BARRIERS TO IMPLEMENTATION OF PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV INFECTION DURING THE BREASTFEEDING PERIOD AMONG MOTHERS OF INFANTS IN ILALA MUNICIPAL IN DAR ES SALAAM

BY

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A DISSERTATION TO BE SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF PUBLIC HEALTH OF

THE UNIVERSITY OF DAR ES SALAAM

SEPTEMBER 2003

CERTIFICATION

The undersigned certify that they have read and hereby recommend for acceptance by the University of Dar es Salaam a dissertation entitled: '**Barriers to implementation of prevention of mother to child transmission of HIV infection during the breastfeeding period among mothers of infants in Ilala municipal in Dar es Salaam, Tanzania**' in partial fulfilment of the requirements for the degree of Masters of Public Health.

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I Sylvia Mamkwe, declare that this dissertation is my own original work and that it has not been presented to any other University for a similar or any other degree award.

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ACKNOWLEDGEMENTS

I am grateful to SIDA/SAREC for their financial support, which enabled successful completion of this course. I am very grateful to my supervisors, Dr. G. Kwesigabo and Dr. D. Simba for their tireless guidance provided from beginning of research proposal development up to the final write up of this dissertation. Special thanks to the late Prof. G. Lwihula for his assistance on the qualitative part of this study.

I would like to thank Mr. C.K. Makwaya, Mrs R. Mpembeni and Mr. F. Mayunga of the Department of Epidemiology and Biostatistics for their invaluable assistance in all aspects of statistics related to the study. I am also indebted to Dr. J. Kahama, District Medical Officer, Ilala district and all her staff for their commitment and facilitation, which made my data collection exercise successful.

Last, but not least, I would like to thank my research assistants, Mrs Digna Mlay, Ms Stella Stanslaus and Ms Pamella Kisoka who were involved in the data collection.

DEDICATION

I dedicate this work to my lovely parents Mr. Venance Mamkwe and Mrs Basilisa Mamkwe who provided me with a good education foundation, which brought me to where I am, my husband, Prime E. Kiwia for sacrificing his time in taking care of our family during my absence, his moral and spiritual support that facilitate my completion of the course, and to my son Ivan and my daughter Isobel.

ABSTRACT

PMTCT during breastfeeding is one of the most public heath challenge confronting researchers. About 90% of HIV infection in children is acquired through MTCT. Breastfeeding contributes to the overall risk of MTCT by 14%.

PMTCT has been implemented as the main strategy for preventing transmission of HIV from mother to child in order to save the lives of large numbers of children born to HIV infected mothers. However a number of PMTCT programmes have experienced a number of challenges during implementation.

A crossectional analytical study was done in Ilala district Dar es Salaam Tanzania from June to July 2003 with the objective of finding out barriers to implementation of PMTCT during breastfeeding period.

A total of 384 mothers aged 15-47 years were interviewed. Information on barriers to implementation of PMTCT was obtained through quantitative method by using structured interviews and qualitative using focus group discussions (FGD's) method.

The results showed that most (92.4%) of the respondents were aware of mother to child transmission of HIV, but the level of knowledge on the period of transmission was not as high (54.3%). Similarly awareness of PMTCT of HIV was high (91.9%) but the level of knowledge of methods of PMTCT was poor (62.6%). Factors that contributed to the poor knowledge of PMTCT were low level of education and younger age.

The prevalence of breastfeeding was found to be 97.9 %(376/384). The few who were not breastfeeding were advised to stop breastfeeding by a doctor because their milk was bad.

Information on MTCT was obtained from clinics 60.3% (246/4O8) and media where radio was the commonest.

Regarding breastfeeding practice, about 83.0% (346/417) of mothers would give cow milk or formula milk to the young babies. The remaining few said they usually let the baby breastfeed from another woman.

Of the four breastfeeding options majority 97.2%(67/69) of the mothers would prefer to give to their babies formula milk only two mothers favoured exclusive breastfeeding, arguing that even little amount of mother's milk may contain viruses.

Asked whether they would advise a friend who is HIV positive to breastfeed or not, majority (90.4%) of the mothers said they would advise not to breastfeed to avoid transmission. The few who would advise others to continue breastfeeding argued that formula milk is expensive and the mother's milk is important for the baby.

Majority 69.7 %(267/383) of the mothers expressed worries on stigmatisation should a mother who is HIV positive stop breastfeeding.

This study found that, mothers were aware of MTCT, PMTCT and breastfeeding options but their level of knowledge was poor. Stigma was the commonest barrier to implementation of MTCT; therefore there is a need to educate mothers on PMTCT, and to develop strategies for reducing stigma.

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ARV's	Anti-retroviral drugs
CBO's	Community Based Organisations
CVS	Cardiovascular system
DED	District Executive Director
DMO	District Medical Officer
FGD	Focus Group Discussion
HIV	Human Immunodeficiency Virus
JAMA	Journal of American Medical Association.
MTCT	Mother to Child Transmission
MTP III	The third Medium Term Plan
NACP	National AIDS Control Programme
NGO's	Non Governmental Organisations
PMTCT	Prevention of Mother to Child Transmission
RTI	Respiratory Tract Infection
TB	Tuberculosis
TBA's	Traditional Birth Attendants
TRCHS	Tanzania Reproductive and Child Health Survey
UNAIDS	United Nations AIDS
UNICEF	United Nations Children and Education Fund
US	United States
WHO	World Health Organisation

INTRODUCTION

The HIV/AIDS epidemic is the greatest challenge to human kind in the 21st century. It is a public health problem of the worst kind ever to afflict our country. The infection from mother to infant is known as mother to child transmission (MTCT), vertical transmission, or perinatal transmission. This takes place when the virus passes from a mother to her own infant, during pregnancy, delivery, or through breastfeeding. Reduction of HIV transmission during the breastfeeding period is one of the most pressing public health dilemas confronting researchers; health policy makers and HIV infected women in resource poor settings (Tapper and Fransen, 1999). Postnatal transmission of HIV/AIDS from mother to child remains important in cases where peripartum anti retroviral prophylaxis reduce the risk of vertical transmission late in pregnancy and delivery.

About 90% of MTCT of HIV takes place in Africa particularly the Sub Saharan Africa, and this provides evidence of the difficult trade offs policymakers and programme planners have to make. Over 90% of HIV infection in children is acquired through MTCT, while the remainder is through blood transfusion or unhygienic conditions in hospitals (Tapper and Fransen 1999). It has been reported that when ARVs are given during pregnancy and delivery, and delivery is by Caesarean Section, and if breastfeeding does not take place the rate of transmission can be reduced from 30% to 2% (Monfenson and Melnlyre, 2000). In Africa however, where interventions have generally not been available and where prolonged breastfeeding is the norm, about 25 to 40% of HIV infected mothers pass on the virus to their infants (Dabis et al 2000).

Breastfeeding contributes substantially to the overall risk of MTCT. It is estimated that breastfeeding increases the overall risk by 14% for women with established HIV infection and by 29% for women who become infected during lactation. This demonstrates the importance of the primary prevention of HIV acquisition in lactating women, (Specter 1999.)

The ultimate goal of public health programmes for PMTCT is to save the lives of large numbers of children born to HIV infected mothers. In the United States (US) and other developed countries HIV positive women are advised not to breastfeed and to use formula milk instead, because the formula milk is affordable and they have access to clean water and health care if the baby gets diarrhoea. While formula feeding may be the most obvious choice for prevention of HIV transmission it is still not easy to use, (JAMA 2000).

In developing countries where many people do not have access to clean water, HIV positive women were often advised to breastfeed babies to protect them from health problems related to formula feeding. Today some people still feel that this is the best advice while others feel that women should have more information, choices and better access to affordable formula.

Even if an HIV infected mother in a developing country has access to clean water and formula milk, the decision not to breastfeed is not always easy. Breastfeeding is a norm in most of the developing countries and women who do not breastfeed may fear questions about why they do so. Many HIV positive women have to lie or

disclose their status to stop pressure on them to breastfeed, (Tapper and Fransen, 1999).

Researchers agree that exclusive breastfeeding for six months or less is safer than mixed feeding. In a study done in South Africa on HIV positive women and their babies, 25.6% of babies who received mixed feeding were reported to be infected compared to about 14% of those who were exclusively breastfed and 18.8% of formula fed babies (Cout Soudis et al 1999). However they disagree about whether women will realistically be able to do so.

- Most of health workers who know of a woman's HIV status, believe she has made the safest choice for her child when she uses formula feeding. They overlook giving her an opportunity to express her anger or sadness about not being able to breastfeed her child.

- Some of HIV positive women may fear risk of family rejection, or being isolated if perceived to have HIV/AIDS. This fear of rejection is largely due to stigma that is associated with the disease; this discourages some of women from choosing not to breastfeed, (WHO, UNICEF 1999)

- It may be difficult for a clinician to discourage breastfeeding since it is a norm in most of the developing countries and also because of poor economic status. The woman may not be in a position to afford other alternatives. What makes it even more difficult for a clinician is the fact that it is not mandatory to test every woman

for HIV in Tanzania. Therefore the doctor and his/her patient are often ignorant of the later's HIV status.

A study done in Dar es Salaam, Tanzania, shows that HIV prevalence in antenatal women was 12%, and MTCT rate was 40% (Massawe A. 1998). In our country not all HIV positive women receive counselling including general information about risks and benefits of different new born feeding options and specific guidance to help mother to make right choice according to the ideal situation, even for those who can afford to buy formula milk.

STATEMENT OF THE PROBLEM

Transmission of HIV infection from mother to child may be acquired in utero through the maternal circulation, at the time of delivery by inoculation or ingestion of the blood or other infected body fluids or soon after delivery through breast milk. There are some risk factors, which are associated with MTCT, which include obstetric procedures (vacuum delivery, forceps delivery etc), chorioamnionitis, maternal viral load, maternal viral characteristics, syphilis and malaria (JAMA, 1995).

Young women are increasingly acquiring HIV infection at an early age and as a result, MTCT of the HIV is rising, and this will continue to do so unless effective sustainable policies to protect women and their offsprings are introduced and implemented effectively, (Tapper and Fransen, 1999).

The WHO estimates that over 1.5 million (90%) children world wide have been infected with HIV through MTCT (Mertens and Burton, 1996) and the risk of transmission from an infected mother to her infant ranges from about 15-40% with the highest rates reported in sub Saharan Africa (Tapper and Fransen, 1999). The difference is being associated with prevalence of breastfeeding between different populations. Approximately 20% of infants of HIV infected mothers are infected before or during delivery, and about 14% are infected through breastfeeding (UNAIDS, 1998).

In a community in which 20% of children are born to HIV infected women and 14% of infants are infected by breastfeeding about 3% of all infants in the community

would be at risk of being infected through breastfeeding. (The LINKAGES Project, 1998).

There's a dilema among the HIV positive women whether to breastfeed or not regarding their socio economic status, social norms, prevailing cultural practices, which remain as major barriers to safe newborn feeding. The strong cultural pressures to breastfeeding along with desire to protect newborn from HIV/AIDS by not breastfeeding may increase the practice of mixed feeding, which is the most dangerous infant feeding method. Also there's dilema in the community because before HIV infection started breastfeeding was advocated and use of formula milk was discouraged, but now for those who are HIV positive, use of formula milk is advocated and breastfeeding is discouraged.

Breastfeeding is a social norm in many societies in the developing countries. WHO recommends that, in settings where infectious diseases and malnutrition are primary causes of infants deaths (most areas of developing countries), pregnant women are encouraged to breastfeed regardless of their HIV status. In settings where infectious diseases are not primary causes of infants deaths (most areas of all industrialised countries), HIV infected pregnant women should be advised not to breastfeed (Preble, 1995).

Among the child feeding options are, not to breastfeed at all and use of formula milk instead, and the other option is to breast feed exclusively for 4 to 6 months only and start replacement feeds.

Research question

This study was aimed at finding out if the mothers know the available child feeding options; and if they do; were they ready to adopt them given the social-economic and cultural context in which they live in order to do the best for their babies.

RATIONALE OF THE STUDY

The importance of this study therefore was to explore barriers to implementation of PMTCT during the breastfeeding period among mothers of infants. The information obtained may help researchers, policy makers, NGO's and academic institutions to develop appropriate strategies for the implementation of PMTCT.

STUDY OBJECTIVES

General objective

To determine barriers to implementation of prevention of mother to child transmission of HIV infection during the breastfeeding period among mothers of infants in Ilala municipal

Specific objectives

1. To determine the breastfeeding practice among mothers of infants and the association with their demographic characteristics.
2. To determine the level of knowledge of mothers of infants on MTCT, prevention and breastfeeding options.
3. To determine the source of the information on MTCT.
4. To explore the attitude of mothers on various breastfeeding options.
5. To find out problems which are likely to be experienced by mothers who would not breastfeed.

LITERATURE REVIEW

HIV infection is a global problem. Over the past decade, HIV infection has spread throughout the world. The majority of paediatric HIV infection results from maternal fetal transmission worldwide, with the transmission rate varying by population and geographical area. Transmission rate varies from a low, 13% in Europe to high of 35-40% reported in Africa studies (Lancet, 1992). WHO estimates that over 1.5million children worldwide have been infected with HIV through MTCT (Martens and Burton, 1996).

MTCT of HIV-1 can occur during pregnancy, delivery or breastfeeding period. The mechanism of timing of transmission remains uncertain, however increasing evidence indicates that a large proportion (at least 50%) of MTCT occurs at or near the time of delivery (Landsman, 1996).

In United States, Europe and other developed countries most women have become infected either through drug abuse or by sexual contact with infected men who are drug users (John and Martha, 1991). Women and children in these countries represent approximately 10% and 2% of AIDS cases respectively (WHO collaborating centres). The overall seroprevalence of HIV infection among women in most developed countries is less than 1% but in some of the sub population of intravenous drug abusing women the seroprevalence is 50% (John and Martha, 1991).

In the developing countries of sub Saharan Africa and the Caribbean, HIV is becoming an increasingly important cause of death in women and children and has spread to women primarily through heterosexual contact. The seroprevalence among pregnant women in these countries has exceeded 20%. Children acquire HIV

primarily through perinatal exposure to their infected mothers. It is estimated that 20% to 40% of infants born to infected mothers acquire HIV infection from their mothers (John and Martha, 1991).

About 20% of infants of HIV infected mothers are infected before or during delivery. If the HIV infected mothers breastfeed then an additional of 14% of their infants would be infected through breastfeeding. This means about two thirds (70 to 80%) of infants born by HIV infected mothers will not escape from infection (The LINKAGES Project 1998). This shows that there is still a gape in our knowledge to explain the variables in the MTCT.

The length of exposure to breastfeeding has been associated with increased risk of transmission. Prolonged breastfeeding increase the risk of a woman giving HIV to her child by 14%. A study done in Kenya, among 2year old children, 20% of formula fed babies become infected with HIV compared to 36% of breastfed babies. Formula milk also has risks. When it s not given safely can make a baby vulnerable. Making formula milk with unsafe water can expose the baby to dangerous bacterial diseases. In developing countries babies who are fed on formula are up to six times more likely to die from diseases like diarrhoea, respiratory tract infection (RTI) than breastfed babies (WHO, 1987).

Mixed feeding is the most dangerous option because formula feeding irritates the gut mucosa of the baby making it easier for the HIV virus to get into the blood. Breastfeeding exclusively for six months or less is less risky; however, some Researchers disagree whether women will be able to do so. In a study done in South Africa, among HIV positive mothers and their babies, 36% of babies who received

mixed feeding were reported infected compared to 14% who were exclusively breastfed and 18.6% who were formula fed. (Cout Soudis et al, 1999).

For women in US and other developed countries although HIV infected mothers have access to formula milk and safe water, but still they cannot stop breastfeeding due to fear to disclose their HIV status which will make them being isolated, discriminated, isolated or stigmatised.

Stigma is particularly strong, surrounding MTCT. The very phrase 'MTCT' itself may stigmatise as it puts all the responsibilities of transmission on the mother and none on the father of the baby. Stigma stops women from coming forward to get tested (Lucian, 2003). Stigma reduces their choices when it comes to health care and family life and has negative effect on their quality of life. Women who are not breastfeeding are subjected to social stigma since breastfeeding is a norm.

WHO recommends that mothers with HIV avoid breastfeeding entirely when replacement feeding is available, feasible, and acceptable within the culture, affordable and sustainable and safe, however, replacement feeding must be considered in the context of the other factors in the particular environment. The decision not to breastfeed might draw attention to her HIV status, putting her at risk of discrimination and abandonment by her family.

In the developing countries not all women are accessible to PMTCT information, those who have access to information is mainly through health facilities and media (CDC, 2003).

Situation in Tanzania

In Tanzania HIV prevalence as per national surveillance screening of women at antenatal clinics in 17 sentinel sites ranges from 5.5% to 23% (NACP, 1998-2002).

Tanzania, as in many other HIV/AIDS affected countries; women are more likely to contract HIV than men by a ratio of 1.5:1. In the age group of 15-19 year olds, girls are six times more likely to be infected than boys. These gender imbalances have important consequences for overall HIV/AIDS infection rates among children in Tanzania. It is estimated that some 70,000-80,000 babies contract HIV annually from their HIV infected mothers. In 1996 MTCT accounted for about 4%of all reported cases (NACP, 1998-2002).

METHODOLOGY

STUDY AREA

The study was conducted in Ilala Municipal in Dar es Salaam. Ilala Municipality is situated in the South West part of the City of Dar es Salaam. The district is boarded by Indian Ocean to the East, Coastal Region to the West, Kinondoni municipality to the North and the Temeke municipality to the South. For administrative purposes the municipality is divided into 3 divisions, which are Ilala, Ukonga, and Kariakoo. It has 22 wards, and covers an area of 210^2 km with an estimated population of 637,573 as per 2002 census data, among which 321,903 are males and 315,670 are females. The average household size for the municipality is 4.5.

Health care delivery system

The Municipality has a total of 133 health facilities, out of these 17 are government health facilities, and 116 are private health facilities. The health facilities comprise of 2 government hospitals (Amana and Muhimbili National Hospitals) and 5 private hospitals, 14 health centres (2 Government and 12 Private) 112 dispensaries (13 Government and 99 Private).

The district also has some Non Governmental Organisations (NGOs) and Community Based Organisation (CBOs).

The major diseases, which contribute to the burden of disease in the municipality, include malaria, HIV/AIDS, TB, pneumonia, perinatal conditions, cardiovascular diseases (CVS) and injuries. The district often experiences still has problems with outbreaks of cholera in unplanned settlements and occurrence of schistosomiasis along the Msimbazi valley.

Economic Activities

The main economic activities are: production activities, which include agriculture, livestock, natural resources, fishing, industries, business activities, which ranging from big formal business to petty traders.

STUDY DESIGN

Cross sectional analytical study was conducted in Ilala Municipal, Dar es Salaam for one month. Both quantitative and qualitative methods were used in data collection, which consisted of structured questionnaire and focus group discussions (FGDs) respectively. The structured questionnaire consisted of open and closed questions. The open questions and FGDS enabled probing to obtain reasons for attitude and perception. The FGDs were conducted among mothers of infants, and traditional birth attendants (TBAs) who were identified by village leaders.

STUDY POPULATION

The study population consisted of mothers who had children below one year (infants) regardless of whether they were breastfeeding or not and TBAs within the selected wards.

SAMPLE SIZE ESTIMATION

Sample size was calculated by using the formula,

$n= z^2pq/e^2$

Where n= Expected minimum sample size

z= is a standard value which corresponds to 1.96 (at 95% CI)

p= knowledge of MTCT through breastfeeding in Tanzania, 70%

(TRCHS, 1999)

e= Maximum likely error (at 0.05)

q= 1-p

Therefore,

$n= 1.96^2(O.7\ (1-0.7))/0.05^2$

$= 323$

To adjust for non-response, 10% of the sample size was added to give the final sample size of 355 people.

SAMPLING PROCEDURE

The study sample of 384 was obtained using the multistage cluster sampling technique. In the first stage a list of all wards in Ilala district was obtained, and three wards were selected randomly using a table of random numbers. The selected wards were Ilala, Tabata and Vingunguti. In the second stage a list of all streets within the selected wards was obtained. Six streets were selected randomly from Ilala ward, six streets from Vingunguti and three streets from Tabata ward depending on the size of the ward. In the third stage a list of all ten-cell leaders within the selected streets was obtained three were selected randomly and then house-to-house interview of mothers with infants was done until the required sample size was reached. The intracluster variation was assumed to be minimal therefore within one household only one mother was interviewed.

The participants for the FGDs were obtained from the same community, which included mothers of infants and TBAs. Purposeful sampling was used to obtain the individuals for FGDs, which included mothers who participated in the interview.

DATA COLLECTION PROCEDURE

A. Structured interview.

Three research assistants i.e. two social scientist and one nurse officer collected the data under the supervision of the principal investigator after been trained for two days on the purpose of the study, how to establish rapport, data collection procedures and how important is their participation in terms of quality of data. Pretesting of the questionnaire was done before starting data collection in the study area. Pre visit of the study area was done prior to collection of data, to seek for consent from ward executive officers and confirm the study area profile. Interviews were done on daily basis except on Sundays. Each interview took about 25- 30 minutes. This was done from house to house, and only one mother with an infant within the household was interviewed who was randomly selected. For those who were absent during data collection revisits appointment were done, and a maximum of three visits were done (call backs). Data quality checks and editing was done daily by the supervisor after interviews.

Categorization of knowledge

In this study knowledge was divided into three levels for the questions on MTCT and PMTCT and two levels for the question on breastfeeding options. There were three multiple answer questions, the first one for measuring knowledge on MTCT and the modes of transmission and the other two questions were for measuring knowledge on prevention and breastfeeding options. For each correct answer a score of one point was given. The maximum score for all questions was 10 points, (see page 19).

B. Focus Group Discussions.

FGDs were conducted among three categories of people in the community; young mothers of infants, older mothers of infants, and TBAs. One focus group discussion was conducted for each category and each group consisted of 8-14 people. First group consisted of mothers of infants who were aged 15-24 years. The second group consisted of mothers of infants aged 25 years and above. The third group consisted of TBAs.

DATA MANAGEMENT AND ANALYSIS

Records were checked for completeness and coded. Data entry followed by data cleaning was done in the class and then various proportions were calculated by using Epi Info programme.

DATA PRESENTATION

Frequency distribution tables cross tabulation and figures have been used to present most of the data. Chi-square tests have been calculated where necessary. Cut off point for significant value was > 0.05. Data for FGD's was analysed qualitatively.

LIMITATIONS

Breastfeeding is an important socio-cultural issue in this community; due to some strong cultural beliefs of some two mothers who had babies below 40 days they refused to be interviewed.

Some mothers thought that we were people from voluntary counselling and testing (VCT) therefore some hid their babies.

HIV is a very sensitive issue in this community due to the surrounding stigma; therefore some people may not volunteer all the information.

ETHICAL ISSUES

Ethical clearance was obtained from Muhimbili University College of Health Sciences. Permission was obtained from District Executive Director's (DED) office, the purpose of the study was clearly explained, consent was obtained from respondents, and anonymity was ensured.

DEFINITIONS

Infant – is a baby who is less than one year.

MTCT- Is mother to child transmission of HIV

Exclusive breastfeeding - Is feeding an infant with breast milk only; this includes expressed breast milk and medicines and excludes water.

Attitude- This refers to a general and enduring positive or negative feeling about a person, object, or issue. In this study attitude was regarded as mother's point of view towards breastfeeding options.

A person has a positive attitude when she approves one or more of the breastfeeding options and negative attitude when she disapproves the breastfeeding options.

Awareness- A woman is aware of MTCT if she has ever heard about MTCT

Knowledge -Is a kind of learning, which takes place when a target audience is exposed to information, which varies from individual to individual. Knowledge as used in this study was recall of the periods at which MTCT occurs, prevention of MTCT and breastfeeding options.

Knowledge on MTCT

Poor knowledge 0-1 points

Moderate knowledge 2 points

Good knowledge 3 points

Knowledge on PMTCT

Poor knowledge 0-1 points

Moderate knowledge 2-3 points

Good knowledge 4-5 points

Knowledge on child feeding options

Poor knowledge 1 point

Good knowledge 2 points

RESULTS

A total of 384 mothers of infants from the three wards in Ilala District were interviewed, 58% of them were from Vingunguti ward and the rest were from Tabata and Ilala wards.

Socio-Demographic characteristics of the respondents

The respondents' age ranged from 16-47 years. About two thirds (62.7%) were aged 20-29 years. Their mean age was 25.8 years (95%CI = 25.2-26.4) with majority of them being Christians (62.0%). The highest proportion of mothers were married (59.4%). Housewives formed the majority of the respondents (75%). Majority (77.3%) of the respondents had primary school education. About 89% of mothers had at least 3 children with almost half of them having a single child.

Table 1: Various socio demographic characteristics of the studied population N=384

Age group (Years)	Frequency	Percent
<19	45	11.7
20-24	143	37.2
25-29	98	25.5
30-34	68	17.7
35-39	13	3.4
≥ 40	17	4.4
Education		
No formal education	38	9.9

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Primary school education	297	77.3
Secondary or post secondary education.	49	12.8
Marital status		
Single	49	12.8
Married	228	59.4
Cohabiting	93	24.2
Others	14	3.6
Occupation.		
Housewife	288	75
Petty businesswoman	70	18.2
Employed	17	4.4
Others	9	2.3
Parity		
1	187	48.7
2	104	27.1
3	51	13.3
4	27	7.0
≥ 5	15	4.0
Religion		
Christian	225	58.6
Moslem	159	41.4
Total	**384**	

Health seeking behaviour and Breastfeeding practice

Almost all mothers (99.7%) attended antenatal clinic during the last pregnancy and of them 88.5% delivered at health facility. About half (46.6%) of the mothers reported to have breastfed their lastborn for 24 months, only 5.2 % of the children were breastfed for less than 6 months. Reason given for breastfeeding for less than 6 months was, child refused breastfeeding (5) and mother became pregnant (5).

RESPONDENTS' AWARENESS OF MTCT AND THE SOURCE OF INFORMATION

The respondents' awareness on PMTCT was assessed. The results showed that majority of women were aware of MTCT (92.4%). Those who were aware of MTCT were further asked on their source of information. Majority of the women reported to have obtained information from clinic (60.3%). See table 2.

Table 2. Mothers' source of information on MTCT

Source of information	Frequency	Percent
Antenatal clinic	246	60.3
Media	83	20.3
Hospital	16	3.9
VCT	6	1.5
People	57	14.0
Total	**408**	**100.0**

Women who obtained information from the media (20.3%) were asked on the type of media, from which they got information. Most of them (67.3%) reported to have obtained the information from radio (67.3%), and television (22.7%). (See figure 1)

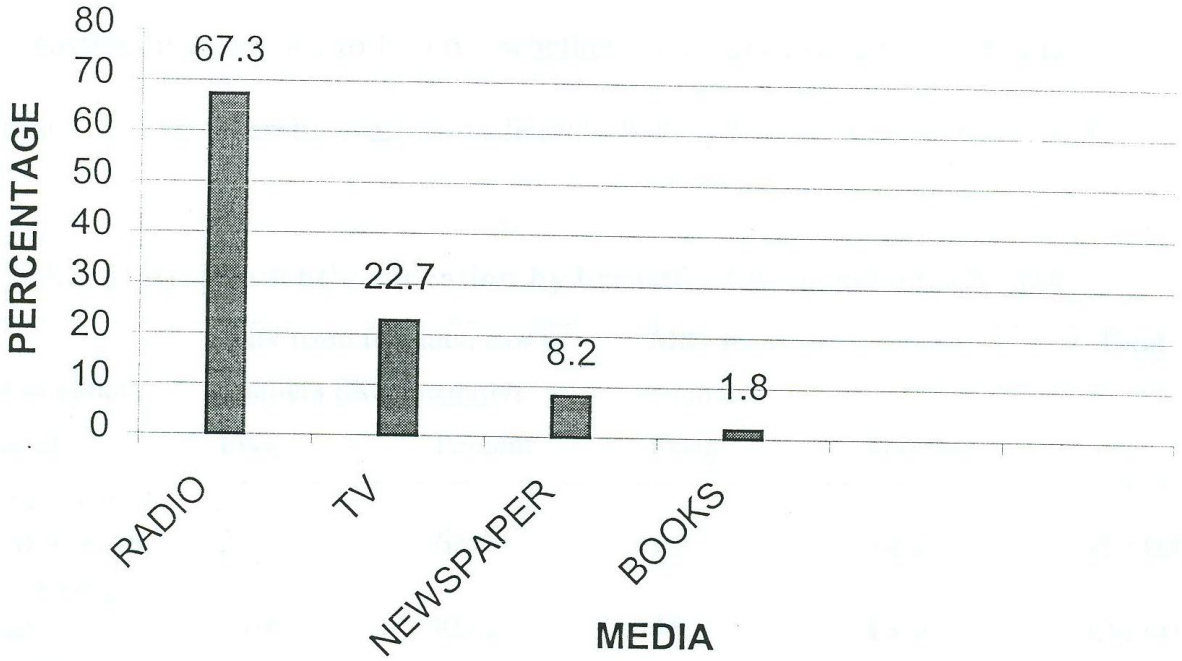


Figure 1: The type of media from which mothers received information on MTCT

BREASTFEEDING OPTION FOR BABIES WHO LOST THEIR MOTHERS

The respondents were asked on feeding practices for babies who have lost their mothers. The purpose was to establish practices that facilitate MTCT.

Majority of respondents, 225(54.0%) said they would give formula milk to the baby while 121(29.0%) would give cow milk. About 65(15.6%) of respondents said they request a close relative who is lactating to breastfeed the baby. Only 65(15.6%) would let the baby breastfeed from any lactating woman as long as the woman has been tested and found negative for HIV.

Factors influencing attitude towards risky breastfeeding practices for MTCT

Education status of the respondents was analysed in relation to attitude towards breastfeeding practice to find out whether the level of education influences the option that could be taken by women on feeding babies whose mothers have died.

Table 3: Respondent's education by breastfeeding practice (N=384)

Education level	Milk from formula, cow or mothers tested negative		Milk from any lactating woman		Total
	Freq	Percent	Freq.	Percent	
No formal education	27	65.9	14	34.2	41 (100.0)
Primary education	279	86.1	45	13.9	324 (100.0)
Secondary education	46	88.5	6	11.5	52 (100.0)
Total	**352**	**84.4**	**65**	**15.6**	**417 (100.0)**

More than one option was allowed, p value= 0.02

The best feeding practice for babies who have lost their mothers is to give them formula milk, cow's milk or milk from a mother who tested negative for HIV. Attitude towards risk behaviour for MTCT was found to be higher among women with no formal education and decreased with increase in the level of education. The difference was found to be statistically significant (p value =0.002).

The respondent's age was also compared to women attitude towards feeding practice to find out whether mother's age has an influence on the option that would be taken.

Table 4: Respondents age in relation to breastfeeding practice (N=384)

Age group (Years)	Milk from formula, cow or mothers tested negative		Milk from any lactating woman		Total
	Freq	Percent	Freq	Percent	
15-24	165	81.3	38	18.7	203 (100.0)
≥ 24	187	87.4	27	12.6	214 (100.0)
Total	**352**	**84.4**	**65**	**15.6**	**417 (100.0)**

The practice of breastfeeding from any lactating woman was higher among mothers aged 15-24 years than those aged above 24 years. Therefore risk behaviour for MTCT through breastfeeding from any lactating woman decreases with increase in age. The difference was marginally significant (p value =0.08).

Comparison was made between the 3 main respondents' occupation and the attitude towards risky breastfeeding practice. This was aimed at finding out whether mothers' occupation has an influence on the option that could be taken.

Table 5 shows that risk behaviour was found to be higher among housewives (17.1%), followed by employed mothers, (16.7%). However, the difference was not significant, (p value = 0.43).

Table 5: Respondent's occupation in relation to breastfeeding practice

Occupation	Milk from formula, cow or mothers tested negative		Milk from mothers tested Negative		Total
	Freq	Percent	Freq	Percent	
Housewife	261	82.9	54	17.1	315 (100.0)
Businesswoman	65	89.0	8	11.0	73 (100.0)
Employed	15	83.3	3	16.7	18 (100.0)
Total	**341**	**84.0**	**65**	**15.6**	**406(100.0)**

MOTHERS' KNOWLEDGE ON MTCT

Knowledge on MTCT was established using a set of questions (see page 71) that covered the possibility of MTCT (during pregnancy, delivery, and breastfeeding), prevention and child feeding options.

It was found from this study that 315(89.2%) knew about possibility of HIV transmission from mother to child. Transmission during breastfeeding was the most well known period 278 (44.9%), followed by the period during pregnancy203 (32.8%) and 67 (21.3%) had knowledge on when transmission occurs and how transmission can be prevented.

Level of knowledge of MTCT in relation to education

Level of knowledge was assessed by scoring a set of ten questions as can be seen in appendix No IV (see page 73). Majority of the women (75.6%) had moderate to good knowledge on MTCT.

The level of knowledge on MTCT was compared with the level of education to see whether education has an influence on the level of knowledge of MTCT.

Table 6: The relationship between level of mothers' knowledge on MTCT and Level of education

Education Level	Poor Knowledge		Moderate knowledge		Good Knowledge		Total
	Freq.	Percent	Freq.	Percent	Freq.	Percent	
No formal education	5	18.5	15	55.6	7	25.9	27 (100.)
Primary education	69	28.2	131	53.5	45	18.4	245(100)
Secondary education	3	7.0	25	58.1	15	34.9	48 (100)
Total	**77**	**24.4**	**171**	**54.3**	**67**	**21.3**	**315(100)**

69 were non applicable

Mothers with secondary education had the highest level of knowledge on MTCT (34.9%). Poor knowledge was highest among women with primary school education. Therefore it can be concluded that education has an influence on knowledge of MTCT (p-value=0.015).

The mothers' knowledge on MTCT by age group

The respondents' age group was compared with the level of knowledge of MTCT, to see whether there is relationship between the two variables.

Table 7: The relationship between knowledge of MTCT and age

Age group	Poor knowledge		Moderate knowledge		Good knowledge		Total
	Freq	Percent	Freq	Percent	Freq	Percent	
15-24	49	33.1	70	47.3	29	19.6	148 (100.0)
25-34	22	15.7	87	62.1	31	22.1	140 (100.0)
35-50	6	22.2	14	51.9	7	25.9	27 (100.0)
Total	**77**	**24.4**	**171**	**54.3**	**67**	**21.3**	**315 (100.0)**

69 were non applicable

Elderly mothers (35 and above) were found to have highest level of knowledge compared to younger ones. There was also a notable increase in the level of knowledge with increase of age. It can therefore be concluded that the level of knowledge on MTCT increases with age (p value = 0.014).

Respondents' level of knowledge of MTCT in relation to breastfeeding practice

Respondent's level of knowledge on MTCT was compared to attitude on breastfeeding practice for babies who lost their mothers to find out whether there was any association.

Table 8. The respondents' level of knowledge on MTCT in relation to Breastfeeding practice N=315

Level of knowledge	Milk from formula, cow or mothers tested negative		Milk from any lactating woman		Total
	Freq	Percent	Freq	Percent	
Poor	69	82.1	15	17.9	84 (100.0)
Moderate	150	84.3	28	15.7	178 (100.0)
Good	71	91.0	7	9.0	78 (100.0)
Total	**290**	**85.3**	**50**	**14.7**	**340 (100.0)**

More than one option was allowed.

Table 7: The relationship between knowledge of MTCT and age

Age group	Poor knowledge		Moderate knowledge		Good knowledge		Total
	Freq	Percent	Freq	Percent	Freq	Percent	
15-24	49	33.1	70	47.3	29	19.6	148 (100.0)
25-34	22	15.7	87	62.1	31	22.1	140 (100.0)
35-50	6	22.2	14	51.9	7	25.9	27 (100.0)
Total	**77**	**24.4**	**171**	**54.3**	**67**	**21.3**	**315 (100.0)**

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Moderate	150	84.3	28	15.7	178 (100.0)
Good	71	91.0	7	9.0	78 (100.0)
Total	**290**	**85.3**	**50**	**14.7**	**340 (100.0)**

More than one option was allowed.

Women with good knowledge were found to have better attitude towards breastfeeding babies who lost their mothers (91%). Women with poor knowledge had the highest level of risky behaviour (17.9%). Risky attitude was found to increase with the decrease in the level of MTCT knowledge. However, the difference was not statistically significant (p value = 0.24).

Table 9: Respondents' level of knowledge on MTCT in relation to occupation

Three major occupations, i.e. housewife businesswoman and formal employment were compared to the level of knowledge on MTCT to find out whether the type of occupation has an influence on the level of knowledge on MTCT.

Occupation	**Poor Knowledge**		**Moderate Knowledge**		**Good Knowledge**		**Total**
	Freq.	**Percent**	**Freq.**	**Percent**	**Freq.**	**Percent**	
Housewife	68	28.5	121	50.6	50	20.9	239(100.0)
Businesswoman	5	8.9	37	66.1	14	25.0	56 (100.0)
Employed	4	20.0	13	65.0	3	15.0	20 (100.0)
Total	**77**	**24.4**	**171**	**54.3**	**67**	**21.3**	**315 (100.0)**

69 respondents were non applicable.

It was found from the study that housewives were the least informed (28.5%) compared to Businesswomen who were found to be more informed (25.0%). The difference was statistically significant, (p value = 0.0085)

RESPONDENTS LEVEL OF KNOWLEDGE ON PREVENTION OF MOTHER TO CHILD TRANSMISSION (PMTCT)

Level of education of the respondents was cross tabulated with level of knowledge on prevention of MTCT.

Table 10: Respondents' level of knowledge on PMTCT in relation to education,

Education	Poor knowledge		Moderate knowledge		Good knowledge		Total
	Freq.	Percent	Freq.	Percent	Freq.	Percent	
No formal education	20	66.7	8	26.7	2	6.7	30
Primary school	183	65.8	71	25.5	24	8.6	278
Secondary school	18	40.0	22	48.9	5	11.1	45
Total	**221**	**65.7**	**101**	**28.6**	**31**	**8.8**	**353**

31 respondents were non applicable.

Level of knowledge was assessed using a scale similar to that used in knowledge of MTCT. Those who had no formal education were found to be less informed, (66.75) compared to those with secondary education who had the highest level of good knowledge (11.1%). Therefore level of knowledge on PMTCT increases with increase in the level of education, the difference was found to be significant, (P value=0.0016).

Respondent's level of knowledge on PMTCT in relation to age.

The respondent age was cross tabulated with level of knowledge on PMTCT, to find out whether age has an influence on knowledge of PMTCT.

Table 11: Respondents level of knowledge on PMTCT by age

Age group	Poor Knowledge		Moderate Knowledge		Good Knowledge		Total
	Freq.	Percent	Freq.	Percent	Freq.	Percent	
15-24	117	69.6	40	23.8	11	6.5	168
25-34	90	57.0	49	31.0	19	12.0	158
35-50	14	51.9	12	44.4	1	3.7	27
Total	**221**	**62.6**	**101**	**28.6**	**31**	**8.8**	**353**

31 respondents were non applicable.

Younger mothers, 15-24 years had a high level of poor knowledge on PMTCT, compared to the aged, 35-50. The difference was significant, P value=0.0036.

Respondent's level of knowledge on PMTCT in relation to occupation.

The occupation of mothers was cross tabulated with knowledge PMTCT, to find out whether occupation has an influence on knowledge of PMTCT.

Table 12: Respondents level of knowledge by occupation

Occupation	Poor Knowledge		Moderate knowledge		Good Knowledge		Total
	Freq.	Percent	Freq.	Percent	Freq.	Percent	
Housewife	179	66.8	64	23.9	25	9.3	268
Businesswoman	29	45.3	29	45.3	6	9.4	64
Employed	13	61.9	8	38.1	0	0.0	21
Total	**221**	**62.6**	**101**	**28.6**	**31**	**8.8**	**353**

31 respondents were non applicable.

Whereas housewives were found to be the least informed on PMTCT (66.8%), businesswomen were the most informed (9.4%). The difference was statistically significant, (P value=0.005).

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Age group	Poor Knowledge		Moderate Knowledge		Good Knowledge		Total
	Freq.	Percent	Freq.	Percent	Freq.	Percent	
15-24	117	69.6	40	23.8	11	6.5	168
25-34	90	57.0	49	31.0	19	12.0	158
35-50	14	51.9	12	44.4	1	3.7	27
Total	**221**	**62.6**	**101**	**28.6**	**31**	**8.8**	**353**

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31 respondents were non applicable.

Whereas housewives were found to be the least informed on PMTCT (66.8%), businesswomen were the most informed (9.4%). The difference was statistically significant, (P value=0.005).

Factors associated with cessation of breastfeeding

Mothers were asked whether they were breastfeeding or not. For those who were not breastfeeding, reasons for cessation were established. The prevalence of breastfeeding was found to be very high (97.9%). Only eight mothers were not breastfeeding. Among the non-breastfeeding women, six of them stopped breastfeeding before 6 months, and two mothers stopped breastfeeding between 6 and 8 months.

Respondents who stopped breastfeeding were further asked on the reason for not breastfeeding in order to establish whether HIV positive status could be among the reasons.

Four mothers said the child refused, and four mothers reported to have been advised by a nurse (2), doctor (1) or sister (1). Of those that were advised by the nurse one had family problem and the other one was taking care of a patient at hospital. Doctor's advice was given on the ground that mother's milk was 'bad'. The advice from the relative was ascribed to mothers' milk being bewitched.

MOTHERS KNOWLEDGE ON THE EXISTING CHILD FEEDING OPTIONS FOR A HIV POSITIVE MOTHER

Respondents were asked whether they were aware of child feeding options for a HIV positive woman.

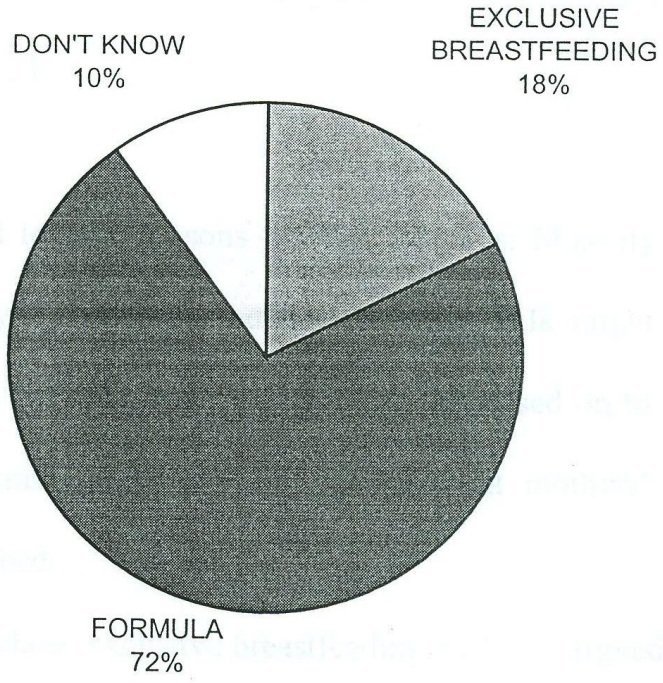


Figure 2: Respondents knowledge on breastfeeding options.

Majority (72.5%) of them were able to mention formula milk only, while exclusive breastfeeding for 4-6 months with abrupt stop was mentioned by only 17.6% of the mothers. Whereas 83.3% of the mothers knew at least one option, only 16.7% knew both child feeding options.

ATTITUDE OF MOTHERS TOWARDS THE EXISTING CHILD FEEDING OPTIONS

The attitude of mothers about child feeding options for HIV positive mother was explored among 69 mothers who were aware of child feeding options. This was done by asking respondents to choose an option thought to be best. Most of the respondents 67 (97.2%) said they would give to the baby formula milk. Only 2 among 69 mothers chose to breastfeed the baby exclusively for 4-6months and then stop and start weaning food.

Respondents were asked to give reasons for their choices. Majority of those who chose formula milk only, (97.1%) argued that mother's milk might contain small amount of viruses in the first to six months that can be passed on to the baby. The remaining opted for formula milk because they thought mothers' health would deteriorate if they breastfeed.

Majority of women who chose exclusive breastfeeding, (97.1%) argued that the baby could still be infected during pregnancy and therefore it was not useful to stop breastfeeding. This was also found during FGD's where one woman said: '*if the sperms are infected it means the foetus will also be infected therefore there is no need to stop breastfeeding.*'

One of the respondent said mother's milk is best, while another one said formula milk is expensive and only few mothers can afford. This was also noted during FGD's where one mothers said that: '*mother's milk is the best and is very important because if not given, the child may die due to lack of immunity.*'

Mothers' attitude was further assessed by asking them whether they would advise a friend who is HIV positive not to breastfeed in order to prevent transmission of HIV to the baby. Majority of the mothers 348(90.6%) said they would advise others not to breastfeed, while 36(9.4%) of them said they would still advise their friend to breastfeed even if they were HIV positive. Most mothers 28(77.8%) said they would advise so because mother's milk is important for the baby's growth.

(Table 13)

Table 13: Reasons for advising to breastfeed

Reason	No	Percent
BF is culture	1	2.8
Mothers milk is important	28	77.8
Fear of stigma	1	2.8
Child already infected	6	16.7
Total	**36**	**100**

Most of those who said that they would advise their friends not to breastfeed feared that the baby might be infected, (99.4%). Two of the mothers said they would advise the mother to stop breastfeeding so as to avoid deterioration of mothers health that could lead to early death.

PROBLEMS WHICH ARE LIKELY TO OCCUR IF THE MOTHER DOESN'T BREASTFEED

Mothers were asked on the perceived problems should a mother decide to stop breastfeeding. This was aimed at finding out problems that HIV positive mothers would encounter in their societies if they do not breastfeed.

Table 14: Problems, which are likely to arise if the mother will stops breastfeeding N=348

Problem	No	Percent
Stigma	267	69.7
Affordability	25	6.5
Culture violation	35	9.1
No problem	56	14.6
Total	**383**	**100**

More than one option was allowed

Majority of the women (69.7%) mentioned the problem of stigma, in the form of being laughed at, ignored, pointed at, isolated by husband and family; feeling bad in front of people, denied of their rights such as care during delivery; feeling guilty because of failure to breastfeed; called a killer, and people being suspicious on her. Similar responses were noted during FGD's, where one of the respondents said that: '*if a woman will not breastfeed, people will start suspecting that she is HIV positive and therefore people will start talking about her, they will fear to take care of her during delivery and some may be divorced by their husbands.*'

Few of the respondents, 35(9.1%) said if mother does not breastfeed she would be ostracised for not obeying culture. Some of the respondents argued that the mother may not afford to buy formula milk.

Mothers who thought there will be no problem, (14.6%) expressed belief that this is possible if the mother will explain the problem to family members or even friends.

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Mothers who thought there will be no problem, (14.6%) expressed belief that this is possible if the mother will explain the problem to family members or even friends.

DISCUSSION

Breastfeeding practice

The results showed that most of the mothers would give formula or cows milk to the young babies if their mothers die (84.4%). However 15.6% said the baby would usually breastfeed from any lactating woman, which increases the risk of transmission of HIV from mother to child (Table 3). It was noted from the FGD's that although formula milk or cow's milk was preferred, but it depends on the family's economic status. Thus if the family is poor and cannot afford they would usually allow the child to breastfeed from another woman after having tested negative for HIV. Breastfeeding from another woman was more common among housewives who were majority and were also found to have highest level of illiteracy. These mothers are less accessible to PMTCT information, which can be obtained from newspapers leaflets, posters and books. The findings signify that especially mothers with no formal education were still practicing the culture of allowing the baby to breastfeed from another woman. The fact that majority of women were illiterate calls for advocacy and education through sources such as television, radio, theatre, art etc. Younger mothers (15-25years) were more likely to opt for breastfeeding from another woman (Table 4) than the elderly. These findings are consistent with results on the level of knowledge on MTCT (Table 7) where majority of those who had poor knowledge on MTCT were also younger (15-24 years) (p value =0.0014). It can therefore be concluded that lack of knowledge on MTCT is associated with risk behaviour of allowing babies to breastfeed from another woman regardless of her HIV status.

Awareness and knowledge of MTCT

Although majority of mothers were aware of MTCT (92.4%), only half of them knew that MTCT could occur during breastfeeding. This level is much lower than that found among women attending antenatal care in a study done in 17 sentinel sites in Tanzania, which was 70% (TRCHS 1999). The fact that half of the mothers did not know that transmission can occur during breastfeeding signifies a major problem because it is unlikely that they will take the necessary precaution to prevent MTCT thus increase morbidity and mortality duo to HIV/AIDS.

The fact that majority of women (54.3%) were found to have moderate level of knowledge on MTCT indicates a need for health education on MTCT. The commonest source of information on MTCT among women was clinic (60.3%) and media (20.3%) where radio was the commonest type of media (67.3%). Housewives mostly obtained information from radio. This showed the important areas to consider when planning for health education.

Knowledge of child feeding options

About three quarters of mothers mentioned formula milk as feeding option for mothers found to be HIV positive (72.5%). However, only few of the mothers knew the exclusive breastfeeding (17.6%). The fact that formula and cows milk are expensive (4,000Tshs per tin for formula milk and 400Tshs per litre for cows milk) compared with the average income per day (less than 1 US$ per day) most of the mother could not afford and yet they don't know about exclusive breastfeeding. This signifies a need for health education among the mothers in the community on different feeding options in order to have more alternatives.

Attitudes on the child feeding options

Mother's preferred formula milk for HIV positive mothers fearing that because mother's milk may contain small amount of viruses that can be passed on to the baby. This indicates that mothers are not well informed on the chances of transmission of HIV from mother to her child. Those who preferred exclusive breastfeeding argued that the child might already have been infected during pregnancy, hence no need to stop breastfeeding. This was also found during FGD's (see page 35).

This shows that there is still contradiction whether to breastfeeding or not. Such statements may be as a result of long standing campaigns on the importance of breastfeeding that will take time to change. Therefore there is need for more health education on the benefits of formula or cow milk they for mothers found to be HIV positive.

Majority of the mothers (90.4%) would not advise their close relative to breastfeed if found to be HIV positive, and most of them (99.4%) argued that the virus will pass through milk to the baby. Those who said they will advise the relative to breastfeed were very few and most of them gave a reason that formula milk is expensive and to avoid stigmatisation.

Similar findings were obtained in the UNICEF and WHO study 1999. The findings suggest that majority are worried that transmission occurs even in the first 6 months. This idea need to be explained to the mothers that the transmission rate is low in the first six months so that even for those who cannot afford formula milk still have chances of saving their babies from acquiring some viruses.

Reasons for early cessation of breastfeeding

Eight mothers who stopped breastfeeding, most of them stopped breastfeeding before 6 months (6) and other between 6 and 8 months (2) after being advised by a nurse, doctor, and family member. One of the mothers was advised by doctor to stop breastfeeding on the ground of 'bad milk'. It is likely that the woman was HIV positive but he did not tell her the truth. Although the number was small, this might present a tip of an iceberg. Further study need to be conducted to determine the magnitude of the problem and the causative factors, this would enable proper education on counselling skills to clinicians and nurses, especially those handling HIV positive patients.

Similarly, the mother who was told to have been bewitched, though only one, could also point to a serious cultural belief that may warrant further study.

Perceived threats upon early cessation of breastfeeding

This study explored on problems likely to arise if the mothers will not breastfeed their babies as expected by the community with a view to finding barriers to implementation of PMTCT.

The highest proportion of the mothers (69.7%) reported stigma as the main problem, which was expressed as being: laughed at, ignored, isolated from husband and the family, and lack of care during delivery or when sick. These findings are consistent with the study, done in West Africa by UNICEF where it was found that stigma-surrounding MTCT prevents HIV positive mothers from accepting to stop breastfeeding; and experiences and research have identified similar aspects of discrimination and stigma throughout the regions of West, East, and South Africa, South East Asia (Lucian, 2003).

Some mothers said that formula milk is too expensive that only few women can afford. This was also reported in a study done in South Africa (Cout Soudis et al 1998). In Tanzania the cost of formula milk is 4000 shs per tin; on average, a baby of 3 months would require 1 tin per week, which is beyond the means of normal citizen. Therefore the prevailing cultural believes and low economic status also stops the women from coming forward to get tested and then choose the proper option for their babies and consequently failure to implement PMTCT.

CONCLUSIONS

This study has shown that:

1. Breastfeeding is still a norm among mothers in Ilala municipality where 97.4% of mothers were found to be breastfeeding. Almost half, (46.6%) of mothers breastfed for 24 months.
2. Majority of the women reported to have attended ANC during their last pregnancy. It was not surprising that source of information on MTCT was mainly from the clinic, (60.3%).
3. Majority of the mothers, (84.4%) in Ilala municipality could practice feeding behaviour that is protective for MTCT of HIV infection to babies whose mothers' died. This positive attitude was to be associated with increase in age and higher education.
4. Majority of the mothers, (92.4%) were aware of the possibility of MTCT during pregnancy, delivery, and breastfeeding although their level of knowledge was poor. The level of knowledge on MTCT was found to be moderate, (54.3%) to high, (21.3%) and this was influenced positively by increase age and education.
5. Majority of mothers, (72.5%) knew formula milk as the only option for feeding a child whose mother is HIV positive. Level of knowledge was highest among businesswomen compared with housewives and employed mothers.
6. There was positive attitude towards using formula milk for HIV positive mothers, 67(97.2%) and negative attitude towards exclusive breastfeeding, 2(2.8%).

7. For majority of women stigma, 267(69.7%) was found to be major threat that poses as a barrier to breastfeeding option in PMTCT.

RECOMMENDATIONS

1. There is a need to educate mothers on breastfeeding practises that facilitate MTCT of HIV, so as to bring change on the strong cultural believes that enhance MTCT of HIV. This can be done through health education sessions in the clinics and through radio, which were the most common sources from which mothers received information.
2. There is need for developing strategies for reducing stigma, which was found to be a barrier to implementation of PMTCT by continuous education to the health workers and the community.
3. The government should liaise with other stakeholders to subsidise formula milk to enable majority of the mothers to afford.
4. Doctors and nurses should be trained on PMTCT, with an emphasis on counselling so that they could impart correct information to the patients.

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ANNEXES

Annex I:

Questionnaire (English Version)

BARRIERS TO IMPLEMENTATION OF PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV INFECTION DURING THE BREASTFEEING PERIOD AMONG MOTHERS OF INFANTS IN ILALA MUNICIPAL IN DAR ES SALAAM
MAY TO SEPT 2003

IDENTIFICATION:

DISTRICT ..... [ ]
DIVISION ..... [ ]
WARD..... [ ][ ]
STREET/KITONGOJI..... [ ][ ]
TENCELL LEADER..... [ ][ ]
NAME OF THE HEAD OF THE HOUSEHOLD..... [ ][ ]
STUDY NUMBER..... [ ][ ][ ][ ]

ADIMINISTRATION

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE INTERVIEWERS NAME RESULTS				DAY [ ][ ] MONTH [ ][ ] YEAR [ ][ ][ ][ ] INTERVIEWER[ ][ ] RESULTS [ ]
APPOINTMENTS: NEXT VISITS DATE TIME				TOTAL NUMBER OF VISITS [ ]

RESULTS CODE:		TOTAL IN HOUSE HOLD [ ][ ]
1. COMPLETED 2. NO HOUSE HOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME, OR SELECTED PERSON NOT AT HOME AT TIME OF VISIT .... 3. ENTIRE HOUSE ABSENT FOR EXTENDED PERIOD OF TIME 4. POSTPONE..... ..... 5. REFUSED DWELLING VACANT OR ADDRESS NOT A DWELLING 6. DWELLING NOT FOUND 7. NO ELIGIBLE ERSON AT HOME 8. LANGUAGE BARRIER 9. OTHER.....	**You have to return. You have to Return**	TOTAL ELIGIBLE INDIVIDUALS [ ][ ] LINE NUMBER OF HOUSEHOLD RESPONDENT [ ][ ]

FIELD SUREVISOR/ EDITOR	**OFFICE EDITOR**	**ENTERED BY**
NAME.....	NAME.....	NAME.....
DATE.....	DATE.....	DATE.....

CONSENT;

Hello my name is ..... I am calling on behalf of Muhimbili University college of Health Sciences Dar es Salaam. We are conducting a research in Ilala District to learn about problems, which are facing breastfeeding women in preventing their children from acquiring diseases. This study will enable the government to implement interventions for prevention of diseases. I would like you to participate in this research by giving us your knowledge, views and opinion on this very important health issue. Our discussion is going to take about half an hour only .all the information which you are going to give us will be confidential between me and you, and will be used for the research only and not for any other purpose.
Your participation in this research is voluntary, and you can choose not to answer some of the questions, which you don't feel to give answers, however we are expecting you to participate in this research because your views are very important.
Would you like to ask any question about this research?
Can we start our discussion? .....

INTERVIEWEE AGREE 1 INTERVIEWEE REFUSED 2 END 3

Time for starting the discussion.....24 HRS Clock.

DEMOGRAPHIC CHARACTERISTICS

1	When were you born? <DD MM YY>	Date.....	1 [/ /]
2	How old are you?	.....Years.	2 [ ]
3	What is your level of education?	1 madras a 2 adult education 3 primary education 4 secondary education 5 post secondary education.	3 [ ]
4	What is your religion?	1 Christian 2 Muslim 3 others	4 [ ]
5	What is your occupation?	1peasant 2 business woman 3 day labourer 4 house wife 5 house girl 6 other.....	5 [ ]
6	Are you married? **(probe to get the answer)**	1 single 2 married (monogamy) 3 married (poly gamy) 4 widow 5 divorced 6 cohabiting 7 separated	6 [ ]
7	Who is the head of this household?	1 myself **(go to Q.9)** 2 others.....	7 [ ]

8	What is your relationship to the head of household?	1 husband 2 parent 3 brother or sister 4 grand parents 5 others.....	8 [ ]
9	How many children do you have?	No..... (if she has one child jump Q. 16-21)	9 [ ]
10	When was he/she born?(check the clinic card if available) <DD MM YY >	Date.....	10 [ ][ ][ ]
11	Where was your last-born child born?	1. Public/government facility 2. Private for profit 3. Mission /voluntary agency 4. Home 5. TBA's home 6. Others.....	11 [ ]
12	Did you attend Antenatal clinic during the pregnancy of your last-born child?	1 yes **(go to Q.14)** 2 no	12[ ]
13	What was the reason for not attending ANC.	1 Distance 2 Cost 3 Not aware 4 others.....	13 [ ]
14	Did you breastfeed your previous babies?	1. Yes 2. No. **(go to Q.18)**	14 [ ]
15	What was the shortest period of breastfeeding for	.....Months (if **child was breastfed for less than 6 months go to Q.16**	15 [ ]

	your previous babies?	**and if breastfed for more than 6 months go to Q.20)**	
16	What was the reason for the child who was breastfed for less than six months?	1. Child refused. **2.** Somebody advised me **(go to Q.17)** 3. Milk was not enough. 4. I was sick. 5. Others.....	16 [ ]
17	Who advised you, and was there a reason?	a. 1 doctor 2 friend 3 nurse 4 others..... b. Reason	17 (a) [ ] (b) [ ]
18	If no what was the reason?	1. Child refused **2.** I was advised **(go to Q.19)** 3. Milk was not enough 4. I was sick 5. Others.....	18 [ ]
19	Who advised you, and was there a reason?	a. 1 doctor 2 friend 3 nurse 4 others..... b. Reason	19 (a) [ ] (b) [ ]
20	Are you aware that there is a possibility of MTCT of HIV?	1. Yes **2.** No **(go to Q. 25)**	20 [ ]
21	Where did you get the information about MTCT	1. Media (ask the type of media)..... 2. ANC 3. VCT service providers 4. Hospital	21 [ ]

		5. Church/mosque 6. Others……	
22	Do you know when does transmission take place?	1. Yes 2. No **(go to Q.24)**	22 [ ]
23	If yes mention when transmission occurs	1. During pregnancy yes…. no… 2. During delivery yes…. no…. 3. During breastfeeding yes…. no…. 4. Others……	23 [ ] [ ] [ ] [ ]
24	How can MTCT be prevented during a. Pregnancy b. Delivery c. Breastfeeding	By using ARV's, Yes……no…… Delivery by caesarean section Yes……..no…… 1. Delivery at health facility Yes……..no… 2. Not breastfeeding at all, and use formula milk. Yes…no… 3. Breastfeeding exclusively for 6 months only and stop. Yes…no…… 4. Avoiding mixed feeding	4a) [ ] (b) [ ] (c) [ ] [ ] [ ] [ ]

		Yes.....no.....	
25	Are you breastfeeding now?	1 yes **(go to Q.29)** 2 no.	25 [ ]
26	How long did you breast-feed your last-born child?	.....months	26 [ ]
27	What were the reasons for stopping breastfeeding?	1 child refused 2 I was advised to stop **(to Q.28)** 3 the milk was not enough 4 I was sick **5** **Others.....**	27 [ ]
28	Who advised you, and was there a reason?	a. 1 doctor 2 friend 3 nurse 4 others..... b. Reason	28(a) [ ] (b) [ ]
29	Do you know breastfeeding options for a woman who is HIV positive?	1. Yes 2. No **(go to Q. 33)**	29 [ ]
30	What are the options?	1. Exclusive breastfeeding for less than 6 months and start supplementary foods 2. Using formula milk only 3. Others.....	30 [ ][ ][ ]
31	What option will you advise your	1. Exclusive breastfeeding for	31 [ ]

	close relative who has being found be HIV positive?	less than 6 months and start supplementary foods 2. Using formula milk only 3. Others…… ……	
32	What is the reason for such advise	1…… 2……	32 [ ] [ ]
33	Will you advise your close relative to stop breastfeeding after knowing the risks of MTCT?	1. Yes 2. No	33 [ ]
34	If yes or no what is the reason?	YES: 1. BF is a norm 2. BF is important to the child 3. Formula is expensive 4. Fear of stigma 5. Others…… NO: 1. Virus will infect the baby. 2. Others……..	34 (a) [ ] (b) [ ]
35	If no, whatsocial problems a mother can get if she would not breastfeed her baby.	1. To be isolated by her family 2. Stigma 3. Denial of rights 4. Inability to buy milk 5. To break cultural laws 6. others……	35 [ ]
36	Suppose your female relative dies and leaves a very young baby, what would you give the baby?	1. Formula milk. 2. Locally available milk. 3. Breastfeed from another woman. (End of interview) 4. Others……	35 [ ]

37	Can this baby breastfeed from another woman?	1. Yes 2. No	37 [ ]
38	If no, why cant he/her breastfeed from another woman.	1. Nowdays there is danger, of transmission of HIV to the baby. 2. Others.....	38 [ ]