UNIVERSITY OF ZIMBABWE
FACULTY OF SOCIAL STUDIES

SOCIO-CULTURAL REALITIES OF FOLLOWING THROUGH WITH PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV PROGRAMME IN CHIOTA DISTRICT, ZIMBABWE: IMPLICATIONS FOR ELIMINATION OF PAEDIATRIC INFECTION

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Thesis submitted in fulfilment of the requirements of the Doctor of Philosophy Degree

2015
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Dedication

To my family. I love you all and thank you for encouraging me.
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Above all I would like to thank God the Almighty for everything.
Abstract

The study assessed the social and cultural realities of following through with prevention of mother-to-child transmission of HIV during the postnatal and breastfeeding period in a rural community in Zimbabwe and its implications on elimination of paediatric infection. The assumption was that paediatric HIV infection was not only through mother to child transmission but other social and cultural practices. Following through with PMTCT was conceptualised as the mother’s ability to adhere to ART, exclusive breastfeeding for six months and protecting the baby from getting infected through having protected sex among other factors. The study was conducted in Chiota District, one of the districts with a pronounced HIV burden. A sequential model combining both qualitative and quantitative methods was used for the study. Qualitative data were obtained through in-depth interviews/narratives with mothers on the PMTCT programme from two rural health facilities, (n=15). Focus group discussions were conducted with community members (n=231), and key informant interviews with the health staff (n=8). Quantitative data were collected through a cross sectional survey of breastfeeding women (n=103) accessing PMTCT interventions. Qualitative data were analysed thematically whilst STATA version 11 was used for quantitative data analysis where descriptive statistics, bivariate and multivariate regression analyses were done.

Cultural practices, community, self and institutional stigma affected the effectiveness of the PMTCT programme. The prevalence of adherence to ART among the mothers was 82.5%. Only 6.8% of the mothers exclusively breastfed for the first six months. The major reasons for non-exclusive breastfeeding were the mother’s belief that the milk was unsafe (66%), inadequate (55%) and breastfeeding was not practical (67%). Risky traditional practices during PMTCT included ‘treatment’ of fontanelle by inserting the father’s male organ in the mouth of the child, toning of the girl child’s sexual libido through rubbing the father’s penis on the child’s vagina, improvement of eyesight and sense of hearing through use of mother’s milk among other practices. These practices exposed babies to bodily fluids like semen, precum, breastmilk and vaginal fluids, which are known to contain HIV.

Culturally embedded practices, self, community and institutional stigma compromised the ability of mothers to adhere to PMTCT. Evidence from this study suggests that culture plays a major role in following through with PMTCT. This calls for taking cognisance of culture in designing HIV programmes. There is a need for further research on PMTCT during the postnatal period. Programmes should be cognisant that a ‘onesize fits all’ approach does not work as women are different.
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<td>Acquired Immunodeficiency Syndrome</td>
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<td>ANC</td>
<td>Antenatal Care</td>
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<td>ARRM</td>
<td>Aids Risk Reduction Model</td>
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<td>ART</td>
<td>Anti-retroviral therapy</td>
</tr>
<tr>
<td>ARV</td>
<td>Anti-retroviral drugs</td>
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<td>ESTP</td>
<td>Emergency Short-term Plan</td>
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<tr>
<td>BCF</td>
<td>Behaviour Change Facilitators</td>
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<td>CBD</td>
<td>Community Based Distributors</td>
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<tr>
<td>CI</td>
<td>Confidence Interval</td>
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<td>CSO</td>
<td>Central Statistical Office</td>
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<td>EBF</td>
<td>Exclusive Breastfeeding</td>
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<td>FBOs</td>
<td>Faith Based Organisations</td>
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<td>FGD</td>
<td>Focus Group Discussion</td>
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<td>HBM</td>
<td>Health Belief Model</td>
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<td>HIV</td>
<td>Human Immune Deficiency Virus</td>
</tr>
<tr>
<td>HTC</td>
<td>HIV Testing and Counselling</td>
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<tr>
<td>IEC</td>
<td>Information Education and Communication</td>
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<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MIMS</td>
<td>Multiple Indicator Monitoring Survey</td>
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<td>MNCH</td>
<td>Maternal Neonatal Child Health</td>
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<td>MOHCC</td>
<td>Ministry of Health and Child Care</td>
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<td>MOHCW</td>
<td>Ministry of Health and Child Welfare</td>
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<td>MRCZ</td>
<td>Medical Research Council of Zimbabwe</td>
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<td>MTCT</td>
<td>Mother to Child Transmission</td>
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<td>Acronym</td>
<td>Full Form</td>
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<td>NAC</td>
<td>National AIDS Council</td>
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<td>NACP</td>
<td>National AIDS Control Programme</td>
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<td>NGOs</td>
<td>Non-Governmental Organisations</td>
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<tr>
<td>OI</td>
<td>Opportunistic Infections</td>
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<td>PLHIV</td>
<td>People Living With HIV</td>
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<td>PMTCT</td>
<td>Prevention of Mother to Child Transmission</td>
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<td>PNC</td>
<td>Post Natal care</td>
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<td>SSA</td>
<td>Sub Saharan Africa</td>
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<td>SSI</td>
<td>Semi Structured Interview</td>
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<td>UN</td>
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<td>Joint United Nations Programme on HIV/AIDS</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<tr>
<td>USD</td>
<td>United States Dollar</td>
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<td>VCT</td>
<td>Voluntary Counselling and Testing</td>
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<td>Village Health Workers</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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<td>ZHDP</td>
<td>Zimbabwe Demographic Health Survey</td>
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<td>ZHDP</td>
<td>Zimbabwe Human Development Report</td>
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<td>ZIMSTAT</td>
<td>Zimbabwe National Statistics Agency</td>
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<tr>
<td>ZNASP</td>
<td>Zimbabwe National HIV&amp;AIDS Strategic Plan</td>
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CHAPTER ONE
INTRODUCTION TO THE STUDY

1.1 Introduction

This study was premised on the assumption that the biomedical framework of antiretroviral therapy (ART) adherence has informed most of the studies on ART adherence at the expense of the social model of health. The complex interactions of the biological, psychological and social processes that shape behaviour (Friedland, 2006) have not been seriously considered. The majority of studies on adherence have focused on patients as separate units who are unconnected to the broader context, in the process ignoring the important environmental factors (Mills et al., 2006; Castro, 2005). Policymakers often do not take cognisance of cultural factors when introducing interventions to address societal problems (Parker, 2001). This was the main concern of this study.

Mother to child transmission of HIV (MTCT) is the predominant mode of spread of HIV to children (Cooper et al 2002, UNAIDS/WHO, 2009). HIV infection in children is aggressive and if not attended to, will be responsible for infant mortality before the child’s second birthday (Newell et al, 2004). The advent of antiretroviral therapy (ART) has improved the management of HIV&AIDS and reduced mother to child transmission (Cooper et al 2002). Provision of Prevention of Mother to Child Transmission of HIV (PMTCT) interventions in an effective way improves maternal health and infant HIV-free survival (Connor, 1994). The United States of America, Europe and
countries with well-resourced health systems have managed to reduce mother to child transmission to 0% (Townsend et al, 2014). PMTCT therefore becomes a key component of the overall HIV prevention efforts and represents an opportunity for eliminating paediatric infection. This then makes adherence or following through with PMTCT of paramount importance.

Information on adherence and its determinants remains inconsistent and limited in Africa including Zimbabwe (Mills et al, 2006). This could be due to the dynamic nature of the measurements used for its assessment which is further compounded by the different social, environmental and the institutional set ups.

The Millennium Development Goals (MDGs) report has emphasised the complex interplay between issues of culture and the combating of the HIV&AIDS epidemic by 2015 (United Nations, 2005). The report calls for the understanding, appreciation and integration of the culture of affected communities in HIV prevention measures in Sub Saharan Africa. Following through with PMTCT may be facilitated or hindered by a wide range of political, economic, social and cultural factors. Central to the study issues, is the debate that mothers on the PMTCT programme are failing to follow through as there are social and cultural factors that either inhibit or facilitate the programme’s success. PMTCT interventions cannot be effectively implemented without the consideration of the social and cultural aspects that influence mothers on the PMTCT programme during the postnatal and breastfeeding period.
Noting the lack of empirical data on determinants of following through with PMTCT in Zimbabwe, this study therefore sought to explore socio-cultural factors that influence following through with PMTCT during the postnatal period. The study also examines social and cultural factors that could expose babies to HIV infection, the infant feeding practices, the role of significant others, particularly during the postnatal and breastfeeding period. This study sought to contribute to existing knowledge on PMTCT through an examination of the complex interplay between a rural setting in Zimbabwe and the perceived effectiveness of the programme by the policymakers. This chapter therefore introduces the research problem, the study aims, objectives and potential use and benefits of the research findings.

1.2 Motivation for the Study

Zimbabwe has set an important goal of eliminating new paediatric HIV infections and to reduce MTCT rates to less than 5% amongst breastfeeding mothers (MOHCC, 2012). However, of concern is that the Ministry of Health and Child Care (MOHCC) Annual Report (2010) reported that of the 97% of mothers who enrolled for the PMTCT programme, there was a crude transmission rate of 15%. It is a cause for concern that many children are still getting infected after the introduction of PMTCT.

A recent Ministry of Health and Child Care (MOHCC) report indicated a high uptake of PMTCT by mothers, which was above 90% (MOHCC, 2014). A study in Zimbabwe by Chandisarewa (2007) reported an increase of HIV testing by pregnant urban women when an opt-out provider initiated
programme was introduced from 65% to 99%, which is indicative of the success of the PMTCT programme. The health system perspective of success in the PMTCT programme uptake might not be reflective of adherence to the programme by the mothers especially during the postnatal period. Due to self-reporting and lack of systems that ensure follow up of mothers in the community, there could be serious discrepancies. From my personal experience, my friend who was diagnosed HIV positive during pregnancy, refused to be initiated on PMTCT interventions and she and her baby succumbed to AIDS. This could have been due to the stigma attached to the disease or other social pressures, which she was not willing to divulge.

Is uptake enough to determine the success of the PMTCT programme, which has a goal of elimination of paediatric infection? Can we measure success of the programme without having a clear understanding of what is happening in the community where the mother and infant live? To answer these questions, I felt it was prudent to do a community research, which would give a clear understanding of how mothers are following through with the PMTCT programme.

1.3 Statement of the Problem
Administration of ARVs to HIV positive mothers during pregnancy and breastfeeding, has been lauded as the magic bullet to prevention of vertical transmission (Townsend et al, 2008). The percentages of pregnant mothers who received ARVs to reduce the risk of MTCT reached 93% in 2013 (MOHCC, 2014). While the percentages of uptake are quite encouraging, it is
yet to be seen whether mothers are following through with the PMTCT regimen during the post-partum and breastfeeding period. Following through or adhering to the PMTCT programme in this study is conceptualised as the mother’s ability to adhere to her ARV drugs, which involves taking the medication in the correct amount, at the correct time following the prescription. The WHO standard guidelines for resource poor countries stipulate that HIV positive mothers on ART are to exclusively breastfeed for the first six months. Exclusive breastfeeding in this case entails not feeding the baby on anything other than the mother’s milk. The mother is also supposed to have protected/condomised sex during the breastfeeding period.

Being on lifelong ART necessitates ongoing counselling for breastfeeding mothers in order to support retention, adherence and minimise loss to follow up. Simply prescribing ARVs through the PMTCT programme to the mothers is unlikely to have optimal impact unless efforts are made at the same time to promote local conditions that support its success. PMTCT efforts cannot be effective without dealing with the social and cultural environment in which the newborn and its mother live. Patton (1999) argues that HIV&AIDS is a ‘family disease’, which requires mobilising the whole family as opposed to dealing with the individual. A study by Taylor et al (2008) in Chipinge, Zimbabwe though of limited generalisability, provided evidence of missing cultural dynamics in current HIV&AIDS policies.

The principle of PMTCT is based on medical concepts that are different from traditional cultures. Disclosure plays an important role in PMTCT, as mothers
who have not disclosed would find it difficult to follow through with PMTCT. Poverty is another factor that can have a debilitating effect on the success of PMTCT as mothers are not able to consistently breastfeed their babies because they have other chores that take them away from home in a bid to eke out a living. Despite the importance of PMTCT intervention, there is still a dearth of information on the socio-cultural realities of following through (adherence) to this HIV prevention intervention strategy in Zimbabwean communities.

1.4 Relevance of the study
Numerous studies have been conducted on PMTCT postnatal transmission with emphasis on infant breastfeeding duration and prophylaxis (Kilewo, 2008; Shapiro, 2009; Chasela, 2009; Kumwenda, 2008; Thior, 2006). In Zimbabwe (Kurewa et al., 2012; Mahomva et al., 2012; Ciaranello et al, 2013; Shroufi et al., 2013; Turan and Nyblade, 2013; Wiegert et al., 2014; Chibanda et al., 2014) have also concentrated on the medical aspects of infection which include prophylaxis adherence. While all these studies have immensely contributed to knowledge on PMTCT uptake and adherence to medication among others, they have fallen short of putting emphasis on the social and cultural practices that could expose infants to HIV infection. The studies have not dwelt on issues of adherence during the postnatal period. The need to link PMTCT adherence with the social and cultural realities of the communities where the programme is being implemented cannot be underestimated.
PMTCT like other HIV&AIDS prevention strategies was conceptualised at a
global level. Previous health interventions that have failed to take cognisance
of contexts within which they are being implemented, have often ended up in
failure to achieve the otherwise noble intentions. Any policy that does not
consider local realities is likely to face challenges. It should be acknowledged
that one-size does not fit all. There is a need to understand the way people
experience living with HIV, the way they are affected by stigma and
discrimination, their beliefs and how this militates against adherence to the
PMTCT programme. A better understanding of the factors that have militated
against or facilitated other prevention efforts and treatment programmes can
help adapt policies and programmes to local conditions and improve their
effectiveness in the future.

1.5 Research Objectives

1.5.1 Main Objective

The main objective for this study was to explore socio-cultural factors that
influence following through with PMTCT during the postnatal and
breastfeeding period.

1.5.2 Specific Objectives

The specific objectives for the proposed study were to:

1) Identify socio-cultural factors that expose babies to HIV infection
during the post-natal and breastfeeding period;

2) Determine infant feeding practices during the first 6 months;
3) Determine experiences of mothers who enroll for the PMTCT programme

4) Determine service related factors influencing adherence to PMTCT; and

5) Establish the role of the significant ‘others’, in particular men, mothers’ in-law and other influential community members in PMTCT programme follow through.

1.5.3 Research Questions

1) How do social and cultural practices influence following through with PMTCT during the postnatal period?

2) What socio-cultural factors are exposing babies to HIV infection during the post-natal and breastfeeding period?

3) What is the role of the significant ‘others’, in particular men, mothers’ in-law and other influential community members in PMTCT programme follow through?

4) What are the community infant feeding practices during the first six months?

5) What are the experiences of mothers who enrol for PMTCT programme?

6) What role is the health system playing in ensuring following through of PMTCT by post-natal mothers?
1.5.4 Research Proposition
Socio-cultural factors negatively affect adherence to the PMTCT programme during the postnatal and breastfeeding period.

1.6 Definitions of Key Terms and Concepts
This study uses a number of key terms and concepts, which are defined as follows: Following through in this study is adherence. It should be noted that these terms are used interchangeably throughout the thesis.

1.6.1 Adherence
Adherence is defined as ‘the extent to which a person’s behaviour in taking medications, following diets and or executing lifestyle changes corresponds with agreed recommendations from a health care provider’ (WHO, 2003:3).

1.6.2 Culture
There are a number of definitions of culture due to its dynamism. Culture can have both positive and negative influences on people’s health behaviour. In this study, culture is defined as an accumulation of beliefs, customs, norms and values individuals acquire from their society through formal or informal education (Shorter, 2001). Culture is passed from one generation to another and it shapes an individual’s way of life, how they interact with others in the community and how they live in total conformity so as not to be labelled deviant. Culture can also be defined as values that are active enough to influence and condition one’s perception, judgement and behaviour in a given society.
1.6.3 Norms

Pritchard (1956) defines norms as pre-established expectations of how a person lives and behaves in different situations.

1.6.4 Values

Values consist of ideas about what is seemingly important in life and how these guide the rest of culture (Hoult, 1969).

1.6.5 Option B+

This is a newly recommended WHO lifelong HIV&AIDS antiretroviral regimen, which is given to pregnant and breastfeeding women to prevent mother to child transmission of HIV and to prolong the mother’s life. This regimen does not follow the WHO clinical staging and does not consider the mother’s CD4 count.

1.6.6 Following through

In this study it means adhering to the PMTCT interventions which involves exclusive breastfeeding for the first six months, adherence to antiretroviral therapy (Option B+ regimen) by the mother and having protected sex.

1.6.7 Exclusive breastfeeding

This is the sole intake of breastmilk by an infant from its mother with no addition of any liquid or solids for the first six months of life.
1.6.8 Post-natal transmission

The postnatal period is normally from birth up to six weeks. Post natal transmission in this study refers to the transmission of HIV from birth up to 6 months and during the breastfeeding period when the mother is on Option B+ regimen.
1.7 Background Information of Zimbabwe

Zimbabwe, a landlocked country in the South Eastern part of the African continent, shares borders with Mozambique on the east, Botswana on the west, Zambia on the north and South Africa on the south. The country lies north of the Tropic of Capricorn between the Limpopo and Zambezi rivers. The country has different population densities in each province (See Map 1).

Figure 1. Distribution of the Population by Province

Source, ZIMSTAT, 2012

In 2012, the population in Zimbabwe was 13 061 239. The overall sex ratio was 93 males for every 100 females (CSO, 2012). Of the total population,
67% lived in the rural areas while 33% lived in the urban areas. The country has 10 provinces (two urban and eight rural). The country has two main indigenous groups, the Shona and the Ndebele. There are other minority ethnic tribes. The distribution of tribes according to provinces is as follows; Mashonaland West is mainly inhabited by the Zezuru, the Korekore and has a few Tonga people living in the Zambezi escarpment. Mashonaland Central has the Korekore and the Zezuru tribes, while Mashonaland East is home to the Zezuru, Manicaland province, the Manyika, Ndau and Maungwe. The Karanga and Shangaan inhabit Masvingo Province. Midlands Province has a mixture of the Karanga, Ndebele, Shangwe and Tonga. The Ndebele, Suthu and the Venda in Beitbridge inhabit Matabeleland South province. Matabeleland North has the Ndebele, Nambia and Tonga people.

The Zimbabwe Tourism Authority (2008) provides the distribution of ethnic groups as follows; Shona 76%, Ndebele 18%, Batonga, 2%, Shangaan 1%, Venda 1%. In all the provinces, however, there are few pockets of the Nyanja and other tribes from Malawi, Mozambique, Tanzania and Zambia. This depicts the Zimbabwean history of colonisation by the British who formed a federal state that was composed of Southern Rhodesia, which is now Zimbabwe, Northern Rhodesia which is now Zambia and Nyasaland which is now Malawi. Due to the history of colonisation in Zimbabwe, the majority of the people are Christians. This background depicts the cultural mix that could influence the social and cultural realities of following through with Prevention of Mother to Child Transmission programmes in Zimbabwe.
1.7.1 Economy of Zimbabwe

Zimbabwe is an agro-based economy with a total land area of 39 million hectares with 32 million hectares devoted to the agricultural sector. Approximately 70% of surface rock in Zimbabwe is granite and the country is rich in minerals (ZDHS 2010-2011). Agriculture and mining are the backbone of the economy. These are also the country’s major foreign currency earners. Communal lands are located in Region IV and V where there is the poorest rainfall (Mitchell, 2014). Agriculture has continued to face many challenges caused by poor irrigation, unaffordable inputs and low capitalisation levels.

1.7.3 The Zimbabwe Health Care System

Health care in Zimbabwe is provided by the public sector, which includes churches, company operated clinics, private clinics and traditional medicine. The country has a decentralised health care delivery system. However, this is monitored and regulated by the central Government under the Ministry of Health and Child Care (MOHCC). Table 1 is a summary of the health demographics of Zimbabwe.

Table 1. Summary of Zimbabwe Population Demographics

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults population (15+ years)</td>
<td>3 599 411</td>
<td>4 089 55</td>
<td>7 688 968</td>
<td>CSO, 2012</td>
</tr>
<tr>
<td>Children (0-14 years)</td>
<td>2 681 128</td>
<td>2 691 143</td>
<td>5 372 271</td>
<td>CSO, 2012</td>
</tr>
<tr>
<td>Total population</td>
<td>13 061 239</td>
<td></td>
<td></td>
<td>CSO, 2012</td>
</tr>
<tr>
<td>Total Fertility Rate</td>
<td></td>
<td></td>
<td>3.8</td>
<td>ZDHS 2010-11</td>
</tr>
<tr>
<td>Expected pregnancies</td>
<td></td>
<td></td>
<td>412 120</td>
<td>MOHCC, 2012</td>
</tr>
<tr>
<td>ANC coverage in 5 years preceding survey</td>
<td></td>
<td></td>
<td>90%</td>
<td>ZDHS, 2010-11</td>
</tr>
<tr>
<td>Institutional deliveries in 5 years preceding survey</td>
<td></td>
<td></td>
<td>65%</td>
<td>ZDHS 2010-11</td>
</tr>
<tr>
<td>Average Inter-Censal population growth rate</td>
<td></td>
<td></td>
<td>1.1%</td>
<td>CSO, 2012</td>
</tr>
<tr>
<td>Average Life expectancy at birth</td>
<td>50</td>
<td>49</td>
<td></td>
<td>CSO, 2012</td>
</tr>
</tbody>
</table>

Source: Adapted from AIDS and TB Programme, MOHCC, 2014
The public health delivery system is four tiered, the first level being the primary health care facilities, which comprise of rural health centres, rural hospitals and urban clinics. This level offers basic prevention, maternity, PMTCT and curative services. Two nurses and an environmental health technician (MOHCC, 2012) normally staff this level.

The second level comprises of government district hospitals and mission hospitals. In addition to services offered at the primary care level, these hospitals have diagnostic facilities, conduct surgical procedures, provide obstetric care which include caesarean sections, provide comprehensive PMTCT services, OI/ART, blood transfusion and comprehensive management of new born and childhood illnesses. The third level, which is at the province, includes specialists in different medical disciplines. This level manages complicated paediatric, obstetrical, gynaecological, and referred district cases of adult medical and surgical cases. This level also trains nurses and other paramedical staff. The Zimbabwe National Family Planning Council (ZNFPC) also provides family planning services. At the apex of the health care delivery system, are central hospitals, which provide specialist services, and has specialists in various medical disciplines. These are also mandated with the training of medical, nursing and paramedical personnel.

The country suffered socio-economic challenges between 2000 and 2009 characterised by hyperinflation and recession. The economic crisis negatively affected the provision of social services and health, including HIV&AIDS.
Despite gradual improvements, the Zimbabwe health system was at the time of data collection still facing numerous challenges on the backdrop of a weak economy. The economic crisis saw the deterioration of infrastructure, shortages of essential drugs and equipment, staff attrition due to poor working conditions and poor remuneration. The Government has for the past 5 years (from 2010-2014) frozen health posts with nurses. This led to staff shortages and neglect in some of the primary health care provisions, which include disease surveillance, community based primary care, which was done by the village health workers, monitoring and treatment (WHO, 2008). This was all happening alongside an unprecedented number of people who were becoming HIV infected.

1.7.4 The Epidemiology of HIV&AIDS in Zimbabwe

Globally Zimbabwe carries the fourth largest HIV burden in Southern Africa after South Africa, Botswana and Swaziland and has the highest rates of adult mortality due to HIV related illnesses (UNAIDS, 2014). Factors fuelling the epidemic include low and inconsistent use of condoms, multiple concurrent partnerships, intergenerational sexual partnerships and low rates of male circumcision. The country has a generalised HIV epidemic with a national prevalence of 15% (ZDHS 2010-11). Urban areas have a slightly higher prevalence of 17% while the rural areas have a prevalence of 15%. HIV prevalence is higher in border towns, mining areas and resettlement areas and is mainly heterosexually transmitted. Mother to child transmission remains the second source of new infections with approximately 1 in 3 infants born to HIV infected mothers getting infected (MOHCC, 2013).
1.7.5 HIV, Women and Children

Gender disparities have been recorded in HIV prevalence with HIV prevalence being 1.5 times higher among women aged 15-24 years than among men of the same age (MOHCC, 2014). According to the 2009 National HIV estimates, in 2010, 47,494 pregnant mothers tested HIV positive. The same report estimated that there were 15,000 children that were newly infected in 2009 and the majority of these children (90%) were infected through mother to child transmission (MOHCC, 2012). By 2011, only 57% of HIV infected women in low and middle income countries were receiving the WHO recommended regimen for prevention of mother to child transmission (PMTCT). It was estimated that 300,000 infants acquired HIV infection from their mothers in Sub-Saharan Africa (UNAIDS, 2012). These statistics come in the wake of the new advances in treatment of the HIV disease and the introduction of PMTCT which ideally makes paediatric infection avoidable.

1.7.6 HIV&AIDS response trajectory from 1985-2014

Following the discovery of HIV&AIDS in 1985, the Ministry of Health and Child Care intensified screening of donated blood through the National Blood Transfusion Services. This was followed by the setting up of the National AIDS Control Programme (NACP) in 1987, which was tasked with leading the national response to the HIV&AIDS epidemic. The following year an Emergency Short-term Plan (ASTP) was formulated which was tasked with raising awareness about the disease. The members of the health staff were capacitated to conduct health education in behaviour change and counselling. The Ministry intensified its efforts in conducting surveillance and monitoring
through collection of epidemiological data. The good intentions by the Government were however hampered by the economic situation, which did not allow the injection of the needed funds into the planned activities.

Other early responses to the epidemic included the five-year mid-term plans, which ran from 1989-1993 and 1994 to 1998. These midterm plans emphasised on promotion of behaviour change, treatment of sexually transmitted infections, care and support of people living with AIDS, distribution of information education and communication (IEC) material and targeted groups that were classified as high risk, which included long distance truck drivers and commercial sex workers. Social marketing of condoms was also promoted and the Abstinence, Be Faithful and Condom use (ABC) message was advocated for. Voluntary Counselling and Testing (VCT) of a disease that was highly stigmatised was also promoted. In doing all this, the Government did not seriously consider the cultural environment where these strategies were promoted; one of the concerns of this study.

The National AIDS Policy was developed in 1999 and was followed by the formation of the National AIDS Council (NAC), which was formed through an act of parliament. NAC was given the mandate of coordinating all HIV&AIDS activities in the country. A mandatory 3% levy was introduced to all employed personnel and it was to be deposited into the National AIDS Trust Fund (NATF) (NAC, et al 2006). This was a home-grown policy to fund the HIV&AIDS response initiatives. The benefits of this fund were eroded by the economic downturn of the Zimbabwean economy soon after its
introduction. The hyper inflationary environment eroded all the collected revenue, making it difficult for NAC to realise the intended benefits. The year 2000 saw the launching of the National HIV&AIDS Strategic Framework (2000-2004). Zimbabwe became a signatory to a number of regional and international protocols on HIV&AIDS. As the epidemic evolved, new responses, which included Prevention of Mother to Child Transmission of HIV and introduction of ART, were introduced. This led to the crafting of the Zimbabwe National AIDS Strategic Plan (ZNASP) 2006-2010 which ran under the theme “From Commitment to Action” (NAC et al, 2006).

1.7.7 The rolling out of ART as a response
As a way of managing the HIV&AIDS epidemic, the ARV drug roll out was launched in 2004. This saw the training of health care providers. In 2005, there were 40 sites that were rolling out ART. These had increased to over 1650 by 2014. From 1100 adults accessing ART in 2004, the number had increased to 618,980 by 2013 (MOHCC, 2014). The National Pharmarceutical Company of Zimbabwe (NATPHARM), a government parastatal in Zimbabwe in close liaison with Medicines Control Council of Zimbabwe (MCCZ) and MOHCC are responsible for the procurement and distribution of all drugs used in the country. The eligibility criteria for accessing ARVs have been informed by WHO, which uses the CD4 count criteria or the clinical staging.

1.7.8 Recorded decline in HIV&AIDS
Zimbabwe has recorded a decline in new HIV infections in the last decade. This could be attributed to the Government’s commitment to the national
response, which has enacted policies, strategies and structures to achieve the three zeros under the banner of Zero new infections, AIDS related deaths and Stigma and Discrimination (NAC, 2013). It is envisaged that the prevalence rates will continue declining as projected in Figure 1.2.

![Figure 1.2 Trends in adult (15-49 years) HIV prevalence and HIV incidence, Zimbabwe 1970-2015](source)

The country has made major strides in trying to stem the tide of the epidemic. This was through adoption of a myriad of interventions, which included a multi-sectorial response framework as reflected in the HIV&AIDS Policy of (1999) and the National HIV&AIDS Strategic Framework in (2000) and (2007). However, the epidemic remains a problem among the most productive age group, 15-49 years. It should be acknowledged that through sustained efforts to prevent further spread, Zimbabwe has seen a decline in HIV&AIDS prevalence in the past six years.
As the epidemic unfolds, the country faces new social, political, economic and technological challenges, which call for a paradigm shift. Prevention of new infections remains a national priority. Prevention of new infections is being done through strategies that include social and behavioural change, HIV testing and counselling, condom promotion, treatment, care, and prevention of mother to child transmission, which is the focus of this study.

Despite a major decline in the prevalence rates from the 1990s, Zimbabwe still has considerable ground to cover in order to meet its targets of minimising the epidemic by 2015. The Zimbabwe National HIV&AIDS Response Strategic Plan (ZNASP) 2011-2015 documents the targets that the country has to meet. The document highlights four impact areas for the country’s national response that include:

- Reduction of HIV incidence among adults by 50% from 0.85% (48 168) in 2009 to 0.44% (24 084) by 2015;
- Reduction of HIV incidence among children from 30% in 2010 to less than 5% in 2015;
- Reduction of HIV&AIDS mortality rate by 38% from 71 299 among adults in 2010 to 44 025 in 2015 and from 13 393 among children in 2010 to 8 304 in 2015; and
- Improvement of the national multi-sector response to the epidemic from 6.2 in 2010 to 9.0 in 2015.

Zimbabwe has registered meaningful progress in its response to HIV&AIDS as shown by the country’s latest progress report of 2014 (MOHCC, 2014).
The report shows an increase in the number of deaths averted through antiretroviral therapy from 40,420 in 2011 to 45,700 by 2013, a decrease in the HIV incidence rate from 1.29% in 2011 to 0.98% in 2013 and a reduction in HIV related mortality from 115,117 to 61,476 over the same period. Similarly the number of people tested and knowing their status has increased to 75% from 579,767 in 2007 to 2,274,328 in 2013 (MOHCC, 2014). The proportion of adults and children eligible to receive ART and are accessing it, rose from 31.3% in 2007 to 76.9% in 2013 and from 9.7% in 2007 in children to 46.12% by 2013 respectively (MOHCC, 2014). It is however not clear whether there is total adherence to ART.

1.8 PMTCT: An Introduction

Mother to child transmission (MTCT) of HIV is known to be responsible for more than 90% of HIV infection in children with at least two thirds of such infections occurring during pregnancy and delivery while the rest occurs during the breastfeeding period (UNAIDS, 2012). MTCT is the second major mode of transmission of the HIV virus after sexual transmission and contributes overall to 7% of all HIV infections. The Zimbabwe Multiple Indicator Monitoring survey (MIMS) in 2009 estimated that 21% of under-five mortality and 26% maternal mortality were due to HIV&AIDS. The PMTCT programme is therefore considered as an entry point into care for the family as it hails the beginning of a lifelong therapeutic relationship for the HIV positive mother and her family.
PMTCT intervention is being integrated as a component of a standard antenatal (ANC) and maternal and Child Health (MCH) service. PMTCT remains central to global HIV&AIDS initiatives. Scaling up of PMTCT programme is recognised as an important gateway for scale up for broader HIV prevention and care programmes. Key programme elements for all these international efforts include increasing access to HIV testing and counselling, strengthening prevention interventions linked to treatment services, enhancing access to PMTCT programmes and fostering community participation. PMTCT as an intervention strategy is being carried out at most health facilities in the country.

1.8.1 Global Context of PMTCT

Globally, there was a plan to eliminate new HIV infections among children by 2015, to keep mothers alive, through reduction of new infections in children by 90%, reduction of HIV related maternal and child deaths numbers by 50% (UNAIDS, 2012). According to UNAIDS estimates in 2011, only 57% of HIV positive pregnant women in low and middle-income countries accessed ARVs for PMTCT which was an increase from 48% in 2010 (UNAIDS, 2012). The same report notes that despite this increase, implementation challenges have been encountered as it was noted that global access to ART among HIV positive pregnant women was lower than that of the general adult population, which was at 30% compared to the 54% in 2011. This is also despite the fact that HIV testing is higher among pregnant women than other adult populations. The challenges women face of living far from ART sites and
weak health systems (Killam, 2009, Turan, 2008) further compounds this problem.

1.8.2 Prevention of Mother to Child Transmission

Of the estimated 1.2 million people living with HIV in Zimbabwe, 17800 are children 0-14 years and 64 000 are pregnant women with an estimated 8917 new infections in children each year (MOHCC, 2014). Mother to Child transmission of HIV (MTCT) is responsible for paediatric infection. In the absence of interventions, between 20-45% of HIV positive mothers pass the virus to their babies (UNAIDS, 2012). Zimbabwe as one of the 22 countries with the highest number of pregnant women living with HIV has committed to elimination of paediatric infection through PMTCT (UNAIDS, 2011, MOHCC, 2014).

The PMTCT programme in Zimbabwe is guided by the national Strategic Plan for Eliminating New HIV infections in Children and Keeping Mothers and Families Alive (2011-2015) while the Second Plan for Nationwide Provision of Antiretroviral Therapy: 2008-2012 guides the Antiretroviral Therapy (ART) programme. These are both aligned to the Zimbabwe National HIV&AIDS Strategic Plan (ZNASP II): 2011-2015. The PMTCT and OI/ART programmes have been rapidly scaled up over the past few years. Having been initiated in 1999 as a three site-pilot project, PMTCT services have expanded and are now providing onsite HIV testing and ARV prophylaxis at all 1560 health facilities in Zimbabwe (MOHCC, 2014). The OI/ART programme expanded from only 9 sites in 2007 to 1006 sites in 2013 with the aim of
making ART services available in all 1,560 primary health care facilities by 2015 (MOHCC, 2014).

The PMTCT package comprises of provider initiated HIV Testing and Counselling (PITC), provision of antiretroviral drugs to HIV infected women, assessment of eligibility for treatment based on both WHO clinical staging, and CD4 count criteria, safe delivery practices and provision of ARV prophylaxis for the HIV exposed infants, providing the mother with cotrimoxazole prophylaxis and infant feeding counselling. The paediatric HIV care package comprised of cotrimoxazole prophylaxis, infant testing by DNA-PCR, management of opportunistic infections, initiation of infected infants on ART, infant and young child feeding counselling and HIV antibody testing. It should be noted that these service delivery packages were beset with challenges, which included unavailability of supplies, cost and inadequate support for the maternal nutrition and infant feeding counselling.

1.8.3 The PMTCT trajectory in Zimbabwe

The strategic framework for the PMTCT programme in Zimbabwe is based on the United Nations (UN) four-pronged approach. The first approach is the primary prevention of HIV. The second is prevention of unintended pregnancies in women living with HIV. The third is Prevention of mother to child HIV transmission and lastly the provision of treatment, care and support for women living with HIV, their children and their families (UNAIDS, 2012).
Zimbabwe has been guided by the WHO PMTCT Programmatic updates. At initiation, the PMTCT programme in Zimbabwe was using the single dose nevirapine (NVP). The country was later informed by the WHO 2010 ARV guidelines, to adopt Option A as the national PMTCT regimen. Option A entailed commencing an HIV pregnant woman with a CD4 count below 350 cells/UL on lifelong antiretroviral treatment (ART) while an HIV pregnant or breastfeeding woman with a CD4 count above 350 cells/UL began AZT as early as 14 weeks of pregnancy, followed by AZT/3TC through 7 days postpartum. The infant would receive a daily dose of NVP from birth until one week after breastfeeding had stopped or through age 4-6 weeks if the mother was not breastfeeding.

A Programmatic update on the use of ART for treating pregnant women and HIV prevention in infants was released by the WHO in April 2012. This new programme superseded the Option A. It was termed Option B and it entailed provision of drugs to all HIV infected pregnant and breastfeeding mothers from the antenatal period through the MTCT risk period. Later in 2013, the WHO released yet another programme update, Option B+ (WHO, 2013).
1.8.4 Introduction of Option B+

By 2014, 640 health care facilities countrywide were implementing Option B+ as shown in Figure. 1.3.

![B+ training coverage](image)

**Figure. 1.3 Option B+ training coverage**

*Source: MOHCC PMTCT programme update 2014*

Zimbabwe started implementing the Option B+ in July 2013 following wide consultations with relevant stakeholders (MOHCC, 2014). Option B+ stipulates that all HIV positive pregnant women and breastfeeding mothers access ARVs irrespective of their CD4 count and clinical staging. Option B+ is said to be cost-effective, able to protect HIV negative male partners and improve maternal and infant health. For the adoption of Option B+, the country has trained 1200 health care workers.
Before the introduction of Option B+, access to ART for pregnant and breastfeeding mothers was a challenge. The challenge was exacerbated by the location of PMTCT programmes in clinics, which were not equipped to provide CD4 testing for the determination of initiation to the ARVs. Women had to be referred to the next level of care resulting in loss to follow up. Option B+ was adopted after a success story from Malawi, which decided to innovatively commence all HIV pregnant and breastfeeding mothers on ART irrespective of CD4 count. This innovation which they termed option B+ recorded an increase of the number of pregnant and breastfeeding women by 748% one year after implementation (WHO, 2012). These success results from Malawi, informed the new WHO strategy (WHO, 2013) for developing countries where there is limited access to CD4 count machines, high fertility rates and low usage of condoms.

While Option B+ has made it easy for all HIV positive pregnant and breastfeeding mothers to access lifelong ART, the acceptability and sustainability of this programme is still largely unclear. The challenge is to determine how well this new PMTCT regimen will be adopted at the local level. The instant commencement of mothers on the Option B+ programme raises profound concerns. These concerns emanate from the non-consideration of the mother’s CD4 count or the WHO clinical staging. The willingness and preparedness of mothers has to be considered. Medley (2004) highlights challenges that could be faced by women, which include inadequate
counselling, need to consult a male partner before making a decision and fear of stigma.

The assumption of this thesis is that Option B+ tends to down play the role of culture in adoption of HIV&AIDS prevention measures. Zimbabwe is a patriarchal society where women are considered incapable of making decisions without the involvement of male partners. Option B+ does not give a chance to involve the family and the woman is forced into making a sole decision about a lifelong therapy. Policies have taken people as rational beings who are likely to change their behaviour when provided with information and the means to do so without looking at socio-cultural realities that shape and influence the success of these policies. Efforts to combat HIV&AIDS should consider the needs of the society, which include education (Fan, Conner and Villarreal, 2005). The introduction of Option B+ could have worked in Malawi but the same policy could be up against social and cultural realities in Zimbabwe. The introduction of Option B+ also affects relatively ‘healthy’ women who might not be prepared for lifelong ART. In every society there are social norms that dictate the way people receive programmes and these have to be considered if programmes have to be tailor made for local communities.

The nature of the devastating epidemic has seen policymakers trying to find solutions quickly. Of greatest concern is that prevention and treatment policies have paid little attention to the socio-cultural realities in developing countries, which can ultimately determine the success of the programme. Very few
studies have attempted to delve into understanding the social and cultural realities of following through with PMTCT in real life settings. The PMTCT programme has been introduced against a backdrop of a weak health care system. Research in such issues can help adapt global policies to local realities.

1.9 Conceptual Framework for the Study

The following section presents the conceptual model for the study showing variables related to the socio-cultural realities of following through with PMTCT. Diagram 1.4 shows the interaction of different variables that could influence the non-adherence to PMTCT by mothers during the postnatal period. It looks at factors related to the mother, the community, the health care institutional organisation and the baby. The literature on adherence to PMTCT such as that given in Chapter 2, makes it clear that there are multiple factors at play. The individual, the community, institutional and child-related factors affect following through with PMTCT. The conceptualisation of this study is informed by the literature review in chapter two. It becomes evident that following through with PMTCT during the post-natal period is influenced by many factors. There are interconnecting relationships between the mother, the health facility, the community and the baby. The diagram below is a portrayal of the factors that have been aforementioned. Studying following through with PMTCT would be incomplete if the different facets of the programme are not considered (see Figure. 1.4).
1.10.2 Conceptual Framework Explained

The initial assumption is that following through with PMTCT by mothers on the PMTCT programme hinges on a number of factors, that include the health services, the individual, the community and the child-related factors. In the
forthcoming paragraphs is the explanation of the identified variables as they relate to the study question.

1.10.3 Health services

Health care services can be prescriptive. Mothers can be involuntarily HIV tested and counselled and initiated on lifelong ART without consideration of the mother’s background variables. Health services adopt a one-size fits all approach without consideration of the emotional roller coaster that mothers go through after discovery of HIV status. Health services deal with mothers as an individual disregarding that they come from different community contexts and families, which might stigmatise them. There could also be issues of institutional stigma, for example the lack of confidentiality at the health facilities that could be worsened by poor infrastructure. Mothers might be ill prepared to disclose their HIV status, a stigmatised disease. Health services might not be in a position to give support to the mothers in the community due to staff shortages.

1.10.4 Mother/Individual

Demographic characteristics of the mother have to be understood and how these influence the mother’s adherence to PMTCT. For example, the marital status can play a part in the follow through as the husbands positively or negatively contribute towards infant feeding practices. Gender power dynamics have the ability to remove the infant feeding decisions from the mother to the male. The husband also controls the woman’s sexuality especially in issues of having protected sex to avoid re-infection. Internal
stigma can influence the mother’s adherence to PMTCT as the woman self discrimimates. A mother could also be battling to adhere to her own medication and that of the baby. An HIV positive mother might face the challenge of disclosing her status to the partner or significant others due to fear of violence or rejection and this therefore would affect adherence to PMTCT during the breastfeeding period.

1.10.5 Community
A child is born into a community, which dictates how it is to be raised. In patriarchal societies, children belong to the patriarchal lineage and these have a say on how this child has to be raised. Communities have their own dictates of how infants should be raised. There are traditional practices of infant feeding and care in all communities. Some traditional practices could expose the baby to HIV. Children belong to the community and every elderly member feels obliged to have a say on how a child is to be cared for and fed. Failure to comply by the mother could confirm the mother’s sero status. Exclusive breastfeeding is a new phenomenon in Zimbabwe and of late, it has been associated with HIV. The external stigma from the community could lead to non-adherence to PMTCT. Community norms on power relations and masculinity can adversely affect adherence to PMTCT.

1.10.6 Child-related issues
PMTCT guidelines prescribe that the child should be exclusively breastfed or exclusively given replacement feeding. Mothers might not be confident to give the baby their milk especially after testing positive. To exclusively
breastfeed, the mother has to be with the child all the time, which could be a mammoth task in a rural setting. Certain traditional practices are still conducted on babies, which could expose them to contracting the virus. Babies might also prefer other feeds to breastmilk.

1.10.7 Contribution of this study to knowledge

This study contributes to knowledge through addressing the current paucity of data on the social and cultural realities of adhering to the PMTCT programme. In Zimbabwe most of the studies have concentrated on uptake of the PMTCT programme with main emphasis on the antenatal care period neglecting the postnatal period where babies are exposed to HIV transmission through a myriad of ways which not only include breastfeeding but also cultural practices which might put the children at risk of getting the infection. Culture was identified as one of the five domains to develop a new direction for HIV&AIDS prevention, care and support in resource constrained countries by UNAIDS (Airhihenbuwa et al 2000) yet a few studies have addressed this subject. This study therefore aims to augment our knowledge about social and cultural realities that has to date been inadequately studied (Fan et al, 2005).

This study also utilises an often underutilised Pen’s 3-culture theory (Airhihenbuwa, 1989) which is holistic as it has the ability to demonstrate how different societal institutions interact to inform an individual’s decision to embrace or not to embrace an HIV&AIDS prevention strategy like PMTCT. The conceptualisation of this study contributes to strengthening theoretical ideology on this subject as well as to research methodology which involves
triangulation of several data collection techniques (refer to theoretical framework in the following chapter). It is of no doubt that that the results of this study have relevance and implications for the revisiting of PMTCT policies in resource constrained settings like Zimbabwe as it considers the cultural values and HIV interventions, which have not been widely researched. It has become clear that in order for HIV&AIDS programmes to be pragmatic and effective, indigenous cultural traditions have to be understood.

1.11 Organisation of the Thesis

This thesis constitutes seven chapters. The first chapter introduces the subject matter and clearly outlines the objectives of the study. The second chapter presents a summary of the literature that is available on this subject identifying gaps. The third chapter outlines the research processes, the methodology and the ethical issues observed in conducting this research. The fourth chapter presents the findings from the qualitative study. The findings are divided into different sub chapters in line with the study research objectives and themes. The fifth chapter presents the quantitative results from the cross-sectional survey. Chapter six is a discussion of the findings and finally, chapter seven provides conclusions, policy implications and recommendations from the study.
CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter is a review of relevant literature on Prevention of Mother to Child Transmission of HIV (PMTCT) during the postnatal period and the implications for elimination of paediatric infection. The chapter focuses on literature that is pertinent for this study and begins with giving an overview of the HIV&AIDS epidemic globally, regionally and in Zimbabwe where the study is located. It finally zeros in on the Prevention of mother to Child Transmission programme by situating the study and identifying gaps in the literature relating to the social and cultural realities of following through with PMTCT by mothers and the implications this has on the elimination of paediatric infection. Following through with PMTCT is defined as adhering to the PMTCT cascade through exclusively breastfeeding for the first six months, adhering to ART by the mother (Option B+), avoiding re-infection through use of condoms. The argument is that there are other neglected risky factors for the transmission of HIV during the PMTCT cascade that are often overlooked by conventional medicine.

PMTCT and HIV&AIDS have been too medicalised at the expense of the human and social aspect of the disease. The terms following through and adherence are used interchangeably in this study. Wright (2000) observes that one of the most interesting aspects of following through or adherence is how rarely patients do all that is recommended. The chapter further reviews
available evidence of factors that could affect the mothers’ ability to follow through with the PMTCT programme globally and in Zimbabwe. A recent study on uptake of PMTCT services in Zimbabwe which had a sample size of 8,800 women, found gaps which could have been missed by examination of health facility data alone (McCoy, 2015). The chapter also focuses on the Zimbabwean health care system where the PMTCT programme is being implemented and the socio-economic conditions prevailing in the country. It finally presents the theoretical and conceptual framework that explains the inter linkages of various factors which include human/individual, community and institutional factors that could lead to non-adherence to the PMTCT programme by mothers during the postnatal period.

2.2 Global Scenario of HIV&AIDS

HIV&AIDS has emerged as one of the greatest challenges to public health. It constitutes the biggest threat to development, particularly in countries where infection rates have reached critical levels (UNAIDS, 2012). According to the UNAIDS (2014) fact sheet in 2013 there were 35 million people living with HIV and since the beginning of the epidemic between 71-87 million have been infected with HIV and 39 million people have succumbed to AIDS related deaths. Of note however is that new HIV infections have dropped by 38% among adults and by 58% in children since 2001. AIDS related deaths have also declined by 35% since the peak in 2005 (UNAIDS, 2014). The decline in AIDS related deaths could be due to access to antiretroviral therapy (ART) which was reportedly accessed by 12.9 million people in 2013, representing 37% of all people living with HIV (UNAIDS, 2014. The report
further states that the majority of people receiving treatment were adults (38%) with only 24% of children living with HIV receiving ART.

2.3 Regional Scenario of HIV&AIDS

Now in its third decade, HIV&AIDS is the leading cause of mortality and morbidity among the most productive age groups on the African continent including women and children. The Southern Africa region is the epicentre of the pandemic and carries the heaviest burden of the pandemic yet it contains only 10% of the global population. Estimates by the United Nations Joint Programme on HIV&AIDS (UNAIDS) (2014), reveal that out of a global total of 35 million people living with HIV&AIDS, sub Saharan Africa has a total of 24.7 million which translates to 90% of the global total with women constituting 60% of the infected. Of the global 3.2 million children living with HIV, 2.9 million are in the Sub Saharan African region. Of concern is the fact that UNAIDS estimates that in the year 2013 there were an estimated 1.5 million new infections in the region with a record of 1.1 million AIDS related deaths. Children accounted for 210,000 new infections in 2013 with a noted decline of 43% in new infections among children since 2009. This could be attributed to the introduction of the Prevention of Mother to Child Transmission (PMTCT) programme. Despite the recorded declines in new infections, Sub Saharan Africa is still responsible for 70% of new global infections. At the end of 2013, women accounted for 58% of all adults living with HIV in Sub-Saharan Africa (UNAIDS, 2014). This is a major concern because the high levels of infection could translate to exposure of babies to vertical transmission.
2.4 Zimbabwe and HIV&AIDS

Zimbabwe has an HIV prevalence of 15% among the 15-49 year olds (MOHCC, 2014). Of the 12.9 million people in Zimbabwe (ZIMSTAT, 2012), it is estimated that 1.2 million people are living with HIV, with approximately 178000 children between 0-14 years, 64 000 pregnant women and 8917 new HIV infections in children each year (MOHCC, 2014). The HIV positivity rate is 16% among pregnant women, which is a major public health concern as there are high chances of mother to child transmission of HIV. Zimbabwe, as one of the 22 countries with the highest number of pregnant women living with HIV, is committed to the Global Plan of Elimination of New Infections among Children by 2015 and ensuring mothers are kept alive (UNAIDS 2011).

2.5 Prevention of Mother to Child Transmission of HIV (PMTCT)

Mother to child transmission of HIV (MTCT) remains the major mode of HIV transmission in children. MTCT is the second major mode of transmission of the HIV virus after sexual transmission and contributes overall to 7% of all HIV infections. Mother to child transmission occurs when an HIV infected mother passes the virus to her baby during pregnancy, labour and delivery or through breastfeeding. The Zimbabwe Multiple Indicator Monitoring survey (MIMS) in 2009 estimated that 21% of under-five mortality and 26% maternal mortality is due to HIV&AIDS. Prevention of Mother to child transmission of HIV is therefore one of the critical pillars for the attainment of the Millennium Development Goals 4, 5 and 6 which were to achieve a reduction in child mortality, improvement of maternal health and combating diseases such as
HIV&AIDS and malaria in the country. The need to identify HIV positive mothers, pregnant and lactating mothers cannot be ignored. The PMTCT programme is therefore considered as an entry point into care for the family as it hails the beginning of a lifelong therapeutic relationship for the HIV positive mother and her family.

PMTCT intervention is being integrated as a component of a standard antenatal (ANC) and maternal and child health (MCH) service. PMTCT remains central to global HIV&AIDS initiatives. Scaling up of PMTCT programme is recognised as an important gateway for scale up for broader HIV prevention and care programmes. Key programme elements for all these international efforts include increasing access to HIV testing and counselling, strengthening prevention interventions linked to treatment services, enhancing access to PMTCT programmes and fostering community participation. PMTCT as an intervention strategy is being carried out in most of the districts in Zimbabwe through mission and government hospitals.

PMTCT programmes have become the cornerstone in the prevention of vertical transmission. Without the intervention of treatment, 15-30% of babies born to HIV infected mothers become infected during pregnancy and delivery and a further 5-20% are likely to be infected through breastfeeding (De Cock et al, 2010). According to UNAIDS 2011, the year 2010 alone recorded an overwhelming number of 390 000 children under 15 that had become infected through mother to child transmission. The UNAIDS 2010 and UNICEF, 2012 state that of all the children living with HIV, 90% reside in the Sub Saharan African region and resultantly HIV accounts for 8% of all under five deaths in
this region. However the scenario is different in high-income countries where Mother to Child Transmission (MTCT) has been virtually eliminated due to effective voluntary counselling, access to antiretroviral therapy, safe delivery practices and the availability of safe breast milk substitutes (AVERT, 2011).

According to the WHO recommendations, an HIV positive woman who has access to a regular supply of drugs and chooses to breastfeed, is supposed to exclusively breastfeed for six months and then introduces mixed feeding until the infant is able to be on another safe diet without the breast milk (Chasela et al., 2010). Breast milk is known to have special vitamins, nutrients and protective agents which are absent in infant formula. Women who are not yet for lifelong ART should be initiated on triple ARVs, which should be continued at least for the duration of breastfeeding to prevent further risk of MTCT through breast milk (MOHCC, 2013). Whenever there are Acceptable, Affordable, Sustainable and Safe (AFASS) breast milk substitutes, HIV positive mothers are advised not to breastfeed. The greatest hindrance to the acquisition of formula is the price, especially in resource poor countries.

Most women face challenges of access to clean water, fuel for preparation of replacement feeds and more often the time to prepare the feeds. Incorrectly prepared, feeds can lead to malnutrition and in some cases death. In areas where there is no safe water for mixing of the formula, there is a higher risk of life threatening conditions for the baby than breastfeeding. For such mothers mixed feeding is only safe because they will be taking ARVs. Studies have shown that when Antiretrovirals are taken during pregnancy and
breastfeeding, the infection rate is greatly reduced to 2 percent (Kilewo, et al. 2008; Chasela, et al 2009; Kesho Bora Study Group, 2009; Shapiro et al, 2009). This however calls for 100% adherence to ART, as failure to this would result in the baby becoming infected with HIV that is resistant to medication (Kilewo, et al. 2008; Arrive Elise, 2007; Coovadia, 2009; the SWEN Team, 2008). The need for support for mothers to strict adherence to an extended drug regimen as well as exclusively breastfeeding for six months cannot be over emphasised.

2.6 The PMTCT Trajectory

The goal of an AIDS free generation cannot be reached without the recognition of an ARV regimen choice for HIV positive women. The WHO’s 2010 PMTCT ARV guidance, had the option for countries to select between two prophylaxis regimens for HIV positive pregnant women with a CD4 that was greater than 350cells/mm (UNAIDS, 2012, WHO,2012). The Option A entailed women receiving antenatal and intrapartum ARV prophylaxis with an ARV postpartum ‘tail’ regimen as a way of reducing drug resistance with infants receiving postpartum ARV prophylaxis during the breastfeeding period. The Option B, which was perceived to have a simpler clinical flow, entailed having all HIV positive pregnant and lactating mothers receiving a triple combination of ARV drugs from the Antenatal care onset and continuing till the end of the breastfeeding period. Women who did not require ART for their own health discontinued the prophylaxis. They could only commence when their CD4 count fell below 350cells/mm (UNAIDS, 2012). Recently the WHO (2013) has revised the new drug regimen and
introduced Option B+ for HIV positive pregnant and breastfeeding mothers which initiates all pregnant women living with HIV on lifelong ART irrespective of their CD4 count (see Table 2.1)

**Table 2.1: Three Options for PMTCT**

<table>
<thead>
<tr>
<th></th>
<th>Women with CD4 count above 350 cells/mm³</th>
<th>Women with CD4 count below 350 cells/mm³</th>
<th>Child receives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPTION A</strong></td>
<td>During pregnancy: AZT starting as early as 14 weeks of pregnancy</td>
<td>Triple ARVs started as soon as diagnosed and continued for life</td>
<td>Daily prophylaxis (NVP) from birth until 1 week after all breastfeeding has finished; or, if not breastfeeding or if mother is on treatment, through age 4-6 weeks</td>
</tr>
<tr>
<td></td>
<td>At delivery: Single-dose NVP and first dose of AZT/3TC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>After delivery: daily AZT/3TC through 7 days postpartum</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OPTION B</strong></td>
<td>Triple ARVs starting as early as 14 weeks of pregnancy continued through childbirth (if not breastfeeding) or until 1 week after all breastfeeding has finished</td>
<td></td>
<td>Daily prophylaxis (NVP or AZT) from birth through age 4-6 weeks regardless of infant feeding method</td>
</tr>
<tr>
<td><strong>OPTION B+</strong></td>
<td>Triple ARVs started as soon as diagnosed and continued for life</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: WHO’s 2012 Programmatic update*

The idea of the lifelong ART was conceived and implemented in Malawi where from the country’s experience, the national ART programme was already functioning well using a public health approach without the dependence on CD4 testing for initiation of treatment. Option B+ was considered by Malawi as an easier approach to adopt due to its simplicity and its inclusiveness irrespective of access to CD4 testing. The approach
introduced the administration of ART by primary care nurses where women and children accessed Maternal and Neonatal Child Health (MNCH) services in the process addressing the problem of hard to reach areas throughout the country. The country’s approach saw a more than 5 fold increase in the numbers of pregnant women enrolled on ART during the first quarter of nationwide implementation (Government of Malawi Ministry of Health, Quarterly HIV programme report, 2012). The success of the Malawi PMTCT programme led to the adoption of the new drug regimen by WHO. Encouraging as this approach looks, there is still an issue of retaining the women in long-term care. It is clear that this approach, good as it might appear, does not take into context the community and family based settings to support families on treatment, cost of drugs, adherence and other challenges related to living with HIV&AIDS. These are the issues, which this study sought to address.

Numerous studies have been conducted on PMTCT in Zimbabwe and in the sub Saharan African region. These have concentrated on adherence to the drug regimens for both mother and infant during the PMTCT period (Chasela et al., 2010; Ciaranello et al., 2011; Barker et al., 2010; Wiegert et al., 2014). Others have focused on the feeding practices by HIV positive mothers (Iliff et al., 2005; Shapiro et al., 2010, Kilewo et al., 2009; Kuhn et al., 2007) and other health related issues (Wiegert, et al, (2014), Chibanda et al (2014). The many studies that have been conducted in Zimbabwe on PMTCT have concentrated mainly on uptake of PMTCT, adherence to ART by the mother and baby pairs and have fallen short of looking beyond pregnancy and the health facilities
(Songok et al 2003; Chimhuya et al, 2013). There is a dearth of information of the lived realities of mothers on the PMTCT programme in particular during the postnatal period where babies are still exposed to HIV infection. It is of no doubt that, PMTCT has proven to reduce the incidence of HIV transmission hence the importance of understanding how women are receiving and experiencing the programme in particular during the postnatal period.

2.7 Risk Factors for Mother to Child Transmission of HIV

The amount of virus in the mother’s blood (mother’s HIV viral load) is the most important factor for mother to child transmission of HIV (vertical transmission). The chances of vertical transmission are highest when the mother’s viral load is high particularly during new infections or when the mother has an advanced disease. Table 2.2 depicts maternal factors that increase risk of mother to child transmission from pregnancy to the breastfeeding (postnatal) period.

Table 2.2 Risk Factors for Mother to Child Transmission of HIV

<table>
<thead>
<tr>
<th>Factors that may increase the risk of HIV transmission during the Postnatal period include,</th>
</tr>
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<tbody>
<tr>
<td>• Non-adherence to Antiretroviral therapy by the mother</td>
</tr>
<tr>
<td>• Sexually transmitted infections through non use of condoms by parents</td>
</tr>
<tr>
<td>• Breastfeeding – through high maternal plasma and or breastmilk viral load (new infections)</td>
</tr>
<tr>
<td>• Early mixed feeding</td>
</tr>
<tr>
<td>• Oral disease in the baby/thrush or sores</td>
</tr>
<tr>
<td>• Traditional practices which make it easy for virus transmission during breastfeeding</td>
</tr>
<tr>
<td>• Traditional practices which expose babies to seminal and vaginal fluids</td>
</tr>
</tbody>
</table>

Source: Author’s illustration
The reduction of mother to child transmission can only be realised through population level efforts to prevent HIV infection among mothers and children.

2.8 Adherence to PMTCT

The government of Zimbabwe in 2013, adopted use of Option B+ that stipulates that all HIV infected pregnant women should initiate lifelong ART irrespective of their CD4 count or WHO clinical stage (MOHCC, 2013). Adherence to Option B+ by mothers is necessary to prevent drug resistance and mother to child transmission (MTCT) of HIV. Adequate adherence to ARV is required for efficacy of the prescribed drug regimens and is crucial to reduce the risk of MTCT combined with safe infant feeding (Colombini et al; 2014). Community factors (discrimination, HIV disclosure, male involvement) contribute to adherence (Peltzer, Sikwane and Majaja, 2011). It is unfortunate that adherence to the recently recommended Option B+ drug regimen has not been studied, yet it is crucial if we are to keep mothers alive and eliminate paediatric infection. Boateng et al (2013), contend that there is a gap in client’s knowledge, attitudes and perceptions of ART and PMTCT, which influence mothers to adhere to ART.

The majority of mothers are initiated on this new drug regimen during antenatal care and they are to continue taking the drug for life. A study by Malaju and Alene (2012) in Ethiopia, showed that knowledge of MTCT was positively associated with antenatal care visits and PMTCT adherence. A study by Peltzer et al (2009) showed that a third of women who were interviewed believed that their children were bound to be positive at some
stage and this affected their adherence to ART. Attitudes of health personnel and the availability of drugs were cited as barriers to PMTCT adherence (Gourlay et al; 2013). In KwaZulu Natal, Mepham et al. (2010) found that poverty affected adherence as most women failed to take their pills due to lack of food. Ngarina et al, (2013) in Tanzania where poverty was said to negatively affect adherence to ART by mothers reported the same findings. Kuonza et al., (2010) in Zimbabwe found that non-adherence to single dose nevirapine was high in Bindura Town. Musinguzi et al., (2014) reported a likelihood of adhere to PMTCT interventions when they were supported by their sexual partners. Factors leading to poor adherence include stigma, a feeling of hopelessness, hunger, cultural factors and illness ideology, lack of accurate health information, lack of social support, theft of tablets by HIV positive relatives, domestic violence, medication side effects, overcrowded health systems and mental health issues (Mepham et al., 2011). Adherence was also reported to be low where women were stigmatised and discriminated by health staff and where there was no confidentiality (Colombini et al., 2014).

2.9 Culture and Prevention of Mother to Child Transmission of HIV

In the Sub-Saharan African region, including Zimbabwe, the implementation of the PMTCT programmes particularly in rural areas, face a myriad of challenges. The problems are further fuelled by the socio-economic and cultural barriers that impinge on the uptake of the ART prophylaxis and adherence during the postnatal period. In the PMTCT programme, the
dilemma of culture emerges where normatively babies should be breastfed and the mother is seen not to be breastfeeding. This could draw attention to her HIV status and invite discrimination. In some communities, women who do not breastfeed are labelled as witches.

Cultural practices can therefore influence health behaviour in a positive and negative way. Culture has emerged as a factor in many ways that HIV&AIDS has impacted on the African population as observed by Shisana and Simbayi (2002) who argue that culture influences beliefs and values regarding people’s sexuality and condom use. Parker and Aggleton (2003) studied the influence of culture on AIDS related stigma and concluded that stigma could not be fully addresses outside the cultural contexts that give it meaning. The UNAIDS also recommended the centrality of culture in Africa’s HIV prevention and control efforts (Airhihenbuwa et al, 2000). Culture is defined ‘as a system of interrelated values active enough to influence and condition perception, judgement, communication and behaviour in a given society’ (Mazrui 1986: 239).

Culture is pivotal in determining the health of the individual, family and community. In the face of the unabated HIV epidemic, there is a need to adopt a culture centred approach strategy to prevention care and support. Gyekye argues that despite being westernised in some aspects, Africans have remained resilient in maintaining their cultural logic of the collective rather than the individual in health behaviour (Gyekye, 1997). Public health programmes that have concentrated on the individual like the PMTCT programme have not
been very successful (Dean, 2002). The devastating impacts of the HIV epidemic call for the consideration of African realities in stemming the tide. Poverty and gender inequalities also play a major role in PMTCT programmes (Kebaatswe, 2007).

2.10 Socio-cultural Issues

In the African context, raising up a child is not an individual effort as outlined by Mphego et al (2013), yet counselling on the PMTCT programme focuses mainly on the woman. PMTCT has become too medicalised forgetting the human factors that determine the success or the failure of the programme. Cultural and societal factors, unequal gender norms and values, women’s economic vulnerabilities have not been given enough consideration. Barriers to PMTCT include societal influence on individual behaviour through social norms, and the family as the males and the mother in law are the main decision makers in most African settings (Hlarlaithe et al 2014). Reality is that women’s decision-making about their pregnancies and health is deeply influenced by their partners, communities, social norms and beliefs regarding HIV&AIDS (WHO 2012). According to Shroufi et al. (2013), to increase PMTCT uptake, broader interventions are necessary to transform the harmful gender norms, attitudes and behaviours inherent in communities that make women more vulnerable to HIV and serve as obstacles to PMTCT uptake and adherence.

Peer and family influences have been shown to be particularly important determinants of PMTCT involvement with lack of partner support reducing
the likelihood of a woman engaging with the services (Shroufi et al. 2013). Shamu and colleagues postulate that men’s failure to understand pregnancy and emotional changes lead to perpetration of intimate partner sexual violence (IPSV) which further exposes women and babies to high risk of HIV infection (Shamu et al. 2012).

Although a woman makes a decision on how to feed her baby, in practice she may not be able to due to family beliefs, norms and cultural practices (Matji et al. 2010; Njunga & Blystad 2010; Mphego et al. 2013). Infant feeding can run contrary to the recommendations of the PMTCT programme (Shroufi et al 2013). Custom defines what behaviour is to be expected of men and women as found in a study on PMTCT in Zambia by Auvinen et al (2014). The same authors argue that barriers to following through with PMTCT by women are influenced by culture, HIV related stigma and poverty.

2.11 Stigma

Stigma is a significant community level factor that has been proved to affect women’s ability to adhere to PMTCT (Shroufi et al. 2013). There is growing evidence of HIV related stigma in Zimbabwe and social rejection was found to be inversely associated with uptake of PMTCT (Sambisa et al, 2010). Stigma negatively impacts service uptake and adherence to the PMTCT cascade, and has been defined by Turan & Nyblade (2013) as a social process or related personal experience characterised by exclusion, rejection, blame or devaluation that results from experience or reasonable anticipation of an adverse social judgement about a person identified with a particular health
problem. The authors argue that the pregnant woman as the first family member to be tested for HIV due to their contact with the clinic is vulnerable to blame for bringing the virus into the family (Turan & Nyblade 2013). The authors further state that these factors are compounded in many settings by gender norms or relations that penalise women for promiscuity and place women in positions of socioeconomic vulnerability. A review of literature from low resource settings found that stigma was negatively impacting on service uptake and adherence to the PMTCT cascade (Turan and Nyblade, 2013).

Auvinen and others state that HIV related stigma is responsible for men shying away from PMTCT services as they associate the programme with women, fear for their reputation and feel guilty about infecting their wives and bringing the virus to the family (Auvinen et al 2014). In most parts of Sub-Saharan Africa, social and cultural contexts put pressure on couples to produce children, a demand that married couples have to fulfil and being HIV positive and childless causes double stigma (Musinguzi et al. 2014). This leads to men demanding unprotected sex to overcome the stigma associated with childlessness, leading to non-adherence to PMTCT (Musinguzi et al 2014).

2.12 Child related factors
infant receiving only breastmilk from the mother and no other liquids or solids with the exception of drops or syrups consisting of vitamins, mineral supplements or drugs. Exclusive breastfeeding (EBF) is the most suitable option and an important component of child survival and prevention of mother to child transmission of HIV (Mphego et al. 2013). EBF though better than other forms of infant feeding and associated with improved child survival is uncommon and rare particularly in most African cultures where mixed feeding is the norm, and water is commonly given within 48 hours of the baby’s life (Coovadia et al. 2007; Kaulafulu et al. 2013; Ijumba et al. 2013; Moland et al. 2010; Mphego et al. 2013).

Exclusive breastfeeding carries a significantly lower risk of HIV transmission, carrying a 4-10 fold decreased risk of mother to child transmission of HIV compared to mixed feeding during the first six months of life (WHO, 2010). Infants who received formula milk in addition to breast milk before or after fourteen weeks of age were nearly twice as likely to be infected as were infants who received breast milk only. Those who received solids were nearly eleven times more likely to acquire HIV (Kaulafulu et al. 2013; Rollins et al 2013; Madiba & Letsoalo 2013). Studies from South Africa, Zimbabwe and Cote d’Ivoire have provided strong evidence that exclusive breastfeeding is associated with lower rates of HIV transmission during the postnatal period (Coutsoudis 2011; Iliff 2005; Kuhn 2007; Becquet, 2008). Despite the clear benefits of exclusive breastfeeding, the uptake has been low (Kuhn, 2009). The possibility of HIV transmission through breastfeeding calls for concealed efforts by the health staff and HIV positive women to make challenging
decisions on mothers’ breastfeeding practices (Israel-Ballard, Waithaka & Greiner 2014). The exclusive breastfeeding rate in Zimbabwe is 31.5% (MOHCC 2012), however, the Zimbabwe Demographic Health Survey (2010-2011) showed that only 4.5% of babies were being exclusively breastfed by the age of 6 months.

Social support, women’s economic empowerment, partner’s opinion, extent to which an HIV positive woman has shared her status, access to clean water and other resources influence infant feeding decisions of a woman (Maman et al 2012). Infant feeding options have been challenging in a PMTCT context because both the options available, that is, breastfeeding or not breastfeeding, pose risks to child health and survival. The dilemma is further propounded by the fact that sub-Saharan Africa is the epicentre of HIV&AIDS and this is where most infants die from malnutrition and infectious disease. Moland et al. (2010) states that in this region both exclusive and replacement feeding have been difficult to operationalize.

Mothers have often expressed confusion and coercion, which are mostly responsible for mixed feeding (Sibeko et al 2009). A study by Maman found that the most common cited barriers to adhering to the infant feeding method of choice by HIV positive mothers were problems with milk supply, women’s poor physical health, child refusal, and fear of transmitting HIV through breastfeeding (Maman et al 2012). The same authors suggest that promoting exclusive breast feeding in settings where mixed feeding is the norm has proved difficult, common barriers to the practice include financial constraints,
breast health problems, misinformation about HIV transmission, local norms and prior feeding experiences (Maman et al 2012; Madiba & Letsoalo 2013). Their study found that weaning a child in accordance with the PMTCT guidelines was challenging as cost of food and formula was a barrier in addition to the stigma associated with early weaning.

In other studies, exclusive breastfeeding was found to be difficult to adhere to as it is an alien concept in Africa. During the first three days of life babies are traditionally given fluids and other types of food to relieve an exhausted mother who would just have given birth (Laar & Govender 2011; Mphego et al., 2013). In Ghana, water is customarily given to infants shortly after birth under the belief that after the birthing process, the infant is exhausted and thirsty and requiring water, it is also regarded as a cultural gesture to welcome the baby into the world. Women may fear that following an infant feeding mode that is not the cultural norm or standard, will lead to disclosure of their HIV status and trigger stigma and discrimination (Turan & Nyblade 2013; Brusamoto et al. 2012). In Burkina Faso, Cambodia and Cameroon, women made infant feeding decisions based on their perceptions of their risk of being stigmatised as a bad mother or being HIV positive (Turan & Nyblade 2013).

Varga et al. (2005) also found that a woman’s choice of infant feeding was influenced by fear of disclosure, purchasing power, social pressures and cultural beliefs. Studies have shown that women who initiated mixed feeding practices as early as one month, were pressurised by the family (mothers, mothers in law or grandmothers) to mix feed (Madiba & Letsoalo 2013;
Mothers who mixed fed infants were aware of the guidelines not recommending introduction of complementary feeding prior to six months of exclusive breastfeeding, but felt helpless in the face of pressure from family members. The amount of debate on child feeding practices show that PMTCT is more than a medical condition, which needs to be further investigated.

### 2.13 Disclosure

Disclosure of one’s HIV status is an essential part of coping with HIV, prevention and mitigation of its impact (Varga et al. 2005). Disclosure of HIV status to partner is considered important for ensuring that individuals are able to access a range of services including the prevention of vertical transmission, treatment and care (Brusamento et al. 2012) yet, according to WHO, between 16-86% of women in developing countries choose not to disclose their HIV status to their partners. HIV status disclosure serves as an important strategy in PMTCT and enhance adherence to key PMTCT interventions including allowing individuals to gain partner or family support (Madiba & Letsoalo 2013).

A study by Jassen et al. (2011) showed that non-disclosure was more frequent in women diagnosed with HIV infection late in pregnancy, originating from sub-Saharan Africa, living alone and with a partner that had not been tested. The same authors found that, women not disclosing to their partners were more likely to have later access to care, late booking, late initiation of ART and a persistently detectable viral load at delivery. Fear of negative
consequences of disclosure like violence, abandonment, rejection, accusations of infidelity and loss of economic support is a major barrier to the uptake of PMTCT (Jassen et al. 2011; Brusamento et al. 2012; Rujumba et al. 2012; Ditekemena et al. 2012; Ssali et al. 2010). Kalembo et al. (2013) also found that women who tested positive were afraid to disclose to their husbands for fear of being accused of infidelity, which could possibly lead to divorce. Jassen et al (2011) assert that non-disclosure reflects social and psychological vulnerability making it more difficult for women to adhere to PMTCT guidelines. Awareness of the woman’s HIV status by the partner made it easier for women to adhere to the PMTCT cascade (Shroufi et al., 2013). Women who disclosed to partners and family were supported to adhere to feeding option of choice (Madiba and Letsoalo 2013). Fadnes and colleagues suggest that mixed feeding is in part a result of lack of disclosure to family members and sexual partners (Fadnes et al., 2010; Madiba and Letsoalo 2013).

Women who disclosed to their partners, parents, siblings and friends were seeking support (Ross et al., 2011). Kafulafula et al., (2013), established that HIV positive mothers who disclosed to spouses or family members intended to exclusively breastfeed for a shorter duration which is in contrast to following through with PMTCT. The authors further argue that there was a possibility that these mothers feared opposition from their significant others because of the perceived and actual risks of HIV transmission through breast milk, hence the intention to shorten the breastfeeding period.
2.14 **Male participation in PMTCT**

According to WHO (2011), there is ample evidence documenting the impact of men on the various components of prevention of mother-to-child transmission (PMTCT) programmes and male involvement has been recognized as a priority. Male Involvement in PMTCT of HIV is important in cultural settings where men are decision makers as they play a role in women’s risk of acquiring HIV and uptake of HIV programmes (Nyondo et al. 2014). Men are the decision makers in Africa, and their involvement in PMTCT gives couples a chance to make informed decisions on living positively and sharing responsibility for preventing mother to child transmission. Their involvement also facilitates discussion of safe sex practices (Kalembo et al., 2013). Kalembo and colleagues further state that women with male partner involvement were more likely to have infants who tested HIV negative.

Several barriers to male participation were identified and these were linked to male partner himself, to health care services and to society. Men encountered unfriendly health workers, practices and attitudes that discouraged their involvement (Auvinen et al 2014). Ignorance, low level of formal education, lack of motivation, denial, low understanding of HIV&AIDS, indifference and lack of time led to low participation of men in PMTCT programme (Auvinen et al 2014). The authors further cited demographic factors such as level of education and income, health service factors, which include opening hours of health facilities, the female atmosphere at health facilities and community beliefs and attitudes towards health care services, were deterrents for male
participation in PMTCT. Lack of time means men who are employed are not able to come as employers do not support antenatal visits during work hours, a more flexible policy among employers could enable men to attend ANC (Auvinen et al. 2014). There are programmatic issues that are related to PMTCT programme which isolate men from ANC resulting in men associating the programme with women. Health care facilities are seen as barriers when there are no venues for men at the clinic or are not male friendly and when distance to the clinic is long (Auvinen et al. 2014).

In sub-Saharan Africa, traditional gender roles confer power to men to make decisions related to women’s health such as participation in PMTCT, directly and/or indirectly impacting uptake of the programme (Brusamoto et al 2012). A traditional mode of thinking inhibits male participation in PMTCT by defining a real man as a decision maker who has many women and a weak man as one who listens to his wife and defines mothering as a woman’s job (Auvinen et al. 2014). The practice of risk sexual behaviour during the PMTCT period was found to be lessened with male involvement (Musinguzi et al. 2014). Since men play a pivotal role in decision- making within the home and are often the breadwinners, establishing their buy-in and support for PMTCT activities and interventions is crucial (Ditekemena et al. 2012).

2.15 Condom use during the Postnatal Period

Despite the fact that HIV positive post-natal women are counselled on family planning, use of condoms is low even though it is the most common method of contraception (Peltzer, Chao and Dana 2008). Because unprotected sex
carries the risk of pregnancy and HIV transmission, most public health messages for HIV prevention involve use of a condom (Peltzer, Chao and Dana 2008). Auvinen and others suggest that the first aspect of practising safe sex is knowing the right way of using a condom (Auvinen et al. 2012). A study by Musinguzi et al. (2014), reported prevalence of inconsistent condom use which was attributed to the beliefs that condoms were unnecessary in HIV positive sero-concordant couples. Condoms were associated with lack of sexual satisfaction, the desire to have children, use of alcohol by husbands and inadequate counselling by health providers. A substantial proportion of people living with HIV (PLWHIV) on ART continued to have unsafe sex even with partners known to be HIV negative (Musinguzi et al. 2014). In Cote d’Ivore, Diabate et al (2007) reported a short-term increase in unsafe sexual behaviours after ART initiation.

HIV discordant couples are often advised not to have children but complex cultural, economic and social factors motivate many to reproduce, women reported their partners desire to reproduce despite the women’s preference not to and this complicated negotiations regarding condom use (Matthews et al. 2013). In African settings, decision-making rests with the males including the decision on use of condoms, men associate use of condoms with infidelity and thus considered inappropriate for use in the context of marriage (WHO 2012). Shamu et al (2012), in a study on intimate partner violence among HIV positive women in Zimbabwe, found that women who go for HIV testing and demand use of condoms might experience coercive and unprotected sex from their partners who question the idea of using condoms in marriages. Midwives
reported that alcohol intake by men resulted in them forcing their wives to have unprotected sex and threatening them with divorce if they resisted (Auvinen et al. 2012). Stigma and low risk perception by men contributed to non-use of condoms (Auvinen et al 2014). Nakaie and colleagues propose that women should be empowered with communication and negotiation skills to demand use of condoms (Nakaie et al. 2014).

2.16 Health Service Delivery Factors
A range of factors within the health care setting emerged that affected women’s experiences in PMTCT services, these related primarily to inadequate counselling, perceptions of mandatory testing, perceived and real breaches of confidentiality and sub-optimal health worker-client interactions (WHO 2013). Heath workers counselling practice are an essential component in improving PMTCT particularly infant feeding practices as stated by Fadnes et al (2010). The study by Fadnes and others conducted in Uganda discovered that health workers often had pragmatic approaches to infant feeding as many clients struggled with poverty, stigma and non-disclosure of HIV. They further reported that different health workers presented contradicting perspectives (Fadnes et. al, 2010). A study in Kenya by Ballard, Waithaka and Greiner (2014) also suggests that one of the weakest aspects of PMTCT is counselling especially on infant feeding which is given low priority. The same authors argue that counsellors’ training is inadequate and were often biased in discussing risks of breastfeeding and complementary feeding. Several reports have found inadequate knowledge among health workers, resulting in inadequate and biased counselling (Ballard, Waithaka and Greiner 2014). This
is in agreement with a study in South Africa which found that women practised mixed feeding as a result of poor and adhoc counselling which in most cases was not feasible with resources women had access to and based on counsellors preferences (Sprague, Chersich and Black 2011). A review in four African countries supports other studies asserting that lack of high quality counselling by health workers result in confused and incorrect maternal beliefs (Hardon et al 2012).

Leshabari et al (2007) established that counsellors are health workers, often overworked, suffering from resource constraints and uncomfortable with their roles of counselling. Health workers are faced with challenges related to workload, resources, scientific updating, and a need to adjust to frequent changes in programmes, recommendations and guidelines (Fadnes et al. 2012). Chinkonde et al (2010) claims that in Malawi, a lack of consensus among policymakers resulted in difficulties for health workers to uniformly counsel mothers especially on appropriate infant feeding, and attempting to adhere to shifting recommendations is challenging. According to Maman et al (2012), women’s knowledge influences infant feeding decisions and this is dependent upon health worker information.

Outdated training was a common concern with many health workers in Uganda, with most not being given courses or seminars since professional graduation, in addition to other problems such as minimal staffing, lack of resources and programmes being started and subsequently stopped abruptly (Fadnes et al. 2012). Barriers of infant feeding counselling include cultural
and familial influence, socio-economic factors including cost of food/formula, lack of access to fridges and clean water, and fuel and failure by policymakers to incorporate these issues will continue to lead to a gap between well-intended policy and programmes (Laar and Govender 2011). According to Leshabari et al (2012), WHO replacement feeding AFASS guidelines may not be immediately appropriate in certain settings unless they are adapted to the social and cultural context of the women who make the choices. In Tanzania, it was seen that health care providers’ attitudes towards male involvement were twofold; on one hand, the providers accepted male partners on the other had restrictive attitudes toward male participation (Theuring et al. 2010). In addition, health facility factors such as long waiting times and costs of transport to heath facility were cited as barriers to uptake of PMTCT (WHO 2013). Barriers to male participation in PMTCT emanate from the negative health personnel’s attitudes towards men, the long waiting times and the short staffing at health facilities. The marketing of PMTCT services also excludes men. Health facilities are also not male friendly (Auvinen et al., 2014). Barriers dependent on health care services are related to heath personnel lack of emphasis on the importance of ARV adherence at post counselling and follow-up care (Colombini et al. 2014).

This study acknowledges that issues that affect following though have been discussed though not in a holistic manner and there is paucity of data in Zimbabwe, a different setting from the above study sites. Of concern is that most of the studies do not specifically concentrate on the postnatal period where the mother has the task of ensuring that she follows through with the
PMTCT cascade in order to avoid paediatric transmission especially during this period. In Zimbabwe, again due to the economic problems that are bedevilling the country and the ailing health care system, which has resulted in serious staff shortages and lack of follow up of mothers to ensure adherence, there could be a danger of failing to eliminate paediatric infection through the PMTCT programme.

2.17.1 HIV&AIDS Prevention Theories

It cannot be doubted that human behaviour is central to following through with PMTCT hence the need to explore theories that explain health behaviour. This section summarises theories that are commonly used to construct health interventions and their relevance for understanding following through with PMTCT during the postnatal period. The most commonly used theories for public health interventions are the Health Belief model, Theory of Reasoned Action, and the social ecological approach. HIV&AIDS can however be examined from various theoretical perspectives. An extensive review of important theories from health and social sciences disciplines was conducted. However, this study deemed the forthcoming theories to be more pertinent for the conceptual framework used.

2.17.2 The Health Belief Model

The health belief model (HBM) which was developed in the 1950s is the most commonly used theory in health education and health promotion (Glanz, Rimer and Lewis, 2002). The theory stipulates that health behaviour is influenced by personal beliefs or perceptions about a disease and the available
strategies to decrease its occurrence (Hochbaum, 1958). The key characteristics of this model include perceived susceptibility, seriousness/severity, benefits and barriers, cues to action and self-efficacy (Lewis et al., 2002).

This theory has faced criticisms as Bandura (1997) notes that perceived threats in particular severity has a weak correlation with action and might even lead to avoidance of protective behaviour. Bandura further postulates that perceived severity may not be as important as perceived susceptibility. Stroebel further argues that the relationship between demographic and socio-psychological variables presumed to influence both perceived susceptibility and severity and perceived benefits and barriers are not clearly articulated in the theory (Stroebe, 2000). The theory is further criticised for its failure to recognise the important determinants of health behaviour, which include the positive effects of negative behaviour and social influence (Stroebe, 2000, Stroebe and de Wit, 1996). In applying this theory to following through with PMTCT, especially the Option B+ lifelong therapy, there is a need to consider the socio-psychological factors, which might impinge on the success of the programme. Cultural beliefs and practices might influence the way mothers adhere to the programme (De Villiers, 1991).

2.17.3 The AIDS Risk Reduction Model (ARRM)

This model explains behaviour change as it relates to HIV transmission (Catania, Kegels, and Coates 1990). The model is also informed by other theoretical frameworks, which include the health belief model, self-efficacy
theories and principles of basic psychology. The ARRM states that change is a process that individuals go through which is affected by different factors. An individual has to pass through a sequence of three stages, which begin with labelling. In labelling individuals recognise the actions that put them through the risk of contracting HIV. The individuals get to know about the existence of HIV as a disease and they perceive themselves as susceptible to the disease. They also view the disease as something that is undesirable. The individual then goes through the commitment stage whereby they decide to either deal with the problem, remain undecided or to wait for the problem to take its course. The individual weighs the costs and benefits of taking the risk. The factors influencing this decision include the perceived efficacy of the response and the social norms. This is followed by enactment stage, which is based on three sub-stages, which are information seeking, obtaining remedies and passing resolutions. The ARRM is based on the assumption that when people know about the risk of contracting HIV, they become motivated to change their behaviour. According to the Zimbabwe Demographic Health Survey (ZDHS) of 2010-11, knowledge of HIV is very high but still behaviour change is not tenable.

The ARRM model has a shortcoming of emphasising the individual over the community where they live and ignores the interactive mode of transmission of the virus. This model, despite its limitations, is used in this study to explore the reasons why women do not adhere to PMTCT which includes exclusive breastfeeding, condom use and adhering to their antiretroviral therapy as they
try to prevent mother-to-child transmission of HIV during the postnatal period.

2.17.4 Theory of Reasoned Action

The theory of reasoned action (TRA) by Fishbein and Ajzen (1975) is reinforced by three characteristics which include (i) attitudes towards the behaviour ii) negative or positive beliefs and iii) evaluations of the outcomes of one’s action or behaviour.

Belief in performing the behaviour is premised on its positive or negative outcomes ensuring critical evaluation of the consequences of performing certain behaviour before an action is taken.

The way significant others in a person’s life perceive one’s behaviour might motivate an individual to conform to certain expectations resulting in the patient complying (Baum et al 1997; Fishbein and Ajzen, 1975). A woman’s motivation to follow through/adhere to PMTCT will therefore be based on subjective norms.

The theory however falls short of recognising that positive and negative outcomes can be subjective and relative and they might be influenced by inherent differences and intentions in people. While one person could use condoms for the prevention of HIV infection, one person might take solace in the fact that there is free ART medication and added benefits from Non-Governmental organisations like free food handouts in the event that they get infected by the disease. Stroebe points out the theory’s shortcoming of ignoring the fact that behaviour is not always under volitional control of an individual as past behaviour might influence current behaviour (Stroebe,
There are also issues of disclosure whereby non-disclosure could affect adherence to medication as it becomes difficult for one to take ARVs in the presence of other people.

This theory has some relevance in this study as it helps to explain why mothers on the PMTCT programme fail to adhere to the PMTCT cascade, for example non-exclusive breastfeeding and having protected sex during the breastfeeding period while knowing the risks of infecting their babies. The study explores why mothers engage in risky behaviour.

2.17.5 A critique of the Health belief model and the theory of Reasoned Action

The two theories mainly depend on rationality and as Mullen et al (1987) argue that they do not allow for impacts such as emotions and beliefs on behaviour that could be of relevance to a stigmatised disease like HIV&AIDS. The theories further assume that the notion of rational appraisal of the balance between barriers to and benefits of action will lead to behaviour change. Being premised on subjective variables like perceived severity of disease, perceived susceptibility, or perceived barriers to health and illness, the theories concentrate more on the individual without focusing on the physical environment (Chesney et al, 2000). Studies on adherence are mainly focused on the patient ignoring significant other factors that could affect that patient to adhere to the programme. The two theories also aim at universality of interventions, a view that has always informed public health without attempting to understand contextual factors that shape the patient’s behaviour.
such as the social and cultural realities of patients that include health care organisation, accessibility and affordability. In following through or adherence, there is an interconnecting relationship between biomedical, psychosocial and behavioural factors, which can influence adherence positively or negatively. Adherence can also be dynamic as it can change over time. For example, mothers on the PMTCT programme might adhere for the first few months and then later decide to change.

2.17.6 The Social Ecological Theory

The social ecological theory, which is also known as the theory of human ecology, is embedded within the psychological paradigm. It came as a reaction to individual explanations of health and other behaviours. This theory contends that behaviour should be explained from an ecological perspective of forces that not only focus on the individual, but also include the social, political, organisational, the economic and the cultural perspectives (Lewin, 1935; Bronfenbrenner, 1979). The notion of this theory is that there are multiple interconnected interactions between people, the disease and the environment that need to be considered when designing health interventions for behaviour change promotion. The consideration of internal and external factors can lead to robust and effective health interventions (Stokols, 1996). The PMTCT programme is addressed at curbing a disease that happens within an individual, community, environment, organisational, political context and can also be affected by the economic climate. Failure to consider these when conceptualising the programme could lead to its failure.
The social ecological theory has been criticized for its cumbersomeness and impracticality in terms of expenses, both human and material and would need many logistics (Stokols, 1996). Based on these shortcomings, some proponents of the social ecological theory have proposed other middle range theories, which take into account specific circumstances (Green, 2005).

2.17.7 Social Realism Theory

There is a distinct difference between the biophysical phenomenon, a disease and a social phenomenon of illness (Friedson, 1970). This leads to application of illness labels, which often stigmatise the individual’s identity and status (Scott 1969; Locker 1983 and Scambler 1984). House (1974), postulates that stress occurs when an individual encounters a situation, which causes him or her to adopt certain behaviour, as the consequences of not complying are perceived as negative. This can be likened to condom use in stable marriages when there is HIV infection. Social reality, according to Durkheim, is not static as it changes depending on moral authority in the course of people’s lives.

2.17.8 Empowerment Theory

The empowerment theory stipulates that people change through a process of interacting to share experiences, understanding societal influences and developing solutions. This theory is based on three fundamental elements, which are; i) Populations for change, which happen at individual or group level, ii) Participatory education, where there is listening, participatory dialogue and action, and iii) Focus group strategies where there is gathering of
information through working with the community. This theory is rooted in the social action ideology and thus cannot be divorced from socio-economic and political factors (Kay et al 1999). This theory focuses on the cognitive, the individual and the community in its approach to empowerment but tends to down play the socio-economic and political factors, which were at the core of its formulation. The individual or community may be empowered at the expense of the socio-economic and political empowerment, which is a limitation as there is no mastery of control (Kay et al. 1999). The empowerment theory was however deemed pertinent to this study as there is need to understand the various levels of community participation in PMTCT activities. The mothers live in a community and hence the importance of understanding the community dynamics, their views and perceptions and influence on mother’s adherence to PMTCT during the postnatal period.

2.17.9 PEN -3 Culture Theory

The PEN-3 Culture theory was developed in 1989 to inform a cultural approach to dealing with HIV&AIDS (Airhihenbuwa, Witt and Webster, 2004). The theory has been applied in Zimbabwe (Gwede and McDermott, 1992). Recently it has been used to guide an evaluation of cultural interpretations and meanings of the use of female condom as a prevention strategy for the reduction of HIV&AIDS in South Africa (Webster, 2003). The theory is premised on three primary components that are cultural identity, relationships and expectations. Figure. 2.2 shows the PEN-3 model.
**Relations and Expectations:** This is premised on the fact that behaviour change focuses on perceptions, resources and the influence of significant others who include family and friends in making health related decisions. It looks at how culture defines the roles of persons and expectations in the family and community at large. Personal actions are considered as a function of the broader social contexts. The perception focuses on the knowledge, beliefs and values in individual or group decision-making. For example, in the case of this study, prevention of mother-to-child transmission could be viewed as a problem of women who are responsible for infecting their own babies and
the responsibility of males may not be considered hence some feminist advocacy of calling the programme Prevention of Parent to Child Transmission of HIV (PPTCT) instead of the PMTCT. The availability of resources can be classified as an enabler, for example the availability of ART therapy for HIV positive women. In nurturing, the model focuses on the culture of caring for the sick or the inheritance of widowed wives from HIV.

**Cultural empowerment:** These two terms are seldom used together because culture is often viewed as a barrier and empowerment as strength. Cultural empowerment is a way of recognizing the uniqueness and indifferent aspects of culture. The model insists that regardless of the point of intervention entry, the positive aspects of culture have to be maximised, failure of which would make the intervention to be considered as part of the problem. There could be existing (Existential) values and beliefs that are practised in communities, which do not pose any threat to the health of the mother and the child during the postnatal period. There could also be some negative social arrangements, which perpetuate gender inequalities in the community where women on the PMTCT programme might not have a say on how to feed their infants.

**Cultural identity:** This is about how a person is viewed in the community. For example, a woman might have four identities which include; being poor, HIV positive, uneducated and in a polygamous marriage. These identity markers influence decision-making of the individual for example, a mother’s ability to demand protected sex and to adhere to her medication especially where she has to rely on other people for transport to get her drugs. The
person can be affected by the lack of decision-making. For example, the health care providers could be providing women with health education on the importance of condom use during the postnatal period and even providing the condoms which can be shunned by the husbands/sexual partners when the woman gets home. The extended family could also have an influence on the health intervention. For example, mothers in law dictating that the baby should be given some traditional medicine, which could harm the gut of the baby further, exposing him or her to HIV infection during breastfeeding. Neighbourhood can decide on the type of messages that are communicated in the community at large. For example, the involvement of men in PMTCT programmes could be dealt with at community level by the community leadership.

2.17.10 Theories of Disclosure

The three most dominant theories of disclosure which are the disease progression theory, the consequence theory and the disclosure process model have been informed by social sciences (Qiao, Li and Stanton, 2013). The three theories are further elaborated in the following paragraphs.

Disease progression theory

According to this theory, disclosure is prompted by the progression of the HIV related illness rather than the individual’s choice to disclose. When an individual’s health deteriorates to the extent that it cannot be hidden, they are likely to disclose. This could apply to mothers who are HIV positive and have all the signs and symptoms of HIV&AIDS such that they involuntarily
disclose or their interaction with the health facilities. For example, collection of ARVs cannot be hidden, they end up disclosing as they can no longer hide the fact that they are HIV positive

**Consequence theory**

An individual makes a conscious decision to disclose after weighing the costs and benefits of disclosing and non-disclosing. The individual discloses if they think the benefits outweigh the costs. If the mother feels that by disclosing she would get support, she is likely to disclose. The health facility staff and the communities should encourage mothers to disclose so that they get assistance in particular towards following through with PMTCT.

**Disclosure process model**

This is process based disclosure where disclosure is done in stages. For example, a mother on PMTCT can start by taking her medication in full view of the family members or insisting on exclusive breastfeeding and when they are asked why they then tell whoever wants to know about their HIV status. Women could also insist on condom use with their husbands and if the husband insists on having unprotected sex, they then open up about their HIV status.

This study explored related factors and will be guided by some of the above theoretical perspectives and definitions of disclosure.
Chapter Conclusion

This study has been to an extent informed by all the theories that are described above as they complement each other. The PEN-3 model was considered as one of the most appropriate theories for this research hence its utilisation in data collection for this study. Table 2.3 presents a synopsis of the theories used in this study, the central arguments, critiques and their relevance to the study.
<table>
<thead>
<tr>
<th>Theory</th>
<th>Central Arguments</th>
<th>Critique</th>
<th>Possible application to this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS Risk Reduction theory</td>
<td>Change is affected by different factors which include labelling, commitment and enactment</td>
<td>Assumption that acquisition of knowledge translates into behaviour change. Theory also focuses on an individual and neglects the community.</td>
<td>Assessment of mothers’ perception on adherence, whether PMTCT can reduce the risk of mother-to-child transmission.</td>
</tr>
<tr>
<td>Health Belief theory</td>
<td>Health behaviour is influenced by personal beliefs or perceptions about a disease</td>
<td>Theory only formulated for health people does not address PLHIV.</td>
<td>Helps to assess how mothers protect their babies from HIV infection.</td>
</tr>
<tr>
<td>Theory of reasoned action</td>
<td>Intentions are influenced by attitudes and significant others</td>
<td>Positive and negative outcomes can be subjective and relative and might be influenced by inherent differences and intentions in people.</td>
<td>Explains why Mothers on PMTCT have unprotected sex and do mixed feeding even when aware of the risk of transmitting the virus to the baby.</td>
</tr>
<tr>
<td>Empowerment Theory</td>
<td>People coming together to share experiences and developing common solutions to problems</td>
<td>Focuses on the individual and community and ignores the larger socio-political dynamics of development. Does not empower people to control events in their community.</td>
<td>Assists in understanding community involvement for effective implementation of HIV prevention strategies.</td>
</tr>
<tr>
<td>PEN-3 Culture Theory</td>
<td>Emphasizes on three important dimensions of culture for effective health care interventions; relations and experiences, empowerment and identity</td>
<td>Assumes that culture defines the roles of persons and expectations in the family and community at large.</td>
<td>Would help to explain how culture could facilitate or inhibit the adoption of HIV prevention strategies.</td>
</tr>
<tr>
<td>Social realism theory</td>
<td>Specifies the distinct difference between the biophysical and the social phenomenon a disease.</td>
<td>Realism is subjective.</td>
<td>Would help to understand the reality of adhering to PMTCT in the community.</td>
</tr>
<tr>
<td>Disclosure theory</td>
<td>Disclosure is prompted by progression, and the ,cons</td>
<td>Assumes that all people would disclose neglecting cultural beliefs that could be linked to the disease, e.g. witchcraft.</td>
<td>Would assist in understanding the process of disclosing by women.</td>
</tr>
</tbody>
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Source: Author’s analysis
CHAPTER THREE

METHODOLOGICAL PERSPECTIVES AND PROCEDURES

3.1 Introduction

In this chapter, I describe the methods I used in this study, the justification for using such methods and the ethical considerations I took into account during the research process. The chapter also outlines the study design, the sampling procedures and the tools that were used for data collection. The chapter further explains how the data were collected, managed and analysed. The conceptual framework of this study suggests the use of mixed methods hence the collection of both qualitative and quantitative data. The mixed method approach has gained momentum in social science and public health research. Johnson, Onwuegbuzie et al. (2007), define a mixed method approach as one that combines elements of qualitative and quantitative research approaches taking into consideration ideas from both methods. The added advantage of the mixed method approach is that it increases reliability of research results and helps the researcher to have a deeper understanding of a certain phenomenon. This study adopted a sequential design where the initial phase entailed collection of qualitative data from the community and key informants, which was followed by the collection of quantitative data, which concentrated, mainly on the mothers who were on the PMTCT programme during the study period. Mothers on the PMTCT programme were perceived by virtue of their relationship with the research question, as the ones who were likely to provide the most relevant, comprehensive and rich information. The
case study approach was also used for the mothers who were willing to share in depth, their experiences of following through with the PMTCT programme.

To understand the socio-cultural realities of following through with PMTCT, the study was in two phases beginning with an exploratory qualitative study to understand the mothers’ perspectives, experiences of the programme both at the health facility and in the community, attitudes towards PMTCT and the barriers to PMTCT. Community attitudes and cultural beliefs towards PMTCT and infant feeding practices were also investigated. Major emerging themes informed the design of the quantitative tool which recorded the demographics of the women and enquired about their experiences regarding following through with PMTCT during the postnatal and breastfeeding period. Triangulation of research methods was employed to generate data to address the qualitative and quantitative matters (Kitchin and Tate, 2000). The three principal methods of data collection in this study were Focus Group Discussions (FGDs), in-depth Interviews, an interviewer administered questionnaire for the mothers on the PMTCT programme.

3.2 Study Design

A research design is meant to guide the researcher in the collection of relevant data and guides in the analysis of data. Bless and Higson-Smith (1995), describe the research design as the planning of any scientific research from the beginning to the end. A research design is therefore akin to the building plan to the builder. Designing a study is an art as well as a science as stipulated by Patton (2002). The use of the sequential methodology was meant to reinforce,
complement and validate the findings of this study so as to minimise biases as postulated by Polit and Hungler, (1999), Patton, (2002) and Brannen, (1992). My use of this methodology increased my confidence that what I was reporting was not biased as triangulation was done. Triangulation is the use of more than one methodology in a single study (Burns and Grove 2001). Burns and Grove (2005) advocate for triangulation in order to give an in-depth analogy of the reality of events. The glaring relationship between the behavioural, biomedical and social factors and their effect on following through with the PMTCT programme called for the use of both qualitative and quantitative methods. Strengthening of public health can benefit from the synergising of multidisciplinary methodological models. Following through with PMTCT is a complex subject, which calls for triangulation, which is able to give light to this complex problem (Johnson and Christenen, 2000; Patton, 2002; Neuman, 2006). A number of authors have provided useful frames of reference for optimising the strengths of the qualitative and quantitative approaches (Bryman, 1988, 2001; Morgan, 1998; Hammersely, 1996).

This study aimed to investigate the ability of women to follow through or adhere to the PMTCT programme during the postnatal period. The nature of the study design, which is informed by the interpretive phenomenological theory, is based on the premise that knowledge about humans is not possible without describing human experiences as they are lived and defined by the actors themselves. A phenomenological approach was selected in order to understand the essence of the experience of mothers, their lived phenomenon and how they are adhering to the PMTCT programme in the community. A
phenomenological approach emphasizes on the importance of personal perspective and interpretation. It provides insights into people’s motivation without taking any assumptions for granted (Stanley and Wise, 1993). The method effectively brings to the fore the experiences and perceptions of individuals from their own perspectives and hence challenges structural and normative assumptions. Stanley and Wise (1993) argue that this approach can inform, support or challenge policy and action.

Contextualising people’s lives can add value to public health policy as one-size does not fit all, an analogy that is often neglected in crafting policies like the PMTCT programme. There is a gap between the knowledge that is attained from biomedical research and social research hence the idea to use both the qualitative and the quantitative methodologies. It is known that each method carries its own limitations and the use of both reduces these limitations, which are counterpoised by the strength of the other method.

This study utilised a cross-sectional qualitative study design as events and situations in the area were assessed at the same point in time using predominantly qualitative methods. This approach enabled the triangulation of data, which was collected from different population groups and through various data collection techniques. Data were collected from a purposive sample of Chiota community members who were direct beneficiaries of the PMTCT programme, who lived in the same communities with mothers on the PMTCT programme, who gave advice to these mothers and who were either partners or male relatives of these women. The respondents were drawn from
rural Chiota community and they came from 26 villages in the area. The mobilisation of the community was done through village community workers and community based distributors.

For the quantitative study, the cross-sectional study design was also utilised for postnatal women on the PMTCT programme who were attending maternal and child health clinics (MNCH) or who were coming for the ART clinic at the two health facilities in Chiota. The women who were attending MNCH clinics were interviewed on different days while the ones who attended the ART clinic were interviewed on the last Tuesday of every month when there was an ART clinic. The inclusion criteria was a postnatal mother on the PMTCT programme with a baby aged between 2 and 18 months and who was a resident of Chiota community. Fig 3 is a flow chart of the research process.
The following describes and justifies the rationale for the use of different methods I used, highlighting their strengths and weaknesses.

**3.4.1 Qualitative Data Collection**

The qualitative data informed the design of the questionnaire and assisted in the interpretation of findings from the quantitative cross-sectional study of 26 villages in Chiota.

**Source:** Author’s diagrammatic illustration
postnatal mothers on the PMTCT programme in 2014. The term qualitative research is often used as an overarching category that covers a wide range of approaches and methods, which are found within different research disciplines (Ritchie and Lewis, 2013). Taking cognisance of this diversity, Denzin and Lincoln (2000), define qualitative research as an activity that locates the observer in the world, making the world visible. The authors further argue that qualitative researchers study phenomena in their natural settings, attempting to make sense or interpretations of things according to meanings that people bring to them.

Patton (2002) suggests that qualitative methods enable study of issues in-depth and detail. ‘The way in which people being studied understand and interpret their social reality is one of the central motifs of qualitative research’ (Bryman, 1988:8). Several authors have also emphasised on the key aspects of qualitative research that include, the flexibility of the nature of the research design, its volume and richness (Hammersely and Atkinson, 1995; Miles and Huberman, 1994; Mason, 2002; Patton, 2002). This study aimed to keep the voices of the participants alive and to understand the perceptions, attitudes, beliefs and experiences of the community, the people living with HIV&AIDS, health workers and the mothers enrolled on the PMTCT programme. Numbers alone cannot meaningfully express such data (Cohen, 2007).

The qualitative method was selected to enable the studying of phenomena in their natural settings, attempting to make sense and trying to understand the meanings that people attach to phenomena within their social worlds as
indicated by Denzin and Lincoln (2000). Strauss and Corbin (1998) define qualitative research as ‘…research that produces findings not arrived at by statistical procedures or other means of quantification’ (1998:11). To emphasise this point, researchers (Berg, 2004; Cohen et al., 2007; Morse and Field, 1995; Polit and Hungler, 1999) argue that certain experiences cannot be meaningfully expressed by numbers therefore, the use of qualitative methods further enhances in-depth study of phenomena as they are defined, experienced and lived by the participants themselves.

Mills et al., (2006), state that there is a tremendous paucity of qualitative research in developing countries. They further attest that many problems associated with HIV could be better addressed through direct discussion with the people involved. Public health interventions have employed a ‘one-size fits all’ approach yet there are differences in the communities that cannot be overlooked. This is in line with the prescription of the PMTCT programme on all HIV positive mothers without consideration of the local contexts. Adams argues for a need for a paradigm shift that will ensure that health interventions are contextual to ensure their relevancy and effectiveness (Adams, 2007). To elucidate this point, Mills et al., (2006), contend that imposing models of health care that are not in sync with the local values and practices could lead to ineffectiveness of the interventions. It should, however, be noted that qualitative methods have their own limitations which emanate from use of small, unrepresentative samples. It is therefore imperative that findings for qualitative studies cannot be generalised as they are context specific (Johnson
and Christensen, 2000; Polit and Hungler, 1999; Cohen et al 2007; Adams, 2007).

**Phase One of the Study**

3.4.2 Qualitative Research

Qualitative research has its roots in social science and it is ultimately concerned with understanding why people behave in certain ways, their knowledge, attitudes, beliefs and fears, for example, why people decide to go for voluntary counselling and testing. Qualitative research enables the people who are part of the research process to give much richer answers to questions from the researcher and often provides valuable insights that could have been missed by other research methods. It can therefore be used to complement quantitative research methods. Qualitative research may be a forerunner to conducting any quantitative research as it guides in the design of structured questionnaires for surveys. For example, it is impossible to carry out a meaningful structured questionnaire survey on patient satisfaction with a service if the important issues to the patient surrounding the provision of that service are unknown. Equally, qualitative research may help one to interpret the findings of quantitative research. Quantitative research results could show that most mothers are not exclusively breastfeeding but uncovering the reasons for this can be difficult without the qualitative aspect of research.

Qualitative data approaches to data collection used in this study are described in the forthcoming paragraphs.
3.4.3 In-depth Interviews

The key feature of in-depth interviews is their depth on the individual. The tool provides an opportunity for a detailed investigation of a person’s personal perspective, an in-depth understanding of the personal context within which the phenomena under study is located and covers the subject matter in detail. It has an advantage of allowing the understanding of one’s perspective within his or her personal history or experience in matters, which are delicate or complex. The method takes cognisance of the importance of the way people perceive or are affected by different issues. Discussing HIV&AIDS which is still a stigmatised disease, called for the use of this method. This tool was used to get an in-depth understanding of a deeply rooted phenomenon, which involves a stigmatised disease and a different way of behaving. For example the mother’s experiences on following through with PMTCT which included the concept of exclusive breastfeeding and having protected sex within a marriage.

3.4.4 Question Guides

Question guides are tools for qualitative data collection with main topics, which are meant to keep the researcher, focussed (Morse and Field, 1995; Polit and Hungler, 1999; Babbie, 2004). The tools are not only flexible but they allow the researcher to follow through with leads that emerge during the discussions. The limitations of this tool are that there is a tendency to collect mammoth information, which might be challenging to analyse.
3.4.5 Focus Group Discussions (FGDs)

A focus group discussion (FGD) involves bringing 6-12 persons together to discuss a particular research topic as a group (Patton et al. 2002; Cohen et al. 2007). The group process itself illuminates the issue. The group process is used to generate data and insights (Morgan, 1997). It provides an opportunity to explore how people think and how they talk about the topic, how their ideas are generated, shaped and moderated through interaction with other people. Participants in this case were able to generate their own views, reflecting on what others were saying and considering their own standpoint. Despite being an effective method of obtaining rich information, the researcher considered the tool’s limitations of its inability to capture the prevalence of the problem in the community and the fact that the data were context specific and not generalisable. It was also clear, as some authors have noted, that some of the respondents were not comfortable to express their views in a group (Berg, 2004; Ary et al, 2006; Punch 2005; Cohen et al 2007). There were also cases of participants who were dominating in the discussions. To counter this problem, I had to thank the dominating participants politely for their contributions and asked them to give others a chance since I was going to have in-depth interviews with them later if I noted that their contributions were valuable to the study.

3.4.6 Conducting Focus Group Discussions

Focus group discussions were held with community members who included some mothers who had gone through the PMTCT programme, and were not to be part of the quantitative survey. The community members participated as
people who lived in the same community with HIV positive mothers who are on the PMTCT programme. The purpose of the focus group discussions was to understand the experiences of mothers who test positive and are enrolled on the PMTCT programme. FGDs solicited information on the challenges faced by these HIV positive mothers on disclosure, who they were disclosing to, the reactions of the significant others, like the mothers in law and the husbands, aunties, the elderly and how they were affected by the disclosure, whether there were any elements of stigma.

In African settings, children belong to the community. The FGDs therefore sought to understand how newly born babies are integrated into the community, the rituals and the feeding practices in the face of PMTCT. FGDs also sought to identify challenges and problems mothers encountered in exclusively breastfeeding their babies as prescribed by the PMTCT programme. Adherence to the infant feeding practices was explored. The community and mothers’ perceptions on the quality and safety of their milk and how these affected the infant feeding practices was explored. Mothers’ adherence to ART for PMTCT was also investigated. Focus group discussions were held with men (not necessarily husbands of the women) to understand their views on PMTCT and how they viewed baby feeding practices and the issue of using condoms with their wives to prevent MTCT.

Elderly women in the community also formed part of the FGDs to understand their perceptions of infant care in the era of HIV&AIDS. The elderly women were purposively selected in their capacity as custodians of culture. An FGD
of mothers’ in-laws was conducted to understand their attitudes towards their daughters’ in-laws who test positive and the infant feeding practices, issues of disclosure and their awareness about PMTCT, perceptions and beliefs about the HIV disease. Community practices and opinions were sought in relation to promoting or hindering adherence to PMTCT. Views of significant others like the aunties who normally have a say in the raising of children were also solicited. These FGDS informed the design of the quantitative study tool.

These FGDs were conducted at neutral venues away from the health facilities. Each session lasted from 60-90 minutes. For the FGDs with community participants, I used, a guide based on the theme list to direct the group discussions. I intended using a tape recorder during focus group discussions but I noted that there were mixed feelings among my participants on whether to be recorded or not. It was particularly the younger participants and some key informants who included the elderly who felt uncomfortable to have their voices recorded. This made me change my strategy and instead I took notes. The FDG participants were gender and age disaggregated to allow free discussions. I conducted the FGDs in the communities served by the two Nyembanzvere and Chiota health facilities. The number of FGDs was determined by the saturation point where I noted that I was no longer getting any useful and new information.

3.4.7 Individual Interviews

A key feature of the individual interview is to provide an undiluted focus on the individual. There are four categories of interviews as postulated by Patton,
(2002) and these are informal conversational interview, interview guide approach, standardised open-ended interview, and closed quantitative interview. These provided an opportunity for detailed investigation of the personal context of the mothers who were on the PMTCT programme. The advantage of this tool was that their peers did not influence the mother’s responses as they were on their own. They also facilitated access to events that had happened in the mother’s life that I, as the researcher, was not privy to.

As a known weakness of the interviews and due to my subject of study, I felt that I was infringing on respondents’ privacy and some interviews were too time consuming that I even felt fatigued as the mothers often deviated from the subject matter to talk about things that were affecting them in general. To deal with the problem of infringing on privacy, I had to build rapport with the mothers and I assured them that they were free to disregard some questions if they felt uncomfortable. It was however not the case as most of the mothers seemed eager to continue opening their hearts to me even when I had concluded the interviews. I could deduce that these mothers were hardly given a chance to discuss their experiences of living with HIV and being on the PMTCT programme. The interviewer-administered questionnaire that I used with the mothers was informed by the qualitative findings, which made me use the correct terminologies that are used in the community I was studying.
3.4.8 In-depth interviews with mothers enrolled on the PMTCT programme

I conducted in-depth interviews with mothers enrolled for PMTCT who were breastfeeding during the study period. Fifteen HIV positive mothers of children between 2 to 18 months who had enrolled for the PMTCT programme were invited to participate. I used an unstructured interview guide to solicit information on how mothers view and understand the PMTCT programme, their experiences with the health system, counselling experiences, their disclosure, their experiences with the significant others and experiences of adherence and infant feeding practices, safe breast milk substitutes (access, affordability and acceptability). I was mainly interested in the mother’s experiences and their child’s between the 0-6 month period. I identified the mothers during the interviews for the quantitative survey. I made appointments with them at the clinic when they came for baby immunisation, as following them in the communities where they lived would stigmatise them. I conducted the in-depth interviews on my own and did not solicit assistance from the research assistants since I felt the subject matter was rather sensitive and I had promised that the information was between them and myself. I also did not want the research assistants to put a face to my findings.

3.4.9 Key Informant Interviews

Key informant interviews were conducted with community leaders, traditional leaders and religious leaders, on their understanding, opinions and perceptions of PMTCT and on what they viewed as challenges to following through with PMTCT by mothers in the communities during the postnatal period. I solicited
their views on how they thought the programme could be improved in their communities. Health members of staff were also key informants due to their close interaction and provision of services to on the PMTCT programme. From the health staff I wanted to get their perceptions of how their working environment facilitated or inhibited following through with PMTCT, community involvement in PMTCT, male involvement and the strategies they used to involve the men (women’s partners) and challenges they faced in provision of PMTCT services especially during the postnatal period.

3.4.10 Observations

As I was collecting data at the health facilities, I would from time to time observe the interactions of the health staff and the clients. There were days when the HIV positive clients came to collect their medication, and the health facilities would be a hive of activity as locals took the opportunity to come and sell their wares since the patients spent most of the day at the facility. It was clear that the numbers of patients overwhelmed all the health facilities as they were both short staffed. I also did an inventory of drug stocks for the patients on ART. During my time of study, all the facilities had enough drug stocks though the patients reported that they had on occasions failed to get their drugs. In doing observations, I was mainly interested in the quality of care given to People Living with HIV (PLHIV) including the mothers on the PMTCT programme. I keenly observed the interaction between the service providers and the clients with particular attention on the nature of counselling and confidentiality afforded the PLHIV. I looked at the physical infrastructures of the health facility and their ability to offer privacy and the opening hours.
Phase Two of the Study: Quantitative Survey

3.5.1 Interviews of mothers on the PMTCT programme using a structured questionnaire.

Information from the qualitative study informed the design of the questionnaire for the quantitative survey. Information solicited from mothers included the mothers’ demographic variables, which included age, marital status, religion, parity, employment status. Information of their nutritional status, infant feeding method, alternatives to breastfeeding, disclosure, access to ART, adherence to PMTCT, stigma and discrimination, confidentiality and the responsiveness of the health facilities was also solicited. Items on the questionnaire looked at support received during the PMTCT postnatal period and the mothers’ challenges of following through with PMTCT.

3.5.2 Recruitment of Study Participants for the Quantitative Study

The purpose of the study was first discussed with health personnel at the health facilities and they were asked to assist in the identification of mothers who were on the PMTCT programme. The recruiting health facility personnel were educated on the rights of the participants to refuse and they were told not to coerce the mothers. The researcher clearly explained the purpose of the study to the identified mother and assured her of confidentiality and her right to refuse to participate without affecting her health care.

3.5.3 Tools used for the Data Collection and Research Assistants

Translated tools were used for the data collection. I solicited assistance from a local expert on the Shona language, which was the medium of conversation, to
do the translations. I pretested the tool at one of the health facilities that was not selected for the study. As one who is also conversant with the Shona language, I conducted all the focus group discussions and the interviews with the assistance of research assistants, a male and a female. The two research assistants had degrees in Health Education and Health Promotion (BSC HEHP) and they were in their late 20s as I felt that the subject matter we were dealing with needed maturity. I also felt that matching the age and sex of the participant and interviewer helped to create an atmosphere of open discussion. The research assistants were also proficient in the Shona language. Despite their previous experience, I had to train the research assistants on HIV&AIDS, PMTCT, interviewing skills and ethical issues. My added advantage was that they already had a public health base, good research skills and this was part of their curricula during their training where they conducted research of their own that had been examined before they attained their qualifications. The researchers were also familiar with community mobilisation, which was an advantage for my study. I pretested my tools with the assistants to ensure that they gained experience.

I utilised the assistance of the female research assistant when I was conducting FGDs with females and this made the environment very friendly as we ensured that we dressed like the community members. When we were interviewing the elderly, we had headgear and java materials and wore the popular tennis shoes that elderly women wear in the community. For the few FGDs that I conducted with men, the male research assistant assisted me. During the FGDs with men, it became apparent men had a burning issue that
they were not comfortable to discuss with a female researcher. Having taken note of that, I arranged separate interviews where I recruited another male assistant with a health background to assist the male researcher on the topic of condom use among ART clients. The research assistants asked for permission to use a tape recorder which enabled me to listen to the recorded conversation for data analysis. This group of males did not object to the use of the tape recorder as they were asked to use pseudonyms. In this case they decided to use their pet names which could not be traced to the respondents. Data were collected between April and October in 2014.

3.6 Ethical Aspects

The Institutional Review Board of the University of Zimbabwe, College of Health Sciences (JREC) and the Medical Research Council of Zimbabwe (MRCZ/A/1819) reviewed and approved the study protocol (see appendix). The right to privacy in this research was observed as the researcher did not take any names of individuals or information that could identify the respondent. Both verbal and written consent was sought from the participants in this research. In signing consent forms, the participants were told that they could use pseudonyms so that there would be no way of identifying them. The researcher was aware of the sensitivity of personal and background information of the respondents and in FGDs they were asked to write their ages, levels of education and marital statuses on pieces of paper which were collected by myself and the research assistants.
The study objectives were explained to the participants and their voluntary participation was sought. The objectives of the study were clearly explained, benefits, risks and limitations were discussed.

3.6.1 Confidentiality

To ensure privacy and confidentiality, no respondents’ names and other identifying information was recorded and the use of codes enhanced confidentiality. The autonomy of the respondents was respected and participation was voluntary. No rewards were given to induce participation though refreshments were served after the interviews.

Before conducting FGDs, I emphasised on the issues of confidentiality, voluntary participation and assured participants that their refusal to participate in the FGDs and interviews would in no way affect their care and compromise the health care providers’ employment. I also asked for permission to use a tape recorder and where I noted reluctance, I did not coerce the participants and hence did not use the tape recorder, except for one group of men living with HIV who did not object to being recorded. In this discussion, I excused myself to ensure that the men could discuss freely. For all groups I stressed that whatever we had discussed was not to be repeated elsewhere. Mothers were identified at the health facilities but to avoid biases they were interviewed outside the health facilities at a place where the mothers felt comfortable. Interviewing them at their respective homes was not possible due to the stigma that is still attached to being HIV positive. After collection of
data, I locked the questionnaires in my cabinet where I was the only one with access.

3.6.2 Managing potential Risks

HIV&AIDS is a stigmatising and stressful disease. I was aware that discussing the issue with some mothers might lead to some emotional breakdowns. To mitigate this, I liaised with the counsellors at the health facilities who were prepared for such eventualities. I was however fortunate that I did not encounter a case that needed professional counselling. During the course of the interviews, whenever I came across a member of the community who needed health care during the course of the interview, I referred them to the health staff who gave them priority.

3.6.3 Pilot Testing

Before embarking on the research project, I pilot tested my tools at one of the health facilities in Chiota which was not going to be part of the study. The pilot test was to check on the feasibility of the study, the time taken, the acceptability of the questions to the community and the ability of the community members to understand clearly what I was asking. This was meant to improve the validity of my data and to ensure that the tool was relevant to the problem under investigation as suggested by Polit and Hungler, (1999). The pilot testing enabled me to add some pertinent questions, which I had omitted in the original tool, and it also gave me leads to some research questions that I had not thought of for example, the problem of erectile disorders among men living with HIV and their condom usage. I also removed
some of the questions on the type of ARVs the mothers on the PMTCT programme were taking as I learnt that all pregnant and breastfeeding mothers on the PMTCT programme had been initiated on Option B+, a lifelong antiretroviral therapy which does not consider CD4 count or the WHO clinical staging as was previously practised.

### 3.7 Reflecting on the Research Process

My relationship with the respondents as a professional could not be completely ignored as this kind of placed me in a more precarious position. There I was coming into the community to talk about a subject that is stigmatised, a subject that is better not spoken about and a life threatening condition that I had no solutions for. What was in this research for the community in particular the affected? Conscience was killing me but the research had to be done as I was convinced that it would bring positive change to the way the PMTCT programme is implemented. I quickly noted that the hat I wore as a researcher had to be secondary and I had to relate to these women as a daughter in law, a mother, a wife and a woman who could find herself in the same predicament with the women on the PMTCT programme. Having grown up in a community which was as arid as Chiota and having lived in the village made me understand these women and able to bond with them. We quickly became like sisters.

I was also brought up in a community where children belonged to mothers when they were considered deviant. In the community where I grew up it was not strange to hear a male bellowing to the mother ‘... your child has done this
and that’ whenever the children had been mischievous, and the father’s son or daughter when they had excelled at school or done something that would make any parent proud. The mothers on the PMTCT programme were the supposed ‘owners’ of the HIV exposed babies. Having lost a friend from AIDS who was reluctant to seek medical attention for herself and her baby made me want to do some research that would contribute to knowledge on the experiences of women living with HIV. Also being an academic and a health systems researcher made me understand the environment where these women were seeking care.

Every time I visited the community, I ensured that I dressed like the women in the community and I looked just like them. I would also engage in various issues that are dear to the women, for example children, husbands, livelihoods and their social lives. Having built rapport with the women I would introduce the subject of PMTCT and would ask if they were interested to discuss this issue. I thought it would be difficult for the women to discuss openly their experiences with the PMTCT programme. Surprisingly the women were very forthcoming and they felt they had found a confidante who they could open up to. My other advantage was that I was a stranger and they felt that their secrets were safe with me. The women opened up as they shared their experiences of being HIV positive, living in the community, caring for babies and their experiences with the health systems.

I hardly did any probing as they felt they had found someone they could talk to who was not going to judge them and who in any case would not be able to
share what had been discussed with any person living in their communities. I had not disguised my professional background to these women and it became obvious that they were keen to share their doubts, fears and concerns about the PMTCT programme. As many mothers, kept asking about the safety of providing their babies’ breast milk which was known to have the HIV virus. The frequently asked questions by the mothers were ‘…Mbuya (a term used for health professionals in the community) are we not poisoning our babies by providing them our milk? ‘Is it possible to feed a baby only on milk?’

It was unethical for me to contradict the health teachings on the PMTCT programme and I found myself reinforcing the counselling that the mothers were receiving at the health facilities concerning the importance of exclusive breastfeeding for the first six months. So after the discussions with the mothers, I became a health educationalist. It was however so difficult to emphasise the importance of exclusive breastfeeding especially when the mothers kept reminding me that they were unable to get enough food and the ARVs they were taking made them hungry most of the time. Mothers kept on insisting on the difficulties of breastfeeding when they were hungry. The mothers kept bringing up the issue of the influence of the significant others in the community who dictated how their babies were to be fed. Exclusive breastfeeding was stigmatised in the Chiota community, as it was associated with being HIV positive.

I should acknowledge that the mothers’ stories affected me as they narrated their experiences of discovering that they were infected with HIV. It was as if
they expected a solution from me and I felt helplessness, as I could not offer them any tangible solutions. Some of the women would even become despondent as they narrated their problems and I just watched helplessly wishing I could take their pain away. Some of the stories affected me so much such that I even had sleepless nights. The subject matter we were investigating was depressing to all of us and most of the days we would drive back home feeling depressed as we reflected on some disturbing facts we had gathered from the interviews. At times, I would even wish that I would discontinue conducting this research as the mothers’ narratives were negatively affecting me. What made me feel better, however, was the fact that all the women I spoke to acknowledged that it was good talking to someone who seemed to care to listen to their problems, as the health staff were too busy to give them that attention. One of my respondents had the following to say ‘Mbuya dai tichiwana mukana wekusangana nevanhu vakaita semi kuti tinyatsokurukura navo’, meaning, ‘…only if we were able to get people like you who were willing to listen to our problems’.

I also had my own conflicts as I reflected on how I had fed my own children. Despite having been told to exclusively breastfeed for the first six months, which is a standard teaching for all new mothers, I had introduced other foods within the first month as I thought whenever the baby cried, they were not getting enough milk from my breast. From my own experience, the early introduction of other foods had indeed worked as the babies stopped crying and slept through the night providing me the rest that I needed. My babies did not die, get sick or have any complication, which we had been lectured about.
Here I was encouraging mothers to exclusively breastfeed, something that I had failed to do despite getting all the nutrition that I needed. I felt like a real hypocrite.

3.7.1 Analysing the mothers’ experiences

Having collected all this data, I had to ensure that in my summarising, I did not distort the information as I tried to summarise by capturing the stories as they were related. It was a daunting task as I could not possibly write everything that was narrated but had to ensure that the experiences related to following through with PMTCT were captured. To analyse the mothers’ experiences, I felt that using the thematic narrative analysis would do justice to what was reported. The narrative analysis explored what living with HIV in the community and breastfeeding the babies meant to the mothers. The analysis explored how they balanced living with the disease without disclosing to the whole communities and the significant others like mothers in-laws, and being good mothers who were supposed to protect their children from HIV infection.

The idea was not to distort the mother’s voices and having looked at other suggestions like the story map approach by Richmond (2002), Gergen’s story line approach, I decided to consider the thematic narrative analysis approach by Reissman (2008). The thematic narrative approach offers a framework through which the mothers’ stories are scrutinised ensuring that the essence of the meaning is not lost, as the stories are kept intact. The advantage of the narrative analysis is that it is concerned with what is said rather than how it is
said (Reissman, 2008). This was a feasible option for me, as I could not give the full details of the stories in our discussions. There are similarities in using the thematic narrative analysis, the grounded theory and the phenomenological theory, which emphasises on people’s lived experiences. I made an effort to keep the mothers’ stories intact and also tried to maintain the stories sequences.

I conducted the interviews in Shona that was the mother tongue of the mothers in Chiota community. I did the recording in Shona which I later transcribed and translated into English and asked someone to retranslate into Shona to ensure that the essence of the meaning was not lost. Mishler (1993) asserts that translation is a way of retelling the story and it can affect the story’s linguistic flair. Precaution was taken in the transcribing process to ensure that there was an accurate presentation of the mothers’ voices hence the choice of the thematic narrative analysis, which focuses on the content of the narrative (Reissman, 2008). The analysis entailed going through each narrative and ordering the key aspects that were related to my study. The analysis was guided by the research objectives which included adherence to the PMTCT programme, exclusive breastfeeding, the influence of the significant others and the health services. As expected, the mothers went overboard and discussed some details of their lives which they considered pertinent which for the purpose of answering this research topic were not included.
3.7.2 Gaining Entry into the Community

To gain entry into the health facilities, I had to ask for permission from the Ministry of Health and Child Care, which relayed its approval to the participating institutions. When I got to the participating institutions I first sought for permission from the sisters in charge of the rural health facilities. I was fortunate that the Ministry had already sent letters to the health institutions informing them of my pending research. For gaining entry into the community, I approached the traditional leadership and the local community representatives. This made my research easy as I could travel freely within the community and I could arrange meetings for FGDs without any hassles. This approach has also been emphasised by Denzin and Lincoln, (2000) who stress that community gatekeepers have the power over the information, physical access and power relations in the communities. I also had to approach the local police in the area who gave verbal consent as I was aware that there are laws in Zimbabwe which do not allow gatherings that are not known by the Government.

3.8.1 The study area

Mashonaland East was selected for its convenience to the researcher who considered financial constraints and accessibility to the study area. The study was conducted in Chiota community that is in Marondera rural district (see Figure 3.1).
Chiota rural community is situated in the Marondera West Constituency in Mashonaland East Province. The area is 80km from Harare and 70km from Marondera town. The area had a population of 116,427 (58,556 males and 57,871 females), CSO (2012). There were 10,263 households with an average household population size of four people. The area is predominantly Shona speaking with most people from the Zezuru tribe. Chiota, like most of the Zimbabwean communities, is a patriarchal society where males are considered as the family heads and decision makers. Due to population movements and inter marriages, there were minorities from other tribes who could have infused their own traditions in the community. In 2014, the area had 33
primary schools with an enrolment of 12633 pupils and a pupil to teacher ratio of 24:1. It also had 18 secondary schools which enrolled 7 539 pupils from even as far as Harare and Marondera urban. The District Rural council administered the majority of the schools.

Poverty levels are very high in this area, the 2003 poverty assessment survey pegged poverty levels at 80%, and this could have worsened due to the economic downturn. The people are mainly peasant farmers whose livelihood is dependent on horticultural activities. Some people survive on fish poaching from the neighbouring farms. They sell their fish at the business centres. It is clear that the area besides being rural, has an urban mix due to its proximity to Harare and Marondera. The area has business centres/growth points, namely Mahusekwa, Chiwanzamarara, Mudzimurema, Sadza and, one popularly known as Landas which is frequented by patrons from the area and also from Harare and Marondera. Landas has 12 bars that sell alcohol with late opening licences. Lodging facilities are available on the backyard of bars. These facilities are mostly used for prostitution purposes. Prostitutes come from the township and other neighbouring villages.

Most of the families in the area thrive on market gardening. They sell their produce in Chitungwiza Jambanja (Unit L), Lusaka and Mbare. The vegetable farmers earn an average of US$100 per visit to the market place. Farmers transport their produce at night to Harare or Chitungwiza as they try to avoid meeting with law enforcement agents as most of the transport there are not roadworthy. Accommodation is not provided at the marketplaces, which
leaves the farmers with no option but to befriend strangers to find somewhere to sleep. Lack of accommodation forces the farmers to be involved in prostitution and casual sex. There are other individuals, a small part of the population, who were involved in backyard small industries such as carpentry and welding.

The constituency had six health facilities namely, Chiota rural hospital, Mahusekwa which is a newly built state of the art district hospital, Chimbwanda, Mudzimurema and Nyembanzvere clinics. Five of the health facilities are Government owned while the Rural District Council administers Nyembanzvere. Chiota Rural Hospital (a Government health facility) and Nyembanzvere clinic (a rural district council clinic) were conveniently selected for the study. The rural hospital had a staff compliment of 25, that is, 15 nurses, 4 nurse aides, 3 general hands, 2 cooks and 1 mortuary attendant. The hospital had 35 beds. The hospital did not have a medical doctor and benefitted from the visits of the provincial doctor who came once a week to attend to complicated cases. Nyembanzvere clinic had 1 sister in charge, 2 assistants, 1 nurse aide, 1 primary counsellor, 1 security guard and 1 general hand. Both facilities offered Voluntary Testing and Counselling and Prevention of Mother-to-child Transmission for all pregnant and breastfeeding HIV positive women. The catchment area for Chiota hospital and Nyembanzvere clinic is 31 705 and 16 232 respectively. Chiota hospital serves wards 10, 11, 12, and 16 while Nyembanzvere serves wards 12, 13 and 14.
3.8.3 User Fees

Both facilities are viewed as rural health primary care facilities and they both refer more serious cases to Marondera hospital. Chiota rural hospital does not charge any user fees. For maternity bookings the mothers are to bring their own candles and buckets of water due to the critical shortage of water and electricity. On the other hand, because Nyambanzvere belongs to the rural council, a nominal fee of $2 is charged for the general community. Pregnant women, children under 5 and the elderly over 65 years are exempted from payment of user fees as the institution is benefiting from World Bank Results Based Financing (RBF) programme, which caters for these groups. Table 3.1 shows the two facilities catchment population.

### Table 3.1 Chiota Hospital and Nyembanzvere Clinic population

<table>
<thead>
<tr>
<th>Population</th>
<th>Chiota Rural Hospital</th>
<th>Nyembanzvere Clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under ones</td>
<td>353</td>
<td>176</td>
</tr>
<tr>
<td>0-4years</td>
<td>1660</td>
<td>813</td>
</tr>
<tr>
<td>Under fives</td>
<td>2015</td>
<td>1007</td>
</tr>
<tr>
<td>10-24 years</td>
<td>3311</td>
<td>1155</td>
</tr>
<tr>
<td>15+ years</td>
<td>4683</td>
<td>2341</td>
</tr>
<tr>
<td>Expected pregnancies</td>
<td>1268</td>
<td>634</td>
</tr>
<tr>
<td>Expected births</td>
<td>6975</td>
<td>2487</td>
</tr>
<tr>
<td>Women of childbearing age</td>
<td>2043</td>
<td>1021</td>
</tr>
<tr>
<td>Total</td>
<td>22308</td>
<td>9634</td>
</tr>
</tbody>
</table>

*Source: Chiota Hospital statistics 2014*

Most of the people in Chiota are within a 5km radius of the two health facilities, which are 10km apart using the formal routes but there, are other shorter routes that are used by the public. These shorter routes were reportedly promoting health centre hopping as the mothers could use either health facility.
3.9.0 Sampling

3.9.1 Sampling for the qualitative phase

A non-probability purposive sampling technique was employed for the qualitative study to ensure that experiences, events and incidents are captured as opposed to representativeness of the population. All participants were purposively selected to enable the researcher access to people who have in-depth knowledge, expertise and experiences pertaining to PMTCT. Efforts were made to ensure that community members were well represented in the study to ensure that their views were incorporated. The number of FGDs was determined by the saturation point where I had stopped getting any new information. Purposive sampling method’s shortcoming is that it has implications on the generation of data from a limited number of informants and the results will therefore not be generalisable to the wider population. The importance of qualitative research material is that it can be relevant for contexts, for instance the PMTCT programmes, far beyond the ones in this study.

3.9.2 Sampling for the Quantitative Study

Since the focus of the study was on adherence to PMTCT during the postnatal period, the inclusion criteria was mothers with babies aged 2 months and above and had enrolled on the PMTCT programme. The study was conducted from April to October 2014. Health facility records were used to identify the mothers on the PMTCT programme. The two health facilities had a total of 108 mothers who met our criteria and all the mothers were included in the sample. The sample size was determined by the number of women who
reported to the health facilities during the course of the study. Most of the information was obtained from the qualitative study, which preceded the quantitative survey.

3.9.3 Inclusion and exclusion criteria

Exclusion criteria: People who do not live in Chiota community and those who declined to participate.

Inclusion criteria: People who had resided in Chiota for over five years and an HIV positive mother residing in Chiota community with a baby aged between 2 and 24 months who was on the PMTCT programme and was willing to participate.

3.9.4.0 Data Analysis

3.9.4.1 Qualitative data analysis and quality checks

Since I was utilising research assistants, I ensured that after conducting the interviews, I would compare notes with my research assistants. I also made an overview of the main findings and recorded observations on what we had seen, for instance the mood of the participants, their participation in the FGDs. We discussed domineering participants and some who were passive but were able to give valuable information for a follow up visit. We also recorded non-verbal communication, as we know that sometimes actions speak louder than words.

The final qualitative data analysis involved data management, where the raw data were reviewed, labelled, sorted and synthesised. This was followed by
making descriptive accounts which made use of the ordered data, identified key dimensions, mapped the range of differences in each phenomenon in order to develop classifications and typologies. After this rigour, explanatory accounts were made which built explanations about why the data were appearing that way. A decision was made on the themes or concepts under which the data were to be labelled, sorted and compared. The first step was to familiarise oneself with the data set before the beginning of analysis. The process of familiarisation with data is akin to building the foundation of the structure and if ill-conceived could be detrimental to the integrity of the construction (Ritchie et al., 2004). The data were further analysed for significant statements, meanings and the description of the essence of the community, the health workers and the women’s lived experiences. Themes were created to facilitate easy analysis.

3.9.4.2 Quantitative data analysis

Quantitative data from the structured questionnaire with mothers on the PMTCT programme were entered into STATA version 11 statistical software and the same software was utilised to analyse the data and generate frequencies, means, proportions, odds ratio and to calculate 95% confidence intervals. Stratified analysis was done to control for possible confounding variables and assessing for possible effect modification. Logistic regressions were used to establish the independent risk factors for non-adherence to PMTCT by mothers.
Conclusion

This chapter described the methodological framework within which the study was conducted, the justification of methods used in the study, the rigour adopted for data collection and the ethical considerations. The conceptual framework which underpins the study was informed by review of literature. This study used a sequential model which employed both qualitative and quantitative methods which complemented each other. The qualitative phase was used to inform the quantitative phase and it sought to refine the survey tool and to strengthen its relevance to the study context. Triangulation of methods was used to ensure collection of richer data, validation and also to give insight into the problem of following through with PMTCT and its implications on elimination of paediatric infection. All breastfeeding mothers on the PMTCT programme at the two institutions were included whilst purposive sampling was used for the qualitative data collection. Qualitative data was analysed thematically whilst STATA 11 was used to analyse quantitative data. Limitations of this study included conducting the cross sectional study at the health facility and reliance on self-reporting on adherence by the mothers which could have introduced a social desirability bias. The study could also have missed some mothers who were lost to follow up.
CHAPTER FOUR
PRESENTATION OF RESULTS

4.1 Introduction
This chapter presents the research finding from the qualitative study. The main objective of the qualitative study was to gain insight into the community knowledge and experiences of the prevention of mother-to-child transmission programme during the postnatal period. The community members were involved as people who live with the mothers on the PMTCT programme. The main purpose was to understand ways in which the community perceived the PMTCT programme, their knowledge, how mothers followed through/adhered to the programme, the challenges they foresaw, cultural practices that could affect the following through and what they thought of mothers who enrol on this programme. The FGD guides evolved around cultural norms, values, beliefs and practices that have a bearing on infant care and feeding practices during the PMTCT postnatal period.

The FGDs were conducted using the Shona language at venues which were considered neutral and easily accessible for participants in the community such as community halls and schools. The FGD guides were made flexible to allow the accommodation and exploration of new leads that could emerge during the discussion. Key informant interviews with the health workers were done at the health facilities to triangulate findings from the community. The qualitative phase was to contextualise the study and to inform the design of the quantitative survey tool with the mothers who were direct beneficiaries.
of the programme. To gain this information, focus group discussions with different community members and key informant interviews with the health care providers were conducted. The qualitative results were analysed thematically. The methodology is described in detail in Chapter 3.

Two hundred and thirty one (n=231) purposively selected and gender disaggregated members of the community who included traditional leaders, religious leaders, the elderly, mothers in law, women of childbearing age and men and women living with HIV were informants to the qualitative research. Twenty-three (23) focus group discussions were conducted during the first phase of the study. In-depth interviews were also conducted with the key informants who included the health care workers and the cultural and religious leaders. Table 4.1 is a summary of the participants, gender disaggregated and the participants’ relevance to the study.

Table 4.1 Summary of FGD participants

<table>
<thead>
<tr>
<th>Participants</th>
<th>Relevance to the study</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FGDs with Elderly (grandparents/ mother in law)</td>
<td>These are the custodians of community norms and values and they live within the community</td>
<td>28 (3)</td>
<td>15 (2)</td>
<td>43 (5)</td>
</tr>
<tr>
<td></td>
<td>65.1%</td>
<td></td>
<td>34.9%</td>
<td>100</td>
</tr>
<tr>
<td>SSIs (Cultural and Religious leaders)</td>
<td>Community advisors and confidantes</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>FGDs (Women and Men)</td>
<td>Primary consumers of PMTCT services, and the most directly or indirectly affected by the programme</td>
<td>76 (8)</td>
<td>37 (4)</td>
<td>113 (12)</td>
</tr>
<tr>
<td></td>
<td>70.5%</td>
<td></td>
<td>29.5%</td>
<td>100</td>
</tr>
<tr>
<td>People Living with AIDS</td>
<td>These were deemed to be consumers of HIV&amp;AIDS services</td>
<td>43 (4)</td>
<td>18 (2)</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>70.5%</td>
<td></td>
<td>29.5%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100 (6FGDs)</td>
<td>61</td>
<td>61</td>
<td>122</td>
</tr>
<tr>
<td>Key Informants (Health care workers, village community workers)</td>
<td>These interact with women who are on PMTCT and the community members</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>157 (68%)</td>
<td>74 (32%)</td>
<td>231</td>
</tr>
</tbody>
</table>
Women constituted two-thirds (68%) of the participants due to the fact that they were the main consumers of PMTCT. They were also more willing to participate in the discussions as men were supposedly eking out a living as breadwinners. The ages of the participants ranged from 19-76 years with a mean age of 43 for women and 23-68 for men with a mean age of 41 years. The majority of the participants were married and had no formal employment. They survived on horticulture.

Issues considered in this analysis included social cultural realities of adhering to PMTCT, community attitudes about living with HIV, exclusive breastfeeding by HIV positive mothers, child feeding practices, cultural practices exposing babies to HIV infection, stigma, condom use in marriages and gender dynamics in the community and gendered power relations, and health service factors affecting PMTCT adherence.

4.2 Socio-cultural issues related to PMTCT adherence

Six major themes emerged in the analysis and these are summarised in Table 4.2.
### Table 4.2 Summary of Social and Cultural issues in PMTCT Adherence from FGDs and Semi-structured interviews

<table>
<thead>
<tr>
<th>Theme</th>
<th>Examples of Community Practices and Sentiments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community understanding and conceptualisation of PMTCT</td>
<td>PMTCT ‘chirongwa chemadzimai’ (programme for women); Fear of non-optional testing during Antenatal care; Lack of confidentiality at health facilities; and Uncertainty about the efficacy of PMTCT.</td>
</tr>
<tr>
<td>Community attitudes towards HIV positive mothers</td>
<td>People think you are as good as ‘dead or no longer human’; HIV status of community members written in public places; People monitor your child’s development milestones; Discrimination and stigmatisation in community and church; and Self-stigma by HIV positive women.</td>
</tr>
<tr>
<td>Exclusive breastfeeding</td>
<td>Perceived as impossible by mothers and community at large; Inadequacy of milk-early introduction of other feeds; Fear of infecting baby with virus; Stigmatisation of exclusive breastfeeding; Influence of significant others; and Social desirability (home, health facility).</td>
</tr>
<tr>
<td>Cultural practices</td>
<td>Application of breast milk in private parts to tone child’s libido and eyes to treat eye problems; Treatment of fontanel; Premastication; Induction of diarrhoea to rid baby’s stomach of fluids ingested in mother’s womb and to treat colic; Use of father’s sperm to strengthen baby; and Toning child libido.</td>
</tr>
<tr>
<td>Condom use</td>
<td>Masculinity and desire to produce babies; Gendered power relations; Erectile dysfunction; and Negative female condom social Marketing by health staff.</td>
</tr>
<tr>
<td>Gendered power relations and male participation in PMTCT</td>
<td>Lack of male participation in child issues; Women scapegoated for bringing disease and child’s ill health; Patriarchy which condones multiple sex partnerships; Fear of abandonment by husbands; and Mistrust in relationships (Past experiences)</td>
</tr>
</tbody>
</table>
4.3 Community Understanding of HIV Transmission and Prevention

Before delving into social and cultural realities of following through with PMTCT during the postnatal period, I felt it was important to understand the community knowledge about HIV transmission. Across all FGDs, the knowledge was very high. The main routes of transmission identified by men were having unprotected sex, having multiple concurrent partners, sharing infected sharp objects like razors and needles and contact with infected blood. Mother-to-child transmission was not a route of transmission that was easily identified by men until they were probed. This was different from women who mentioned unprotected sex and mother-to-child transmission as the main routes of HIV transmission. The participants across all groups had a high level of methods of HIV prevention. They identified abstinence, being faithful and use of condoms.

All the participants believed that awareness about HIV in the community was high as almost all the families had lost a relative from the disease. People were aware of the lifesaving ARV drugs that were easily accessible from the health facilities. They argued that the problem was that there was still stigma, which discouraged people from accessing the free drugs. However, some traditional practitioners and religious groups were discouraging people from getting tested, claiming that HIV was due to witchcraft. Because of these traditional beliefs, some people in the community were still succumbing to AIDS or seeking health care when it was too late. The key informants also highlighted the fact that many people were still succumbing to HIV and they
blamed this on denial and the sprouting of many religious groups that were
discouraging people from accessing the free health care.

The majority of people who were succumbing to the disease were men. One
health worker expressed the following sentiment:
‘Men are a problem because they do not want to come for HIV testing till they
are brought in a wheel barrow. Sometimes it will be too late to save them.
This community is full of widows and orphans because men’s denial’ (male,
aged 47)

4.4 Community Conceptualisation of PMTCT

Across FGDs and between both sexes, the community had a strong belief that
PMTCT was for women. PMTCT was commonly referred to as ‘chirongwa
chemadzimai’ literally meaning a programme for women. Women in all the
FGDs associated the programme with motherhood and being HIV positive.
When I asked direct questions about their understanding of PMTCT, the
commonest response from female participants was ‘exclusive breastfeeding
for 6 months by HIV positive mothers’. The other aspects of PMTCT that
include adherence to ART and use of condoms to avoid re-infection were not
mentioned till after much probing. Exclusive breastfeeding is being advocated
for, irrespective of HIV sero status, but it was clear that the community
associated it with being HIV positive. One respondent had the following to
say:
‘Tinoona vanongoyamwisa vana chete vasingade kuti vana vapihwe chimwe
chikafu, tinobva taziva kuti zvinhu hazvinakumira zvakana’ (Once we see a
mother insisting on exclusively breastfeeding her child, we already know that things are not in order) (female, aged 53).

The FGDs with women and men revealed that PMTCT was a programme that was not well understood and the community members were not sure of the merits of the programme. Some community members did not believe that the programme could reduce the incidences of vertical transmission. An elderly woman in an FGD said;

‘Tese tinoziva kuti utachiwana unowanikwa pamukaka wa amayi. Seyi kunyepera vakadzi vechidiki kuti vayamwise isu tichiziva ngozi iripo’ (We all know HIV can be transmitted through breast milk. Why are we lying to the young mothers that it is safe to breastfeed?) (female, aged 67)

These sentiments show that the majority of the community members harboured negative attitudes towards the PMTCT programme.

Women who were living with HIV who had once been enrolled on the PMTCT programme were supportive of the programme stating that the programme had protected their babies from getting HIV infection. One woman exclaimed;

‘Chirongwa chinoshanda chaizvo. Inini mwana wangu akapona izvozvi atova jaya ririkuenda kuchikoro. Haana kubata hutachiwana’. The programme works since my own child did not get infected with the virus and now he is a big boy who is attending school’ (ART client, aged 34).
There were mixed feelings among women living with HIV, with some women showing lack of conviction and some stating that the programme was stigmatising.

Further probing revealed that the programme had not been introduced in the community and hence poor community knowledge and appreciation. Pregnant women and breastfeeding mothers who attended health facilities were routinely tested for HIV and they are the ones who got to know of their sero status before their partners. It was therefore up to the woman to disclose or not to disclose. A salient observation was that the programme was not very acceptable in the community as most of the participants were not sure of its benefits.

4.5 Living with HIV in Chiota Community

People living with HIV, both male and female, felt that despite HIV&AIDS having been accepted in their communities, stigma still existed. The stigma was not only among the community members but also perpetrated by the health care providers who did not afford them privacy and confidentiality as they had introduced OI clinic days where all the People Living with HIV had to come and collect their medication in full view of the other community members. They also felt that before the advent of the ARVs, people used to be sympathetic as they believed that infection meant death but now they faced ridicule as people believed that they were contracting the disease irresponsibly due to access to the free life prolonging drugs. The community felt HIV was more prioritized than other diseases, yet one had a “choice” to get infected or
not to get infected. The participants felt that the communities were not expecting them to continue enjoying sex as it was seen to be attributed to their illness. FGDs with women revealed that whenever an HIV positive conceived, she became the scorn of the community with people in the community developing a keen interest on the deterioration of her health and the developmental milestones of her baby.

4.6 Community attitudes towards HIV positive mothers

Participants were asked direct questions about their views of mothers who are HIV positive. There were mixed feelings on the way people living with HIV were viewed in the community. Most of the FGD participants believed stigma was very rife both at community and at family level due to the perception in the community that HIV was a result of promiscuity and deviance. The elderly strongly felt that HIV was due to erosion of social values where both young boys and girls were getting involved in early sexual activities, which exposed them to HIV. This was perceived to be resulting in young women testing HIV positive when they got married.

An elderly woman expressed the following sentiments;

‘Chirwere mazvokuda. Vana vemazuvano avachateveri, vanongofamba vachirarwa kwese kwese vasati vawanikwa. Saka kana vabatwa nechirwere vanenge vachifunga kuti changouya here’ - literally meaning this is a self-inflicted disease. Children these days have become so disobedient and promiscuous before they get married and therefore when they test positive it would be their fault’ (female, aged 69)
A mother-in-law narrated a story of a girl who was known to be promiscuous in the community and when she got pregnant, she tested positive and was enrolled on the PMTCT programme. She was also reiterating the point that the disease was a result of deviance.

A middle-aged woman had no kind words for people who were living with HIV as she felt that they were draining the health facilities of the few resources and HIV was being prioritised over more serious diseases like high blood pressure and diabetes. To express her anger she said;

‘...These people are being given free ARVs which makes them more irresponsible as they do not change their promiscuous ways. Some of them are even breeding like pigs yet they know that they are not supposed to be having children. They are creating problems for the society. Who will look after those children when they die? They should leave us alone we are already failing to provide for our own families, they want to add unnecessary burdens on us.’

(my own translation from Shona).

This is a clear sign of apathy towards people living with HIV in particular mothers on the PMTCT programme. The perceived negative community attitudes towards people living with HIV were echoed by participants who were living with HIV as they gave the following responses which I translated from Shona to English,

‘People look down upon us and they call us names’ (female participant, aged 27)
One participant living with HIV shared her experience”

‘When people discovered that I was HIV positive, they went about writing my name and status at public places like the shops, clinic and bus stop. They thought I would die but here I am still fit and I have managed to bury some of those people’ (female, aged 41).

Another female participant who had gone through the PMTCT programme had the following to say;

‘Once people have known about your HIV status and you fall pregnant, they want to see what type of child you give birth to. My daughter delayed walking and people knowing that I am HIV positive started talking saying the delay in the milestone is because my baby is HIV positive as well but they have since been silenced because my child looks healthier than their children and she is very intelligent at school.’(Female, aged, 38)

A middle-aged man reiterated that HIV was still regarded as a death penalty despite the advent of ARVs which was making people live longer.

‘Chokwadi ndechekuti AIDS rufu’- the truth is that AIDS is death (male, aged, 51)

A religious leader shared his concerns about the confidentiality at the health facilities.
‘It is easy to discover that one is HIV positive if they get their medication at this clinic. There is no privacy. We see all people who are on this programme coming to collect their boxes of ARVs. Some people who do not have anything to do come to loiter at this clinic to see who is getting boxes of ARVs’.

Male, aged 63 (my own translation from Shona).

One female participant aptly summed up this discussion by saying;

‘It is very difficult to live with this disease. Once people know you are HIV positive, it is as if you have developed a stench. People are not comfortable sharing utensils with you. This has happened to me several times and as a result I hardly visit people’ (community member, aged 46)

Another female participant who was in her late 30s and looked visibly ill commented;

‘Zvakaoma kuita chirwere ichi. Unoita kunge unonuhwira vanhu’ – It’s difficult to live with this disease, it is as if you smell.

The health care workers in Chiota concurred that HIV was still stigmatised in the community and this had negatively impacted on formation of support groups as being a member of these groups was associated with being HIV positive.

A few, mainly male participants, however felt that the disease was now accepted in the community. The following were their sentiments;
‘We accept people who live with HIV but they themselves self-stigmatise by not disclosing and when people discover it becomes an issue’ (male, aged, 35).

‘Everyone is either infected or affected. Today it can be you, tomorrow me or my child’ (male, aged, 53)

‘HIV is now our neighbour. We have to learn to live with him’ (Male, aged 46).

To emphasize the point of accepting people living with HIV one middle-aged male participant equated HIV to having a headache, which could affect anyone.

4.7 Perceptions on Exclusive Breastfeeding by HIV positive mothers

Across FGDs and semi-structured interviews and between both sexes, exclusive breastfeeding for six months as a way of adhering to the PMTCT was alien to the community and it was not achievable as there was a general belief that the mother’s milk was inadequate. Across all FGDs, it was clear that the community was not convinced that an HIV positive mother’s milk was safe for the baby. They argued that breastfeeding with the full knowledge of one’s positive HIV status, was tantamount to being a murderer as the baby was exposed to the virus.
‘HIV positive mothers ask around about the safety of exclusively breastfeeding as they don’t trust their milk. They fear infecting the baby’ commented one key informant.

There was also a strong belief that babies could not survive on milk alone. The community also argued that it was an impossible task for mothers to breastfeed all the time in light of their other domestic chores and the expectations to attend funerals where they could not take the babies with them. The following were my translation from Shona responses from the FGD participants;

‘It is not as easy as it seems to exclusively breastfeed. No baby can solely survive on milk alone unless if you tell us that babies from HIV infected mothers are no longer human. Who can survive on water? Milk is water and nothing else. Even calves start eating grass at a very tender age’ (Female, aged 41).

‘Zvokwadi mwana haguti’ –honestly the milk is not enough for the baby’ (female, aged 65)

‘How can a mother exclusively breastfeed when she is not getting enough food. It is easier said than done. These nurses do not consider some pertinent issues like hunger in this community. Only if they could give mothers the food. Being HIV positive and breastfeeding, you will be having two things eating you, the virus and the baby’ (Female, aged 51)
The other FGD participants totally agreed with the above sentiments and a heated debate arose with all the participants concurring that exclusive breastfeeding was impossible.

Exclusive breastfeeding is encouraged for all mothers irrespective of HIV status but from the FGDs it was clear that in Chiota community it was associated with being HIV positive. An agitated middle-aged woman said,

‘Exclusive breastfeeding is associated with the mother being HIV positive. If you want the whole world to suspect that you are positive, you have to do exclusive breastfeeding’. (My Shona translation from a female aged 53)

A young woman said, ‘It is not practical to exclusively breastfeed especially with extended family influences and household chores. Can one carry a rusvava (newly born) to the garden where we spend most of our time? Let us be serious’ (Female, aged 25).

A middle-aged female participant commented ‘…izvo zvokupa mukaka ndezvanambuya kuchipatatra, otherwise munhu anoziva zvekuita kana achemherwa nemwana kumba’ ( …exclusive breastfeeding is for nurses at the health facilities, otherwise one knows what to do when the baby cries at home) (female, aged 47)

A woman living with HIV who had gone through the PMTCT programme shared her experience on exclusive breastfeeding;
‘When I had my last baby, the nurses told me to exclusively breastfeed but as mothers on the PMTCT programme we pretended to agree with the nurses at the clinic but we did something different at home. I only gave my child milk when I had nothing else to give but at the clinic I always told the nurses that I was exclusively breastfeeding. Every time I breastfed my baby I made a little prayer that she would not suckle the virus’ (my own translation from Shona from female aged 38)

Interviews with health care workers confirmed that mothers were not exclusively breastfeeding and the village health workers who lived close to the mothers had proved this. One nurse counsellor had this to say;

‘Breastfeeding education is given, especially exclusive breast feeding to infected mothers. When you teach them they show enthusiasm and understanding but once the village health workers follow up they find porridge already being fed but statistics in our books indicate everyone is exclusively breastfeeding’ (Female, aged 51).

The health care workers were aware that mothers were reporting what they had been told to do but not adhering. The health care workers were aware that the mothers were playing hide and seek with them, as they were not reporting the truth on exclusive breastfeeding. Mothers were confiding to the counsellors when they were further probed. The health care workers also highlighted that the extended family had an influence on exclusive breastfeeding. One nurse stated that mothers are usually asked why they are
exclusively breastfeeding yet babies from time immemorial have always been
given solids at an early age.

‘What’s so special about this baby? Is your child inhuman?’ would be a
question from the in-laws.

Senior health personnel concurred that mixed feeding is the most common
practice even among health workers and this is affected by the affordability,
feasibility, acceptability (AFASS) and perceived safety of the milk.

FGDs with mothers-in-law showed that they wished to have control over the
care of their grandchildren and feeding practices. When asked a direct
question whether they would allow their HIV positive daughters-in-law to
breastfeed they strongly felt providing the baby milk was a high risk for HIV
infection. They lamented that they had no control over the feeding practices as
their daughters in law were not disclosing their HIV status. An emotionally
charged mother-in-law commented,

‘If my grandchild is given that infected milk and happens to die, I would force
the mother to bury the child alone as she would have contributed to the death’
(my own translation from Shona from an elderly woman aged 67).

4.7 Traditional Practices

FGDS and semi-structured interviews revealed that traditional medical
practice is still very strong in Chiota community despite the area’s proximity
to the capital city where there is the influence of orthodox western medical
practice. It emerged that culturally babies have to undergo certain rites, which
are meant to strengthen them irrespective of HIV status. The PMTCT programme’s aim is to eliminate paediatric infection. It was clear that from the counselling the mothers received that most emphasis was on orthodox ways of transmission of HIV (breast milk and adherence to medication). The traditional practices that could expose the baby to the virus during the postnatal period were missing in the counselling. This study found that in Chiota there were some traditional practices of newly born and infant care. These were i) ‘treatment’ of sunken fontanelle, ii) toning of child’s sexual libido, iii) treatment eye and ear infections, iv) initiation of sex after childbirth v) treatment of tongue tie and vi) premastication. Table 4.8 is an analogy showing the HIV risk, the traditional practice and the likelihood of the baby’s exposure to the virus.

**Table 4.8 Themes and risk implications**

<table>
<thead>
<tr>
<th>HIV infection Risk</th>
<th>Traditional practice (Ritual)</th>
<th>Exposure to virus through;</th>
</tr>
</thead>
<tbody>
<tr>
<td>High risk</td>
<td>Treatment of fontanelle (kutara)</td>
<td>Semen</td>
</tr>
<tr>
<td></td>
<td>Toning of infant sexual libido</td>
<td>Precum</td>
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<tr>
<td></td>
<td>Initiation of sex after childbirth</td>
<td>Vaginal and seminal fluids</td>
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<tr>
<td>Medium risk</td>
<td>Treatment of fontanelle</td>
<td>Breastmilk</td>
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<tr>
<td></td>
<td>Toning of sexual libido</td>
<td>Breastmilk</td>
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<tr>
<td></td>
<td>Improvement of eye sight and hearing</td>
<td>Breastmilk</td>
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<tr>
<td></td>
<td>Cutting of tongue tie</td>
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<tr>
<td>Low risk</td>
<td>Premastication</td>
<td>Saliva, blood</td>
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</table>

4.6.1 **Treatment of fontanelle (chipande/nhova)**

There are normally several fontanelles on a newborn baby’s skull, mainly at the top, back and sides of the head. Fontanelles harden over time and become closed, solid bony areas. The fontanelle in the back of the head (posterior
fontanelle) usually closes by the time an infant is 1-2 months old. The
fontanelle at the top of the head (anterior fontanelle) usually closes between 7-
19 months. This study found that there are practices that are observed in
Chiota community that relate to the open fontanelle. The terms used for the
fontanelle are ‘nhova’ or ‘chipande’. FGDs with the elderly, males and
females, traditional and religious leaders revealed that the open fontanelle is
interpreted as a disease that needs to be treated. The traditional practice for
‘treatment’ of fontanelle is called to ‘kukwesha nhova’. There is a belief that
failure to treat this disease would lead to the baby’s death. For the treatment of
this condition, the baby’s upper palate is scratched with coarse salt until the
baby bleeds.

“Mwana akakweshwa nhova anobuda hurwa neropa’ (a successfully treated
child produces pus and blood) (female, aged 71).

The bleeding is considered as a successful way of treatment of the fontanelle.
Immediately after the scratching, the baby is put to the breast while still
bleeding. The ability of the baby to suckle was considered a sign of success.
The scratching of the upper palate would create an open sore, which could
expose the baby to the virus from breast milk.

This finding was mostly from the elderly women, the cultural and religious
leaders, women of childbearing age and a few men. Most of the mothers
(78%) on the PMTCT programme confirmed that this practice had been
performed on their babies. The majority of the mothers believed that this rite
had to be done to ensure the safety of their babies. To confirm this a mother
on the PMTCT programme said “...my children were treated for sunken fontanelle... I could not risk the life of my baby...’ (Female aged, 33).

A key informant interview with a senior health worker who is a resident of Chiota confirmed the strong community belief in the treatment of sunken fontanelle.

The treatment of ‘sunken’ fontanelle is very rife in this area. Through my training I know that a sunken fontanelle is a sign of dehydration and the child will just be needing mother’s milk and fluids. As a daughter-in-law in this area, I was forced to allow my mother in law to scratch the upper palate of my child after being threatened that if my child did not undergo this ritual she would die. I watched helplessly as my child’s palate was scratched and later had to put her on a course of antibiotics. I know mothers have no say on what happens to their children as the mothers in law dictate’ (female nurse, age 52).

The elderly in the community (92%) were convinced that this practice had to be performed on all children. They lamented that westernisation had destroyed communities by discouraging lifesaving rituals which had been practiced since time immemorial with no casualties. An elderly male in an FGD who shared his experience echoed these sentiments;

“My daughter in law who considered herself too educated did not want her child’s fontanelle to be treated. It ended up spreading to the armpits and the stomach. If I did not intervene, we would have lost that child. I had to take the
child to an old woman who scratched the upper palate and gave the child herbs and today he is a bouncing young boy’ (my Shona translation from an 84 year old man).

An elderly woman in the FGDs shared the traditional ways of diagnosing fontanelle problems and she had the following to say;

‘Kuti uone kuti mwana ane nhova, anoita maoko netsoka zvinovava kunge azorwa munyu. Akatakurwa anochema nekuti nhova inenge yapararira kumuviri wese’ - A baby with a fontanel problem has salty hands and feet, and cries when lifted upright because the disease would have spread throughout the body’ (female, aged 70).

The younger women in FGDs were aware of the traditional ways of treatment of fontanelle but they reported that they preferred to seek health care from the religious leaders (Apostolic sects) who were reportedly treating fontanelle using cooking oil and holy water. The young women stated that at the health facilities they were counselled that sunken fontanelle was an indication of dehydration. This problem could be solved through breastfeeding and providing the baby more fluids. However due to the pressures they received from significant others like the mothers in law and the grandparents, they had to seek some form of traditional health care either from the traditional practitioners or the religious leaders. The fear of losing their babies took precedence and they had to comply with the community expectations to avoid being labelled as witches.
Another risky way of treating fontanelle that emerged mostly from the elderly male FGDs was making the baby suck the father’s penis, a ritual traditionally known as “kutara”. The belief was that sucking the father’s penis facilitates the opening of child’s gut making it easy for him/her to breastfeed. This was also viewed as a practice that enabled ossification of the cranial bones. The sucking of the father’s penis was also said to be a way of paternity testing with those babies who were deemed not to be the father’s, falling ill after the performance of the ritual. A few elderly women seemed to know about this practice although they seemed not comfortable to discuss it as they received scolding from other female participants who showed disgust. “Ah! mashura chaiwo, kuyamwisa mwana tsvina. Ndowuraya munhu ini ....’ (Making the child suckle dirt; this is disgusting, I would commit murder if that happened to my own child), retorted one of the women. A follow up with one of the elderly women did not assist much as I could tell that after condemnation of the practice by other women, she thought I would judge her too. She just said ‘Ah muzukuru, ndakangonzva kuti zvinoitika muno muChiota, andingazive kuti ndiyani anozviita’ – My niece! (referring to me), I have only heard about this practice but I have not seen it happening. I also condemn it. I think it is bad as it is unhygienic’. Her body language however showed that she knew about it but did not want to discuss this practice with me as she thought the incriminating information could lead her into trouble.
The traditional practice of ‘kutara’ was reported in the local media in June. It became a cause of concern among Women’s advocates, after an article from the Herald newspaper reported a story of a renowned musician’s wife who was seeking divorce on grounds that the husband had performed this ritual on his two young children. The woman was claiming that the children had become sicklings because of this ritual. As the allegations spilled into the local courts, the father of the children started claiming that the children were not his even after undergoing paternity tests that proved beyond doubt that he had sired the two children.

Without revealing the identities of my informants, I made a follow up on this shocking practice at my work place. Two middle-aged men confirmed that this practice was normally performed but this was classified information as the mothers of the babies were not supposed to see this happening. They argued that the musician in question had failed to be discreet in performing this practice; otherwise, some ethnic tribes performed this ritual to test paternity of the baby. They felt it was unfortunate that the musician was caught red handed by the mother of the infants. This practice is happening despite the full knowledge of the high concentration of HIV in semen. As previously stated, this information was difficult to verify in the community, as it seemed to raise emotions. The men seemed not keen to share their secrets with a female researcher although I could tell the subject of ‘kutara’ was not very surprising to most of the men despite their feigning of ignorance. One elderly man said ‘Mwanangu kutara kwaunotaura atikuzive. Isu tinoziva
4.8.2 Reduction of the baby’s sexual libido

Another practice from the FGDs with the elderly men was that a female child’s libido was to be reduced by rubbing the father’s or maternal uncle’s penis on the baby’s vagina. An elderly male participant argued that this practice had always been done and it was very acceptable in olden days before the advent of HIV. He was quick to note that due to the perversity of society some men were no longer men enough to know where to stop. They ended up raping their own daughters. Another elderly man said mothers no longer trusted their husbands such that if one had to do this ritual, the mothers had to be sent on an errand so that she would not witness it happening. The elderly man stressed the importance of this cultural practice as it ensured that most girls maintained their chastity until they were married. He added that some “innocent” men have been imprisoned for allegedly raping their girl children yet this practice has always existed. He also insisted that no sane father or uncle would have sex with an innocent child. An elderly woman in an FGD also confirmed this practice but was quick to point out that it was now discouraged due to HIV.

“Mazuvano zvakutyisa nemhaka yechirwere che Shuramatongo’ (These days it is scary to perform this ritual due to the emergence of HIV&AIDS’ (female, aged 66)
A ritual for reducing the child’s sexual libido that was common across all FGDs was the use of the mother’s breast milk. The mother had to squeeze her milk into the genitals of the newly born baby to reduce its sexual libido. An elderly woman reported;

‘If you do not squeeze milk into your baby’s genitals, he/she will have a huge sexual appetite and will be uncontrollable when it comes to issues of sexual intercourse. If your child is a boy he becomes a real bull and impregnates all the women in the village. For girls it’s even worse as she becomes a proper prostitute’ (my own translation to Shona from a female, aged 69).

This practice seemed very common as it was reported in all FGDs. Men and women seemed to relate to this practice and they thought it was necessary for all children in the community. All the FGDs did not mention the risk of the mother’s milk in the era of HIV. It would appear they believed the benefits of this practice outweighed the risks.

4.8.3 Mother’s breast milk (kusvinira mukaka) as a remedy

Across FGDs and key informant interviews, it emerged that the mother’s milk was believed to have properties that improved the eyesight and hearing senses of infants. This is done through squeezing of the mother’s milk into the eye or the ear of the baby. The belief is that a child who does not undergo this ritual would have eyesight and hearing problems. The mother’s milk was also used for the general treatment of eye problems. If the child had red eyes, the mother had to squeeze her milk into the eye. Further discussions revealed that this was a tried and tested eye remedy even for older children and adults.
4.8.4  Initiation of sex by parents after childbirth (kuvhura njevel ear opening or kusimbisa mwana musana (strengthening of the child’s backbone))

In Chiota, there was a belief that parents had to abstain from sex for some time after childbirth. This is logical considering that the woman would still be bleeding. This finding was across all FGDs with community members and some key informant interviews. After childbirth, a ritual had to be performed before parents resumed their normal sexual intercourse. After the first intercourse, the parents had to use a baby’s napkin/diaper to wipe their vaginal and seminal fluids. The wet napkin would then be rubbed onto the baby’s genitals. This practice is called “kuvhura nzveve or kusimbisa musana” literally meaning, “Opening of ears or strengthening of the child’s backbone”. The belief in the community was that failure by the parents to observe this rite would make a child a weakling. The child’s bones would break easily. One woman jokingly said,

‘Vana vemavuvano vanonyanya kukurumidza kuenda pabonde vobva vakanganwa kuita chinyakare chedu. Vana vavo tinovaona vachingodonha donha tobva taziva kuti bavereki vakakara’ (Children of these young couples go about falling everywhere and we can easily tell that our children were too quick to resume sexual intercourse and forgot to observe this custom) (female, aged 55).

This statement aroused many interest and laughter in the FGD by mothers’ in-laws as they seemed to relate to this practice.
4.8.5 Premastication (*kutsengera*)

FGDs with the elderly women and mothers in law, revealed that babies who are unable to orally take medication are assisted by parents or grandparents. The caregiver first chews the medicinal plant and then orally administers the fluids to the baby. Another common practice is that caregivers cool the child’s food by first putting it into their mouths. HIV positive mothers on PMTCT programme admitted to doing this and they did not consider it as a harmful practice since they believed that there was no virus in their saliva. This practice can pose minimal risk of transmitting the virus if the caregiver of the child does not have bleeding gums.

4.8.6 Treatment of the tongue-tie (Ankyloglossia) (*kuchekwa Kanata/ karimbo*)

Discussions revealed that ankyloglossia which is commonly known as *Kanata or karimbo* was common among babies. The child’s tongue would be stuck to the upper palate and this was diagnosed when a baby had difficulties in crying or suckling. Most respondents reported that a knowledgeable elder would cut a small vein under the baby’s tongue using a reed or a new razor blade to avoid HIV infection. Babies would bleed after this procedure and they would be immediately breastfed to test if the procedure had been successful. It was clear from the discussions that this was not seen as an HIV risk.

‘*Kucheka kanata chinhu chinogonekwa nechembere dzemuno. Vana vemazuvano vanongo tambisa mari vachienda kuchipatara*’. –cutting of
tongue-tie is easily managed in the community. These young couples/mothers waste money taking the children to hospitals (female, aged 73).
Cutting the tongue-tie can create a sore and make it easy for the penetration of the virus from the mother’s milk.

4.8.7 Newly born stomach cleansing
The elderly in the FGDs mentioned the issue of stomach cleansing. There was a belief that babies are born with dirt in their stomachs that they would have gotten from the mother’s womb. This was viewed as something that could inhibit their intake of breast milk. To avert this condition, babies were given medicinal enemas, which were local herbs and water. The medicine would induce diarrhoea, which was believed to clean the child’s intestines. The elderly in the community administered the medicines. Due to belief in witchcraft in the community, these laxatives were entrusted with certain renowned community members and members of the Apostolic Faith churches.
A young mother confirmed this practice by saying:

‘You have to give your child herbs from a well trusted source because due to corruption and witchcraft, your baby might die after ingesting fake and dangerous medication’ (mother, aged, 26)

It is however not known what effect the concoctions have on the child’s throat and intestines. This could cause open sores that can facilitate HIV transmission from the mother’s milk.
4.9 Condom use during PMTCT

HIV infected couples or discordant couples are supposed to use condoms to avoid re-infection. This is even more important for breastfeeding mothers as they are likely to pass on the virus to the baby. All the participants in FGDs and semi-structured interviews stated the importance of condom use. However, the majority of women argued that men did not want to use condoms with their wives despite the full knowledge of the risk this posed. Men were supportive of using condoms within marriages. It was a consensus among women that husbands do not want to use condoms within a marriage.

‘Our husbands do not want to use condoms with us’ (female aged, 31).

Across all FGDs with women, it was revealed that men were in the habit of threatening their wives with divorce or polygamy if they insisted on use of condoms.

‘Men threaten us that they will go and have unprotected sex at the growth points where there are commercial sex workers who do not mind having unprotected sex as long as our husbands pay them’ (female, aged 35).

‘We are not empowered to ask our husbands to use condoms because we fear violence or being left for other women’. (Female, aged 33)

One woman in an FGD complained that they were having mixed messages from the nurse counsellors. The nurse counsellors were telling them not to deny their husbands sex because the husbands would get it elsewhere and they
would be at risk of being infected with other sexually transmitted infections. These messages were said to be confusing especially when the mother was already HIV positive and had an HIV positive partner.

‘Vana mbuya vanotiudza kuti tisarambe kuita bonde nevarume vedu nyangwe vakaramba kushandisa majombo’ (The nurses tell us not to refuse our husbands sex even if they refuse to use ‘gumboots’ (protection). (Female, aged 28).

Three women complained,

‘Even if you take condoms home the men will just ignore them so we find that it is a waste of time. You might as well protect yourself from unintended pregnancies through use of the pill or Depo-Provera’ (female aged, 26).

‘We have never used the female condom which is unsightly. The nurses hardly offer us the female condoms though we know that they are always available. Maybe it is because we have never asked for the condoms’ (female, aged 31).

‘Condoms alienate us from our husbands, they are unnatural’ (female aged 42).

Over 80% of women of all ages in the focus group discussions confirmed that their partners were not keen to use condoms. The fear of abandonment by men after insisting on condom use ran through all the groups.
Women attending Opportunistic Infection (OI) clinics also admitted that they did not enjoy “condomised sex” hence they preferred other means of family planning methods to prevent pregnancies. One woman admitted that she had taken the female condoms from the health facilities for use as a skin-beautifying agent. She said women in the community used the lubricant in the female condoms as cosmetics.

The FGDs also revealed that in discordant couples when it was the husband who was negative, he would insist on using condoms, but if it was the wife, the man would insist on unprotected sex.

Key informant interviews with the health care workers also confirmed that mothers on the PMTCT programme and clients attending Opportunistic Infection (OI) clinics were refusing to collect condoms. One counsellor revealed that she used to force mothers on the PMTCT programme to collect condoms but they were found strewn all over the place outside the clinic premises. This had shown her that mothers were not comfortable to collect the condoms. The health facilities always had a surplus of female and male condoms which even got to expire without being utilised. All the mothers on PMTCT were on either on the pill or Depo-Provera which showed that they were having unprotected sex. A lot HIV positive women in the community were having babies and indication of unprotected sex.

A counsellor at the clinic also felt that the health staff were to blame for low uptake of female condoms as they negatively marketed it.
‘I think we are to blame because when we teach the mothers about the female condom, we say, look at how big and ugly this plastic looks. All of us have never even tried using the female condom and we are marketing what we have no confidence in’ (female, aged 44).

Men also showed a dislike for condoms and the following were comments from men about condom use;

‘Use of condoms is unacceptable, aren’t there any other options?’ (male, aged 32).

‘Love is rude, when you want sex you do not want to use condoms’ (male, aged 39).

‘We cannot eat a sweet wrapped in a paper, if we can have a proper sweet elsewhere. Zvirinani kuenda kwaLandas kunvanoda. Kana mukadzi asingade, ngagare zvake asazondibvunza kuti ndabudirei kunze’- (It is better for me to go to Landas business centre where there are readily available women. If my wife does not want to have sex without a condom, she should not complain when I go elsewhere) (Male, aged 53).

You cannot have “condomised sex” with a woman you have bought (male, aged 31).

The “buying” was a reference to the payment of bride price. The men also argued that manhood was measured by the ability of one to produce offspring.
Failure to produce offspring was stigmatised as people often referred to such a man as a castrated bull. A male participant snapped, ‘Using a condom means I cannot have children which is totally unacceptable in the society. A man’s worth is based on the number of children he can produce’ (male, aged 52).

FGDs with HIV positive men confirmed that condom use in marriages was not a practical solution even where there was HIV infection. Men felt strongly that sex was meant to be natural and once a plastic was introduced it was better to abstain from having sex. The men also had many misconceptions about the condoms with some thinking that the condom did not stretch enough to accommodate their manhood. One man said; ‘The condom slips out during the sexual act, so what is the point of using it? Let us not lie to each other guys. That plastic is not meant for us’. (male, aged 47).

About a third of the men admitted that the condoms had slipped during the sexual act and they thought it was a waste of time using them. Some men argued that condoms reduced their sexual performance. One male participant said; ‘...if it is really true that ARVs reduce the viral load, why are we then forced to use condoms if we are both on medication?’ (male, aged 34).

This was a sure sign that men were not using condoms and this had implications on the prevention of mother-to-child transmission.
From the FGDs with HIV positive men, it became clear that men were not only condom averse but had other pressing issues. This was reported using idioms of distress like ‘musana unonetsa panyaya idzi dzekushandisa makondomu’ (the back is a problem when we use condoms). As a researcher, I sensed that there was some information that the men were withholding from me. This could have been because they did not feel comfortable to discuss sexuality issues with a woman. It was at this point, that I planned to have interviews with HIV positive men, which were going to be conducted by two male research assistants. The men to men discussions unearthed the problem of erectile disorders during condom use.

4.9.2 Erectile disorders

Out of 18 men who were attending the ART clinic, 16 stated that they had experienced problems of erectile dysfunction. Due to the culture of non discussion of sexual issues, the men were using different terminologies to talk about their manhood. One man confirming the sexual problems said; ‘Whenever Jack sees a condom, he falls asleep’. He was referring to his sexual organ as Jack using euphemism.

Some of the men admitted that ever since they had been diagnosed with HIV and had been initiated on ART, they had experienced several erectile problems. They associated ART with erectile problems. They reiterated the fact that with such a problem it became almost impossible to use condoms as they had to take time to get aroused and they lost their erection quickly before
they performed the sexual act. This was a source of frustration for the men and it led to non-use of condoms despite the knowledge of the risks of mother-to-child transmission.

HIV positive female participants in the FGDs also confirmed that their husbands were unable to maintain an erection. Some of the female participants also argued that they had lost interest in sex due to their husbands erectile problems which they attributed the use of ARVs.

FGDs with people living with HIV revealed that this subject of sexual disorders was not brought up during the counselling they received. Men had a rude awakening when their organs failed to perform the sexual act.

Having received this lead, I included a question on sexual disorders in key informant interviews with the health care providers. The health care providers admitted that they had never thought of this problem. It became clear that this was some omission and a new finding. The health care providers had not thought about including the side effects of ART when they counselled men living with HIV. This assessment made the counsellors to conclude that erectile disorders were one of the chief causes for low uptake of condoms by men and subsequently the low condom use.

All the interviewed health care providers revealed that they were not capacitated to talk about erectile disorders and they all had not had any man complain about this issue. One health care provider however confirmed that
there was a high use of aphrodisiacs by men on ART in the community. He commented:

‘No wonder, these days at every drinking place, men are always looking for sexual enhancing substances like mazondo (cow trotters) with herbs. They actually insist that they want cow trotters that have herbs. If you go to the business centres, many people are making money from selling sexual enhancing substances’ (male nurse, aged 53).

The health care provider also reiterated that discussing sexuality issues in the community was considered taboo.

‘Sex is a difficult subject to discuss especially when there are problems as one feels that they will be harshly judged. Failure to perform the sexual act is stigmatising’ (male nurse, aged 41).

4.9.3 Allegations of infidelity and mistrust between men and women

During FGDs and semi-structured interviews, it was apparent that there was mistrust between women and men when it came to HIV infection with each suspecting that the other part had brought the disease. Men in an FGD lamented that women nowadays were not to be trusted as they were liberal to go wherever they wanted due to the ‘Beijing syndrome’, which advocated for equal rights.

‘Vakadzi vakutonga mazuva ano, vakuzviita kunge vanasamusha’ (these days women are in control, they view themselves as household heads) (male, aged 67).
Another male participant had the following to say;

‘In olden days men were responsible for bringing AIDS in the home but now it is vice versa because women have many unexplained errands which take them away from home and sometimes overnight’ (male aged, 41).

Women in FGDs also complained about the unfaithfulness that was rife among men and blamed them for bringing the disease. Women on the PMTCT programme also moaned about being scapegoated for their children’s ill health and this made them more resolute to adhere to their ARVs to save their faces and the lives of their babies. FGDS revealed that there was low participation in PMTCT by men. Men were not willing to get tested claiming that the wife’s result was also his. As previously alluded to, men did not want to use condoms exposing the mothers and babies to new strains of viruses. Women were also not able to negotiate safe sex as they would be labelled loose and in Chiota they feared abandonment as there was readily available sex at the local business centre where most men socialized.

FGDs with women attending OI clinics revealed that women were haunted by their past sexual experiences and some had not disclosed their statuses to their husbands because they feared that they might have been infected in previous relationships. Husbands past sexual histories were not an issue as society “condoned” multiple sexual relationships by men.
4.9.4 Male Participation in PMTCT

FGDs with men in the community showed that men were not very familiar with PMTCT. I had to elaborate on the subject before they seemed to have a slight idea about the programme. Even then, the men who had an idea about PMTCT were those who had had relatives or partners who had enrolled on the programme. It was clear that they had scant information about the programme. I had to ask direct questions why they seemed not to be participating in PMTCT programmes. The majority of males argued that they were participating in PMTCT due to their roles of providing for the mothers and babies’ needs. One man asked;

‘Do women ever ask us to participate? Has anyone ever bothered to educate us about the importance of PMTCT? All they talk to us about is removing our foreskins (male circumcision) and for what?’ (My own translation from Shona from by a man, aged 39)

The non-involvement in health issues was a heated debate with most men blaming the health care providers of being biased towards women. The health information system was perceived by the men to be structured in such a way that it only disseminated information to women who were the main users.

‘As far as health care providers are concerned, we do not exist. Anyway, what do you expect? Most of these facilities are manned by women. Whenever you go to these health facilities, they call women aside for health talks as if we are
trees who do not need to have knowledge’ (own Shona translation from male aged, 54).

Generally, men felt that women were the ones who were responsible for childcare and PMTCT was of more benefit to them.

4.9.5 Influence of Significant others

Across all FGDs, it was reported that some partners of HIV positive mothers discouraged exclusive breastfeeding because they did not trust that the milk is safe, but they allowed the women to breastfeed if they were incapable of providing alternative feeds. Women across all FGDs reported that men were quick to blame mothers in the event of the child getting sick. It was also reported that exclusive breastfeeding (EBF) was not adhered to due to non-disclosure especially to the extended family including the in-laws. The in-laws encouraged nursing mothers to give infants porridge if they cried as they interpreted the crying to be due to hunger. In most cases, the in-laws were the last to be told of the mother’s HIV status.

All the FGDs mistrusted the mothers’ milk even when they were on ART. This mistrust was not only in the community but also in the religious sector. An example was given of a church organisation, which discouraged a mother on the PMTCT programme from breastfeeding citing that the Holy Spirit had revealed that her breast milk contained a virus. The child was reported as having become malnourished as she was not able to get nutritious supplementary feeding.
The extended family has a major influence on the infant feeding practices of the babies in the community as shown by the following excerpt from a 46 year old participant,

“My brother married a wife and the first child had no HIV, and then he went on to marry two other wives and when they all got pregnant they tested positive. The three wives and their children are all on the PMTCT programme. As a family, we discouraged them from breastfeeding and all the children have tested negative and they are all healthy.’

All the grandmothers and the mothers in law admitted that they influenced the infant feeding practices as shown by the following quote from a 67 year old participant;

“Mwana achiri mucheche ndinoti kumuroora kurunga tuporridge.” (I advise my daughter in law to feed the new born baby porridge).

4.9.6 Attitudes of Significant Others towards EBF

The significant others who included the 21 grandmothers and mothers in-laws, 18 aunts had a negative attitude towards breastfeeding by an HIV positive mother. The following quotes sum up their sentiments,

‘Kwete ndinoramba kuti muroora ayamwise mwana iye achiziva zvaakatakura. Mukaka wakatoshata futi, angatozondiurayira munhu anozondichengeta mangwana.” (I would stop my daughter in law from breastfeeding if I knew she was HIV positive as the milk is already infected. Breastfeeding is tantamount to killing a child who is likely to look after me during my old age (Grandparent, aged 62).
Because we do not trust the milk of HIV positive mothers, we wish the government would give free formula milk rather than risking the baby. (Aunt, aged 43)

An agitated woman in one of the FGDs during the discussion on EBF said ‘No! ipapo hazviite, ngaangogara arega, hutachiona hunopinda kumwana it’s a risk to the baby. (An HIV positive mother should never attempt to feed the baby as she will infect the baby (mother in law, aged 59)

A 68-year-old mother in law said;
‘If I discovered that my daughter in law was on the PMTCT programme, I would discourage her to breastfeed and encourage other feeds such as porridge, sadza, maheu, dried fish. I would not even trust her with the baby and would rather take the child and take care of it on my own’.

A 71 year old grand parent reiterated; ‘Amai vakanzi vane chirwere ngavarege kuyamwisa, hatingatongozvisekerera.” Meaning if the mother is HIV positive she should not even attempt to breastfeed, this is not a laughing matter.

Across all FGDs with the mothers in-law, the grandparents and significant others, it became clear that there was a problem of non-disclosure of HIV status by the mothers on the PMTCT programme. A 32-year-old woman voiced her concern on non-disclosure saying,
‘Disclosing to community can render support, anemhuru anokubatsira nemukaka wemombe (those with cows can assist with milk).
4. 10 Infant Feeding Practices during the Postnatal Period

During FGDs with the community members and People living with HIV, I asked about infant feeding practices in the community. My emphasis though was on the feeding practices of HIV exposed infants. Across all FGDs and key informant interviews it was agreed that the majority of babies on the PMTCT programme were not exclusively breastfed. The babies were receiving mixed feeding (mother’s milk and other foods). FGDs with community members attributed this to lack of disclosure by the mothers and the belief that the mother’s milk was not adequate for the baby. The following are the quotations from the mothers who had gone through the PMTCT programme;

‘Because I appeared to be producing less milk and my baby was losing weight, I introduced porridge at 6 weeks’ (Participant, aged 31).

‘At 5 months I was producing less milk, I could tell my baby was not having enough food and had to introduce solids’ (Participant, aged 43).

‘Our children are gaining weight after the introduction of solids’ (Participant, aged 29).

‘I had no problems after introducing feeds as early as two weeks as the nurses claim, my child never had any of the sores they talk about’ (Participant, aged 45).

‘All mothers can attest to the fact that babies are humans and as long as you are hygienic, you can give them any food which is easy to swallow.’ (Elderly participant, aged 65).
FGDs with women expressed the concern that the expectation of exclusive breastfeeding was not achievable. PMTCT adherence does not consider that mothers have other chores which take them away from home living babies with other people. Rural communities have no storage facilities which would enable mothers to express their milk which is a common practice in the urban settings. Besides the storage facilities, human milk handling is an unfamiliar practice. A middle-aged woman had the following to say ‘Ko munhu avemombe here inokamwa? Zvinosemesa izvi. (Is a human being, now a cow that is milked? It’s disgusting).

Discussions with the community showed that there was uncertainty about the safety of an HIV positive mother’s milk. FGDs with mothers’ in-laws expressed a concern about breastfeeding by HIV positive mothers. The commonly asked question was,

‘How possible is it that the HIV from the mother will not infect a baby?’

‘Iwo mukaka wacho unotyisa kwazo, pfungwa dzinenge dzisina kugadzikana kana uchipa mwana mukaka iwe uchiziva mamiriro ako’ literally meaning the breast milk is scary, you are even afraid to give it to the baby especially when you know your HIV positive status’

The women also feared the reaction of the family members in the event that the baby contracted HIV.
“In the event that the baby dies, vanhu vanochema namai (people will blame you) especially if they knew of your status, zvichinzi ndiwe wakauraya (saying you have killed your own child) (Participant, aged, 37).

4.10.1 Baby feeding Practices and Types of Feeds Given

Across all FGDs and key informant interviews, it emerged that babies are fed on very thin porridge made of mealie meal. Sour porridge was the most common food that was given to infants. The babies were also given maheu (a fermented drink made from mealie meal and sorghum). Babies were also fed on cow’s milk. Across all FGDs, it was revealed that the Chiota community members were willing to donate cow’s milk for HIV exposed babies.

‘Neighbours are always willing to give a newly born baby milk especially when the mother is HIV positive’ (elderly participant, female aged 57).
‘If the baby does not get enough milk, we give them cow’s milk. The milk is boiled or it can be given straight from the cow’s adder while it is still hot to ensure that there are no germs and the child will receive milk which is similar to the temperature of the milk of the mother’ (grandmother, aged 73).

FGDs with the elderly on child feeding practices revealed that milk was prepared by mixing a tablespoon of peanut butter with water. This would be boiled and then fed to the babies after cooling. The milk from the peanut butter was perceived to be rich in nutrients. A mother in law who had no access to cow’s milk had the following to say;
'I fed my HIV exposed grandson with milk from peanut butter and he looked healthier than the rest of other children of his age in the community. I never took him to the clinic even one day as the mother was working at a nearby college’ (Grandparent, aged 66).

Babies were also fed on mashed potatoes and beans for protein. Chiota is a horticultural community and these were easily accessible to most mothers. An HIV positive mother who had a husband who was employed somewhere admittedly gave her child commercial feeds and she confessed;

‘I started giving my baby porridge at one month because I realised that milk alone was not adequate for my baby. I started with Cerelac and slowly introduced porridge from straight run maize meal’ (participant, aged 32).

The elderly believed that traditional foods were the best for HIV exposed babies and they did not trust the commercially processed foods which they thought was likely to make the babies sick.

‘When I discovered that my daughter in law was on the programme, I discouraged her from giving the baby her milk. I took over the baby feeding and started giving the baby porridge from sorghum, sour maize meal porridge, peanut butter and prepared fermented drink from maize meal. The baby is now 5 years old and he does not know the door of the hospital except for immunisation’ (elderly female aged 63) (my own translation from Shona).
‘Children are also given fruits, traditional and commercial fruits, which include bananas. As long as a child is able to swallow we give them whatever fruit we come across’ (female, aged 54).

Age doesn’t matter, the trick, is to feed the baby with warm food and only give cold foods when it is warm during midday. (female, aged 44)

FGDs revealed that due to non-disclosure of HIV status by mothers, the majority of HIV exposed infants were fed like other infants in the community.

The following are case studies of what infants were fed on in Chiota community as reported by the grandparents

I fed my grandchild with peanut butter to which I added hot water and turned it into milk. I also fed the baby with porridge mixed with avocado or eggs, I also gave the baby maheu prepared from sadza and ‘chimera’ or flour, and pumpkins mixed with fresh milk and sugar (Grandmother, aged, 67).

I give babies mutakura, cow milk and have never had a child with diarrhoea. “Kuita manyoka kwana chikafu chinotonhora.” (Diarrhoea is caused by giving a child cold food)

Children can be given solids such as muguza, maheu, porridge with peanut butter. “Chinokosha hutsanana” (Hygiene is more important) (Mother in law, aged 53).
I gave maheu when my grandchild was 2 months, with or without sugar. I prepared it from sadza which I would mix with water then add ‘chimera’ or flour, sometimes would prepare it from porridge” (Mother in law, aged 55).

Infant foods I gave my grandchildren include ‘mugaiwa porridge,’ with peanut butter or would add eggs to the porridge to prevent malnutrition, mutakura “ndino tsengera” and feed to the baby (like birds do). I also mash, potatoes, sadza with okra or vegetables with peanut butter. (Grandmother, aged 75).

Infants are fed breastmilk, sour porridge prepared by cooking with water that had roots of muchakata soaked in. Then we never used to have cases of malnutrition (Grandmother, aged 59).

4.11 Experiences of Mothers on the PMTCT programme

In order to understand experiences of mothers on the PMTCT programme, a total of 15 women between the ages of 19-37 were recruited. The inclusion criteria were a mother who was breastfeeding, and was on the PMTCT programme. I collected the data through narratives which though basically a form of interview are different in that they emphasised on the woman telling a story about her experiences rather than responding to predefined questions from me. This form of interview was different in that instead of the continual interaction between the mother, and myself it was the mother who spoke almost exclusively. I only introduced the subject by asking the mother to narrate her experience of living with HIV and being on the PMTCT programme. Narrative inquiry is premised on the fact that human beings get to
understand and give meaning to their lives through stories (Andrews, Squire and Tambokou, 2008). To maintain confidentiality, I used pseudonyms for the mothers. I had an interview guide, which focused on the participants’ background characteristics, their enrollment on the PMTCT programme, experiences of being on the PMTCT, how and to who they had disclosed to, their experiences with the health system and the community. I conducted the interviews in Shona and transcribed verbatim.

Of the 15 women the majority were married (73%) and one woman had recently been widowed. Regarding religion, 13 out of the 15 participants identified themselves as Christians with the remaining 2 stating that they were not affiliated to any religion. Education level was generally high with (80%) of the participants having attained secondary school level of education. The majority of the women were unemployed. Table 4.9 shows the characteristics of the participants.

Table 4.9 Demographics of mothers on the PMTCT programme

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>15</td>
</tr>
<tr>
<td>Age range (years)</td>
<td></td>
</tr>
<tr>
<td>19-24</td>
<td>3 (20%)</td>
</tr>
<tr>
<td>25-30</td>
<td>8 (53.3%)</td>
</tr>
<tr>
<td>31-35</td>
<td>4 (26.7%)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>3 (20%)</td>
</tr>
<tr>
<td>Married</td>
<td>11 (73.3%)</td>
</tr>
<tr>
<td>Widowed</td>
<td>1 (6.7%)</td>
</tr>
<tr>
<td>Highest level of education</td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>3 (20%)</td>
</tr>
<tr>
<td>Secondary</td>
<td>12 (80%)</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>2 (8.7%)</td>
</tr>
<tr>
<td>Unemployed</td>
<td>13 (91.3%)</td>
</tr>
</tbody>
</table>

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The analysis from the mother’s narratives resulted in 5 main themes and 9 sub-themes. These were stigma and discrimination, fear of infecting the baby, marital relationship, uncertainty about ART (Option B+) side effects and lack of empowerment. Table 4.10 depicts the themes that I finally arrived at.

**Table 4.10 Themes and sub-themes on Experiences of Mothers**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Sub-theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stigma and Discrimination</td>
<td>Internal/self</td>
</tr>
<tr>
<td></td>
<td>Institutional/health services</td>
</tr>
<tr>
<td></td>
<td>External/Community</td>
</tr>
<tr>
<td>Fear of Infecting Baby</td>
<td>Mistrust of mother’s milk</td>
</tr>
<tr>
<td>Marital relationship</td>
<td>Disclosure, influence of significant others</td>
</tr>
<tr>
<td></td>
<td>Fear of divorce</td>
</tr>
<tr>
<td>Uncertainty about drug side effects</td>
<td>Fear of prolonged use of drugs</td>
</tr>
<tr>
<td></td>
<td>Fear of drug shortage due to uncertainties in the economy</td>
</tr>
<tr>
<td>Lack of Empowerment</td>
<td>Not given a choice to opt out and selection of infant feeding plan</td>
</tr>
</tbody>
</table>

**4.11.3.1 Stigma**

The first theme that emerged was stigma. All the participants (n=15) believed that people living with HIV were stigmatised in the community. Despite many messages on HIV, which were trying to dispel stigma, living with HIV was still not accepted in the community. HIV was associated with loose morals and promiscuity in Chiota community. Discussions with women revealed that they suffered from internal stigma. Internal stigma is looking down upon oneself and thinking the worst of oneself.

**4.11.3.2 Sub-Theme 1: Internal Stigma**

The majority of the women (73%) reported that they experienced low self-esteem because of being HIV positive. They felt that their condition was the
talk of the community and they were no longer free to interact freely with other members of the community.

“…whenever I approach other women, they change their discussions and you can tell that they were talking about me. Some even treat you as if you are a charity case as they will offer to carry your luggage or offer to buy you fruits’ (Jane, 24 years, married).

‘I make sure I do not accept food offers from other people as I do not trust their intentions. I have noticed from time to time that some people will avoid eating food that I have met. As I result I refuse to take any food from people even when I am dying of hunger’ (Chipo, 33 years, married).

‘…the way other women treat me even at gatherings is as if I have a stench as they often move away from me when we are in a queue. I guess I deserve this because I used to look down on people who are HIV positive before I got diagnosed. I never thought it would happen to me.’ (Nancy, Age 21, single).

4.11.3. 3 Sub-theme I.2 Health Services (Institutional Stigma)

Two thirds of the women (67%) felt that they were being stigmatised by the health care providers. The health facilities’ aging infrastructure was not offering them any privacy as they were attended to in the same rooms with other patients. The nurses would ask them about their problems concerning ART while other patients were listening. The health facilities had also set aside Opportunistic Infection (OI) days which were on the last Tuesday of
every month. The packaging of the ART tablets which was in big boxes also made it obvious that the mothers were on ART.

“The health care providers have no confidentiality as they distribute our drugs in full view of the community members. We are made to queue for a long time and when they want to attend to us they will shout ‘Vemapiritsi huyayi’ (those for tablets come and collect your drugs’ (Betty, Age 31, married)

“The nurses are also from the area so they go about preaching the gospel about us. They should be moved to other areas. If I did not have transport constraints, I would have relocated to another health care facility where I am not known. I actually dread coming to collect my tablets at this health facility.’ (Lydia, Age 34, married)

4.11.3.4 Sub-theme 1:3 Community (External Stigma) and discrimination

All the participants felt that HIV stigma in the community was still rife. There was so much apathy towards people living with HIV as they were seen as being prioritised and getting the best services (free drugs) when other people were failing to get drugs for different ailments.

‘Since the advent of ART, people in the community are no longer sympathetic as they believe that our disease is self-inflicted’ (Tracy, Age 28, married)

‘Once you are known to be HIV positive, people in the community treat you like a minor or someone who is mentally deranged. Whatever you say they do
not take serious as they often remark 'Murwere’- a derogatory term for a mentally challenged person. (Anna, Age 35, single)

‘When my relatives discovered that I was HIV positive, they ensured that I did not use any of their utensils, even a bathing bucket had to be different. You could tell that they watched me closely to ensure that I did not touch their food. It’s very difficult to be in this condition’. (Tsitsi, Age 28 married)

4.11.3. 5 Theme 2: Fear of infecting the Baby

All the participants feared that they would at some stage infect their babies. They were not confident that the ART drugs they were taking were protective of the baby. The counselling the mothers received at the health facilities was not convincing enough that their babies would remain negative especially after the mandatory exclusive breastfeeding for the first six months. Two thirds of the mothers had had their babies tested for HIV and they all said their babies had tested negative. This further made them fear that their babies would sero convert.

4.11.3. 6 Sub-Theme 2:1 Fear of Mother’s Breast Milk

Most of the participants (80%) feared that the virus in their milk would infect their babies. Mothers showed a feeling of despondency as they mistrusted breastfeeding their babies. Some mothers (67%) admitted that they tried at all costs to minimise breastfeeding their babies but due to economic hardships they were forced to breastfeed when the babies had nothing else to feed on.
'I do not trust my milk at all and I minimise giving my baby breast milk when I have alternative feeds' (Betty, Age 31, married).

‘My baby tested negative and if she is to be positive I would blame myself for life because I would have murdered her’ (Sheila, Age 32, single).

‘The nurses are cruel. They ask us to breast feed our babies when they are fully aware of our statuses. If they were in our shoes would they breastfeed their own babies?’ (Chido, Age 36, widowed).

‘I hardly breastfeed my child. I always pretend to breastfeed him when there are people. I put my child to the breast but ensure that he does not have access to the nipple. I can’t kill my own child’ Mercy, Age 20, married).

“The nurses say we should exclusively breastfeed (poison) our own babies. That’s their own problem, we know what we do ‘nyakuzvimbirwa ndiye anorwa nesasa’ (the one who has diarrhoea opens the door) (Tsitsi, Age 28, married).

4.11.3.7 Theme 3: Marital Relationships

The participants reported that testing HIV positive had negatively impacted on their marital relationships. Women who had tested positive before conception were regarded as irresponsible. An HIV positive status took away their rights to enjoy marital intimacy. Some mothers had known their HIV status during the routine antenatal care and they were still coming to terms with an HIV positive diagnosis. Only one woman admitted that she had planned to get
pregnant after testing knowing her HIV status in order to salvage her marriage which was crumbling. The rest of the mothers blamed the failure of family planning method for their unplanned pregnancies. As all women narrated their experiences, they blamed their husbands/partners for having infected them.

4.11.3.8 Sub-Theme 3:1 Disclosure

Disclosure of HIV status was still problematic as two-thirds of the women (67%) had only disclosed to their husbands, 17% had disclosed to the rest of the family members and the rest had not disclosed, although they though due to lack of confidentiality at the health facilities there was involuntary disclosure.

‘When I was diagnosed HIV positive during ANC, I tried to taste the waters by asking my husband how he would respond if I tested HIV positive. He became so livid and I had to change the subject quickly because I knew that I would be divorced instantly. I behave as if all is well although my husband is losing weight since he is not on medication. I hide my medication in the garden and do not have problems of accessing it because he is often out at the beerhall with other men. I wish he could go and get tested and access medication because I will soon lose him’ (Norah, Age 32, married).

‘My mother in law never liked me as she often referred to me as a prostitute when I started dating his son and if she finds out that I am HIV positive, she will send me packing. My mother in law has been giving my child so many traditional herbs and I cannot say anything, lest I betray myself. My 7 month
old baby was introduced to porridge when he was 3 weeks old and he was taken for treatment of fontanelle to some old woman and I am not sure what transpired there as I was not allowed to accompany her’ (Lucy, Age 29 married).

4.11.3.9 Sub-theme 3: 2 Fear of Divorce

Most of the married participants feared that their partners would divorce them if they insisted on condom use to protect their babies. The women mistrusted their partners as they alleged that they were likely to be engaging in extramarital affairs, which had brought about the infection. The majority of participants also felt that the significant others like mothers in law, the husbands’ sisters and other close relatives could influence their husbands to divorce them. The women feared being divorced especially after having been diagnosed HIV as they felt they would never find marriage partners.

“My husband knows that I am HIV positive but he insists on having unprotected sex and often threatens to divorce me if I resist. He is the bread winner and if he leaves me and the baby now, I would have nowhere to go as my family would not take me back as they once warned me about getting involved with him before I got” (Dorothy, Aged 22 married).

“My husband has been behaving irresponsibly since he discovered that I was HIV positive though he was on ART before me. He thinks I do not know as he hides his medication. I am however not sure where he is getting his tablets as he does not go to our local clinic. I think he is planning to abandon me as he
did to his first wife who later died. It is difficult for me to live under such circumstances but I guess I do not have a choice since this is my second marriage and I left my other children with my parents” (Tsitsi, Age 28, married).

“I knew I was HIV positive before I got pregnant but due to the pressure from my in-laws I had to have this baby. I am hoping that she does not get infected from my breast milk as I would be asked to leave. My husband died when I was 3 months pregnant of alleged witchcraft and I am staying at this homestead because of this baby. If I am asked to leave I would be destitute as I am an orphan” (Chido, Age 36, widowed).

4.11.3.10 Theme 4: Uncertainty about drug side effects

The introduction of Option B+, ART for all pregnant and breastfeeding mothers irrespective of CD4 count and clinical staging was a cause of concern for mothers who were not sure of its side effects and the sustainability of the programme in light of the economic problems being faced by Zimbabwe. Some mothers who had been diagnosed during ANC were not very keen to be commenced on lifelong treatment as they felt that they had not been given a chance to opt out. On the other hand, some mothers who already knew their status felt that Option B+ gave them a lifeline.

4.11.3.11 Sub-Theme 4: Fear of Prolonged Drug Use

Most of the women (85%) were worried about being put on life-long ART as they were not sure of the side effects this was likely to have.
“When I came to register my pregnancy I was tested and found positive and immediately commenced on ART when I was not even sick. This is a lifelong treatment and I am not sure if I am prepared to continue after breastfeeding as I have seen some people becoming disfigured from prolonged ART use” (Dorothy, Age 22, married).

“ARVs make people lose shape. I have seen people with swollen necks, skinny arms, big breasts and no buttocks. I really dread to be like that” (Mercy, Age 20, married).

“My CD4 count was not checked and I was commenced on this medication when I was still very well. I am afraid that this medicine is likely to damage me” (Fiona, age 25 married).

4.11.3.12 Sub-Theme 4. 2 Uncertainty about Sustainability

The majority of mothers feared that ART provision would not be sustainable under the prevailing economic crisis pertaining in the country and they would be worse off if they had to stop accessing the drugs.

‘What if these free drugs run out or we are asked to pay for them which we cannot obviously afford’ (Lucy, Age 29, married)

‘There is nothing for free in this country, we will soon be asked to pay for these drugs and this would mean death for some of us who are not employed’ (Anna, Age, 35 married).
4.11.3.13 Theme 5: Lack of Empowerment

I asked the mothers if they were given a choice to opt out of the programme. All the mothers felt that they were not empowered to make their own decisions pertaining to opting out of the PMTCT programme. They argued that the health facility authorities made testing mandatory and the infant feeding plan of exclusive breastfeeding was forced on them. Failure to comply would negatively affect their health care at the respective health facilities. The health staff did not consider the inter-sectionality (differences of women’s background) and for them one-size fitted all. The lack of economic empowerment also left women with no choice to providing their babies alternative feeds. The majority of the women (86.7%) were not employed and they depended on their partners and extended family for sustenance. The two mothers who were employed did not have jobs which could fully sustain them.

“We are forced to undergo testing even if we are not prepared. It is as if once you test positive you lose your rights as you are given instructions that have to be followed without any negotiations.’ (Mercy, Age, 20 married)

“The nurses at the health facility force us to exclusively breastfeed failing to recognize the different roles we have and they do not consider that you cannot breastfeed when you are hungry. So as mothers we agree to their dictates but when we get home we know what to do. We tell them what they want to hear about exclusive breastfeeding but I can assure you that none of us exclusively breastfed’. (Betty, Age, 31 married).
“The nurses are strict with us who are HIV positive yet exclusive breastfeeding is meant for all mothers in the community irrespective of sero status. This has actually stigmatised exclusive breastfeeding as it has become a sure sign that you are HIV positive’. (Lois, Age 25, single)

4.12 Perspectives of Healthcare Providers

Having held FGDs with the community and the mothers on the PMTCT programme, I decided to interview the health care providers to validate some of the information I had acquired, especially from the mothers. Four counsellors and 4 nurses (6 females and 2 males) who were responsible for the PMTCT programme were key informants in this study. Their ages ranged from 31-42years. Semi structured interviews with the key informants focused on health service factors affecting adherence to PMTCT during the postnatal period. Data were analysed thematically and three themes emerged which were perception of Option B+, Health system challenges, and adherence to PMTCT by mothers during the postnatal period.

The interviews revealed that six out of the eight health care providers were sceptical about mother’s adherence to the lifelong therapy Option B+ especially during the postnatal period. Two nurses doubted the sustainability of the programme and felt that there was not much consultation before the introduction of Option B+. The communities were not involved in the introduction of this programme.
The health care providers admitted that mothers were in most cases not given time to get prepared to be commenced on the lifelong therapy. To reiterate this point a nurse at one of the health facilities gave an example of a 19-year-old woman who tested positive during antenatal care. The health facilities use codes to denote the HIV status of the mother. The codes used are 0 for negative and 1 for positive. This young woman is alleged to have altered her code from 1 to 0. She was however not smart enough as the nurse had already written the prescription on her card. She had been commenced on Option B+ but she disappeared for some time. When she re-emerged, she had a card showing recorded Code 0 but with a prescription. When she was quizzed about this she first denied and then later opened up to say she felt she was too young to be commenced on lifelong ART. The nurse felt this was the case with many mothers who were had been initiated on ART and never returned to the health facilities.

The staff shortage at the health facilities also compromised on the quality of care as there were no healthcare providers to follow up the mothers in the communities. The majority of the health staff felt that mothers were not adhering to the PMTCT cascade especially the exclusive breastfeeding, as most mothers did not trust their milk. All the staff also mentioned issues of stigma.

The health staff at the two health facilities, the rural hospital and the clinic, admitted that mothers on PMTCT programme were not offered privacy due to structural problems, which included buildings that had not been expanded to
cater for this emerging disease. The health staff admitted that they hardly had enough time to counsel the mothers.

‘We try our level best, but what a mother does when she gets home is something beyond us. We know that mothers are not adhering to PMTCT due to cultural norms. Exclusive breastfeeding is now associated with HIV so mothers practice mixed feeding. The stigma attached to this disease also makes it impossible for us to make follow-ups as some mothers give wrong addresses. The short staffing and the lack of resources does not allow us to make follow up in the community. (Counsellor, aged 35, female)

‘Health facilities should be given more staff to achieve this mammoth task. We are overwhelmed. We only do what is humanly possible’. (Nurse aged 42, female)

‘We don’t have adequate time with the mothers because staff is overwhelmed trying to attend to all patients and to make matters worse, support groups who used to help us have vanished due to lack of incentives’ (Counsellor, 37, female)

The health facility staff also noted a challenge of too many registers, which made documentation a mammoth task. I was shown over 20 registers, which the health staff are expected to complete. Some of these registers included the Adult T12, Immunisation register, ANC Booking Register, Post Natal register, ZEPI, STI, Management of Acute Malnutrition , Essential Changes Registers,
HIV Infant Diagnosis Clinic Register, HIV DNA PCR, Infant PMTCT Dispensing, ART Pharmacy, OI/ART attendance Register, PRE-ART, ART register, PMTCT mother-baby pairs, Maternity Admissions, Maternal Referrals, OPD Referrals, RDT Malaria Para check Register, Chronic Patients Register, Growth Monitoring, Family Planning and ART Green Book. Computer is available but the electronic patient monitoring system has not been installed on the computer. The numerous registers increased the workloads of the health facility staff.

I noted at the rural health facility and the clinic that the health care providers and counsellors were locals who lived in the community. One of the male health care providers noted with concern that the use of locals was affecting the quality of service, as mothers were uncertain of the ability of the health staff’s confidentiality. Another counsellor also pointed out the problem of mistrust.

‘Being a member of the community and being a counsellor, people fear discussing with me as they suspect that I would go about broadcasting what we would have discussed in confidence. Mothers are not aware that we are bound by ethics not to discuss our patients. I guess it is a problem because some of us are also not to be trusted’ (Counsellor, aged 35, female).
4.12.1 Health Workers Experiences on Community Child-Feeding Practices

The success of any adherence strategy is influenced by the positive patient–provider relationship. This calls for the responsiveness and efficiency of health staff in providing health education before the mothers are enrolled on the PMTCT programme. The health staff should make an assessment of the mother's understanding the programme and her readiness to follow through. Challenges that a mother is likely to encounter have to be addressed. Interviews with the health care providers showed that mothers on the PMTCT programme had concerns about the safety of their milk.

‘We receive reports that the HIV positive mothers ask around about the safety of exclusively breastfeeding as they don’t trust their milk, they fear infecting the baby’ (counsellor, aged 49).

A sister in charge at one of the health facilities confirmed this notion adding that if mothers on the PMTCT programme had alternative feeds, they would not breastfeed at all as they did not trust their milk. She even went on to say, ‘Some mothers who are too poor to give alternative feeds discontinue breastfeeding before 6 months’.

A nurse counsellor showed concerns about the mothers’ adherence to the PMTCT programme and was convinced that mothers were not exclusively breastfeeding their children. She had the following to say;
‘We are all aware that mothers are not adhering to PMTCT as they do not exclusively breastfeed even after receiving counselling’.

The health providers also mentioned that mothers were not getting adequate nutrition which was negatively impacting on their health and the efficacy of the ART therapy. A nurse counsellor had the following to say;

‘We give education on healthy eating for the benefit of boosting CD4 count, but they take tea and bread with margarine or jam in the morning, then eat later again in the evening sadza. We encourage people on ART to take traditional and locally available foods for a healthy diet since diet also plays an important role in the management of HIV’.

The health providers across all sites also mentioned that decision-making about child feeding practices was influenced by many factors which included the non-affordability of alternative feeds, socio-cultural factors and the influence of the significant others. Mothers were not empowered to make their own decisions on infant feeding practices as suggested by the following excerpts;

‘HIV positive mothers worry about breastfeeding their babies but the choice is not completely theirs as there are issues of money, hygiene, disclosure which leaves them no choice but to breast feed. One mother actually refused to breastfeed’ (female counsellor, aged 39).

‘Most mothers are not practising exclusive breastfeeding due to socio-cultural factors and yet support of the family is crucial’ (nurse, age, 47).
‘With regard to exclusive breastfeeding, in-laws are even more powerful than the husband as they are in most cases responsible for paying the bride price as the husband would be unemployed. This provides the in-laws the rights to dictate what happens in the child’s life leaving the husband with no say’ (male nurse, age 35)

‘Advice is affected by one’s level of information. If living with uninformed extended family, you are left with no option but to follow the dictates of the family’ (male nurse, age, 51).

A male health worker felt that exclusive breastfeeding was very difficult for mothers and he asserted that even the health workers who were on the PMTCT programme were not exclusively breastfeeding despite the knowledge they had of its benefits. Non-adherence to exclusive breastfeeding cuts across all classes.

‘Mixed feeding is the most common thing even among health workers who know about the benefits of this programme. Some of us are still not very convinced about the safety of the mother’s milk. It is quite unfortunate that we are the ones who are entrusted with a message that we do not fully subscribe to’ (male nurse counsellor, age, 51).

The health workers also felt that exclusive breastfeeding was not practical especially in rural settings where there were no safe storage spaces and capacities for expressing breast milk. Besides being an unfamiliar concept,
there was much resistance among mothers and the caregivers who were not comfortable to handle human milk. One of the nurses said;

‘As a working mother it is difficult to express thus it poses a challenge to exclusively breastfeed’

The health workers lamented that besides encouraging all mothers irrespective of HIV sero status to exclusively breastfeed, the community associated exclusive breastfeeding with being HIV positive. This was discouraging many mothers as in most cases they would not have disclosed their status to the wider community. One male nurse said;

‘If you insist that you are going to exclusively breastfeed in the community, people will immediately assume that you are on the PMTCT programme.’

It was clear that the service providers were aware that there was no adherence to the PMTCT programme by mothers.

**Conclusion**

This chapter presented the findings from the qualitative study whose main purpose was to gain insight into the following through with PMTCT by the mothers in the community and the cultural practices that affected adherence to the programme. The study showed that despite advocacy and health education on non-discrimination against people living with HIV and AIDS, the disease is still highly stigmatised in Chiota community. The findings show that cultural practices in infant care play a prominent role in childrearing and some of the cultural practices could pose a risk to paediatric HIV infection. This study unearthed risky traditional practices which could expose infants to HIV
infection. The study also suggests that the health education availed to the mothers on the PMTCT programme is not holistic as it adopts a ‘one size fits all’ approach. Findings also suggest that women on the PMTCT programme are facing challenges which include internal, external and institutional stigma and discrimination aspects which are silent on the programme. The health care infrastructure does not promote confidentiality and this is affecting the mothers on the PMTCT programme health seeking behaviours. The HIV and AIDS epidemic poses a major public health threat which is embedded in multifaceted harmful impacts and socially complex outcomes. Some negative outcomes concern structural issues while others stem from society’s attitude towards the epidemic. The findings in this chapter further confirm the intersecting relationship between the biomedical, behavioural and social factors and how these influence following through with PMTCT in a rural community. Given the centrality of cultural practices in health seeking behaviour and health care provision in most resource constrained settings, there is urgent need to be cognisant of factors that may hinder or facilitate compliance to recommended treatment regimens in PMTCT programming.
CHAPTER 5

ANALYSIS OF THE RESULTS FROM THE CROSS-SECTIONAL SURVEY

5.1 Introduction

A cross-sectional study was conducted of postnatal mothers who were on the PMTCT during six months in 2014. The main objective of the study was to determine socio-cultural realities of adhering to PMTCT by mothers during the post-natal period. The findings in this chapter are based on the interviews with mothers who were on the PMTCT programme during the time of the survey. This chapter examines direct and indirect factors that can influence the mothers during the postnatal period to adhere or follow through with PMTCT. The conceptual framework that is discussed in Chapter 1 informs the structure of the chapter. The main topics covered are Adherence by mothers to Option B+, which is the ART regimen that all mothers were on, adherence to breastfeeding practices and finally the health services factors that influence following through with the PMTCT programme.

5.2 Demographic Characteristics of Mothers on the PMTCT Programme

Of the 108 mothers identified from the registers at the two health facilities, I only managed to interview 103 mothers who reported to the facilities during the course of the study and consented to be interviewed. The two health facilities that the women were attending were Chiota Rural Hospital and Nyembanzvere Rural clinic. The two health facilities are about 5km apart and the majority of the participants (63%) were from Rutsate Village, which was
about 7km from the clinic and 9km from the rural hospital. Table 5.1 is a summary of the socio demographic characteristics of the mothers.

Table 5.1 Description of the Demographic variables of postnatal mothers on Option B+

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Categories</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>19-25</td>
<td>23 (22.3)</td>
</tr>
<tr>
<td></td>
<td>26-30</td>
<td>30 (29.1)</td>
</tr>
<tr>
<td></td>
<td>31-35</td>
<td>27 (26.2)</td>
</tr>
<tr>
<td></td>
<td>36+</td>
<td>23 (22.3)</td>
</tr>
<tr>
<td>Marital status</td>
<td>Married</td>
<td>69 (67.0)</td>
</tr>
<tr>
<td></td>
<td>Unmarried</td>
<td>34 (33.0)</td>
</tr>
<tr>
<td>Educational Level</td>
<td>Primary</td>
<td>11 (10.7)</td>
</tr>
<tr>
<td></td>
<td>Secondary</td>
<td>92 (89.3)</td>
</tr>
<tr>
<td>Religion</td>
<td>Traditional</td>
<td>1 (1.0)</td>
</tr>
<tr>
<td></td>
<td>Catholic</td>
<td>19 (18.5)</td>
</tr>
<tr>
<td></td>
<td>Protestant</td>
<td>24 (23.3)</td>
</tr>
<tr>
<td></td>
<td>Pentecostal</td>
<td>23 (22.3)</td>
</tr>
<tr>
<td></td>
<td>Apostolic sect</td>
<td>36 (35.0)</td>
</tr>
<tr>
<td>Employment status</td>
<td>Employed</td>
<td>43 (41.7)</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>60 (58.3)</td>
</tr>
<tr>
<td>Husband’s occupation</td>
<td>Unemployed</td>
<td>10 (9.8)</td>
</tr>
<tr>
<td></td>
<td>Informal employment</td>
<td>92 (90.2)</td>
</tr>
<tr>
<td>Monthly income</td>
<td>&lt; $50 USD</td>
<td>20 (19.4)</td>
</tr>
<tr>
<td></td>
<td>$50-100 USD</td>
<td>55 (53.4)</td>
</tr>
<tr>
<td></td>
<td>&gt;$100+</td>
<td>28 (27.2)</td>
</tr>
</tbody>
</table>

*Parity \( \text{mean (sd)} \) \hspace{1cm} 3.1 (1.5) children

The mothers’ ages were categorised into four and the highest represented group was the 26-30 years with 30 mothers (29.1%). The majority of the women were married (67%) and 89.3% had attained secondary level of school education. Most women were from the Christian religion 66 (64%) with 36
(35%) from the Apostolic sect and 1 (1%) woman from the traditional religion. Most of the women were unemployed (58%) with most reporting that they depended on their spouses for sustenance. However, most of their spouses were not gainfully employed with 90.2% being informally employed. The majority of the women had an estimated monthly family income of $50 - $100 United States Dollars which was mainly from vegetable vending. Generally, 45% of the enrolled women had 2 to 3 children. The age distribution of infants whose mothers were initiated on Option B+ was 2 to 22 months with a median age of 7 months and an inter-quartile range of 3 months to 10 months.

The majority of the mothers (82.5%) reported that they had not missed taking their pills in the last 30 days. Having missed a pill was defined as non-adherence to PMTCT. Most of the women had lived with an HIV positive relative (63.1%). Thirty-one mothers (30.1%) indicated that getting support was paramount for adherence to their medication. Some mothers voiced concern over lack of food, which they said was affecting their adherence (22.3%). Some mothers felt that failure to get transport to the health facilities (15.5%) and lack of employment could negatively affect their adherence (see Table 5.2).
Table 5.2 Distribution of Possible risk factors of Non-Adherence to Option B+

<table>
<thead>
<tr>
<th>Possible Risk factor</th>
<th>Categories</th>
<th>Frequency (%) n=103</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever- skipped a pill in last 30 days</td>
<td>Yes</td>
<td>18 (17.5)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>85 (82.5)</td>
</tr>
<tr>
<td>Ever lived with an HIV positive relative</td>
<td>Yes</td>
<td>65 (63.1)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>38 (36.9)</td>
</tr>
<tr>
<td>Perceived enablers for adherence to ART</td>
<td>Support</td>
<td>31 (30.1)</td>
</tr>
<tr>
<td></td>
<td>Transport</td>
<td>16 (15.5)</td>
</tr>
<tr>
<td></td>
<td>Food</td>
<td>23 (22.3)</td>
</tr>
<tr>
<td></td>
<td>Employment</td>
<td>11 (10.7)</td>
</tr>
<tr>
<td>Challenges to adherence to Option B+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of transport</td>
<td>Yes</td>
<td>23 (22.3)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>80 (77.7)</td>
</tr>
<tr>
<td>Cultural taboo</td>
<td>Yes</td>
<td>36 (35.0)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>67 (65.0)</td>
</tr>
<tr>
<td>Long waiting time</td>
<td>Yes</td>
<td>81 (78.6)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>22 (21.4)</td>
</tr>
<tr>
<td>Fear of disclosure</td>
<td>Yes</td>
<td>44 (42.7)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>59 (57.3)</td>
</tr>
<tr>
<td>Long distance to health facility</td>
<td>Yes</td>
<td>51 (49.5)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>52 (50.5)</td>
</tr>
<tr>
<td>Fear of taking medication</td>
<td>Yes</td>
<td>19 (18.5)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>84 (81.6)</td>
</tr>
<tr>
<td>Time spent at health facility</td>
<td>&lt;3hrs</td>
<td>22 (21.4)</td>
</tr>
<tr>
<td></td>
<td>&gt;3hrs</td>
<td>81 (78.6%)</td>
</tr>
<tr>
<td>Adequate consultation time</td>
<td>Yes</td>
<td>34 (33.0)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>69 (67.0)</td>
</tr>
</tbody>
</table>

Majority of the participants (99%) lived more than 5km from the health facility. Of the 103 mothers, 82.5% had adhered to medication. Amongst those who were not adhering, the reasons highlighted were forgetfulness.
(42.9%), travelling (28.6%) and non-disclosure (28.6%). Motivational reasons for adherence were to protect the baby (31.9%) and prolonging the mother’s life and good health (67%). Almost 5% of the participants had missed at most 6 pills in the past month due to forgetfulness and travelling.

Almost two-thirds (63.1%) of the participants had lived with an HIV positive relative. Factors which were cited as facilitating adherence included receiving support (30%), availability of food (23%), being able to get transport to the health facilities (16%).

The mothers gave multiple responses on the challenges they faced in adherence to PMTCT. The most cited challenge was long waiting times at the health facility (78.6%) followed by long distance to the health facility (49.5%) and fear of disclosure (42.7%). The mothers also cited the time spent at the health facilities as a risk factor for non-adherence. Two thirds (67%) of the mothers felt they did not receive adequate consultation time. Table 5.3 summarises risk factors for non-adherence to Option B+.
Table 5.3 Univariate logistic regression of possible risk factors of Non-Adherence to Option B+ by mothers during the postnatal period

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Categories</th>
<th>Odds ratio</th>
<th>Standard error</th>
<th>P-value</th>
<th>CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>26-30</td>
<td>1.67</td>
<td>1.280</td>
<td>0.51</td>
<td>0.37 – 7.53</td>
</tr>
<tr>
<td></td>
<td>31-35</td>
<td>1.90</td>
<td>1.470</td>
<td>0.41</td>
<td>0.42 – 8.67</td>
</tr>
<tr>
<td></td>
<td>36+</td>
<td>1.00</td>
<td>0.880</td>
<td>1.00</td>
<td>0.18 – 5.56</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td>0.41</td>
<td>0.220</td>
<td>0.097</td>
<td>0.15 – 1.17</td>
</tr>
<tr>
<td>Monthly income</td>
<td>$50-100USI</td>
<td>1.26</td>
<td>0.903</td>
<td>0.75</td>
<td>0.31 - 5.14</td>
</tr>
<tr>
<td></td>
<td>&gt;$100+</td>
<td>1.23</td>
<td>0.982</td>
<td>0.79</td>
<td>0.26 – 5.88</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td>2.27</td>
<td>2.450</td>
<td>0.45</td>
<td>0.27 - 18.9</td>
</tr>
<tr>
<td>Transport availability</td>
<td></td>
<td>0.65</td>
<td>0.443</td>
<td>0.53</td>
<td>0.17 – 2.48</td>
</tr>
<tr>
<td>Waiting time</td>
<td></td>
<td>0.65</td>
<td>0.385</td>
<td>0.47</td>
<td>0.20 - 2.07</td>
</tr>
<tr>
<td>Disclosure</td>
<td></td>
<td>0.45</td>
<td>0.258</td>
<td>0.17</td>
<td>0.15 - 1.38</td>
</tr>
<tr>
<td>Distance to Health Facility</td>
<td></td>
<td>0.98</td>
<td>0.507</td>
<td>0.96</td>
<td>0.35 – 2.70</td>
</tr>
<tr>
<td>Ever lived with an HIV relative</td>
<td></td>
<td>0.29</td>
<td>0.159</td>
<td>0.023**</td>
<td>0.10- 0.85</td>
</tr>
<tr>
<td>Taking medication</td>
<td></td>
<td>0.50</td>
<td>0.400</td>
<td>0.39</td>
<td>0.10 – 2.39</td>
</tr>
<tr>
<td>Adequate consultation time</td>
<td></td>
<td>0.79</td>
<td>0.498</td>
<td>0.70</td>
<td>0.23-2.72</td>
</tr>
<tr>
<td>Time spent at health facility</td>
<td></td>
<td>4.01</td>
<td>4.285</td>
<td>0.19</td>
<td>0.50 - 32.52</td>
</tr>
</tbody>
</table>

** P value significant CI =95% confidence interval
Of the total 103 participants, 18 (17.5%) participants were not adhering to their medication as they reported to have missed pills in the month preceding the survey. The odds of becoming non-adherent to ART was 1.67 (95% CI 0.37 – 7.53) times more amongst those who were within the 26-30 age group, 1.90 (95% CI 0.42 – 8.67) times amongst those who were within 31-35 age group as compared to the 19-24 years age group. The age group of more than 36 years showed no effect, OR 1.00 (95% CI 0.18 – 5.56), on non-adherence to ART as compared to the 19 – 24 age group. The odds of non-adherence were protective by 0.59 (95% CI 0.15 – 1.17) for those who were married as compared to those who were not married. Those whose income was $50 - $100 had an OR 1.26 (0.31-5.14) times more and those earning more than $100 were 2.27 (95% CI 0.27-18.9) times more likely to be non-adherent to their medication as compared to those earning less than $50.

The odds of non-adherence to ART were 2.27 (95% CI 0.27-18.9) times more to those who had secondary school education as compared to those with the primary school education. Having transport was found to be a protective factor by 35% (95% CI 0.17-2.48) as compared to those who did not have. Those who got quick service had a protective effect to non-adherence of 0.35 (95% CI 0.2- 2.07) as compared to those who took long to receive their services at the health facility. Disclosure of HIV status was found to be protective by 0.55 (95% CI 0.15-1.38) to non-adherence compared to those who had not disclosed. Distance to the health facility was found to have no effect towards non-adherence while those with no fear of taking medication were protective by 50% (95% CI 0.1-2.39) as compared to those with the fear
of taking medication. All these possible risk factors were found to be insignificant at \( p = >0.05 \). Having lived with an HIV positive relative was found to be protective by 71\% (95\% CI 0.1-0.85) and was statistically significant (\( p = 0.023 \)).

A multivariate analysis of possible risk factors for Option B+ adherence by mothers during the postnatal period was done (refer to Table 5.4).

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Odds ratio</th>
<th>Standard error</th>
<th>P-value 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td>0.33</td>
<td>0.189</td>
<td>0.05 0.11 - 1.00</td>
</tr>
<tr>
<td>Disclosure</td>
<td>0.36</td>
<td>0.22</td>
<td>0.09 0.11 - 1.18</td>
</tr>
<tr>
<td>Ever lived with a HIV relative</td>
<td>0.27</td>
<td>0.150</td>
<td>0.019** 0.09 - 0.80</td>
</tr>
</tbody>
</table>

The odds of becoming non-adherent to medication was found to have a protective effective of 67\% (95\% CI 0.11- 1.00) towards married women as compared to unmarried women holding ever lived with an HIV positive relative and disclosure constant. The odds were insignificant ranging from 0.11 to 1.00. The odds of non-adherence to medication were found to have a protective effect of 64\% (0.11 – 1.18) towards disclosure to HV status as compared to those who had a fear to disclose their status holding marital status and ever lived with an HIV positive relative constant. Having lived with an HIV infected relative reduced the odds of non-adherence by 73\% (95\% CI
0.09-0.80) of non-adherence as compared to those who had never lived with an HIV positive person holding marital status and disclosure constant. This was found to be statistically significant (p =0.019).

5.3 Adherence to Recommended Infant Feeding Practices during PMTCT

From the 103 participants, it emerged that 96 (93.2%) were not exclusively breast feeding though 93% of the women understood what EBF is and 50% had received some guidelines towards infant breast feeding. The majority of women (93%) reported that they were not receiving counselling at the health facility each time they visited. More than two thirds of the mothers (67%) were of the opinion that EBF was a difficult way to feed a baby while 55% believed that breast milk was inadequate for the infant and thus felt a need to give the baby supplementary food before 6 months. Women reported that the babies were crying a lot and they interpreted this to mean that they were hungry. Most mothers (68%), indicated that they thought that their breast milk was not safe for the baby as they knew that the virus could be transmitted through breast milk. Some of the mothers (61%) indicated that they were not comfortable to give their babies traditional medicine, which they believed was not safe for the baby before the age of 6 months. Cooking oil was commonly mentioned as one of the supplementary infant feeds and the reasons for use of cooking oil were to relieve colic (20%), to aid gastro-intestinal movement (26%) and to ‘treat’ sunken fontanel (53%).
Mothers in law were reported to have had influenced more than a third of the women (37%) to introduce supplementary feeds before 6 months. Majority of the mothers received no psychological support (93%) from close family members to take care of the baby, 91% of them had no mentors to help them in exclusive breast-feeding and 86% were not receiving any infant feeding support from the surrounding community. Table 5.6 summarises the mothers’ responses.
Table 5.6 Distribution of Possible risk factors of non-adherence to EBF among women in the PMTCT programme

<table>
<thead>
<tr>
<th>Possible Risk factor</th>
<th>Categories</th>
<th>Frequency (%) n=103</th>
</tr>
</thead>
<tbody>
<tr>
<td>When did you give baby other foods?</td>
<td>Less than 6 months</td>
<td>96 (93.2)</td>
</tr>
<tr>
<td></td>
<td>More than 6 months</td>
<td>7 (6.8)</td>
</tr>
<tr>
<td>Were you counselled on infant feeding?</td>
<td>Yes</td>
<td>51 (49.5)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>52 (50.5)</td>
</tr>
<tr>
<td>Do you understanding exclusive breastfeeding?</td>
<td>Yes</td>
<td>95 (93.1)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>7 (6.9)</td>
</tr>
<tr>
<td>How frequent do you receive counselling at facility?</td>
<td>Every visit</td>
<td>7 (6.8)</td>
</tr>
<tr>
<td></td>
<td>Not at all</td>
<td>96 (93.2)</td>
</tr>
<tr>
<td>EBF difficulty way to feed infants</td>
<td>Yes</td>
<td>69 (67.0)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>20 (19.4)</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>14 (13.6)</td>
</tr>
<tr>
<td>Breast milk not enough for infants</td>
<td>Yes</td>
<td>56 (54.9)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>36 (35.3)</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>10 (9.8)</td>
</tr>
<tr>
<td>Is breast milk safe?</td>
<td>Yes</td>
<td>33 (32.0)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>70 (68.0)</td>
</tr>
<tr>
<td>Is traditional medicine required by 0-6 months infants?</td>
<td>Yes</td>
<td>6 (5.9)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>63 (61.4)</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>32 (31.7)</td>
</tr>
<tr>
<td>Why do you give cooking oil?</td>
<td>Treat fontanel</td>
<td>55 (53.4)</td>
</tr>
<tr>
<td></td>
<td>Aid gastro-intestinal movement</td>
<td>27 (26.2)</td>
</tr>
<tr>
<td></td>
<td>Relieve colic</td>
<td>21 (20.1)</td>
</tr>
<tr>
<td>Why did you introduce other foods to baby before 6 months?</td>
<td>Mother-in law influ</td>
<td>34 (37.0)</td>
</tr>
<tr>
<td></td>
<td>Not trusting breast-r</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baby cries/breast-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>enough</td>
<td>22 (23.9)</td>
</tr>
<tr>
<td>Are you receiving any psychological support?</td>
<td>Yes</td>
<td>36 (39.1)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>6 (6.8)</td>
</tr>
<tr>
<td></td>
<td>96 (93.2)</td>
<td></td>
</tr>
<tr>
<td>Do you have any mentors?</td>
<td>No</td>
<td>94 (91.3)</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>9 (8.7)</td>
</tr>
<tr>
<td>Any breast feeding support received?</td>
<td>Yes</td>
<td>14 (13.6)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>89 (86.4)</td>
</tr>
</tbody>
</table>
Having considered the risk factors associated with non-exclusive breastfeeding, the study went on to do the regression analysis for factors associated with non-adherence to exclusive breastfeeding as shown in Table 5.7.

Table 5.7  Univariate logistic regression of possible risk factors of non-adherence to (EBF)

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Categories</th>
<th>Odds ratio</th>
<th>Standard error</th>
<th>P-value</th>
<th>95% Confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
<td></td>
<td>1.25</td>
<td>1.080</td>
<td>0.80</td>
<td>0.23 - 6.80</td>
</tr>
<tr>
<td>Monthly income</td>
<td>$50-100USI</td>
<td>1.90</td>
<td>2.143</td>
<td>0.57</td>
<td>0.21 – 17.34</td>
</tr>
<tr>
<td></td>
<td>&gt;$100+</td>
<td>0.70</td>
<td>1.017</td>
<td>0.81</td>
<td>0.04 – 11.96</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td>0.70</td>
<td>0.789</td>
<td>0.75</td>
<td>0.08 - 6.40</td>
</tr>
<tr>
<td>Ever-lived with an HIV relative</td>
<td></td>
<td>0.41</td>
<td>0.326</td>
<td>0.26</td>
<td>0.09 – 1.95</td>
</tr>
<tr>
<td>Given guidelines on EBF</td>
<td></td>
<td>1.39</td>
<td>1.099</td>
<td>0.677</td>
<td>0.30 – 6.55</td>
</tr>
<tr>
<td>Breast milk not enough</td>
<td>Agree</td>
<td>0.41</td>
<td>0.382</td>
<td>0.34</td>
<td>0.65 – 2.57</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>2.75</td>
<td>2.734</td>
<td>0.31</td>
<td>0.39 – 19.31</td>
</tr>
<tr>
<td>EBF difficult</td>
<td>Agree</td>
<td>0.13</td>
<td>0.166</td>
<td>0.11</td>
<td>0.01 - 1.54</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>3.60</td>
<td>3.423</td>
<td>0.18</td>
<td>0.56 – 23.24</td>
</tr>
<tr>
<td>Traditional medicine post</td>
<td>Agree</td>
<td>6.10</td>
<td>7.991</td>
<td>0.17</td>
<td>0.35 – 2.70</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>4.36</td>
<td>3.90</td>
<td>0.10</td>
<td>0.75 – 25.21</td>
</tr>
<tr>
<td>Psychological support</td>
<td></td>
<td>2.50</td>
<td>2.900</td>
<td>0.43</td>
<td>0.26 – 24.26</td>
</tr>
<tr>
<td>Infant feeding support</td>
<td></td>
<td>1.06</td>
<td>1.192</td>
<td>0.96</td>
<td>0.12 – 9.57</td>
</tr>
</tbody>
</table>

** Significant variables, P-value < 0.05

The odds of not practising exclusive breastfeeding were 1.25 (0.23–6.80) times more for those mothers who were married as compared to those who
were unmarried. Those who earned less than $100 were 1.90 (0.21–17.34) times more likely not to practise EBF while those earning more than $100 had a protective effective towards practising EBF of 30% as compared to those who earned less than $50.

Having acquired a secondary level of education was found to have a protective effect of 30% (0.08–6.40) toward practising EBF as compared to those who had primary school education. Having lived with an HIV positive relative was also protective towards EBF by 59% (0.09–1.95). The odds of not practising EBF were 1.39 (0.30–6.55) times more amongst those who were given EBF guidelines during their visits to the health facility as compared to those who were not given guidelines.

Those who thought breast milk was not enough for infant feeding had a protective effect of 59% (0.65–2.57) towards non-EBF practise while those with a neutral thought were 2.75 (0.39–19.31) times likely not to exclusively breastfeed as compared to those who disagreed. Those who agreed that EBF is difficult had a protective odds of 87% (0.01–1.54) while those who had a neutral thought had an odds of 3.6 (0.56–23.24) times not to EBF as compared to those who disagreed. Those who agreed that traditional medicines are proper for the infants in early stages of life were 6.10 (0.35–2.70) times while those with a neutral thought were 4.36 (0.75–25.21) times not to practise EBF as compared to those who disagreed.
The odds of non-EBF was found to be 2.5 (0.26–24.26) times more amongst those who were not receiving psychological support as compared to those who received the support. Receiving infant feeding support or not was found not to have any effect toward EBF practises. Not all these variables were statistically significant.

Multivariate analysis was done using the multiple regression model in order to determine independent risk factors for non-adherence to exclusive breastfeeding. Table 5.8 summarises the possible risk factors.

**Table 5.8: Multivariate analysis of possible risk factors for non-exclusive Breast-feeding**

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Categories</th>
<th>Odds ratio</th>
<th>Standard error</th>
<th>P-value</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBF difficult</td>
<td>Agree</td>
<td>0.08</td>
<td>0.113</td>
<td>0.07</td>
<td>0.01 - 1.20</td>
</tr>
<tr>
<td></td>
<td>Unsure</td>
<td>3.27</td>
<td>3.553</td>
<td>0.27</td>
<td>0.39 – 27.47</td>
</tr>
<tr>
<td>Traditional medicine</td>
<td></td>
<td>3.60</td>
<td>5.558</td>
<td>0.41</td>
<td>0.17 – 74.19</td>
</tr>
<tr>
<td>Ever lived with relative relative</td>
<td></td>
<td>0.20</td>
<td>0.209</td>
<td>0.122</td>
<td>0.03 - 1.53</td>
</tr>
</tbody>
</table>

** Significant variables, P-value < 0.05

The odds of non- EBF practise was found to have a protective effect of 99.2% (0.01 – 1.20) for those who agreed that EBF was difficult while those who had a neutral thought had a log odds of 3.27 (0.39–27.47) times as compared to those who did not agree holding other variables constant. Those who believed that traditional medicine was good for infants in early life had a log odds of 3.60 (0.17–74.19) times of non-EBF practising as compared to those who disagreed holding other variables constant. The log odds of non-EBF
practising were found to be protective by 80% (0.03–1.53) time amongst those who had once lived with an HIV positive relative as compared to those who had not lived with an HIV positive relative holding traditional medicine and difficult to EBF constant.

5.9 Health Service Related Factors influencing Adherence to PMTCT during the Postnatal Period in Chiota

Table 5.9 Possible Risk Factors of PMTCT Adherence and Quality Of Health Care

<table>
<thead>
<tr>
<th>Possible Risk factor</th>
<th>Categories</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of review visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Once a week</td>
<td>1 (1.0)</td>
<td></td>
</tr>
<tr>
<td>Once a month</td>
<td>11 (11.2)</td>
<td></td>
</tr>
<tr>
<td>Twice in month</td>
<td>85 (86.7)</td>
<td></td>
</tr>
<tr>
<td>Once in three months</td>
<td>1 (1.0)</td>
<td></td>
</tr>
<tr>
<td>Received PMTCT counselling</td>
<td>Yes</td>
<td>93 (90.3)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>10 (9.7)</td>
</tr>
<tr>
<td>Ever missed a review appointment</td>
<td>Yes</td>
<td>23 (23.3)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>80 (77.7)</td>
</tr>
<tr>
<td>Drug stock outs</td>
<td>Yes</td>
<td>21 (20.4)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>82 (79.6)</td>
</tr>
<tr>
<td>Adequate consultation time</td>
<td>Yes</td>
<td>34 (33.0)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>69 (67.0)</td>
</tr>
<tr>
<td>Privacy at Health Facility</td>
<td>Yes</td>
<td>32 (31.1)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>71 (68.9)</td>
</tr>
<tr>
<td>Treated with respect</td>
<td>Yes</td>
<td>50 (48.5)</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>53 (51.5)</td>
</tr>
<tr>
<td>Time spent at a health facility</td>
<td>Less than 3 hours</td>
<td>22 (21.4)</td>
</tr>
<tr>
<td></td>
<td>More than 3 hours</td>
<td>81 (78.6)</td>
</tr>
</tbody>
</table>

Of the 103 Participants interviewed, about 87% of the mothers on PMTCT came for review visits once in two months and 93% were receiving
counselling on advantages of PMTCT, which were protecting the baby and prolonging the life of a mother. Few participants, 23.3%, had missed an appointment for ART medication review. The reasons stated for missing the appointment were work-related, forgetfulness, stress and long distance to clinic. Twenty-one women (20.4%) reported to have faced a challenge of drug unavailability. About 33.3% of these who failed to get medication on their review date never did anything to get medication while the remaining group went to a pharmacy to buy or were given a 3-day supply of drugs. In terms of time availability to express one-self to a health worker, 67% felt they were not given adequate time while 68.9% reported lack of privacy at the health facility during consultation. Fifty-three women (51.5%) felt that the health staff were disrespectful to them as they constantly reminded them of their HIV status. Time spent at the health facility was reported to be more than 3 hours by 78.6% of the participants. On sharing their opinion on the care given by the health facility, 54.37% were not satisfied by the care received with most mentioning lack of privacy which was further compounded by the health care infrastructure which did not have enough rooms to offer the privacy the women needed. Table 5.10 shows the univariate regression analysis of possible risk factors for non-adherence and quality of health services.
Table 5.10  Univariate Logistic regression analysis of possible risk factors of Non-adherence and quality of health care services

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Categories</th>
<th>Odds ratio</th>
<th>Standard error</th>
<th>P-value</th>
<th>95% Confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>26-30</td>
<td>1.33</td>
<td>1.053</td>
<td>0.72*</td>
<td>0.28 - 6.27</td>
</tr>
<tr>
<td></td>
<td>31-35</td>
<td>1.16</td>
<td>0.954</td>
<td>0.86*</td>
<td>0.23 - 5.81</td>
</tr>
<tr>
<td></td>
<td>36+</td>
<td>0.63</td>
<td>0.613</td>
<td>0.64*</td>
<td>0.10 - 4.21</td>
</tr>
<tr>
<td>Monthly income</td>
<td>$50-100USI</td>
<td>0.69</td>
<td>0.528</td>
<td>0.63*</td>
<td>0.16 - 3.08</td>
</tr>
<tr>
<td></td>
<td>&gt;$100+</td>
<td>1.23</td>
<td>0.982</td>
<td>0.79*</td>
<td>0.26 - 5.88</td>
</tr>
<tr>
<td>Missed appointment</td>
<td></td>
<td>14.62</td>
<td>9.696</td>
<td>0.00</td>
<td>3.98 - 53.64</td>
</tr>
<tr>
<td>Adequate time</td>
<td></td>
<td>0.79</td>
<td>0.498</td>
<td>0.70*</td>
<td>0.23 - 2.72</td>
</tr>
<tr>
<td>Opinion on Health facility care</td>
<td></td>
<td>0.88</td>
<td>0.510</td>
<td>0.82*</td>
<td>0.28 - 2.74</td>
</tr>
<tr>
<td>Treated with respect</td>
<td></td>
<td>1.02</td>
<td>0.588</td>
<td>0.97*</td>
<td>0.33 - 3.16</td>
</tr>
<tr>
<td>Effect of health treatment</td>
<td></td>
<td>1.50</td>
<td>0.913</td>
<td>0.50*</td>
<td>0.46 - 4.94</td>
</tr>
<tr>
<td>Time spent at a Health facilit</td>
<td></td>
<td>4.01</td>
<td>4.285</td>
<td>0.19*</td>
<td>0.50 - 32.52</td>
</tr>
<tr>
<td>Incur extra expenses for PMTCT</td>
<td></td>
<td>2.96</td>
<td>1.778</td>
<td>0.07*</td>
<td>0.91 - 9.61</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td>0.44</td>
<td>0.253</td>
<td>0.15*</td>
<td>0.14 - 1.36</td>
</tr>
</tbody>
</table>

*Insignificant variables at p-value=0.05

The univariate analysis of mothers on PMTCT programmes for non-adherence (missed a pill and introducing other foods to the baby before six months) was done. Of the total 103 participants, 89 (86.4%) participants were not adhering to the PMTCT programmes, that is, these mothers either had missed a pill
before or had introduced other foods other than the breast-milk to the baby before 6 months.

The odds of becoming non-adherent to PMTCT protocol was 1.33 (95% CI 0.28 – 6.27) times more amongst those who were within the 26-30 age group and 1.16 (95% CI 0.23 – 5.81) times amongst those who were within 31-35 age group as compared to the 19-24 years age group. The odds of becoming non-adherent to PMTCT programme was protective by 37% (95% CI 0.10 – 4.21) amongst those who were more than 36 years as compared to those aged 19-24 years. The odds of non-adhering to PMTCT were 1.23 (95% CI 0.26 - 5.88) times more for those who earned more than $100 USD and protective by 31 % (95% CI 0.16 - 3.08) for those earning more than $100 USD as compared to those earning less than $50 USD. This was statistically insignificant.

The odds of non-adherence to PMTCT were 14.62 (95% CI 3.98 - 53.64) times more to those who had missed a review appointment for their medication as compared to those who had not missed any review appointment. This was statistically significant (p=0.00). Having received adequate time to express oneself by the health worker had a protective effect of 21% (95% CI 0.23 - 2.72) as compared to those who did not get enough time but this was statistically insignificant. Being satisfied by health care received from the heath facility was found to be protective to PMTCT adherence by 12% (95% CI 0.28 - 2.74). The respect shown by the health staff was found to have no
effect to non-adherence to PMTCT with an odds ratio of 1.00 (95% CI 0.33 - 3.16) and it was statistically insignificant.

The odds of becoming non-adhere to PMTCT were 1.50 (95% CI 0.46 - 4.94) times amongst those whose health seeking behaviour at the health facility was affected by the health staff treatment as compared to those who were not affected. This was not significant statistically. The odds of non-adherence to PMTCT were 4.01 (0.50 - 32.52) times more amongst those who spent more than 3 hours to get service at a health facility as compared to those who spent less than 3 hours. The odds of non-adherence to PMTCT were 2.96 (0.91 - 9.61) times amongst those who incurred extra expenses as a result of following through with PMTCT as compared to those who were not incurring any expenses. This was also statistically insignificant. Being a married women was found to have a protective effect towards non-adherence to PMTCT by 56% (0.14 - 1.36) as compared to those women who were unmarried. This was statistically insignificant.

Table 5.9.3 Multivariate analysis of possible risk factors for Non-adherence to PMTCT programme

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Odds ratio</th>
<th>Standard error</th>
<th>P-value</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missed appointment</td>
<td>14.62</td>
<td>9.696</td>
<td>0.000</td>
<td>3.98 - 53.64</td>
</tr>
<tr>
<td>Marital status</td>
<td>0.15</td>
<td>0.126</td>
<td>0.025</td>
<td>0.03 - 0.78</td>
</tr>
</tbody>
</table>

The odds of becoming non-adherent to PMTCT was found to have a protective effective of 85% (0.03- 0.78) towards married women as compared
to unmarried women holding ever missed a review appointment at a health facility covariate constant. The odds were ranging from 0.03 to 0.78 at a 95% confidence interval. This was statistically significant. The odds of becoming non-adherent to PMTCT protocol was 14.62 times more amongst those who had ever missed a review appointment of medication at a health facility as compared to those who had not missed an appointment of medication holding the marital status covariate constant. The odds were found to be significant at 95% confidence interval ranging from 3.98 to 53.64. The non-adherence to PMTCT variable could be explained by marital status and missing an appointment for medication.

Despite being a quantitative study, mothers were asked if there was any information that they wanted to share with me. This was an open-ended question, which solicited qualitative data. The majority of mothers (79.4%) complained about the waiting period at the health facility and their treatment as HIV positive mothers. The following were some common sentiments from some of the mothers;

‘The health facility opens as late as 10 am and the staff start serving us at 11 am and they take their time in doing so. They take long lunch breaks and come back towards knocking off time and everybody is hurried to ensure that they do not delay their closing time’ (31 year old mother, married)

‘Collection of our tablets has set dates and the people queuing for their ARVs can be easily identified by others coming to the health facility. There is no
confidentiality as people always want to know what we are queuing for?’ (36-year-old mother, married)

‘When it is time to give us our medication, the nurses shout ‘vechirongwa
huyayi’ those on the ART programme come now’ (22 year old mother, single)

A distraught mother also narrated how she had been threatened with being
fined a goat if she did not go to get tested when she fell pregnant.

‘I already knew my status and I was avoiding at all costs to go for antenatal
care but I was told that I was going to be fined a goat if I did not comply’.

Conclusion

This chapter summarises the findings from the quantitative survey which
interviewed mothers on the PMTCT programme. The chapter examined the
adherence of mothers to exclusive breastfeeding, to Option B+ regimen and
the health service factors that influenced following through with PMTCT
during the breastfeeding period. The findings suggest that only three percent
of the mothers were exclusively breastfeeding. Adherence to recommended
infant feeding practices was faced with challenges in a culture where exclusive
breastfeeding is not the norm. Infant feeding practices were influenced by the
significant others who included the mothers in law, the grandparents and the
spouses. The self-reported non-adherence to Option B+ regimen by the
mothers was considerably high with a fifth of mothers not adhering to their
ART medication. The risk factors for non-adherence included the long waiting
time at the health facility, fear of disclosure of HIV status and the inadequacy
of consultation time at the health facilities. To further compound the
challenges in adhering to PMTCT were coerced testing of all breastfeeding mothers, compulsory initiation on lifelong treatment and the health system structural problems. Mothers’ were affected by the long waiting time which was due to staff shortages and the lack of confidentiality at the health facilities which was due to the infrastructural development which had not been upgraded to cater for the new programmes like PMTCT. There is therefore a critical need to optimize provider–patient communication and creation of a supportive environment surrounding following through with PMTCT if we are to eliminate pediatric HIV infection.
CHAPTER SIX
DISCUSSION OF STUDY RESULTS

6.1 Introduction

The aim of this study was to explore socio-cultural factors that influence following-through with PMTCT during the postnatal and breastfeeding period in a rural setting in Zimbabwe. The study looked at the implications of elimination of paediatric infection. This study used a mixed method approach to explore the complex issues related to adherence to the PMTCT programme by mothers during the postnatal and breastfeeding period. In this chapter, I make a synthesis of an integrated interpretation of both qualitative and quantitative findings. Central to this argument is that adherence to PMTCT cannot be medicalised as there are many social, economic, political, environmental and cultural factors that can influence it. External stimuli influence mothers to follow through with PMTCT. There are also issues which were conceptualised as individual, community, institutional and baby related that can hinder or facilitate following through with PMTCT by the mothers. There are inter-linkages between the biomedical, behavioural, social and cultural factors in PMTCT adherence.

The WHO standard PMTCT guidelines for resource poor countries stipulate that HIV positive mothers on ART are to exclusively breastfeed for the first six months. Exclusive breastfeeding in this case entails not providing the baby anything other than the mother’s milk. The mother is also supposed to have protected/condomised sex during the breastfeeding period and should be on Option B+ which is a lifelong antiretroviral regimen which necessitates
adherence. Adherence to the PMTCT programme can only be achievable through ongoing counselling to support retention and to minimise loss to follow up. I start by discussing HIV, which is still shrouded in stigma in most communities in Zimbabwe.

6.1 Perception of living with HIV in the community

Stigma has been identified as the number one enemy in HIV prevention and management in most countries including Zimbabwe (Pelzer, 2007; Bwirire, 2008; Thorsen, 2008 and Murray, 2009). HIV&AIDS-related stigma is derived from shame, which is linked to its transmission, which is still surrounded by taboo, moral judgment and fear. HIV is associated with deviant behaviour and the disease is viewed as self-inflicted. HIV positive males are often viewed as having had sex with prostitutes while women are associated with promiscuity. This study found that there is still stigma surrounding HIV in the community and this is affecting adherence to PMTCT a finding also confirmed by Shroufi and colleagues (Shroufi et al., 2013) as well as by Turan and Nyblade (2013).

Discussions with the community and narratives from the mothers on the PMTCT programme confirmed that self-stigma was rife. Self-stigma is defined as a social process or related personal experience characterised by exclusion, rejection, blame or devaluation that results from experience or reasonable anticipation of an adverse social judgment about a person identified with a particular health problem (Turan and Nyblade, 2013). Stigma negatively impacted PMTCT follow through. Compounding this problem is
the fact that the woman is usually the first family member to be tested for HIV due to her contact with the clinic which makes her a scapegoat for bringing the virus into the family. Additionally, HIV related stigma was found to be one of the major reasons for low male participation in PMTCT. This is a similar finding to a study by Auvinen et al., (2014) who found that men feared for their reputation and felt guilty about HIV infection in the family.

Disclosure of one’s HIV status can facilitate adherence to the PMTCT programme as it avails people who are able to give support to the mother. This study found that people were still remaining in their closets concerning living with HIV due to stigma. This finding is in line with the findings by Skovdal et al., (2011) who postulate that most people feel stigmatised and they fear being known that they are HIV positive. There is no conclusive relationship between increased access to HIV treatment and stigma reduction as evidenced by different studies (Makoae et al., 2009; Castro and Farmer 2005; Weiser et al., 2003).

6.2 Influence of Significant Others

This study found that mothers were not following through with the PMTCT recommendations of exclusive breastfeeding for the first six months. The majority of women introduced mixed feeding during the first month of the baby’s life. In the majority of these cases, families were reported to have had pressurised the women to do so especially mothers, mothers-in-law or grandmothers. Similar findings were reported in South Africa (Madiba and Letsoalo, 2013). Despite the mothers’ knowledge of the disadvantages of
mixed feeding before 6 months, they felt helpless in the face of relentless pressure from family members. This finding is also confirmed by a study conducted in Southern Ghana (Laar and Govender, 2011) which also reported the mothers’ fear of disclosure of their HIV status. The women also did not want to be seen to be insubordinate to their husbands and mothers-in-law. This study also confirmed the unwillingness of HIV positive mothers to be part of support groups implying peer and family influences as suggested by Shroufi et al., (2013). The problem here was that the research participants’ knowledge was being challenged by foreign knowledge. They therefore did not want to be moved from “knowledge stability” to “knowledge instability” or from “light” to “darkness”.

6.3 Male Involvement in PMTCT

This study found that there was low male involvement as most men referred to PMTCT as ‘chirongwa chemadzimai’ (women’s programme). This line of thinking has implications on how men participate in PMTCT programmes. The term ascribed by men to the programme implies that the programme is for women hence their low involvement. Male involvement in PMTCT is important in cultural settings where men are decision makers, play a role in women’s risk of acquiring HIV and uptake of HIV programmes. Despite these significant roles, male involvement in PMTCT is very low in Africa (Nyondo, Chimwaza and Muula, 2014). These authors argue that the traditional mode of thinking inhibits male participation by defining a real man as one who needs many women and makes family decisions. A weak man is seen as one who listens to his wife whilst mothering is defined as women’s job. Gendered roles
affected male participation in PMTCT. Sandelowski (2009) argues that issues of gender are rarely discussed which is an oversight in PMTCT interventions.

Low male involvement in this study was also confirmed by the low participation of men in the FGDs as it was very difficult to mobilise them for the study. The majority of men were actually found at business centres or at the gardens where they were eking out a living. Auvinen and colleagues argue that men do not have time to be part of the PMTCT programme as their jobs keep them occupied during the day (Auvinen et al., 2014).

Men as partners of the women have a role to play in the prevention of mother-to-child transmission of HIV. They are supposed to use condoms to avoid re-inflecting the breastfeeding mothers. Male involvement can encourage safer sex practices that can ensure reduction of exposure of infants to HIV during the breastfeeding period (Kalembo, Zgambo, Mulaga, Yukai, and Ahmed, 2013). The ideologies of masculinity embedded in the Chiota community led men to counter sexual sanctions from their wives who refused sex without condoms through engaging in extramarital sex. This was further exposing the babies to HIV during the breastfeeding period.

A study by Duffy (2005) among the Ndau women in Chipinge, Zimbabwe revealed that men determined the use of condoms. Results from this study indicated that men who were on ART were not willing to use condoms due to the desire to procreate. The intention by men to have babies is in line with beliefs in most parts of sub-Saharan Africa, social and cultural contexts which
put pressure on couples to produce children, a demand that married couples have to fulfil as being HIV positive and childless causes double stigma (Musinguzi et al., 2014). The authors further underscore that when people living with HIV are living quality lives, they fulfil the societal demands to produce children which means practising unprotected sex, a reported finding in this study.

Condom use in marriages was found to be a great challenge. This was shown by the numbers of HIV positive women who had unintended pregnancies. Of the 103 women, 63.8% stated that they had unintentionally conceived after knowing their HIV status. A study by Reynolds and others found that unintended pregnancies accounted for 14-58% in countries where HIV was a burden (Reynolds et al., 2008). Similarly, a study in South Africa reported 84% of unintended pregnancies (Rochat et al., 2006), in Uganda, over 90% of pregnancies among women on ART were unplanned (Desgrees-du-Lou et al., 2002) whilst Cote d’Ivoire reported 51% (Homsy et al., 2009). In Uganda, a cross-sectional study of 1092 HIV infected men and women reported that 33% were not using condoms and 73% of these were not intending to have children (Nakayiwa et al., 2006).

Zimbabwe has been lauded as the best consumer of condoms internationally (MOHCC, 2014). In 2013 the Zimbabwe SADC Update report recorded a distribution of 100 million male condoms and 5.2 million female condoms (MOHCC, 2014). The report however notes that despite the large scale of distribution, there is no evidence of consistent use particularly with concurrent
sexual relationships. The Zimbabwe Country report, (2014) also reported the low levels of condom use among people living with HIV.

The first aspect of practising safe sex is knowing the right way of using a condom (Auvinen et al., 2014). In this study some men did not have the technical know-how of using condoms as confirmed by one man who shared his experience of having a condom slip during the sexual encounter. A study recently conducted in Uganda by Musinguzi and colleagues, reported that the inconsistent condom use is attributable to the beliefs that condoms were unnecessary in HIV positive sero-concordant couples (Musinguzi et al., 2014). The condom was said to bring artificialness in a natural act. Similarly women on the PMTCT programme in Chiota stated that their husbands insisted on non-use of condoms as they believed that the couple was already infected and on ART. In Cote d’Ivoire, Diabate, Alary and Koffi, (2007) noticed a short-term increase in unsafe sexual behaviours after ART initiation. Musinguzi et al., (2014) found that there was a higher likelihood of using condoms when the male partner was involved in PMTCT activities.

There is a general belief that men in Zimbabwe are condom averse (UNDP, 2008). Discussions with people living with HIV both male and female in this study revealed that there was a more serious problem linked to non-condom use. This study found that men on ART had a problem, which they were not comfortable to discuss. Men in this study kept referring to the problem of ‘musana’ (backache), a common idiom of distress for sexual dysfunction. Further discussions revealed that the majority of men on ART were
experiencing sexual disorders, which made it impossible for them to use condoms. A condom can only be used when the male organ is erect and failure to have an erection makes condom use impossible.

This study found that HIV positive men associated erectile disorder with the ARVs they were taking. The men further explained that erectile disorders made it impossible for them to use condoms. This findings is similar to findings by Cove and Petrak (2004) who found erectile disorders to be associated with non-condom use by men living with HIV. This study also found that erectile disorders that were experienced by HIV positive men compromised adherence to safe sexual practices. This is further corroborated by previous studies (Rosser, Gobby, and Carr, 1999). ART and erectile disorders have also been confirmed by studies which found that use of medications such as ketoconazole, fluconazole, ganciclovir can reduce testosterone levels in men resulting in sexual dysfunction (Wagner, Rabkin, and Rabkin, 1995). Some men in this study stated that they were also taking hypertension medication while some were on diabetic medication which is associated with erectile disorders (Asboe et al., 2007).

In African culture, men put value in their ability to perform the sexual act. Failure to perform the sexual act conflicts with the masculinity role that the communities have of men and negatively affect the men’s self-image as postulated by Fitzpatrick, Frost, and Ikkos, (1986) and Hijazi, Nandwani, and Kell, (2002). The association of ART with sexual disorders can lead to poor
adherence to ART and non-use of condoms by men as was found by Trotta, Ammassari, Murri, Monforte, and Antinori, (2007).

The low risk perception of HIV re-infection by HIV positive men was common. This study found that HIV positive men were in denial about the dangers of further re-infecting an HIV positive partner. This contention was also confirmed by Musinguzi et al., (2014) who argued that denial of HIV and indifference towards HIV are aspects demonstrating lack of motivation to use condoms among men. The authors’ further state that lack of knowledge, low level of formal education, lack of motivation about HIV&AIDS can cause men to think it is enough if the wife is taught about PMTCT. The non-adherence to ART and the non-use of condoms by the partners of women who are on PMTCT exposes babies to HIV transmission during the breastfeeding period.

### 6.4 Cultural Practices and PMTCT Adherence

The differences that are between the epidemiology of HIV&AIDS in the African and those in the Western societies prompts speculation regarding risk factors that can be exceptional in Africa. Much emphasis has been placed on the sexual transmission of HIV yet there are other non-sexual cultural practices that can expose babies to HIV infection during PMTCT. These can include practices that result in exposure to blood, use of shared instruments, ritual and medicinal enemas and cultural ways of treatment of certain conditions. Harmful cultural beliefs and practices have a bearing on the success of the elimination of paediatric infection.
Mothers on the PMTCT programme as members of the Chiota community subscribed to certain cultural beliefs, which were contrary to the PMTCT programmatic dictates. This is also an observation by Shroufi et al., (2013). Custom defines what behaviour is to be expected of men and women as found in Zambia (Auvinen et al., 2014), where women are not expected to initiate sex talk and men are not heavily involved in childcare. The use of traditional medicines for childcare was common in Chiota with certain HIV risk practices being reported. The single method that is known to completely exclude the risk of breastfeeding-associated transmission is not to breastfeed. Mothers on the PMTCT programme were well aware that breast milk poses risk to HIV infection as it carries a certain amount of virus. The community in Chiota, on the other hand, had a strong belief in the healing properties of breast milk. Women, as part of the community, to avoid being labelled deviant had to follow the cultural dictates, for example the use of their infected breast milk to treat the eyes, ears and tone down the sexual libido of their babies. Breastmilk has been proven to have immunological properties (Jackson and Nazar, 2006; Labbok et al., 2004). There is a possibility that the culturally perceived benefits of the use of the mother’s milk in Chiota was informed by this proven fact and the known antibodies that are in breast milk.

The administration of traditional remedies/medicines may not cause any clinical problems per se but could be dangerous as they may interfere with appropriate health seeking behaviour and could impede compliance with the exclusive breastfeeding that is recommended by the World Health
Organisation (Varga and Veale, 1997; Mabina et al., 1997; and Bland et al., 2004). Sibeko et al., (2005) and Banda et al., (2007) in Zambia found that use of traditional therapies by mothers during the postnatal and breastfeeding period was not easily shared with obstetric care providers due to the belief that they thought this would not be acceptable. This was also a finding of this study where the health care providers who resided in the community confirmed that cultural practices were performed on most of the infants. The most commonly reported practise being ‘kukwesha nhova’ - ‘treatment’ of the fontanelle. During the ‘treatment’ of fontanelle, babies’ upper palates are scratched using coarse salt and lesions are created in the process. The presence of lesions in the child’s mouth makes it easier for the penetration of the virus from the mother’s milk especially when the mother has breast problems like mastitis.

There is a possibility that population movements have introduced some practices into Chiota which were not previously found. One such practice is ‘kutara’ where a child is made to suck the father’s sexual organ for treatment of fontanelle and paternity testing. Peltzer et al., (2009) showed that traditional medicine played a significant role in pregnancy, postnatal care and infant care. Shroufi et al., (2013) advocate for broader interventions to transform the harmful gender norms, attitudes and behaviours inherent in communities that increase vulnerability to HIV and serve as obstacles to the success of the PMTCT programme.
Another reported traditional practise in Chiota was baby stomach cleansing. Stomach cleansing using local herbs to induce diarrhoea could be a risky practice because the level of toxicity of the herbs is not ascertained. Although the virus has not been found in stool, a possible relation between HIV transmission and this practice cannot be easily ascertained as confirmed by Piot et al., (1984) in Zaire.

A study by Abrahams et al. (2002) on indigenous healing practices and self-medication among pregnant women in Cape Town, established that most of the Xhosa women follow indigenous health practices for prevention of witchcraft, childhood illnesses and for treatment of symptoms they perceive cannot be treated by the biomedical services. The use of herbs to protect children from evil has been documented, (Varga and Veale, 1997; Henda and Peltzer, 2005; Van der Kooi and Theobald, 2006). Bulterys et al. (2002) reiterated the important role that can be played by traditional birth attendants in counselling women and their partners on ways of reducing mother-to-child transmission of HIV during the postpartum period. However Berg (2003) argues that due to lack of skills and resources, traditional attendants are not able to carry out HIV&AIDS prevention and treatment services. Peltzer et al., (2009) found that the majority of postnatal clients were not forthcoming with information regarding their history of traditional medicine use to the obstetric care providers due to fear that this would negatively affect the care they received from the health care providers. The study revealed that mothers sought alternative post-partum care for advice on the health of the mother and baby, breastfeeding and medicines for ingestion among others. This evidence
shows the importance of the consideration of culture and tradition when implementing HIV prevention programmes like the PMTCT.

6.5 Exclusive Breastfeeding by mothers on the PMTCT programme.

The WHO (2010) infant guidelines for HIV exposed infants stipulates that exclusive breastfeeding (EBF) during the first six months is the most suitable option for mothers on ART. EBF is also an important component of child survival and prevention of mother-to-child transmission of HIV. EBF though better than other forms of infant feeding and associated with improved child survival was uncommon and rare in Chiota. This finding has been reported in most African cultures where mixed feeding is the norm and water is given within 48 hours of baby’s life (Coovadia et al., 2007; Kafulafula, Hutchinson, Gennaro, Guttmacher, and Kumitawa, 2013; Ijumba et al., 2012). Similarly, Laar and Govender (2011) state that it is difficult to adhere to EBF as it is an alien concept in Africa where traditionally babies are fed on fluids and other types of food to give relief to the mother after labour which is believed to be exhaustive. The authors further give an example of a practice in Ghana where water is customarily given to infants shortly after birth under the belief that after the birthing process, the infant would be exhausted and thirsty. Providing water in Ghana is regarded as a cultural gesture to welcome the baby into the world.

The women in Chiota believed that breast milk alone was inadequate to satisfy a baby. Some of the mothers reported that they were unable to produce
enough milk to sustain the baby. The lack of confidence in the mother’s milk was also a common response as most mothers thought they were exposing their babies to the virus. It is known that HIV infection compromises the mothers’ health. It was however clear that the PMTCT message was not cognisant of the mothers’ compromised health as they were considered physically fit. Maman et al., (2012) also confirmed that the most common barriers to adhering to EBF were women’s poor physical health, problems with milk supply, child refusal, and fear of transmitting HIV through breastfeeding. The authors further argue that weaning a child in accordance with the PMTCT guidelines was challenging as cost of food and formula was a barrier in addition to the stigma associated with early weaning.

Discussions with the community in Chiota found that mixed feeding was the norm. Promoting exclusive breast feeding in settings where mixed feeding is the norm proved difficult. Common barriers to EBF included financial constraints, breast health problems, misinformation about HIV transmission, local norms and prior feeding experiences, a similar finding to Maman et al., (2012). Exclusive breastfeeding in Chiota was also associated with being HIV positive. The choice of an infant feeding option can be the basis of discrimination as most societies claim not breastfeeding denotes a woman is HIV positive (Brusamento et al., 2012). Women may fear that following an infant feeding mode that is not the cultural norm or standard will lead to disclosure of their HIV status and trigger stigma and discrimination (Turan and Nyblade, 2013).
The findings of this study show that exclusive breastfeeding is not prioritised in this study setting yet EBF is a prerequisite for adherence to PMTCT. The various methods that are used to measure adherence were also challenging. It was not possible to do direct observation during the postnatal period as the mother was at home. Besides being costly, observation could erode a person’s privacy and could be difficult for a prolonged programme. Self-reported method was the most feasible method in this study but could be biased due to the social desirability effect. This finding is consistent with Hegazi et al., (2010) observation that, information on adherence to HIV programmes remains limited and heterogeneous in Africa.

6.6 Non-disclosure of HIV Status

Confidentiality about one’s HIV status is enshrined in the patient’s charter but it has had its problems as partners are not disclosing their HIV status making the prevention of the disease problematic. Opportunities for condomised sex are lost due to the failure to notify the partner of one’s status. This lack of disclosure, especially among mothers on the PMTCT programme, is putting babies at risk and therefore destroying the prospects of elimination of paediatric infection. The adopted Option B+ regimen has severe limitations in terms of support of mothers who test HIV positive during ANC and during the breastfeeding period who are immediately initiated onto the lifelong ART treatment. The counselling of mothers on the PMTCT programme was reportedly erratic. The weak health delivery services which do not allow for following up of these mothers is not helping the situation as most mothers are likely to be lost to follow up. The initiation into Option B+ regimen does not
consider the emotional cycles of shock, denial, anger, blame, self-pity and finally acceptance that the women go through. It is expected that it could take some time for a newly diagnosed mother to digest and accept news of a stigmatising and incurable disease.

The counselling from the burdened health service providers does not consider the emotional roller coaster that the mothers on PMTCT go through which could negatively impact on following through. The proponents of the Option B+ regimen, who include the World Health Organisation, the Ministry of Health and other PMTCT funding organisations base their facts on the protection of babies and the mother’s health yet a lot of community factors where the woman lives are not addressed. This study clearly showed that the social marketing of Option B+ was poorly done and adopted a top down approach that did not involve the individuals and the communities. Introducing programmes like the PMTCT calls for the revisiting of the Ottawa Charter on Health promotion (1986) which emphasises on creation of an enabling environment within communities, re-orientation of health services, development of individual skills and capacities and empowerment of communities to take action among others. It therefore becomes clear that the PMTCT programme focuses more on the biomedical aspects of the disease and has neglected the bigger picture of the community which can negatively influence its success or failure.

The PMTCT programme does on paper allow women to opt out of testing but practically women in Chiota were not given a choice. The introduction of the
World Bank Results Based Financing (RBF) Programme which incentivises health facilities for enrolling HIV positive women on the PMTCT programme made opting out impossible. This study also found that women who refused to go for free maternal health care services and HIV testing were arraigned before the traditional leaders and fined a goat. This therefore left women with no option but to go to health facilities where they would be compulsorily tested. The unpreparedness of mothers led to non-disclosure which negatively affected adherence to the PMTCT programme.

6.7 Narratives of Experiences of Mothers on PMTCT

Narratives of mothers on the PMTCT programme showed that they had internalised stigma. The finding is similar to results of studies from Cote d’Ivoire (Schechter et al., 2014) and Uganda (Nakayiwa et al., 2006) which showed the negative impact living with HIV has on women. Women on the PMTCT programme in Chiota reported a sense of powerlessness that was exacerbated by their unequal relations with the health care providers. This finding is similar to a study in Tanzania by An et al., (2015) which found that women were not allowed to opt out of the compulsory HIV testing. Women also lacked economic empowerment which made their situation dire.

Mothers narrated the stigmatisation of HIV by the community and fear of negative consequences which were a barrier to disclosure. This is in line with findings from a systematic review on ART use among postpartum women by Hodgson et al., (2014). Women in Botswana also kept their HIV status as a well-guarded secret in the communities where they lived due to fear of
stigmatisation and discrimination (Eide et al., 2006; Kebaabetswe, 2007). Community involvement in the implementation of PMTCT was lacking in Chiota, contrary to Campbell et al., (2013) in Zimbabwe who suggested community involvement in HIV prevention and mitigation as an important enabler of an HIV&AIDS response. Community readiness, which includes identification of existing obstacles to programme success, should be prioritised in all HIV&AIDS programme interventions.

In narrating their experiences, mothers on the PMTCT programme in Chiota exhibited a fear of breastfeeding their babies. This is in line with other studies which have shown that women on the PMTCT programme fear breastfeeding their babies (Koricho, Moland, and Blystad, 2010). Exclusive breastfeeding was found to be a cause of distress among women due to its association with being HIV positive (Eide et al., 2006; Gaillard et al., 2002; Kebaabetswe, 2007). Healthcare providers fail to consider pertinent factors such as women’s lived experiences, their preferences, social networks and lay knowledge (Seidel, Sewpaul, and Dano, 2000). These factors have potential for inhibiting adherence to PMTCT programmes. A study recently done in Zimbabwe reported that HIV positive women suffered anticipatory grief especially when their child also tested HIV positive (Mutambara, Chitambira, January, and Maseko, 2015).

6.8 Disclosure of HIV from mothers’ narratives

Disclosure of one’s HIV status improves uptake and retention in PMTCT services. However it has been found to pose a serious challenge for most
women as were the findings of this study. A systematic review of disclosure rates revealed that HIV disclosure ranged from 5.0% to 96.7% (Tam, Amzel, and Phelps, 2015). Women found it easier to disclose to their partners than to other family members. Sub-Saharan migrant women also identified sigma as the principal reason for non-disclosure (Sulstarova, Poglia Mileti, Mellini, Villani, and Singy, 2015). In Botswana, women preferred to disclose their HIV status to their own mothers and sisters rather than partners (Eide et al., 2006). Intimate partner violence and divorce were experienced by women after HIV disclosure (Gaillard et al., 2002). These findings are similar to my study that found disclosure among HIV positive women to be one of the greatest challenges. The commonly cited barriers for non-disclosure of HIV status by women on the PMTCT programme in Chiota included fear of divorce by husbands and abandonment by significant others, a finding confirmed by Gari and Habte, (2010) in Ethiopia. Narratives in South Africa reported negative reactions from a partner upon disclosure which is congruent with my findings (Maman, Rooyen, and Groves, 2014). The fear of side effects of ARVs was a major concern among the women on the PMTCT programme in Chiota, a finding similar to Nigeria (Okoror, Falade, Olorunlana, Walker, and Okareh, 2013).

6.9 Adherence to infant feeding practices by mothers

Exclusive breastfeeding is the WHO recommended way of infant feeding for the first six months irrespective of the mother’s HIV status. It is also internationally recognized as the best way to feed an infant. Breastmilk has advantages of being easily available, clean, uncontaminated, sterile and has a
correct temperature. Breastmilk is also known to protect against infections, illnesses and allergies. It contains nutrients in the right amounts and it also contains water and an exclusively breastfed infant does not need water even when they have diarrhoea. Breastmilk contains white blood cells that fight infections and not breastfeeding puts the baby at risk of developing malnutrition, diarrhoea and chest infections. The WHO suggests that optimal breastfeeding would avert 13% of the 10.6million yearly deaths of under-fives (WHO, 2001). Despite the known advantages of exclusive breastfeeding, Zimbabwe and many other less resourced countries hardly practice exclusive breastfeeding. The Ministry of Health and Child Care in Zimbabwe reported that only 6% of infants were exclusively breastfed for six months (MOHCC, 2012).

Prevention of paediatric HIV infection requires strict adherence to infant feeding guidelines. According to the WHO recommendations, an HIV positive woman who has access to a regular supply of Antiretroviral therapy (ART) and chooses to breastfeed, has to exclusively breastfeed for six months and then introduce mixed feeding until the infant is able to be on another safe diet without the breast milk (Chasela et al., 2010). Studies have shown that when Antiretrovirals are taken during the pregnancy and breastfeeding period, the infection rate is greatly reduced to 2 percent (Chasela et al., 2010; Kilewo et al., 2008).

The best practice is however not to breastfeed where supplementary feeding is Acceptable, Affordable, Sustainable and Safe (AFASS) as previous studies
have shown that breastfeeding babies diminishes the protective benefits of ART (McIntyre, 2010). This recommendation of exclusive breastfeeding comes against a backdrop of constrained resources in settings where supplementary feeding is not affordable and where there are concerns of hygiene which could compromise the health of the babies. Women in developing countries face the challenges of access to potable water, fuel for preparation of replacement feeds and more often the time to prepare the feeds. Incorrectly prepared feeds can lead to malnutrition and in some cases death.

The mothers in Chiota narrated that exclusive breastfeeding was met with a myriad of challenges which included the stigma surrounding HIV. Mothers were not empowered to make decisions regarding their infant feeding practices. This finding is reiterated by Luo (2000) who suggests that in most Sub-Saharan African settings, women are not the sole decision makers on what is best for their babies. The mothers on the PMTCT programme highlighted the influence of the husbands and the in-laws which made exclusive breastfeeding impossible. In addition, Lanktree and colleagues established an association between non-adherence to recommended infant feeding guidelines and rural residence (Lanktree et al., 2011).

Inappropriate infant and young child feeding practices have been associated with high levels of child under nutrition in developing countries (Engebretsen, 2010). According to the mothers’ reports the estimated prevalence on non-adherence to exclusive breastfeeding was 93%. This means that only 7% of the women were exclusively breastfeeding which is less than the Zimbabwe
Demographic Health Survey report of 31% (ZIMSTAT, 2012). In support of my findings, a study in South West Ethiopia (Tamiru et al., 2012) found that most mothers sub-optimally breast fed their children and the majority of mothers did not know about exclusive breastfeeding. Similarly, a study in Ibadan, Nigeria which had a high breastfeeding rate (99.4%) among mothers on PMTCT, found that only 28.3% of mothers exclusively breastfed their babies for the first six months (Brown et al., 2009).

Narratives of mothers from Chiota found that mothers believed that exclusive breastfeeding was inadequate for their babies and was also unsafe considering that the mother was HIV positive. This finding is in line with a study in Eastern Uganda where both men and women regarded breast milk as insufficient to sustain an infant and perceived it as harmful in PMTCT (Engebretsen et al., 2010). Another study to explore infant feeding choices by HIV positive mothers showed that mothers had developed an intense fear for their breast milk leading some to avoid breastfeeding and being uncomfortable to breastfeed for those women who could not afford alternative feeds (Koricho et al., 2010). This has implications on adherence to the recommended infant feeding options for HIV exposed infants.

The advent of HIV&AIDS has brought confusing messages about infant feeding. It is known that breastfeeding has a risk of HIV infection, as 90% of children acquire HIV before or during delivery or through breastfeeding (UNAIDS, 2013). A study by researchers from University of Kwazulu Natal, South Africa found that there was a 4% risk of postnatal transmission to infants who were exclusively breastfed between the ages of 6 weeks to 6
months. The same study found that infants who received formula or animal milk were twice as likely to be infected more than those who received only breastmilk, while those who received solids were eleven times more likely to get infected (Gaillard et al, 2006). The same study also found a higher risk of HIV infection when the mother had a CD4 count of less than 200 cells/μL.

A study on HIV infection among mothers in Chitungwiza, Zimbabwe, found that HIV infection among children increased if the mother’s CD4 count was less than 200 cells/μL and if the child was exposed to mixed feeding (Ngwende et al., 2013). The same study found exclusively breastfeeding for less than six months to be protective. To breastfeed or not to breastfeed becomes a dilemma for mothers and the community at large who know the dangers associated with mother’s milk.

Breastfeeding in Zimbabwe, like the rest of the continent, could increase the risk of HIV paediatric infection as a lot of mothers despite being on ART are not followed up to ensure adherence. Artificial feeding has always been the norm in industrialised countries unlike in Africa where it is not commonly practiced. This places mothers in a dilemma as they are not in a position to decide the best way to feed their babies.

This study found that women perceived exclusive breastfeeding as a difficult way of feeding babies. In Zimbabwe, Cosminsky and colleagues found that early supplements were introduced to children by the age of 3 months and the study suggested that mothers’ pragmatic attitudes, their interaction with certain cultural and economic variables were important factors influencing
their child feeding decisions (Cosminskey et al., 1993). A similar finding was reported in Kisumu district, Kenya in a study on determinants of child feeding practices from HIV infected and non-infected mothers with children aged 4 to 24 months where more than 40% of babies had received other foods or drinks by the third month and child feeding decisions were made during the postpartum period (Gewa et al., 2011). The study also found that HIV infected mothers were more likely to discuss feeding methods with their partners. Poverty was a barrier to exclusive breastfeeding in the first six months which is applicable to my study where all the mothers were living below the poverty datum line.

In Mali, exclusive breastfeeding was found to be as low as 7% with babies being introduced to water and complementary feeds at a very early age (Ayoya et al., 2010). Out of a sample of 97 children in a study of child feeding practices in Southern Ethiopia, only 2 children had been exclusively breastfed up to 6 months calling for urgent interventions that address the WHO guidelines for child feeding practices (Gibson et al., 2009). In the Kesha Bora study, reasons for sub optimal adherence among breastfeeding Zulu mothers at KwaZulu Natal included therapy misconceptions, domestic violence, poverty, stigma and non-disclosure (Mepham et al., 2011).

The inadequate counselling by health providers on infant feeding which was reported by 93% of the mothers in this study could be contributing to non-adherence to exclusive breastfeeding. The nurses are the ones who prescribe exclusive breastfeeding and yet they do not ensure that they continuously
provide support to the mothers. A study in rural Nigeria by Idris et al., (2012) concluded that poor feeding practices were the cause of child under nutrition and it recommended health provider involvement in carrying out community wide health education on infant feeding practices. Involvement of health staff and follow up of mothers on PMTCT has the potential to improve the quality of PMTCT, a component clearly lacking in Chiota.

This study also found that mothers lacked mentorship in infant feeding whereas a study conducted in Bulawayo, Zimbabwe, which used the ‘Mentor Mother’ programme for support showed that mothers who were mentored had a higher adherence rate to PMTCT than mothers who did not have support (Shroufi et al., 2013). Studies from Burahya county, in Uganda revealed that there was a significant association between adherence to feeding guidelines and child illness (Lanktree et al., 2011). This study did not, however, establish this association as it did not include child illness as a variable. A multi-site study conducted in Bangladesh, Ethiopia and Vietnam under the theme ‘Alive and Thrive’ which aimed to increase exclusive breastfeeding found that there were widespread gaps between recommended and actual infant feeding practices (Sanghvi et al., 2013). After designing strategies to address these problems, they concluded that strategic designs should be contextualised if they are to be effective. The study recommended the enhancement of community based behaviour change communication using diverse channels that included radio and folk media.
In Chiota mothers in law had influenced early introduction of other foods as reported by 37% of the mothers. In Malawi the extended family, in particular grandmothers were found to be influential in child feeding practices and their views differed from conventional western medicine and had strong cultural significance (Bezner Kerr et al., 2008). Despite this known influence of grandmothers, the study found that the health care providers rarely involved the mothers in law in health education on child nutrition. In cases where they were involved, their suggestions were not considered. In Chiota, the nurses also confirmed that they did not involve extended family members in infant feeding matters.

### 6.10 Adherence to ART regimen Option B+ by mothers

Zimbabwe aims to reduce vertical transmission to less than 5% by 2015 (MOHCC, 2014). Despite major achievements to date, the programme still faces challenges, which have to be urgently addressed if this goal is to be achieved. PMTCT programmes are likely to eliminate perinatal HIV transmission if the PMTCT protocol is strictly adhered to. Option B+ regimen has recently been introduced hence limited data on the adherence to the medication. In Chiota, I found that there was a reported prevalence rate of 17.5% of non-adherence, which is extremely high if we are to eliminate paediatric infection in Zimbabwe. This study’s findings are similar to Mirkuzie et al., (2011) in Addis Ababa, Ethiopia who found a progressive decline in medication adherence during the perinatal period and to a study in Tanzania that analysed adherence to PMTCT combination prophylaxis in a
rural health facility (Kistern et al., 2011) which found achieving adherence to be challenging in a rural setting.

A study in Uganda which sought to determine adherence to the postnatal PMTCT ART programme by considering the proportion of mothers who honoured their appointments after 8 weeks post-partum found that only 110 out of 289 mothers (38%) adhered (Nassali, 2009). In South Africa, Peltzer et al., (2011) found adherence for PMTCT in Nkangala district to be less than optimal as only 85.9% of postnatal women reported complete adherence to the appropriate medication schedule. Community factors which included HIV disclosure, discrimination and male involvement affected adherence to ARV prophylaxis in a rural setting, a finding similar to my study. Mepham et al., (2011) concluded that women in northern rural KwaZulu Natal faced significant challenges in adhering to PMTCT prophylaxis.

Having noted disengagement of ART during the postpartum period, a study in Cape Town found that of the 358 mothers who had been initiated on ART during pregnancy, 24% had missed at least one visit and 32% had disengaged from care (Phillips et al. 2014). The study found that disengagement was more common during the postnatal period compared to the antenatal period further confirming my study findings.

A systematic review on low access and adherence to ART by mothers in Sub-Saharan Africa found that health system issues such as staffing and service accessibility and community level factors particularly stigma, fear of
disclosure and lack of partner support, affected adherence to the PMTCT programme (Gourlay et al., 2013). This study found that the majority of mothers felt that the waiting time at the health facility and the time given for consultation were risk factors for non-adherence. The optimisation of provider-patient relationships can improve ART adherence (Gourlay et al., 2014). Boateng et al., (2013) suggests that knowledge, attitudes and perceptions of ART and PMTCT influence adherence to ART and their study in Ghana found a defaulter rate of 27% with more than 90% of HIV positive women having inadequate knowledge about ART and PMTCT. The study recommended educational interventions targeting the understanding of ART and PMTCT to enhance adherence to ART.

In this study, 42.7% of the mothers feared to disclose their status to avoid intimate partner violence. Intimate partner violence (IPV) has been identified as one of the reasons for low PMTCT adherence (Hatcher et al., 2014) hence the recommendation to address IPV for the success of the PMTCT programme in Sub-Saharan Africa. Adherence to PMTCT can be further compounded by loss to follow up of mothers on the programme. A recent study on loss to follow up of mothers on the PMTCT programme using the social ecological model identified four main barriers which included the individual barriers (internalised stigma), family/community level barriers (fear of stigma and gender inequalities), health system level barriers (unclear information and poor post-test counselling) and structural factors which included costs (Schechter et al., 2014). The same study proposed the addressing of all these
four levels in order to enhance adherence to Option B+ regimen during the PMTCT programme.

6.11 Health Service-Related Factors

Adherence to the PMTCT cascade is required for effectiveness of ART therapy (WHO, 2010). The WHO (2006) postulates that success of any adherence strategy is dependent on positive patient-provider interactions. This calls for health provider efficiency in providing sufficient education to mothers being initiated on the PMTCT programme, assessing mothers’ understanding and their readiness to be commenced on lifelong ART. After initiating the mothers, it is still important to continue providing support to ensure adherence. The health facility should also ensure that there are adequate drug stocks and confidentiality should be maintained during the whole process, as HIV is still a stigmatised disease. This emphasizes the importance of adherence counselling and continued counselling after therapy has begun. This calls for adherence assessments by health providers during every treatment visit, ensuring that there are no drug stock outs and provision of culturally appropriate counselling.

The staff establishment at the two health facilities in Chiota was last revisited last decade and is no longer coordinated with the current pertaining situation where there has been an increase in the number of programmes including PMTCT. The workload has increased yet the working conditions have deteriorated. The majority of the staff manning the health facilities are locals who have been serving in the Ministry since time immemorial. This could
have implications on privacy and confidentiality when it comes to stigmatised
diseases like HIV&AIDS. The health facilities are however strategically
placed as they are close to the main road from the capital city, Harare and
Marondera town. Many commuter omnibuses ply the road although most of
the clients walk to the facilities due to lack of transport money. The health
facilities’ infrastructure is old and not accommodative of the huge volumes of
patients which have been exacerbated by the advent of HIV&AIDS. No
amount of confidentiality at the health facilities in Chiotia can disguise the
type of care patients are seeking. This could result in some patients missing
appointments to avoid being stigmatised in the community.

Similarly, in South Africa’s Eastern Cape and Gauteng provinces, in-depth
interviews with mothers revealed considerable weaknesses within operational
HIV service delivery. These included lack of healthcare worker knowledge on
safe and infant feeding, failure of healthcare workers to counsel mothers
properly, stigma and inadequacy of data and information systems for
monitoring and evaluation during the post-natal service period (Sprague,
Chersich and Black 2011). The WHO also noted a range of factors within the
health care setting that affected women’s experiences in PMTCT services,
which included inadequate counselling at the time of diagnosis, perceptions of
mandatory testing, real and perceived breaches of confidentiality and
suboptimal health worker–client interactions (WHO, 2013). Additional health
facility factors such as long waiting times and cost of transport to the health
facility were also mentioned. A study in Kenya by Ballard, Waithaka and
Greiner (2014) suggests that one of the weakest aspects of PMTCT is
counselling, especially on infant feeding which is given low priority. The same authors argue that counsellors’ training is inadequate and often biased towards discussing risks of breastfeeding and complementary feeding. The same report noted inadequate knowledge among health workers, resulting in inadequate and biased counselling (Ballard, Waithaka and Greiner 2014). My study did not find inadequate knowledge in counselling per se but limited opportunities for counselling due to time constraints and workloads.

A study in South Africa found that women practised mixed feeding because of poor and ad hoc counselling which in most cases was not feasible with resources women had access to, and was based on counsellors’ preferences (Sprague, Chersich and Black 2011). A review in four African countries supports other studies asserting that lack of high quality counselling by health workers result in confused and incorrect maternal beliefs (Hardon et al 2012). Leshabari et al., (2007) established that counsellors, who are health workers were often overworked, suffered from resource constraints and were uncomfortable in their roles of counselling. Additionally (Fadnes et al., 2012) reported health workers’ lack of scientific updating and adjustment to frequent changes in programmes, recommendations and HIV prevention guidelines in Uganda. This was however different in Chiota as health service providers were constantly attending refresher courses.

Chinkonde et al., (2010) argues that in Malawi a lack of consensus among policymakers resulted in difficulties for health workers to uniformly counsel mothers especially on appropriate infant feeding and attempting to adhere to
shifting recommendations was challenging. Maman et al., (2012) states that women’s knowledge influences infant feeding decisions and this is dependent upon health worker information.

Studies by Biadgilign et al., (2011), Skovdal et al., (2011) found that patient-provider relationships, waiting time and opening hours were a barrier to access to health care by people on ART which confirms our study findings. The mothers on the PMTCT programme had to spend more than 3 hours waiting to be served at the health facilities.

A study by Gourlay (2014) in Tanzania, reported that HIV positive patients described health staff as disrespectful and lacking confidentiality and negative staff behaviour resulted in non-adherence during PMTCT. In Ethiopia, it was found that the majority of mothers felt they did not receive enough counselling on PMTCT (Asefa and Mitike, 2014). Sugandhi et al., (2013) argues that in introducing Option B+ should also consider ways of retaining women in care. There is need to strengthen health systems for the delivery of more complex regimens like PMTCT (Govender et al., 2014). A systematic review on barriers and facilitating factors for ART uptake in Sub-Saharan Africa (Gourlay, et al., 2013) found that health system issues that included staff shortages were negatively affecting adherence to PMTCT and as long as these were not attended to elimination of paediatric infection would not be realised. A study in Eastern Uganda recommended continuous health worker training and following up of mothers in order to strengthen the PMTCT programme (Rujumba et al., 2012).
A study in Swaziland found that despite the observed counselling of mothers by health workers on the PMTCT programme, there was deficiency in mothers recall (Mazia et al., 2009). In Chiota mothers could only recall breastfeeding and had to be probed about other PMTCT facets. Lyatuu et al. (2008) in Dodoma rural district reported that a quarter of clients were dissatisfied with the counselling they received on PMTCT, confidentiality and the waiting time they spent accessing services. Reasons contributing to dissatisfaction included insufficiency in individual counselling and the costs for travelling to seek the PMTCT services. At the two health facilities visited in Chiota, the health service providers mainly did group counselling for mothers on the PMTCT programme. Nachega et al., (2010) contends that structural factors in the health system can be a serious hindrance to adherence to PMTCT in resource-constrained settings.
CHAPTER SEVEN
SUMMARY OF RESEARCH FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

As discussed in the introductory chapter, this study sought to understand the social and cultural realities of following through with Prevention of mother to Child Transmission of HIV during the post-natal and breastfeeding period. Many studies that have been conducted on PMTCT uptake and adherence have adopted the biomedical discourse. Not much has been done on the human factor of the programme.

I found the PEN-3 Culture Theory to be the most relevant in analysing the social and cultural realities of following through with PMTCT. This study used a mixed method approach which assisted in the understanding of social and cultural realities of adhering to the PMTCT programme. The qualitative methods of focus group discussions, in depth interviews with key informants and life story narratives of women on the PMTCT programme yielded most of my data. Data from the qualitative methods also informed the design of the quantitative survey. It also helped to understand and explain some of the findings from quantitative survey, for example the reasons for non-adherence to PMTCT by mothers during the postnatal period. It facilitated the understanding of community norms and values regarding infant care and feeding practices. The quantitative study was helpful in quantifying among
others the prevalence of non-adherence by the mothers on the PMTCT programme.

Summary of findings

Evident from the study is that HIV&AIDS is still stigmatised in Chiota. HIV&AIDS related stigma emanates from the shame that is attributed to its transmission, which is still surrounded, by moral judgement and deviancy. It is clear that due to the stigma that still exists, some mothers despite enrolling for the PMTCT programme are not disclosing their statuses to the significant others including their partners. Non-disclosure leads to the non-adherence to exclusive breastfeeding in an environment where early introduction of feeds is the norm. Behaving differently raises suspicion that the mother is HIV positive. Despite the WHO recommendation of exclusive breastfeeding for the first six months for all mothers irrespective of HIV status, in Chiota exclusive breastfeeding was associated with being HIV positive.

Culture plays an important role in determining the level of health of the individual, the family and the community. In African settings, behaviour is influenced by the norms and values of the extended family. While PMTCT has gained attention recently, its accomplishment would require an understanding of the culture of the mother and that of the community. Culturally embedded practices, self and community stigma associated with living with HIV, and gendered power relations compromised the ability of mothers to adhere to PMTCT. The findings of this study suggested that following through with PMTCT was challenging due to community attitudes.
and beliefs. Women were taken to be a homogenous group (one-size fits all) without the consideration of their different circumstances. The insensitivity of PMTCT guidelines to social and cultural realities resulted in non-adherence particularly during the postnatal and breastfeeding period.

Zimbabwe has been lauded as one of the countries with a success story on the uptake of PMTCT as evidenced by the national statistics. The reports which concentrate mainly on uptake do not delve further to give evidence on mothers’ adherence to PMTCT especially during the postnatal and breastfeeding period. While the percentages of uptake are quite encouraging (MOHCC, 2014), it has not been established whether mothers are following through with the PMTCT regimen during this crucial period where babies could be exposed to the virus. Of concern is that babies were not necessarily exposed to the virus through breastfeeding but other cultural practices which entailed exposure to parental vaginal fluids and semen. Use of condoms in marriages, which is advocated for by the PMTCT programme, was an unfamiliar concept in Chiota. This study showed that despite the alieness of condoms, there were problems of erectile disorders which were not spoken of as it is taboo to discuss sexuality issues in African settings.

This study revealed that the PMTCT programme during the postnatal and breastfeeding period like any HIV prevention programme, places a lot of emphasis on the sexual transmission of HIV, yet there are other non-sexual cultural practices that can expose babies to HIV infection. These can include practices that result in exposure to blood, use of shared instruments, ritual and
medicinal enemas, and traditional ways of treatment of certain conditions. Evidence from the study is that there are traditional rituals that pertain to infant care in Chiota community.

Culturally, babies have to undergo certain rites, which are meant to strengthen them irrespective of HIV status. The Chiota community believed that all newly born babies had to be ‘treated’ for fontanelle. The newly born mother’s milk was believed to have properties that had the ability to tone down the infant’s sexual drive, improve the eyesight and sense of hearing. The study revealed the differences between orthodox and traditional medical practices. The traditional practices believe that every child has to be ‘treated’ for fontanelle using traditional remedies yet the western medicine associates fontanelle with dehydration, which can be easily treated by giving the baby the mother’s milk and fluids. Traditional medicine, which is defined as the sum total knowledge and practice on holistic care that is accepted and recognized by the community for its role in treatment of disease and health delivery was used in Chiota.

Prevention of paediatric HIV infection requires strict adherence to infant feeding guidelines. This research showed that the Chiota community does not believe in exclusive breastfeeding. Mixed infant feeding was very common with babies being introduced to other feeds before the recommended six months. Exclusive breastfeeding was associated with being HIV positive and this led to non disclosure by mothers, consequently leading to non-adherence to feeding practices. Barriers to adherence to the prescribed infant feeding
practices during PMTCT included social, cultural, economic factors and the influence of significant others. The most prominent reasons for non-adherence to exclusive breastfeeding were the fear of infecting the baby, the belief that the breast-milk was inadequate for the child and insufficient instruction by the health care providers. Evident from the study was that exclusive breastfeeding (EBF) was met with a myriad of challenges due to differing cultural practices and expectations, stigma surrounding HIV and the inability of women to make sole decisions on infant care.

Addressing client satisfaction and interaction of patients and service providers are pillars of a successful Prevention of Mother to Child Transmission programme, a component that this study found to be lacking. Most mothers (93%) confirmed that they did not get enough time for counselling and they were not given opportunities to share their concerns. This study showed that there were no mechanisms for following up and monitoring of the mothers in the community. This therefore made it difficult to measure adherence during the postnatal period. This study showed that the health care providers and the mothers were not being open to each other as the mothers reported that they were exclusively breastfeeding to the nurses but reported a different scenario to the researchers. This study also revealed the weak health care systems which were battling with structural problems and short staffing. This was found to be affecting the interaction with mothers on the PMTCT programme and also compromising confidentiality. This study showed that mothers on the PMTCT programme are facing numerous challenges, which are hardly addressed within the programme. The challenges include stigma and
discrimination, marital disharmony and uncertainties that go hand in hand with new programmes like the introduction of the compulsory Option B+ regimen.

The significant others who included the men, the extended family and the mothers in law in particular, had a strong influence on the ability of the mother to follow through with PMTCT. The influence of the husband and the in-laws made EBF difficult, if not, impossible. Power imbalances, fear of divorce and withdrawal of social and economic support, negatively impacted on disclosure of HIV status by the mothers. This study also revealed that the grandmothers and the mothers in law had great influence in child care practices. This was shown by the role played by the extended family in giving advice about infant care.

7.2 Conclusions

The decline in the prevalence of paediatric infection brings a ray of hope although it is clear that more gains could have been realised if it were not for the economic crisis the country is undergoing, the overburdened and deteriorating health delivery system, unemployment and high poverty levels. Zimbabwe’s community support systems have been put under enormous strains and the cultural dynamism and changes that have seen the introduction of new cultures and in some instances changes in cultural values have led to the disruption of the traditional community and ties which were a heritage of the country.
Women have been dealt a major blow as HIV prevention efforts have also ignored issues that affect women. For instance, the main advocated for messages of HIV prevention which emphasize on being faithful and condom use and prevention of mother to child transmission of HIV are not gender sensitive as they do not consider the socio economic and cultural factors that make women vulnerable to HIV infection and make them unable to follow through with the advocated for messages.

PMTCT programmes have been imposed on women who have remained poor and culturally restricted due to cultural and governance entrenched gender inequity and inequality. Despite enrolling women on the PMTCT programme and raising awareness, what has been disregarded is the fact that knowledge without empowerment is futile. Condom promotion as a risk reduction strategy is based on the assumption of individual autonomy and control and rationalises sexual encounters as negotiated joint decision-making as described by Kruger and Ritcher, (1997). Failure to acknowledge the broader context driving the epidemic in the country has made the PMTCT strategy among others less effective. During the postnatal period women have to have protected sex yet they are not able to initiate the use of condoms in condom averse societies. The gender dynamics of the HIV epidemic still needs further exploration, as there are cultural beliefs and practices that disempower women in their quest to take control of their sexual and reproductive health issues.

It is unfortunate that most interventions in the developing world have relied on the assumption that giving correct information about HIV prevention will
assist in behaviour change (Fishbein, 2000). Effective interventions take time and must consider the cultural values of the target populations, which is an ingredient that is missing in the majority of interventions. This assertion is evidenced by the fact that women on PMTCT are still conducting cultural practices that could expose babies to the HIV virus. Human behaviour does not occur in a vacuum as Tawil et al., (1995) and Surmatojo (2000) contend that socio-cultural, economic and political realities affect individual risk reduction through limiting the individual’s choices and options. This is also evidenced by the behaviour of women on PMTCT in Chiota who are not adhering to the PMTCT guidelines. PMTCT interventions are falling short of addressing societal issues that could be exposing the babies to HIV infection during the breastfeeding period as they do not offer a holistic approach to HIV prevention.

The PMTCT programme among other HIV intervention programmes has not properly analysed how vulnerability factors differ across contexts and cultures. This is a clear call for a paradigm shift in PMTCT programming, to embrace both the biomedical and the social models. The results show that the PMTCT programme had brought challenges to both the mothers and the health staff. The long waiting time was due to staff shortages and the lack of confidentiality was due to the infrastructural development that had not been upgraded to cater for the new programmes like PMTCT.

Access to HIV treatment has been encouraging though there is room to promote adherence to ART. ART adherence faces a myriad of challenges
which include distance to health facilities, ability to disclose and support of mothers by the extended family.

According to the latest statistics, the HIV prevalence in Zimbabwe is 15% (MOHCC, 2014). The MOHCC, (2014) reported that 95% of the 1560 health facilities were offering PMTCT. The same report further stated that PMTCT coverage was 82.05% in 2013. The report however fell short of describing the population that is accessing PMTCT services. It did not indicate whether women who enrolled for the PMTCT programme were coming for the first time or were repeat visits. This is further complicated by the fact that the health facilities do not have an electronic tracking system. The numbers of women on PMTCT could be estimates and misleading. The reports have not considered the issues of mobility, migration and stigma, which could affect the numbers of women who enroll for PMTCT. It is also known that due to the economic crisis, many women are not accessing health care services. Donabedian, (1973) argues that the mere existence of services does not constitute access, but the acceptability of the service to the individuals. PMTCT can be universal but is it acceptable to the community members?

What is prominent in studies that have been conducted on PMTCT globally, and in Zimbabwe, is that a ‘one-size fits all’ approach has been utilised. The intersectionality, which is the differences in women’s education, age, ethnicity, economic empowerment, has not been considered in these studies. Information that is available can be misleading to policymakers. Mararike (1997) argues that HIV&AIDS is a cultural issue and there are no shortcuts
for studying cultural discourses. He further asserts that no amount of statistics would be accurate if the social circumstances under which the virus is contracted and spread is not considered. There is cultural dynamism in all societies and this should be considered if we are to be accurate in our assessments of any disease including HIV&AIDS.

Friedland (2006) defines adherence to treatment as the extent to which a patient correctly takes prescribed therapy. Measuring adherence to any form of preventative or curative therapy has always been a challenge to patients and health care providers alike as postulated by Talam et al., (2010). To further complicate adherence is the fact that there is no ‘gold standard’ for its measurement (Chesney, 2006; Hill et al., 2003). Patient self-reporting is the most widely used measurement (Vreeman et al., 2008; Nachega et al., 2010; Biadblilign et al., 2011). Self-reporting is normally affected by issues of social desirability (Russell et al., 2007).

Adherence to other chronic conditions like hypertension and asthma is considered adequate if it is between 50-70% (Roter et al., 1998). However, for ART to be effective, there should be an adherence level of 70-90% (Nachenga et al., 2010). Wright (2000) advocates for adherence levels of 95% and above. Sustaining adherence to a lifelong therapy calls for accurate monitoring and following up of patients which is not possible in resource constrained settings. There are various social and clinical obstacles which could affect adherence (Coetzee and Kagee, 2012; Nachenga et al., 2010; Friedland and Andrews, 2001). In this study, the measurement of adherence to PMTCT during the
postnatal period was constrained by the inability to observe mothers and mainly relied on self reporting.

In Chiota, more than 80% of the mothers stated that they had not missed a pill. There is however a possibility that mothers were afraid that admission of having missed a pill could have affected their future care with health care providers since the interviews were conducted at health facilities. My being a researcher, coming from a biomedical institution could also have affected the mother’s responses as admission of non-adherence would portray the mothers as irresponsible. Adherence levels in this study were substantially lower than the 95% threshold that is critical for ART. The mothers’ adherence levels corresponded with the 60-80% levels that have been found in developing countries (WHO, 2005). Adherence to treatment is not about taking the right dosage of medication at the right time as there are other factors that can influence non-adherence. Adherence is a process that is affected by stimuli in the external environment which may be beyond a mother’s control. Despite mothers’ factors being central to the process of adhering to PMTCT, there is a complex relationship between the social, cultural, behavioural and biomedical factors. It is unfortunate that these factors are hardly considered in studying adherence. Studies on adherence have tended to concentrate more on health system factors (Hardon et al., 2007; Bonolo et al., 2005). Despite the view of health as a basic human right, there are considerable inequalities in the health of individuals within different societies and ethnic groups (World Bank, 2009). Disparities emanate from the differences in the socio-economic and environmental contexts of individuals (Mahomva, 2004; WHO, 2006).
Vulnerability to HIV is linked to human rights challenges, which are inextricably linked to the spread and impact of the epidemic. The link is apparent in the incidence and spread of the disease among certain groups and individuals. It has become obvious that certain groups of people are more vulnerable to contracting the virus due to their inability to realise their political, economic social and cultural rights. Some individuals do not have access to HIV prevention messages. This was common in men who in this study were hardly knowledgeable about the PMTCT programme. Men in Chiota associated PMTCT with women and they could hardly articulate what the programme entailed other than linking it with women. This was contributing to low male involvement in the programme.

The rights of people living with HIV are often violated as they are stigmatised and discriminated against. This was shown by the treatment of people on ART at both health facilities in this study where they had to spend the whole day waiting to be served. This treatment can negatively affect the mothers’ health seeking behaviour and adherence to medication. This can further expose breastfeeding infants to the virus due to increased parents’ viral load. Missed opportunities for health education and counselling can further worsen the situation, exposing infants to HIV during the postnatal period.

The stigma associated with HIV in the community can lead to non-disclosure as confirmed by the narratives with mothers on the PMTCT programme who were finding it difficult to reveal their HIV status to the significant others.
Failure to access health care can exacerbate the spread of the disease. The lack of a supportive environment where mothers living with HIV are treated with dignity can lead to failure to follow through with the PMTCT programme as mothers have to constantly deal with stigma. Human rights are clearly not observed in the PMTCT programme as testing during ANC has become compulsory and HIV positive women are compulsorily initiated on the Option B+. Opting out is not possible if one is to access health care services at the health facilities. This raises a human rights issue as healthy looking HIV positive pregnant and breastfeeding women are initiated on lifelong ART irrespective of their state of preparedness.

The use of traditional medicine has been discredited for lack of scientific evidence regarding its effectiveness as postulated by Rukangaira (2000) in Homsy et al., (2004). Mararike (2011) further attests that traditional medicine is passed from experience and observation from one generation to another and falls short of satisfying the western benchmarks of “scientific rigour”. The conflict sociological perspective by Karl Marx suggests that the voices of funders dictate the type of medicine to be used and they prescribe the western modern medicine peripherising traditional medicine. Zimbabwe is an example as it heavily relies on the Global fund and other donors for the procurement of ARV drugs. So it becomes a matter of ‘Who holds the purse?’ The funders therefore emphasize on ART as opposed to traditional medicine. This is evident in the blanket introduction of Option B+ regimen to mothers who are not given a choice.
Proponents of western medicine in the medical field have made ART the sole prevention and treatment of HIV during PMTCT. This discourse is sustained by funding which promotes the provision of ART to all pregnant and breastfeeding mothers. This is further propounded by the monopolies of pharmaceutical companies that supply ART which Marxist view as a capitalist system with an unquenchable desire to make profits (Mandizadza and Chavunduka, 2013).

A study in Zimbabwe, though of limited generalisability, demonstrated evidence on the cultural dynamics that are conspicuously missing from the current policies of ART roll out in Africa (Taylor et al., 2008). In Zimbabwe, it is clear that due to the history of colonialism there is a deep entrenchment of modern medicine including in HIV&AIDS management and treatment. The chronic nature of the HIV disease which is dominated by the biomedical discourse, is still riddled with moral beliefs and stigma. Prescribing PMTCT to mothers does not ensure adherence. It should be considered that native people have their own belief systems, their own ‘moral geographies’, views and moral gatekeepers. This denotes the nonexistence of a ‘one-size fits all’ approach.

This study found that 60% of the health care workers were locals who were born and bred in Chiota and there arguably had the same belief systems and values. The introduction of exclusive breastfeeding could pose some challenges as the health care providers though part of the ‘enlightened’ health system, still subscribe to the cultural values of the community. How does one
enforce a belief that they have not tried and tested? The elderly in Chiota as community gatekeepers are still held in high esteem and how does a young nurse tell her grandmother how to feed a baby. The nurse might have been raised by that elderly person. This could pose problems. Being a health service provider does not mean that one has lost their cultural values and beliefs.

Despite the importance of PMTCT interventions, there is still a dearth of information on the socio-cultural and lived realities of this intervention strategy in the Zimbabwean setting. Reality is defined as ‘a quality appertaining to phenomena that we recognize as having a being independent of our own volition’ (Luckman & Berger, 1991:1). Reality is socially constructed and is not a universal phenomenon. Different people experience certain events in their lives in different ways and they react in different ways. Schutz (1961) stresses that human beings are responsible for active and creative production of society and they view the world as invented rather than merely given or taken for granted. The social construction of reality leads to different societies setting up different sets of social norms that every member has to abide with for them to be accepted as normal in that community. This explains why people behave in certain ways. Social cultural reality can emerge through social interactions and cannot necessarily be reduced to the intention of individuals. This study therefore recognizes that a ‘one-size fits all’ approach might not be very appropriate for mothers on the PMTCT programme in Zimbabwe.
The differences that are between the epidemiology of HIV&AIDS in the African setting and that in the Western societies prompts speculation regarding risk factors that can be exceptional in Africa. The realisation of the importance of culture in health and health seeking behaviour has led to the questioning of western based conventional theories which assume that health is a-cultural. The role of tradition is a central feature in the study of culture and HIV&AIDS prevention strategies. It cannot be questioned that the advent of HIV has eroded some of the cultural practices, for example the introduction of mixed feeding for infants. This underscores the importance of understanding culture in HIV prevention programmes.

Statistics by the MOHCC has emphasised on uptake of PMTCT and there is silence on adherence during the postnatal and breastfeeding period. There is no convincing way of measuring adherence as there are no ways of monitoring what mothers do in the community. There are no clear policy indicators for monitoring adherence during this period. It is also not clear how the statistics are arrived at as it is difficult to ascertain the representativeness of women who test HIV positive. There could be a possibility that most of the mothers who suspect that they are HIV positive are shunning the local clinics which are manned by locals. On the other hand, women who suspect that they are HIV positive could be the ones seeking health care. Adherence is in most cases measured by self-reporting which could be affected by social desirability.
The WHO recommendation of exclusively breastfeeding HIV exposed infants for the first six months may not be immediately appropriate in certain settings, unless they are adapted to the social and cultural context of the women who make the choices. Despite the biomedical discourse in adherence to PMTCT, there are still cultural beliefs calling for a concerted effort for the evaluation and the monitoring of the progress of the PMTCT programme as initiating mothers on ART (Option B+) does not ensure adherence.

The study suggests a gap between traditional and western infant care. This calls for a paradigm shift in PMTCT implementation by the health care providers. The Eurocentric approach that is adopted by the orthodox medical fraternity have not considered the genuine concerns of infant care by mothers, for example, the traditional ways of child care which pertain to improvement of child eye sight, the hearing senses, reduction of libido, treatment of tongue tie and fontanel among others. Failure to meet these needs by orthodox medicine leaves mothers with no choice but to seek alternative care. The nexus between traditional ways of infant care and orthodox ways have to be scrutinised, especially in PMTCT programming.

This study has provided evidence that culture plays a major role in mothers’ ability to follow through with the PMTCT programme. The study indicates that failure to deal with social and cultural factors might negatively impact on adherence to PMTCT, defeating the main purpose of elimination of paediatric infection. The counselling received by mothers at the health facilities is silent on cultural practices that could expose babies to HIV infection during the
postnatal period calling for a conceived effort to do more research on culture and PMTCT in particular infant care practices.

In Zimbabwe, like the whole of the African continent, culture plays an important role in people’s lives. HIV&AIDS cannot be dealt with without seriously scrutinising the Zimbabwean cultural practices that could influence the spread of the disease. Despite the rampant use of traditional medicines and therapies, there is not much research on this as it entails discourse aggrandisement and a sense of alienation. The secrecy embedded in this discourse has glaring gaps in literature. There is a thin body of research that has been conducted on this issue, yet anecdotally traditional medicines are utilised in the era of HIV&AIDS. Before the advent of “conventional” medicine, Doyal and Pennell (1979) suggest that throughout human history, health care has been a part of community life. The lack of “scientific” evidence regarding the effectiveness of traditional medicine has been its major limitation.

The rivalry between modern medicine and traditional medicine has been perennial with traditional medicine getting the peripheral relegation, demonstrating that knowledge however it is defined, is power. Power normally flows from the strong to the weak. African traditional medicine and alternative therapies have been in existence since time immemorial. WHO (2010) estimates that traditional medicine is utilised by 80% of people in developing countries and the African region for primary health care. The cultural acceptability of traditional medicine and therapies in the face of
exorbitant conventional health care makes it attractive to many inhabitants of the developing world including Zimbabwe. This is evident in the Zimbabwe health system which is three tiered, comprising of traditional healers, the religious (spirituality) and the conventional medicine. Traditionally diseases are considered to have physical, mental, social, spiritual and supernatural causes. Treatment of diseases extends beyond the physical to incorporate the social and spiritual aspects. This, then has a bearing on how people seek therapy.

This study has demonstrated that culture plays a fundamental role in following through with PMTCT. This therefore calls for ensuring that social and cultural practices of mothers are considered in PMTCT programming for acceptability and sustainability. Norms and values of the community should be considered when crafting HIV prevention strategies. This study showed that community values greatly influence the behaviours adopted by mothers on the PMTCT programme. PMTCT knowledge should be transmitted in a culturally acceptable way.

HIV prevention programmes should consider cultural practices of people. The involvement of the community is crucial in any HIV&AIDS prevention programme as mothers are not islands but part of a bigger community which influences their behaviour. This study has demonstrated that PMTCT programming focuses more on the biomedical aspects the disease neglecting the bigger picture of the community, which can influence its success or failure. Failure to acknowledge the complex relationship between culture and
HIV prevention strategies might militate against the success on the PMTCT programme.

7.3 Recommendations and Policy Implications of Study

This study has shown that the adoption of Eurocentric intervention strategies to solve African problems can pose serious challenges. There is need to consider an African based cultural strategy to address African issues and problems. The Mexico Declaration of 1982 defines culture as ways of life, traditions and beliefs, illustrations of health and disease, the way people perceive life and death, sexual norms and practices, family structures and languages and means of communication. This definition indicates a clear linkage between culture and the ways people acquire or deal with HIV&AIDS.

Scholars have to critically examine Western cultural reasoning, which is being flaunted as a universal truth at the expense of African knowledge. This makes one question whether the advent of HIV&AIDS has destroyed the African way of treating diseases. PMTCT focuses on the individual behaviour, that is the mother’s ability to follow through the dictates of the programme and ignores the fact that health behaviour or following through with PMTCT occurs in the context of culture and therefore, the extended family has the ability to reinforce or resist the programme. PMTCT is more centred towards the mother at the expense of the community. The UNAIDS (1999) concluded that individual based public health intervention strategies have failed to address African problems. UNAIDS (2007) has clearly postulated that there
are many different ways of contracting HIV, several ways of prevention and many different groups who are exposed to HIV. All these are culturally subjective and hence the need to adopt culturally appropriate responses to stem the tide of the epidemic. This realisation has informed the development of the Ethiopian national AIDS response strategy (UNAIDS, 2003). The failure by Zimbabwe to recognise the importance of culture in HIV&AIDS prevention interventions is accounted for by the failure of mothers to follow through with the PMTCT programme despite its flagged benefits.

Asante (1998) proposes what he terms ‘afrocentricity’, which emphasises on placing African ideals at the centre of any analysis that involves African culture and behaviour. The author calls for reclaiming our cultural spaces instead of adoption of what he terms a ‘darker version of whiteness’. A lot of HIV and AIDS prevention programmes, including the PMTCT is viewed from the Eurocentric perspective which places western values at the centre of all health decisions in the process reducing Africans to objects. Zimbabweans have always had their own ways of raising infants and these cannot be changed overnight by the dictates of an HIV prevention programme. This therefore calls for serious consideration of traditional practices and culture in crafting HIV&AIDS prevention strategies like the PMTCT programme. Socio-cultural issues must be addressed to ensure adherence to PMTCT services.

In every community, theories, beliefs and experiences that are indigenous to the different cultures are passed on from generation-to-generation, through
oral tradition and customs, religious and spiritual inspiration. There is need to consider salient elements of cultural practices that could expose babies to HIV infection. It would not be prudent to dissociate mothers on the PMTCT programme from the communities where they live. This calls for the realisation of the importance that is attached to traditional and complementary medicine by the mothers. Harmless practices could be tolerated while harmful practices could be highlighted and discouraged. Cultural practices in infant care play a prominent role and hence the need for further research. We cannot afford to turn a blind eye to the cultural practices in the community as health education programmes that neglect these matters might be missing important opportunities for outlining and addressing the harmful practices. There is need for highlighting the traditional practices that hamper the efforts of PMTCT and could endanger HIV exposed infants during the breastfeeding period.

Culture permeates all aspects of societal relations hence the minimisation of infant vulnerability to HIV and AIDS infection must consider a cultural perspective. It is clear that PMTCT programming does not appreciate how culture defines and increases vulnerability of infants to HIV infection.

**Contributions of the study to knowledge**

This study shows that there is indigenous knowledge (IK) and cultural variation in infant care practices. The term indigenous knowledge describes the knowledge systems that are developed by the community as opposed to the scientific knowledge which is generally termed ‘modern knowledge’ (Ajibade and Shokemi, 2003). Indigenous knowledge is the institutionalised
local knowledge that is informally passed on from one generation to another (Warren, 1992; Osunade, 1994). IK is orally transmitted or through observation. This type of knowledge is experiential rather than theoretical (Ellen and Harris, 1996). IK is unique to a particular culture as different societies have different ways of living. Communities from time immemorial have used it as a basis for decision making in issues that affect their health and the way they prevent diseases. The same authors see it as constantly changing, being discovered whilst at the same time being lost. The loss is attributable to introduction of new ways of living especially in the era of HIV and AIDS. For example, in African settings, people marry with the aim of procreating but the introduction of condom use in marriages defeats the whole purpose. Is Eurocentrism assuming that Africans are not knowledgeable of handling their sexuality?

There are marked differences between the Eurocentric and the Afrocentric approaches when it comes to health care. In as much as the Eurocentric approach has its own prescribed ways of infant care, it should be acknowledged that people in Chiota have their own methods of raising children. These methods have worked since time immemorial. African people have their own indigenous knowledge systems which Mararike (1999) terms ‘intangible assets’. This kind of knowledge is normally acquired through observations of the occurrences at a place over a period of time and it connects people directly to the environment (Woodley, 1991).
Prevention of Mother to Child Transmission of HIV (PMTCT) prescribes new ways of infant care and feeding practices which may be unfamiliar to people in Chiota and the rest of Zimbabwe. The introduction of new ways of infant feeding risks being seen as removing the knowledge that locals have to turn it into ignorance. Eurocentric ways have their own biases and it can be argued that the researcher as one from the biomedical fraternity is unable to desist from these biases as she carries them into the community. The interference in the people’s lives of biomedicine disrupts people’s ways of living. It also disrupts their knowledge systems and ends up creating ignorance. The woman in Chiota is an African who has her world views and practices that have been tested over time. By introducing new ways of infant care without prior appreciation of the local way of doing things, we could be moving the Chiota community from knowledge of infant care to ignorance. By introducing programmes like PMTCT, there could be creation of a dearth of cultural norms and values and consequently new problems. This could be tantamount to moving people from light to darkness. The Afrocentric health system might be moved from knowledge to ignorance, from stability to instability.

Prevention of diseases is done against the backdrop that medicine is not new to the people of Zimbabwe. The colonial settlers found an existing population which had its own ways of handling disease and health. We have to critically look at the interventions that are being imposed on a population which has always had its own ways of dealing with issues like child feeding. It therefore becomes very difficult for biomedicine to prescribe new ways of health care to people who have survived without it for all their lives. The more we infiltrate
our Eurocentric ideas on Africans, we become guilty of making them forget their Afrocentric ways and are proponents of ignorance instead of knowledge. The question now becomes; when are these people going to move from ignorance we have instilled in them into knowledge, from darkness we have imposed into light, from social death to social life?

The quality of life of a person is defined by their content-ness and not what the Eurocentric ideals prescribe. A child born to an HIV positive mother has to be exclusively breastfed for six months, a totally new concept which is not tried and tested. The concept could meet some resistance as was shown in this study that mothers were doing mixed feeding. One of the findings of this study showed that there is creation of pretence or hide and seek between the biomedical and the traditional belief systems. A mother in Chiota narrated her experience of pretending to put the baby to the breast in front of the nurses whilst she was ensuring that the baby had no access to the nipple. This raises a lot of questions on the implications of elimination of paediatric infection.

The poor people have their own ways of exploiting policies. This can be done in the form of pretending that they have heard and accepted what is required of them but they do what is on the contrary. Even the nurses are not convinced of what they preach to the mothers as it is ‘Do as I say not as I do’. This study also found that health care providers despite being schooled in biomedicine were also not following through with Eurocentric child feeding practices. It is therefore important not to prescribe but to work with the local communities. Biomedicine should be able to tell the communities what they know and also
allow the communities to share their own experiences so that a balance is reached. Eurocentric ideas have tended to label Afrocentric ways of living and this has become problematic hence the failure of the programmes like PMTCT. To ensure that communities understand our point of view and we understand theirs and then we come up with a common ground. Biomedicine and traditional medicines should come up with ways of complementing each other. People should be made to own the programme, and not to see it as an imposition. This will ensure success of programme like the PMTCT. There are some traditional ways which are not harmful and these therefore have to be encouraged if we are to sell our new ideas without disrupting the traditional systems that are in the communities. Traditional health care has remained a prized source of information on decision making at community level.

Despite the realisation of the importance of indigenous knowledge in designing and implementation of HIV prevention methods, it has hardly been systematically documented or used formally in decisions that affect the health of the communities. Due to lack of documentation, indigenous knowledge is lost when the elderly who are the custodians of such knowledge die. The paucity of community knowledge has been further compounded by the introduction of Eurocentric approaches which emphasize on biomedicine disregarding the traditional medicine. Following through with PMTCT could lead to loss of good practices on child care. There is therefore need to integrate indigenous knowledge into all policies in order to develop effective, cost-effective and sustainable adaptation strategies (Cohen et al., 2003; Swart et al., 2003).
Recording and documentation of IK has been a challenge and hence it can be difficult for outsiders to use that knowledge in management of diseases like HIV and AIDS. There is also a lack of coordinated research to investigate the accuracy and reliability of the indigenous knowledge that people have. Scientists and planners have come to the realisation that indigenous knowledge cannot be ignored if conditions in rural areas are to be improved (Mundy and Compton, 1991). As Africans we are not ignoring changes, but changes must be in accordance with culture, practices and beliefs of people. Policy makers should consider that people have their own moral geography, their cosmology and ways of relating and responding to their environment. It is not disputable that medicalization of the society has become big business and none wants to run out of business. Biomedicine could be canvassing for clients through introduction of programmes like the PMTCT.

Adherence to certain cultural practices however can become a death trap in the era of HIV&AIDS. For example, the traditional practices of reducing the sexual libido of the female infant through exposure to semen which has high concentrations of semen. This stresses the need to develop a cultural model that addresses African behaviour collectively rather than individually.

This study found that being HIV positive was still stigmatised in Chiota community. The study recommends the consideration of the cultural context under which care is delivered to women living with HIV&AIDS in order to reduce stigma. Option B+ was a newly recommended treatment regimen for

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HIV positive pregnant women and breastfeeding mothers. As a new regimen, it is obvious that it has not stood the test of time hence the need to do further studies. It is also crucial to understand how women experience being on Option B+, a lifelong ART therapy. Of concern is that elimination of paediatric infection is not only dependent on availability of antiretroviral therapy (ART) services but also on their continued utilisation and adherence by mothers. Considering that Option B+ requires adherence for life, it is important to invest in evidence on the sustainability of this programme.

This study also found that there were no support groups for mothers on the PMTCT programme. There is therefore a need to create support groups who can motivate each other to adhere to PMTCT, an approach recommended by Nachega et al., (2010). Use of treatment buddy systems to ensure adherence has been described as a best practice by UNAIDS (2004) and Birbeck et al., (2009). The name of the programme, Prevention of Mother-to-Child transmission suggests that mothers are responsible for the infection of babies. This seems to exonerate men. It is therefore not surprising that men call PMTCT programme, a woman’s programme. A more neutral term would suffice, like Parent to Child transmission which suggests the involvement of men.

7.3.1 Specific Recommendations

This sub section addresses recommendations according to the different objectives. As previously discussed following through with PMTCT entails,
the religious taking of medication by the mother, exclusive breastfeeding and use of condoms during the breastfeeding period.

7.3.1.1 Objective 1: Identification of Socio-cultural factors that expose babies to HIV infection during the postnatal and breastfeeding period

The major finding was that there were risky cultural practices that could expose babies to HIV infection during the postnatal and breastfeeding period which were not in the health education curricula of the PMTCT programme. These included exposure to blood, breastmilk and semen.

- The health education curricula should be open to include these risky cultural traditional practices which the mothers expose the babies to but are hardly discussed.

- Risky traditional practices should be discouraged as they defeat the whole purpose of elimination of Paediatric infection.

- Mother’s concerns on the beliefs pertaining to non-conformity to certain cultural rites should be addressed through involvement of cultural and traditional leaders who also need to be educated on these risks especially in the era of HIV and AIDS.

- Support groups should be created to encourage mothers to live positively and to protect their HIV exposed infants from getting infected during the postnatal and breastfeeding period.

- Use traditional leaders who command respect in the communities to fight stigma associated with being HIV positive.
7.3.1.2 Objective 2: Determining Infant feeding practices of mothers

The major finding was that babies were not exclusively breastfed during the first six months. Exclusive breastfeeding was stigmatised as it was associated with being HIV positive. Mothers were not responsible for making decisions on how to feed their babies as there was influence from the extended family. The mothers also did not believe that their milk was sufficient for the baby.

- Mothers should be taught on the benefits of exclusive breastfeeding for the first six months.
- Mothers should also be assisted to give safe alternative feeds if they are uncomfortable to breastfeed as mixed feeding poses risks of HIV infection to the infants.
- Creation of support groups for mothers who are on the PMTCT programme so that they will be encouraged to follow through.
- The mothers in law should be targeted as they have influence on child feeding practices.
- Demystification of the belief that exclusive breastfeeding is only prescribed for HIV positive mothers.
- The Government in collaboration with NGOs should assist breastfeeding mothers who are on ART with food rations to enable them to breastfeed.
7. 3.1.3 Objective 3: Determine experiences of mothers who enroll for the PMTCT programme

The major finding was that the majority of mothers are ill prepared for lifelong ART therapy. Mothers also struggled with the issues of disclosure due to the stigma attached to HIV.

- HIV is a family disease hence the need to involve all family members including the community.
- The MOHCC should collaborate with the community and use social communication strategies like media, drama and poetry to fight stigma associated with HIV.

7.3.1.4 Objective 4: The role of significant others in following through with PMTCT

Mothers were not empowered to make decisions on following through with PMTCT as there were external forces which included the extended families. The non use of condoms by men during the breastfeeding period was at times due to problems like erectile disorders.

- The elderly should be involved in PMTCT as the advocates and custodians of cultural traditions.
- PMTCT should not only target women but also men who are equally involved in prevention of paediatric infection through condom use.
• Messages on PMTCT should be targeted to the mothers in law and grandparents who have an influence on the raising up of children.

7.3.1.5 Objective 5: Health Service related factors influencing following through with PMTCT

The introduction of HIV prevention strategies has not been commensurate with revision of duties and employment of more health staff. This has increased the workload of the staff subsequently compromising on the quality of care offered to mothers on the PMTCT programme. Due to the economic climate, structures at health facilities have not been improved to ensure confidentiality while dealing with a stigmatising disease like HIV&AIDS. The health service provision by locals has negatively affected confidentiality and trust issues as mothers are reluctant to share their experiences with people who personally know them and their relatives.

• There is therefore a need for the MOHCC to revisit staffing levels to ensure that mothers get good quality counselling. The health services also have no way of following up mothers in the community to monitor adherence. The lack of monitoring could be giving false results about the success of the programme.

• There is a need to institute electronic data monitoring systems to ensure that clients are recorded appropriately.

• There is need to afford confidentiality for mothers on the PMTCT programme
• The health care providers should consider intersectionality (the differences between women) as a one-size fits all approach, cannot work.

• The health care services should recognise the importance of culture in HIV prevention programmes to ensure relevant, appropriate and acceptable counselling.

7.3.1.6 Policy Recommendations

The counselling from the burdened health service providers does not consider the emotional roller coaster that the mothers on PMTCT go through and this could have a negative impact on the following through with the new regimen.

The proponents of the Option B+ regimen base their facts on the protection of babies and the mother’s health yet many community issues where the woman hails from are not addressed.

The social marketing of Option B+ has been poorly done, as it has been a top down approach that did not involve the individuals and the communities.

• Introducing programmes like the PMTCT calls for the revisiting of the Ottawa Charter on Health promotion (1986) which emphasises on creation of an enabling environment within communities, re-orientation of health services, development of individual skills and capacities and empowerment of communities to take action among others.
• Prevention of Mother to Child Transmission terminology needs to be revised to incorporate men. It should instead be called Parent-to-Child Transmission to make men realise that they are also responsible for paediatric HIV infection.

• The Government should critically review statistics, (What do numbers mean? Who is accessing the health services?) as there could be an over exaggeration of accessibility and adherence by mothers.

• Ensure provision of alternative feeds, encouraging locally available safe feeds for HIV exposed infants instead of mixed feeding which is exposing babies to HIV.

• Communities should be alerted on traditional harmful or risky practices that could expose babies to HIV during the postnatal period.

**Suggestions for Further research:**

• There is need to do more studies on cultural practices that could negatively affect HIV prevention strategies like the PMTCT

• There is need to conduct more studies on adherence to PMTCT especially during the postnatal and breastfeeding period as there is no follow up visits at home.

• Need to do more studies on men’s health and HIV which could be leading to their low involvement in PMTCT

7.4 **Strengths of study**

Study adds to existing literature, new knowledge about how the social and cultural environments affects PMTCT adherence during the postnatal period.
The study was also undertaken to describe the behaviour in context inorder to inform relevant policy interventions.

All mothers who were on the PMTCT programme in Chiota were recruited into the study, though the numbers were small, the findings can be generalised to all postnatal women in Zimbabwean rural settings. The study also dispelled the common belief that Zimbabwean men are condom averse. The study revealed that men have some erectile disorder problems, which they associate with ART, a finding that has been recorded elsewhere but is hardly discussed. The study also unearthed risky traditional practices which could negatively affect the elimination of paediatric infection.

The study which was mostly qualitative shed light on social and cultural realities of following through with PMTCT especially when the mother is away from the health facilities. This study unlike other quantitative studies did not have its main focus on measurable aspects of adherence but on the reasons for non adherence to PMTCT. It also looked at experiences of women which are normally overlooked dispelling the ‘one size fits all’ approach which is adopted in PMTCT programming.

7.5 Limitations of the Study

Interviews with mothers on the PMTCT programme were conducted at the health facilities due to the stigma that is associated with HIV in the community. Conducting this kind of study at a place where women were seeking health care could have led to underreporting due to social desirability bias. The study also used self-reporting which, although having been used in
other settings, could be biased. The study could have missed other mothers who had been lost to follow up and those mothers who were not seeking health care at the health facilities for different reasons. The women who sought health care could differ from those who did not seek health care. The cross-sectional nature of the study meant that it was limited in giving time variations. However, the use of qualitative research in the form of FGDs and key informant interviews could have addressed this problem.

The method of assessment used was self-reporting by the mothers on the PMTCT programme. The major drawback of using such an approach is that it is subject to self-report bias (Adams et al., 1999) which may pose potential challenges to the validity of findings. Peltzer et al., (2009) found that the majority of postnatal clients were not forthcoming with information regarding their history of traditional medicine use to the obstetric care providers due to fear that this would negatively affect the care they received from the health care providers. I however, contend that self-reports were seen as most appropriate for this study as it may be difficult to collect information regarding people’s ways of living from third parties.

Final thoughts

The argument in this thesis is that mothers have a limited locus of control for adhering to PMTCT during the postnatal and breastfeeding period. There is an intersecting relationship between the social, cultural and biomedical factors. Following through with PMTCT for elimination of paediatric infection is more than just adhering to the Option B+ regimen and exclusive breastfeeding as
postulated by the programme. Following through is more complex as it is influenced by many social and cultural factors which are sometimes disregarded in health education of the mothers. It is no doubt that biomedicine has played a critical role in reduction of mother to child transmission of HIV but it is also clear that it has not taken cognisance of pertinent cultural and behavioural issues which are more complex than just taking pills. It is a mammoth task to try and measure human behaviour due to the differences in people. The use of qualitative research methods in this study tried to bring to the fore practical realities which may affect the mother’s adherence to PMTCT and also expose the babies to the risk of getting HIV infection from the mothers during the postnatal and breastfeeding period. Policy makers need to take cognisance of these truths if they are to make meaningful and informed decisions on PMTCT. The inability to follow through with PMTCT could defeat the noble goal of elimination of paediatric infection. It is not enough to provide ART to all breastfeeding mothers whilst ignoring the contextual factors along the continuum of care. There is therefore need to understand the community beliefs and practices where the women reside and also to rope in the significant others who have a say in how the women can follow through with PMTCT. I hope that this research will be instrumental in addressing some of the loopholes which have often been overlooked in PMTCT programming in Zimbabwe and in other African settings which are not very different from Zimbabwe.
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Appendix A

17th December 2013

University of Zimbabwe
Department of Community Medicine

Attention: Zibusiso Jokomo

Re: Request for permission to conduct a study entitled “Socio-Cultural Realities of following through with Prevention of Mother to Child Transmission of HIV Programme in Zimbabwe: Implications for Elimination of Pediatric Infection”

The above subject matter refers.

The Ministry of Health and Child Care has no objection to your request to conduct a study entitled “Socio-Cultural Realities of following through with Prevention of Mother to Child Transmission of HIV Programme in Zimbabwe, Implications for Elimination of Pediatric Infection” provided you observe ethical research practices, ensure all information is treated with confidentiality and you are cleared by the Medical Research Council of Zimbabwe.

By copy of this letter, the Provincial Medical Director, Mashonaland East and Director AIDS and TB programme are advised.

You are further requested to share the results with the Ministry after completion of the research.

Dr G Mhlanga
Principal Director – Preventive Services
For: SECRETARY FOR HEALTH AND CHILD CARE

cc. Dr S T Zhizhou (PMD Mashonaland East)
    Dr O Mugurungi (Director AIDS and TB Unit)
Appendix B

7th January, 2014

To the District Administrator

c. Chief, local leadership

Dear Sir/Madam,

Re: Permission to conduct PMTCT study in Chiota Community

I am seeking permission to conduct a study on Socio-cultural Realities of Following through with Prevention of Mother to Child Transmission (PMTCT) of HIV in your community. I am a lecturer in the department of Community Medicine, College of Health Sciences, University of Zimbabwe.

The study intends to understand the experiences of mothers who go through the PMTCT programme and also the people who live with these mothers in the communities. It is hoped that this study will inform the Ministry of Health and Child Care in its programming of this very important programme and it will assist in the reduction of mother to child HIV infection during pregnancy and breastfeeding.

The participants of this study will include mothers who are on the programme, men, women, grandparents, local leadership and anyone who might be willing to discuss this important issue.

Thanking you for your usual assistance

Yours Sincerely

Mrs Zibusiso Jokomo

[Stamp: OFFICIAL DEPARTMENT OF COMMUNITY MEDICINE]

APPROVED

F. Z CHIGODORA

CHIEF

09/2/10
Appendix C

Joint Parirenyatwa Hospital
And College of Health Sciences
Research Ethics Committee

JREC Office No. 4, 5th Floor College of Health Sciences Building
Tel: 0711 336 607, 607 3847, 607 3848, 607 3849
Fax: 0711 336 607
Email: jrec.office@gmail.com

APPROVAL LETTER

Date: 4\textsuperscript{th} February 2014

Names of Researcher: Zibusiso Nyati-Jokomo
Address: University of Zimbabwe, Department of Community Medicine


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/4/14
- APPROVAL DATE: 4\textsuperscript{th} February 2014
- EXPIRY DATE: 3\textsuperscript{rd} February 2015

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
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 DSMB report
Appendix D

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

APPROVAL

Ref: MRCZ/A/1819 19 May, 2014

Zibusiso Jokomo
University of Zimbabwe
Department of Community Medicine
P.O. Box A178
Avondale
Harare

RE: Socio-cultural realities of following through with prevention of mother to Child Transmission of HIV programme in Zimbabwe: implications for elimination of paediatric infection.

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 (among others) that were submitted to the MRCZ for review:

a) Research Protocol
b) Informed Consent Form (English and Shona)
c) Informed Consent Form: Focus Group Discussion (English and Shona)

• APPROVAL NUMBER : MRCZ/A/1819
• TYPE OF REVIEW : FULL BOARD
• EFFECTIVE APPROVAL DATE : 19 May, 2014
• EXPIRATION DATE : 18 May, 2015

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 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.

• 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@mrcz.org.zw

Yours Faithfully

MRCZ SECRETARIAT
FOR CHAIRPERSON
MEDICAL RESEARCH COUNCIL OF ZIMBABWE

PROMOTING THE ETHICAL CONDUCT OF HEALTH RESEARCH