</td>
<td>29 (48)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7: Attitudes among the exposed and unexposed groups towards exclusive breastfeeding at endpoint

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Exposed</th>
<th>Unexposed</th>
<th>$\chi^2$</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive</td>
<td>55 (92)</td>
<td>38 (63)</td>
<td>&lt;0.001</td>
<td></td>
</tr>
</tbody>
</table>
Most of the respondents, 92% in the exposed group had a positive attitude towards optimal infant and young child feeding practices as compared to the non-exposed group. The difference was statistically significant [p < 0.001].

Table 8: Attitudes among the exposed and unexposed groups towards exclusive breastfeeding at baseline

<table>
<thead>
<tr>
<th>Variable</th>
<th>Baseline</th>
<th></th>
<th></th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exposed</td>
<td>Unexposed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breast milk is not enough for the baby in the first six months of life</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>34 (57)</td>
<td>42 (70)</td>
<td>0.130</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>26 (43)</td>
<td>18 (30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If a baby cries a lot it means it is hungry and needs other food</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>32 (53)</td>
<td>40 (67)</td>
<td>0.140</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>28 (47)</td>
<td>17 (33)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Giving cooking oil in the first six months of life helps the baby</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>49 (82)</td>
<td>47 (78)</td>
<td>0.650</td>
<td></td>
</tr>
<tr>
<td>Disagree</td>
<td>11 (18)</td>
<td>13 (22)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Giving water in the first six months of life is good for the baby

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>46 (77)</td>
<td>14 (23)</td>
</tr>
<tr>
<td>49 (82)</td>
<td>11 (18)</td>
</tr>
</tbody>
</table>

Mothers who are HIV positive should breastfeed their babies

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>46 (77)</td>
<td>14 (23)</td>
</tr>
<tr>
<td>33 (55)</td>
<td>27 (45)</td>
</tr>
</tbody>
</table>

Breastfeeding can make a woman feel important

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>57 (95)</td>
<td>03 (05)</td>
</tr>
<tr>
<td>57 (95)</td>
<td>03 (05)</td>
</tr>
</tbody>
</table>

Breastfeeding can stop mothers from doing their household chores

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 (25)</td>
<td>45 (75)</td>
</tr>
<tr>
<td>25 (42)</td>
<td>35 (58)</td>
</tr>
</tbody>
</table>

Breastfeeding is embarrassing

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>04 (07)</td>
<td>56 (93)</td>
</tr>
<tr>
<td>05 (08)</td>
<td>55 (92)</td>
</tr>
</tbody>
</table>

Exclusive Breastfeeding is a difficult way to feed infants

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 (53)</td>
<td>28 (47)</td>
</tr>
<tr>
<td>45 (75)</td>
<td>15 (25)</td>
</tr>
</tbody>
</table>

It is ok to breastfeed in public

<table>
<thead>
<tr>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 (57)</td>
<td>35 (57)</td>
</tr>
<tr>
<td>40 (67)</td>
<td>40 (67)</td>
</tr>
<tr>
<td>0.260</td>
<td>0.260</td>
</tr>
</tbody>
</table>
Generally, there were no statistically significant differences in terms of attitudes towards optimal infant and young child feeding practices between the exposed and unexposed groups. The groups were comparable.

### Table 9: Attitudes among the exposed and unexposed groups towards exclusive breastfeeding at endpoint

<table>
<thead>
<tr>
<th>Variable</th>
<th>Endpoint</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Exposed</td>
<td>Unexposed</td>
<td>p-value</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n(%)</td>
<td>n(%)</td>
<td></td>
</tr>
<tr>
<td>Breast milk is not enough for the baby in the first six months of life</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td>16 (27)</td>
<td>31 (52)</td>
<td>0.005</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
<td>44 (73)</td>
<td>29 (48)</td>
<td></td>
</tr>
<tr>
<td>If a baby cries a lot it means it is hungry and needs other food</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td>23 (38)</td>
<td>26 (43)</td>
<td>0.577</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
<td>37 (62)</td>
<td>34 (57)</td>
<td></td>
</tr>
<tr>
<td>Giving cooking oil in the first six months of life helps the baby</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td></td>
<td>14 (23)</td>
<td>46 (77)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Disagree</td>
<td></td>
<td>46 (77)</td>
<td>14 (23)</td>
<td></td>
</tr>
</tbody>
</table>
Giving water in the first six months of life is good for the baby
Agree 10 (17) 42 (70) <0.001
Disagree 50 (83) 18 (30)

 Mothers who are HIV positive should breastfeed their babies
Agree 45 (75) 35 (58) 0.053
Disagree 15 (25) 25 (42)

Breastfeeding can make a woman feel important
Agree 56 (93) 56 (93) 1.000
Disagree 04 (07) 04 (07)

Breastfeeding can stop mothers from doing their household chores
Agree 07 (12) 18 (30) 0.013
Disagree 53 (88) 42 (70)

Breastfeeding is embarrassing
Agree 00 (00) 03 (05) 0.122
Disagree 60 (100) 57 (95)

Exclusive Breastfeeding is a difficult way to feed infants
Agree 10 (17) 26 (43) 0.001
Disagree 50 (83) 34 (57)

It is ok to breastfeed in public
Agree 46 (77) 40 (67) 0.224
There were statistically significant differences between the two groups in the following attitudes: Those in the unexposed group were saying breast milk alone is not enough for the baby in the first six months of life, giving cooking oils helps the baby in the first six months of life, a baby needs water in the first six months of life and that exclusive breastfeeding is a difficult way of feeding infants.

**Table 10: Program Indicators at endpoint**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Target (%)</th>
<th>Exposed Achieved (%)</th>
<th>Non – Exposed Achieved (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timely initiation of breastfeeding</td>
<td>75</td>
<td>90</td>
<td>53</td>
</tr>
<tr>
<td>Knowledge level</td>
<td>50</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>Timely initiation of complementary feeding</td>
<td>90</td>
<td>97</td>
<td>82</td>
</tr>
<tr>
<td>Exclusive breastfeeding rate</td>
<td>50</td>
<td>88</td>
<td>40</td>
</tr>
<tr>
<td>Timeliness of reporting</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Each counsellor following up at least 10 mothers</td>
<td>100</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Total completeness of registers</td>
<td>100</td>
<td>00</td>
<td></td>
</tr>
<tr>
<td>Each counsellor formed at least</td>
<td>100</td>
<td>00</td>
<td></td>
</tr>
</tbody>
</table>
The set targets for the program were met except for completeness of registers and forming up at least one functional support group. The community infant and young child feeding program was initiated in Harare City in August 2011.

**Focus Group Discussion**

Focus group discussion was done with the counsellors. It was highlighted that the program was helpful; it helped mothers on how best to optimally feed their children especially those on antiretroviral therapy. It also came out that the high loss to follow up was due to the community which is highly mobile, some mothers give wrong addresses and the counselors do not have money to make follow up through the phone calls. The other challenge which was highlighted as a hindrance to exclusive breastfeeding was the elderly especially mother in laws who would give water or porridge to children below six months of age. Community involvement was also important. There was a need to include private doctors in the program and leaders of religions. For motivation and support, the counsellors highlighted that they would need bicycles for conducting follow ups, tennis shoes for walking, refresher trainings, support visits, lunch allowances and t-shirts.
CHAPTER 6
DISCUSSION

The statistically significant differences in terms of the mean knowledge score between the exposed and unexposed groups at endpoint could be because of the community infant and young child feeding counseling. However, the knowledge scores between the two groups both at baseline and at endpoint were above 50% and this could be attributed to the routine health education sessions that they receive at health facilities from health workers. Receiving counseling at homes could be more convenient for caregivers since they would be more relaxed in the comfort of their homes and they would have more time to ask questions on an individual basis as compared to a health facility where they would be saying they just want to be served quickly and go back home. Some would even delay coming for the anti-natal checkups because they would want to arrive after the health education session for they perceive it as time consuming. Some caregivers said that exclusive breastfeeding was only for HIV positive mothers and this area needs to be corrected and emphasize on the correct definition of exclusive breastfeeding. In this study, the caregivers were recruited regardless of their HIV status, thus, HIV status was not assessed.

The major reasons for late initiation of breastfeeding were delivery complications. Others would say they were still in pain so they could not initiate breastfeeding immediately and the other reason was because there was no milk coming out. One exceptional case was a mother who had inverted nipples who was saying she cannot breastfeed because she did
not have nipples. However the majority of those who could not initiate breastfeeding timely initiated after one hour of delivery. The reason for those who had already started giving water to their children at the time of the second interview was for religious reasons. They gave their children “holy water” – church leaders would pray for water and command the parents to give the water to the baby for protection against the works of the evil. Others would say everyone including babies needs water to survive so they gave them water. This practice of giving water to children before six months of age translated to the attitude of saying children needs water even sips before six months. Although the mothers know that children should be given water after six months as shown in the knowledge assessments, the issue is on their attitudes and their practices towards giving water before six months.

Giving cooking oil to babies was also a major cause of concern. Caregivers are giving cooking oil to their babies saying that cooking oil aids gastrointestinal movements and also relieves colic. It is also believed that cooking oil makes the fontanel to close. The cooking oil is first warmed and a little salt is added then the baby is given a few drops to half a teaspoonful of the mixture. Those who had already initiated solids to their babies indicated that it was because they felt their babies were crying a lot because they were hungry and breast milk was not enough that was why they introduced solids to their babies before six month, particularly porridge. Another barrier towards exclusive breastfeeding was influence from mothers in law discouraging exclusive breastfeeding. In the absence of the baby’s mother, the mothers in law would either give the baby some porridge or water or roots which would have been soaked in water as their traditional
beliefs. This could be the reason why the high knowledge levels are not translating to optimal infant feeding practices. No functional support groups were present, the counselors indicated that it was not easy to form one and gave gatherings in the community since they said police clearance is required for people to gather. The reproductive age in the urban areas are a very mobile community since they would still be lodgers and they move from one place to another making consistent groups difficult and follow ups are also compromised due to this movement. Another factor is that some mothers would give false residential addresses making follow ups difficult. The reason why they gave false addresses is not clear but some do it so that if they have a credit after delivery the debt collectors will not be able to locate them. Those who felt that it was not acceptable to breastfeed in the public was due to religious reasons, their religion does not allow breastfeeding in public. In this study, no one was lost to follow up. Follow ups are also a major challenge to counselors due to limited mobility. They do not have means of transport to move from one place to another or even to follow up the mothers who would have relocated to a different address. There are neither vehicles nor bicycles or a means of communication to contact them in terms of airtime allowances.

Our study findings that community infant and young child feeding counseling has an effect on maternal knowledge, attitudes and practices were consistent with results by Banda M, et al, in Mazowe and Bindura Districts, where they found out that peer nutrition education with combined routine infant feeding counseling is effective in improving maternal breastfeeding knowledge.8 There were also same findings where their study showed that a peer nutrition education programme had a significant impact on
breastfeeding knowledge and attitudes. The intervention and comparison group were overall similar at baseline, a finding which was also consistent with our study. Following the peer nutrition education program, the intervention group reported higher levels of knowledge and more positive attitudes than the comparison group. They concluded that Peer Counselors can effectively increase maternal breastfeeding knowledge.\(^{12}\)

Timely initiation of breastfeeding was improved through counseling. Similar findings to a Bangladesh study, where they found out that peer counselors can effectively increase the initiation and duration of exclusive breastfeeding.\(^9\) Our exclusive breastfeeding rates were increased with counseling. This shares similar findings with a randomized controlled study of the efficacy of home-based peer counseling to increase the proportion of exclusive breastfeeding among mothers and infants residing in peri urban Mexico City, where they found out that early and repeated contact with peer counselors was associated with a significant increase in breastfeeding exclusivity and duration.\(^{10}\)

Anderson A.K, shares similar findings to our study findings. In their study they found out that a well-structured, intensive breastfeeding support provided by hospital and community-based peer counselors is effective in improving exclusive breastfeeding rates among low-income, inner-city women in the United States.\(^{11}\)

The program is performing well. It managed to meet the set targets for the program except for completeness of registers and forming up at least one functional support group.
Validity of results

Since it was a before and after study, the outcomes of interest had not yet occurred at the time the study began, bias in the selection of subjects and ascertainment of exposure was minimized because the outcomes of interest had not yet occurred at the beginning of the study. The participants did not have the outcomes of interest at the time the exposure status was identified, thus, the temporal sequence between the exposure and the outcome could be more clearly elucidated. The validity of our study was enhanced by the absence of losses to follow up\textsuperscript{15}. 
CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusion

Community infant and young child feeding counseling has an effect on knowledge, attitudes and practices on optimal infant feeding amongst women in Harare City.

Mothers who have received counseling in community infant and young child feeding had higher knowledge levels on optimal infant and young child feeding than those that had not.

Mothers who have received counseling in community infant and young child feeding initiated their infants to breastfeeding more timely than those that had not. The effect of midwives would be similar in both the exposed and unexposed groups, It ultimately would be the mother’s choice to initiate breastfeeding timely to their babies.

More mothers who have not received counseling in community infant and young child feeding gave water and solids to their infants from birth to the time of the second interview than mothers who have received counseling.

More mothers who have received counseling in community infant and young child feeding had a positive attitude towards optimal infant and young child feeding than those that have not.
There were no differences in terms of attending breastfeeding support groups among mothers who have received counseling in community infant and young child feeding and those that have not.

### 7.2 Public Health Actions Taken

The findings of the study were presented to district medical officers for the city of Harare, top management, the nutritionist and health promoter coordinators.

### 7.3 Recommendations

It is recommended that the nutritionist and the health promotion officer plan and conduct refresher trainings by December 2013 to health promoters/counselors on record keeping since data quality was poor (total completeness of registers was zero percent against a target of one hundred percent).

It is also recommended to the nutritionist that religious leaders and private practitioners be informed on optimal infant and young child feeding so that the same message can be sent to the community.

For enhanced follow up, it is recommended that the director of health services provide bicycles to health promoters for easy movement during follow ups and home visits.

Since the program has an effect on optimal infant and young child feeding practices it is recommended that the Director of Health Services to increase coverage for the areas in which health promoters are covering.
References


5. Zimbabwe Demographic Health Survey, 2011


10. Centre for Pediatric Research, Children's Hospital of The King's Daughters, Eastern Virginia Medical School, Norfolk 23510-1001, USA. Lancet [1999, 353(9160):1226-1231] Clinical Trial, Journal Article, Randomized Controlled
Trial, Research Support, U.S. Gov't, Non-P.H.S., Research Support, U.S. Gov't, P.H.S., Comparative Study

11. Alex K. Anderson, USA, A Randomized Trial Assessing the Efficacy of Peer Counseling on Exclusive Breastfeeding in a Predominantly Latina Low-Income Community, 2005


14. Trainer’s Guide, Baby Friendly Hospital Initiative Trainer’s Package


18. Trainer’s guide, Infant and Young Child Feeding Counseling- A Community Focused Approach, University Research Co. LLC, Center for Human Services and Care
Appendices

Appendix 1: English Questionnaire

Data collection tool for mothers

Good morning/afternoon. My name is Faith Kamusono, I am a Public Health Officer carrying out a research on effect of community infant and young child feeding counseling program on infant feeding practices in Harare City. May I please ask you to assist me with some information about optimal infant feeding practices? Any information that we are going to discuss will be treated as strictly confidential and will be used to make improvements in the prevention and control of malnutrition and infant feeding practices in Harare City. You are free to make a choice on whether you want to participate or not.

Would you like to participate in this study?

☐ Yes

☐ No (EXCLUDE FROM STUDY)

Reasons for Refusal:

☐ Too busy to grant interview

☐ Not willing to participate in any interview

☐ Other (specify) ……………………………………………….
SECTION A: SOCIODEMOGRAPHIC DATA

1: Respondent’s age in years

2: How many children do you have besides the one you are carrying/breastfeeding?

3: How old is your youngest child?
   □□ Years

4: What is your marital status?
   □ Married
   □ Single
   □ Widowed
   □ Divorced
   □ Cohabiting
   □ Other, specify.............

5: What is your highest level of education?
   □ Primary
   □ Secondary
   □ Tertiary
   □ Other, specify.............
6: What is your occupation?
   □ Formally employed
   □ Informally employed
   □ House wife
   □ Other, specify………..

7: What is your religion?
   □ Apostolic
   □ Non-apostolic
   □ None
   □ Other, specify………..

SECTION B: KNOWLEDGE OF OPTIMAL IYCF PRACTICES

8: What is the first feed that should be given to a baby?
   □ Breast milk
   □ Water
   □ Porridge
   □ Other specify……………………..

9: How long after birth should a baby receive its first feed?
   □ Within one hour
   □ After one hour
   □ After one day
10: At what age should a baby be given water?

☐ Less than 7 days
☐ <6 months
☐ After 6 months
☐ Don’t know

11: For how long should a baby be breastfed?

☐ <6 months
☐ 6-12 months
☐ 1-1.5 years
☐ 2 years or more

12: What is meant by exclusive breastfeeding?

☐ Giving only breast milk only without even water for the first six months of life
☐ Other specify……………..
☐ Don’t know

13: What do you think are the benefits of exclusive breastfeeding? (Tick all that apply)
☐ Protects baby’s health

☐ Bonding between baby and mother

☐ Has enough nutrients and water for the baby

☐ Don’t know

☐ Other specify…………………………

14:  At what age should a baby be given other foods (solid foods)?

☐ Before 6 months

☐ After 6 months

☐ Other specify……………………

☐ Don’t know

15:  What do you think is the importance of complementary feeding?

☐ It gives the baby more energy

☐ To cover nutritional gaps left by breast milk

☐ Other specify………………

☐ Don’t know

16:  How would you care/feed a sick child?
Go to clinic with him/her
Feed him/her patiently
Other specify……………………..
Don’t know

17: Do you receive iron supplements during your pregnancy?
Yes
No

18: What do you think are the benefits of iron supplements during pregnancy?
Supplements iron for blood formation to meet the increased demand.
Other specify………………..
Don’t know

19: In your own opinion, should an HIV positive mother bear children?
Yes  No

20: In your own opinion, should an HIV positive mother breastfeed?
Yes
No

21: Do you think it’s important to know your HIV status?
22: Have you been tested for HIV?

☐ Yes

☐ No

23: Do you attend any breastfeeding support group?

☐ Yes

☐ No

Section C: Breastfeeding Attitudes

24. Breast milk is not enough for the baby in the first six months of life
   a) Strongly agree  b) agree  c) neutral  d) disagree  e) strongly disagree

25. If a baby cries a lot it means it is hungry and needs other food
   a) Strongly agree  b) agree  c) neutral  d) disagree  e) strongly disagree

26. Giving cooking oil in the first six months of life helps the baby
   a) Strongly agree  b) agree  c) neutral  d) disagree  e) strongly disagree
27. A baby needs water (even sips) in the first six months of life
   a) Strongly agree b) agree c) neutral d) disagree e) strongly disagree

28. Mothers who are HIV positive should breastfeed their babies
   a) Strongly agree b) agree c) neutral d) disagree e) strongly disagree

29. Breastfeeding can make a woman feel important
   a) Strongly agree b) agree c) neutral d) disagree e) strongly disagree

30. Breastfeeding can stop mothers from doing their household chores
   a) Strongly agree b) agree c) neutral d) disagree e) strongly disagree

31. Breastfeeding is embarrassing
   a) Strongly agree b) agree c) neutral d) disagree e) strongly disagree

32. Exclusive Breastfeeding is a difficult way to feed infants
   a) Strongly agree b) agree c) neutral d) disagree e) strongly disagree

33. It is ok to breastfeed in public
   a) Strongly agree b) agree c) neutral d) disagree e) strongly disagree
Section D: Infant feeding practices

(For these questions it’s for a previous child at the baseline and then for the new baby at follow up)

34. Do you have a child besides the one that you are carrying?
   
   ☐ Yes
   ☐ No

   If no proceed to question 38

35. When did you start giving your youngest baby breast milk?
   
   ☐ Within the first hour of delivery
   ☐ After 12 hours after delivery
   ☐ After 1 day
   ☐ After 2 days or more

36. When did you start giving your youngest baby water?
   
   ☐ After 2 days
   ☐ After 1 week
   ☐ After 2 weeks
   ☐ After 6 months
   ☐ Other specify…………..

37. When did you start giving your youngest baby solids?
   
   ☐ After 2 days
   ☐ After 1 week
☐ After 2 weeks
☐ After 6 months
Other specify…………..

38. Do you attend any breastfeeding support group?

☐ Yes

☐ No
Appendix 2: Shona Questionnaire

Gwaro rokubvunza vana amai


Ndingapfuurira mberi here?

☐ Hongu

☐ Kwete

Zvikonzero zvokuramba:

☐ Vakabatikana kupinda muongororo

☐ Havana kusununguka kupinda muongororo

☐ Zvimwe (tsanangura) .................................................................
CHIKAMU CHOKUTANGA: ZVAKANANGANA NOHUPENYU

1: Mune makore mangani okuberekwa

2: Mune vamwe vana vangani asiri wamakatakura/wamuri kuyamwisa?

3: Mwana wenyu wokupedzisira ane makore mangani?

4: Makawanikwa here?

5: Makasvika danho ripi nedzidzo?

6: Munoshanda basa ripi?
Formally employed
Informally employed
Handiende kubasa
Zvimwe, tsanangura………

7: Munotevedza chitendero chipi?
Mapositori
Asiri mapositori
Hapana
Zvimwe, tsanangura………

CHIKAMU CHEPIRI: RUZIVO PAMACHENGETERWO EVANA

8: Ndechipi chikafu chekutanga chinofanirwa kupihwa mwana?
Mukaka wamai
Mvura
Bota
Zvimwe (tsanangurai)……………………

9: Mushure mokuzvarwa, mwana anofanirwa kuwana kudya kwake kwokutanga kwapera nguva yakadii?
Muawa yekutanga
Kwapera awa imwe chete
Kwapera zuva rimwe chete
10: Mwana anofanirwa kupihwa mvura akura zvakadii?

☐ Ari pasi pemazuva manomwe
☐ Ari pasi pemwedzi mitanhatu
☐ Kwapera mwedzi mitanhatu
☐ Handizivi

11: Mwana anofanirwa kuyamwiswa kwenguva yakadii?

☐ Ari pasi pemwedzi mitanhatu
☐ Ari pakati pemwedzi mitanhatu negore
☐ Ari pakati pegore negore nemwedzi mitanhatu
☐ Makore maviri kana kupfuura

12: Exclusive breastfeeding zvinorevei?

☐ Kupa mukaka wamai chete pasina kana mvura kwemwedzi mitanhatu
☐ Zvimwe, tsanangura…………..
☐ Handizivi

13: Exclusive breastfeeding zvinorevei? (*Sarudzai zvose zvinokodzera*)

☐ Zvinochengetedza utano hwemwana
☐ Zvinovaka ukama pakati pamai nemwana

☐ Une chikafu nemvura zvakakwanira mwana

☐ Handizivi

☐ Zvimwe, tsanangura……………………

14: Mwana anofanirwa kupihwa kumwe kudya akura zvakadii (zvisiri mukaka)?

☐ Ari pasi pemwedzi mitanhatu

☐ Adarika mwedzi mitanhatu

☐ Zvimwe, tsanangura……………………

☐ Handizivi

15: Chii chakakoshera kupa mwana chimwe chikafu kuwedzera mukaka?

☐ Zvinopa samba rakawedzera kumwana

☐ Kuzadzikisa panenge pasiyiwa nemukaka

☐ Zvimwe, tsanangura………………

☐ Handizivi

16: Mwana ari kurwara anochengetwa sei?

☐ Anoendwa naye kukiriniki/chipatara

63
17: Makambopihwa mapiritsi okuwedzera ropa here pamakazvitakura?

☐ Hongu

☐ Kwete

18: Mapiritsi okuwedzera ropa akanakirei kana munhu achinge akazvitakura?

☐ Anowedzera zvinobatsira kugadzirwa kweropa kunenge kwawedzera.

☐ Zvimwe, tsanangura………………

☐ Handizivi

19: Mafungiro enyu, mukadzi akabatw nehutachiona hweHIV anofanirwa kuzvara here?

☐ Hongu  ☐ Kwete

20: Mafungiro enyu, mukadzi akabatw neutachiona hweHIV anofanirwa kuyamwisa mwana wake here?

☐ Hongu

☐ Kwete
21: munofunga kuti zvakakosha here kuziva paumire maererano neHIV?

☐ Hongu

☐ Kwete

22: Makanoongororwa here maererano nezve HIV?

☐ Hongu

☐ Kwete

23: Muri nhengo here yeboka rezvinokurudzirana kuyamwiswa kwevana?

☐ Hongu

☐ Kwete

CHIKAMU CHECHITATU: MAFUNGIRO PANE ZVOKUYAMWISA

24. Mukaka wamai chete haukwaniri mwana kwemwedzi mitanhatu
   a) kubvuma zvikuru b) kubvuma c) pakati nepakati d) handibvumi e) handibvumi zvikuru

25. Kana mwana achichema zvikuru zvinoreva kuti ane nzara uye anoda chimwe chikafu
   a) kubvuma zvikuru b) kubvuma c) pakati nepakati d) handibvumi e) handibvumi zvikuru
26. Kupa mwana mafuta mumwedzi mitanhatu dzokuberekwa kwomwana kunobatsira
   a) kubvuma zvikuru b) kubvuma c) pakati nepakati d) handibvumi e) handibvumi zvikuru

27. Mwana anoda kupihwa mvura (chero madonhwe) mumwedzi mitanhatu yokuzvarwa
   a) kubvuma zvikuru b) kubvuma c) pakati nepakati d) handibvumi e) handibvumi zvikuru

28. Vana mai vakabatwa neutachiona hweHIV vanofanirwa kuyamwisa vana vavo
   a) kubvuma zvikuru b) kubvuma c) pakati nepakati d) handibvumi e) handibvumi zvikuru

29. Kuyamwisa kunoita kuti mukadzi anzwe kuti akakosha
   a) kubvuma zvikuru b) kubvuma c) pakati nepakati d) handibvumi e) handibvumi zvikuru

30. Kuyamwisa kumomisa vana mai kuita mabasa avo epamba
   a) kubvuma zvikuru b) kubvuma c) pakati nepakati d) handibvumi e) handibvumi zvikuru
31. Kuyamwisa kunonyadzisa
   a) kubvuma zvikuru  b) kubvuma  c) pakati nepakati  d) handibvumi  e)
   handibvumi zvikuru

32. Kupa mwana mukaka wamai chete inzira inogozha ye
   a) kubvuma zvikuru  b) kubvuma  c) pakati nepakati  d) handibvumi  e)
   handibvumi zvikuru

33. Zvinogashirika kuyamwisa muruzhinji
   a) kubvuma zvikuru  b) kubvuma  c) pakati nepakati  d) handibvumi  e)
   handibvumi zvikuru

**CHIKAMU CHECHINA: TSIKA DZOKUCHENGETA VANA**

34: Mune mumwe mwana here asiri wamakatakura?
   □ Hongu
   □ Kwete (endai kumubvunzo 38)

35: Makatanga kupa mwana wenyu mudiki mukaka wamai kwaperi nguva yakadii?
   □ Muawa imwe chete mushure mokusununguka
   □ Kwaperi maawa gumi nemaviri mushure mokusununguka
   □ Kwaperi zuva rimwe chete
36: Makatanga kupa mwana wenyu mudiki mvura mushure mokuzvarwa kwaperanguva yakadii?

- [ ] Kwapera mazuva maviri
- [ ] Kwapera svondo rimwe
- [ ] Kwapera masvondo maviri
- [ ] Kwapera mwedzi mitanhatu
- [ ] Zvimwe, tsanangura………..

37: Makatanga kupa mwana wenyu mudiki kumwe kudya kwaperanguva yakadii mushure mokuzvarwa?

- [ ] After 2 days Kwapera mazuva maviri
- [ ] After 1 week Kwapera svondo rimwe
- [ ] After 2 weeks Kwapera masvondo maviri
- [ ] After 6 months Kwapera mwedzi mitanhatu
- [ ] Zvimwe, tsanangura………..

38: Muri nhengo here yeboka rezvinokurudzirana kuyamwiswa kwevana?

- [ ] Hongu
- [ ] Kwete
Appendix 3: Key Informant Interview Guide

1. Are there any breastfeeding support groups formed?

2. How often do they meet?

3. Do you cover infant and young child feeding issues in your routine health education sessions? If yes how often?

4. Which topics have you discussed?

5. How receptive is the community to the program?

6. Have any issues been referred to you by the counsellors?

7. What challenges are being faced by the program?

8. How best do you think these challenges can be addressed?

9. Is there any additional support that you may require?
Appendix 4: Focus Group Discussion Guide

1. What do you think about the program?
2. What is your view towards community infant and young child feeding?
3. How is the program performing? / May you highlight some challenges the program could be facing?
4. How best do you think these challenges can be addressed?
5. What do you like best about the program?
6. Is there anything else that you would like to tell me about?
Appendix 5: English Consent Form

Introduction

Topic: Effect of Community Infant and Young Child Feeding (cIYCF) counseling program on Infant Feeding Knowledge, Attitudes and Practices in Harare City 2013

Principal investigator: Faith Kamusono [BScDN (UZ)]

Phone number: 0772 366 787 or 04 774141/2 extension 3047

What you should know about this research study:

- We give you this consent so that you may read about the purpose, risks, and benefits of this research study.

- The main goal of this research is to gain knowledge that may help you and future women.

- We cannot promise that this research will benefit you directly.

- You have the right to refuse to take part, or agree to take part now and change your mind later.

- Whatever you decide, it will not affect your regular care.

- Please review this consent form carefully. Ask any questions before you make a decision.

- Your participation is voluntary.
Purpose

You are being asked to participate in a study on: Effect of Community Infant and Young Child Feeding (cIYCF) counseling program on Infant Feeding Knowledge, Attitudes and Practices in Harare City 2013. This study seeks to understand the knowledge levels, attitudes and practices on infant feeding in Harare City. One hundred and twenty respondents are going to be enrolled in this study.

Procedures and Duration

Group 1: If you decide to participate, you will be interviewed using an interviewer administered questionnaire. It will take about 15 minutes. A health promoter is going to give you four counseling sessions in the following eight weeks. There are two weeks intervals between one counseling session and the next. Each session will last approximately 20-30 minutes. You will be interviewed again after 8 weeks using an interviewer administered questionnaire and it will take about 15 minutes.

Group 2: If you decide to participate, you will be interviewed using an interviewer administered questionnaire. It will take about 15 minutes. You will be interviewed again after 8 weeks using an interviewer administered questionnaire and it will take about 15 minutes.

Risks and Discomforts

Its study is not expected to cause any discomfort or physical risk.
**Benefits and/or Compensation**

We do not promise that you will receive monetary or material benefits from this study. Being in this study may give you an opportunity to learn and understand more on how to optimally feed your infant.

**Confidentiality**

If you indicate your willingness to participate in this study by signing this document, we will not include your name on the questionnaire. We plan to disclose any information obtained from this study to Harare City Health Department and the Academic panel of the University of Zimbabwe for the purpose of improving service delivery to our clients. Any information obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission.

**Additional Costs**

There will be no additional costs to you.

**Voluntary Participation**

Participation in this study is voluntary. If you decide not to participate in this study, your decision will not affect your future relations with Harare City Health Department and its personnel. If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time without penalty.
Offer to Answer Questions

Before you sign this form, please ask any questions on any aspect of this study that is unclear to you. You may take as much time as necessary to think over it.

Authorization

You are making a decision whether or not to participate in this study. Your signature indicates that you have read and understood the information provided above, have had all your questions answered, and have decided to participate.

_________________________________________  __________
Name of Research Participant (please print)          Date

_________________________________________  __________
Signature of Participant or legally authorized representative  Time

You will be given a copy of this consent form to keep

If you have any questions concerning this study or concerns beyond those answered by the investigator, including questions about the research, your rights as a research subject or research-related injuries, or if you feel that you have been treated unfairly and would like to talk to someone other than a member of the research team, please feel free to contact the Medical Research Council of Zimbabwe on telephone 04-791792 or 04-791193.
Appendix 6: Shona Consent Form

TSAMBA YECHITENDERANO

Kutanga
Tsvagurudzo yekuona mashandiro echirongwa chekukurukura pamusoro pezvekudya kwevana tichitarisa maererano neruzivo, mafungiro netsika dzemachengererwo evana muguta reHarare.

Muongorori: Faith Kamusono [BScDN (UZ)]
Nhamba dzenhare: 0772 366 787 or 04 774141/2 extension 3047

Zvamunofanira kuziva maererano neongororo ino:

- Tirikukupai tsamba yechitenderano chino kuti mugonzwisisa zvinangwa zveongororo ino, zvakaipa uye zvakanakira ongororo ino.
- Chinangwa cheongororo ino ndechekutsvaga ruzivo runozobatsira pakubatsirwa kwenyu nemamwe madzimai mune ramangwana.
- Hatikuvimbisei kuti pane zvamuchawana kuburikidza nekupinda muongororo ino.
- Makasununguka kuramba kupinda muongororo ino kana kubvuma kupinda iye zvino asi mozoramba panguva inotevera.
- Kubvuma kana kuramba kupinda mongororo ino, hazvikanganise kubatsirwa kwenyu panguva inotevera.
• Nyatsoverengai nekunzwisisa gwaro rino zvakakwana. Kana paine mibvunzo, sunungukai kubvunza musati masarudza kupinda kana kusapinda muongororo ino.

• Kupinda kwenyu muongororo ino hakumanikidzwe.

Chinangwa

Muri kukumbirwa kuti mupinde mutsvagurudzo yekuona mashandiro echirongwa chekukurukura pamusoro pezvekudya kwevana tichitarisa maererano neruzivo, mafungiro netsika dzemachengeterwo evana muguta reHarare. Ongororo iyi inotsvaga ruzivo, mafungiro netsika pamusoro pezvokudya kwevana muguta reHarare. Makasarudzwa vanhu zana nemakumi maviri kupinda muongororo ino.

Maitirwo nenguva yeongororo

Njodzi nekushungurudzika

Hapana njodzi kana kushungurudzika kwatinotarisira kusangana nako muongororo ino.

Zvakanakira kuva muongororo

Hapana muripo wemari kana zvinhu zvamuchawana kuburikidza nekuva muongororo ino asi kuti muchawana mukanakana wokudzidza zvakawanda maererano nezvekudya zvakanaka kuvana.

Kuvimbika kweongororo


Mumwe muripo

Hamuna chamunobhandara muongororo ino.

Kusununguka kupinda muongororo

Isarudzo yenyu kupinda muongororo ino. Kusarudza kusapinda muongororo ino hakukanganisi hukama hwenyu nevabazi rezveutano veguta reHarare. Mukasarudza
kupinda muongororo ino pari zvino, makasununguka kusarudza kubuda muongororo panguva inotevera pasina muripo.

**Kupindurwa kwemibvunzo**

Musati maisa runyoro rwenyu pabepa rino, makasunungoka kubvunza mibvunzo pamunenge musina kunzwisisa. Makasununguka kutora nguva yenyu yamunoda kana muchida kumbonotanga mafunga nezvazvo.

**Mvumo**

Muri kuita sarudzo yekupinda kana kusapinda muongororo ino. Runyoro rwenyu runoratidza kuti maverenga uye manzwisisa umbowo hwamapihwa, majekeserwa pamaive musina kunzwisisa uye masarudza kupinda muongororo ino.

________________________________________________________________________
Zita remupinduri (nyorai zvinooneka)                     Zuva

________________________________________________________________________
Runyoro rwechibvumirano rwemupinduri                     Nguva

**Muchapihwa imwe tsamba yechitenderano kuti muzvichengetere**

Kana mune mibvunzo isina kupindurwa nemuongorori zvichisanganisira mibvunzo pamusoro peongororo ino, kodzero dzenyu semupinduri kana mibvunzo yakanangana nekubatwa kwamaitwa muongororo ino, kana kusabatwa zvakana kwamunenge
maitwa makasununguka kubata veMedical Research Council of Zimbabwe panhamba dzerunhare dzinoti: 04-791792 kana 04-791193.
Appendix 7: Records Review

1. Each counsellor should follow up at least ten mothers monthly

2. Each counsellor to form at least one support group

3. Completeness of registers

4. Timeliness of reporting – 26th of every month
Appendix 8: JREC Approval Letter

Joint Parirenyatwa Hospital And College of Health Sciences
Research Ethics Committee

Date: 2nd May 2013
JREC Ref: 33/13

Name of Researcher: Faith Kamusono
Address: University of Zimbabwe, Department of Community Medicine

Re: Title of Study: Effect Of Community Infant And Young Child Feeding (cYCF) Counseling Program On Infant Feeding Knowledge, Attitudes And Practices In Harare City.

Thank you for your application for ethical review of the above mentioned research to the Joint Research Ethics Committee. Please be advised that the Joint Research Ethics Committee has reviewed and approved your application to conduct the above named study.

- APPROVAL NUMBER: JREC/33/13
- APPROVAL DATE: 2nd May 2013
- EXPIRATION DATE: 1st May 2014
- TYPE OF MEETING: Expedited Review

This approval is based on the review and approval of the following documents that were submitted to the Joint Ethics Committee:

a) Completed application form
b) Full Study Protocol Version number:
c) Informed Consent in English and/or appropriate local language
d) Data collection tool version:

After this date the study may only continue upon renewal. For purposes of renewal please submit a completed renewal form (obtainable from the JREC office) and the following documents before the expiry date:

a. A Progress report
b. A Summary of adverse events.

c. A DSRB report

MODIFICATIONS:
Prior approval is required before implementing any changes in the protocol including changes in the informed consent.

TERMINATION OF STUDY:
On termination of the study you are required to submit a completed request for termination form and a summary of the research findings/results.

Yours Faithfully,

Professor MM Chidzonga
JREC Chairman

CHRP IRB Number: IORG 00009514
PARIRENYATWA GROUP OF HOSPITALS FWA: 00019350
Appendix 9: MRCZ Approval Letter

Medical Research Council of Zimbabwe
Josiah Tongogara / Mazoe Street
P. O. Box CY 573
Causeway
Harare

APPROVAL

Ref: MRCZ/B/497

10 May, 2013

Faith Kamusono
UZ College of Health Sciences
P.O Box A178
Avondale
Harare
Zimbabwe

RE: Effect of Community Infant and Young Child Feeding (cYCF) Counselling program on infant feeding knowledge, attitudes and practices in Harare city.

Thank you for the above titled proposal that you submitted to the Medical Research Council of Zimbabwe (MRCZ) for review. Please be advised that the Medical Research Council of Zimbabwe has reviewed and approved your application to conduct the above titled study. This is based on the following documents that were submitted to the MRCZ for review.

- a) Research proposal and summary
- b) Parental Informed Consent Form (English and Shona)
- c) Questionnaire (English and Shona)

- APPROVAL NUMBER: MRCZ/B/497
- APPROVAL DATE: 10 May 2013
- TYPE OF MEETING: Expedited
- EXPIRATION DATE: 09 May 2014

After this date, this project may only continue upon renewal. For purposes of renewal, a progress report on a standard form obtainable from the MRCZ website or our website should be submitted three months before the expiration date for continuing review.

- SERIOUS ADVERSE EVENT REPORTING: All serious problems having to do with subject safety must be reported to the Institutional Ethical Review Committee (IERC) as well as the MRCZ within 3 working days using standard forms obtainable from the MRCZ website: www.mrcz.org.zw
- MODIFICATIONS: Prior MRCZ and IERC approval using standard forms obtainable from the MRCZ website is required before implementing any changes in the Protocol (including changes in the consent documents).
- TERMINATION OF STUDY: On termination of a study, a report has to be submitted to the MRCZ using standard forms obtainable from the MRCZ website.
- QUESTIONS: Please contact the MRCZ on Telephone No. (04) 791792, 791193 or by e-mail on mrcz@zimphc.com or mrcz@mrcz.org.zw

Other:
- Please be reminded to send in copies of your final research results for our records as well as for the Health Research Database
- You are also encouraged to submit electronic copies of your publications in peer-reviewed journals that may emanate from this study.

Yours Faithfully,

MRCZ SECRETARIAT
FOR CHAIRPERSON
MEDICAL RESEARCH COUNCIL OF ZIMBABWE

PROMOTING THE ETHICAL CONDUCT OF HEALTH RESEARCH