Exploring the effects of socio-demographic characteristics of HIV positive women on exclusive breastfeeding practices and promotion in Mchinji district, Malawi

Summary of the problem

Breast milk remains vital for child survival worldwide more especially in developing countries with high rates of infant morbidity and mortality. The enormous benefits of breastmilk include improved nutrition for infant growth and protection against infant morbidity and mortality associated with deadly childhood diseases and malnutrition. In fact breastfeeding is considered as “a passport to life” as it determines the wellbeing of the infant throughout the life time (UNICEF, 2008). However, the discovery of HIV virus in breast milk precipitated a major public health concern on how to reduce HIV transmission while maintaining the health benefits of breast feeding to the infant especially in developing countries (WHO, 2003). Breast milk accounts for one third of HIV transmission that occurs among children. In 2008 it was estimated that 2.1 million children under 15 years were living with HIV worldwide and about 430,000 were newly infected (UNAIDS, 2009). Almost 91% of these new infections occurred in Sub-Saharan Africa.

Prevention of HIV transmission among children during breastfeeding period has been one of the major challenges across the world and more especially in the Sub-Saharan region where breastfeeding is a dominant form of infant feeding. In developed countries, avoiding breastfeeding from birth is highly recommended by World Health Organization among HIV positive women (WHO, 2010). In Malawi, women are encouraged to practice exclusive breastfeeding (EBF) that is, giving the infant breast milk only for the first six months of life as a key measure to combat the alarmingly high rates of infant malnutrition and infectious disease including HIV and reduce infant morbidity and mortality. However, EBF is not a common practice and only 53% of Malawian children are breastfed exclusively and almost 50 per cent of children under the age of five are malnourished (MDHS, 2004). It is normal for babies to be given other foods and liquids as well as breast milk even in the first week of life, making it difficult for women who choose EBF to comply with the chosen infant feeding method in the country.

Factors that affect the woman’s ability to successfully practice EBF have been extensively studied, well understood and described by many researchers as resulting from a combination of traditional, economic conditions and cultural norms (Bezner-kerr et al.,2008). A close examination of these factors in Malawi will contribute to theories and provide insights regarding EBF practices and promotion in the context of high HIV prevalence and incidence.

Recently studies have demonstrated that using peer counsellors to visit women in their homes can promote EBF practices in both rich and poor countries (WHO, 2003; Morrow et al., 1999; Haider et al., 2000; Aidam et al., 2005; Nankunda et al., 2006; Bhandari et al., 2003). MaiMwana is the only project testing the intervention using peer counsellors in Malawi through a cluster randomized controlled trial (Lewycka et al., 2010). The needs of HIV positive women, however, are not taken into consideration in this trial and other trials conducted in high HIV prevalence countries and peer counsellors are not told the HIV status of women during the visits. Yet little is known whether the trial would increase EBF practices among HIV positive women in rural areas where infant formulas are not available. The challenges which these peer counsellors face while visiting poor women in their homes especially when they come across HIV positive women —let alone the challenges faced by these HIV positive women when visited in their homes remain un recognized. It is also not known whether knowing the HIV status of a woman, her socio-demographic characteristics of a woman and relationship between the peer counsellors and women would affect the way peer counsellors visit and counsel the woman to promote EBF in these resource poor areas.

This paper describes a study intended to investigate whether home visiting using peer counsellors promote the rates of EBF among HIV positive women and explore facilitators and barriers to practice EBF for 6 months and promotion in the community.

Project rationale and expected outcome
This study will therefore add on to the body of knowledge around the social characteristics under which EBF takes place and the effects of an HIV positive mother feeding her baby in communities with higher rates of HIV and where mixed feeding is dominant. The value and quality of counselling that is offered to these HIV positive women by peer counsellors will be explored that would be helpful to improve the type of training offered to them more especially on how to assist HIV positive women as well as what the counsellors would like to improve in their working lives in the community. Finally the study will shed more light on the acceptability and feasibility of scaling up community based interventions among lactating women in the country, and best ways to improve the services and referral system of women from the community to health facilities.

Information gained would help us to understanding the problems faced by women and peer counsellors during home visiting that would be useful in the development of effective community based intervention programmes using peer counsellors to promote EBF among all women and reduce malnutrition, HIV transmission and infant mortality in the country. Furthermore, considering the workload which nurses and midwives have in the hospitals due to shortage of staff, effective use of peer counsellors to promote EBF might also help to reduce the workload that they have, since EBF will be promoted at community level.

The objectives include:

1. To determine the influence of socio-demographic characteristics of HIV positive women on EBF practices compared with HIV negative women enrolled in the MaiMwana cluster trial.
2. Investigate experiences and accounts of HIV positive and negative women, peer counsellors and supervisors on community based promotion of EBF.
3. Explore the perceptions of male partners and key informants on the use of community based interventions to promote EBF, and their involvement.
4. Assess MaiMwana strategies to support peer counsellors when they come across HIV positive women and the referral system.
5. Assess the acceptability and applicability of community based interventions to promote EBF among lactating women

Study hypothesis and questions
In this study it is hypothesized that HIV positive women who are visited and supported in their homes by the peer counsellors would report higher rates of EBF for the recommended 6 months than those who were not visited in their homes. This study will therefore answer the following questions*:*

- Are HIV positive women visited in their homes more likely to practice EBF for the recommended 6 months period than those who were not visited?
- What factors distinguishes those who managed to practice EBF for 6 months than those who did not and how did the doers overcome the barriers?
- What factors determined peer counsellors to counsel, support and refer HIV positive women for care and support.
- How did the community perceive their involvement in the implementation of community based interventions to promote EBF?

Methodology

This proposed study will employ explanatory mixed method approach using both quantitative and qualitative methods.The approach to mix the two methods will follow a sequential strategy in which quantitative methods will be used in the first phase to determine the proportion of women practicing EBF followed by qualitative phase in order to explore barriers to practice EBF from subject perspectives (Creswell and Plano Clark, 2007). Mixed method approach is seen to be appropriate for this study which is intending to explore a sensitive topic to identify the desired population (HIV positive women) and explore their experiences with home visiting and factors determining the way they practiced EBF.

Phase 1: Quantitative approach

The quantitative phase will mainly involve secondary analysis of dataset collected by MaiMwana project during a cluster randomized controlled trial[1]; firstly, to test a hypothesis that home visiting of HIV positive women by peer counsellors would significantly increase the rates of exclusive breastfeeding for 6 months as compared to those receiving standard counselling at the hospital; and secondly, to identify socio-characteristics of those who managed to practice EBF for 6 months; and lastly to compare characteristics of women who were visited in their homes by the peer counsellors five times as recommended by MaiMwana Project to those who were visited less than five times. In order to detect large differences between the proportions of women who managed to practice EBF for 6 months and those who did not, all the data of women about 30,000 who gave birth in all the clusters (48) from 2005 to 2010 will be included in the analysis.

Quantitative data will be analysed by bivariate and multivariate statistical techniques using the Statistical Package for Social Science Software (SPSS) version 17.0. For the data from the cluster randomization the independent variables of interest will be age, HIV status, marital status, parity, education level and economic status. The outcome variable of interest will be the period of exclusive breastfeeding. Chi-square test will be used to make comparison in exclusive breastfeeding period and practices between those who are HIV positive and negative and also those who were enrolled in the intervention group and control group. Random effect logistic regressions will then be performed in order to check whether there was any association between demographic characteristics of HIV positive women and negative women enrolled in the different groups to exclusive breastfeeding practices. Random effect logistic regression has been chosen in order to take into consideration the inter-cluster correlation coefficient that may affect exclusive breastfeeding period.

Phase 2: Qualitative approach

The qualitative phase will then be used in the second phase to further explore and expand in-depth why other women managed to practice EBF for the recommended period while others did not despite being visited in their homes from a subject perspective. Qualitative approach is appropriate for this study because it will explore how women practice EBF in a social context (Flick, 2009). People's experiences and perceptions will be useful to develop theories related to EBF practices. Considering the sensitivity of the topic under study, I will use In-depth interviews as the core data collection methods. The aim of using in-depth interviews is to learn about individual perspectives and get people to talk about their personal feelings, opinions and experiences towards the subject matter (Kvale, 1996). In

[1] Cluster randomized controlled trial number ISRCTN06477126 and NHSRC number: Med/4/36/1/167), being piloted in Mchinji district using peer counsellors to promote maternal and child health including EBF in the community.

depth interviews are also effective in giving a human face to research problems and helpful to address sensitive topics e.g. HIV that people might be reluctant to discuss in a group.

In this study, I plan to include a diverse of respondents from the household and communities where the trial is taking place. Only respondents with sufficient knowledge about home visiting by peer counsellors and EBF practices will be invited to take part in the interviews to offer them opportunity to share their complex stock of knowledge and experiences on the subject matter. The concepts emerging from these interviews in relation to major facilitators and barriers of EBF practices and promotion will be used to select people who are seen to be influential on infant feeding practices such as village leaders, elderly women and traditional birth attendants. Up to sixty respondents will be recruited and included in the in-depth interviews. Purposive sampling strategy will be used to identify interviewees who are knowledgeable enough on the subject matter. About sixty in-depth interviewees will be identified for the interviews. The sample size, however, will be determined by the themes/concepts derived from the preliminary analysis of the data collected to avoid collecting unnecessary data because transcription and analysis of qualitative data is time consuming (Corbin and Strauss, 2008).

Selection procedures

- Potential women will be sampled from the under-five clinics. The PMTCT and infant diagnostic clinic will be used if I don't get enough HIV positive women. Only four clusters will be used to recruit women. These clusters will be selected based on EBF rates either high or low following quantitative analysis. These women will be restricted to only include those who are coming from the villages within the selected clusters, with infants between 6-18 months old and breastfed.
- Male partners will be restricted to recruit those whose partners have been interviewed and given permission to be contacted.
- Peer counsellors, supervisors and key informants will be recruited through consultation with women, and MaiMwana staff. Those who are mentioned frequently to be influential will be contacted face to face or through the phone to discuss about the study and obtain permission to be interviewed.

Considering the amount of data to be collect, the data will be analyzed both manually and using NVivo software version 9.0. The data will then be analyzed using a thematic analysis approach which involves organizing data into categories related to the framework and questions guiding the research (encoding) so that they can be used to support analysis and interpretation of research findings (Boyatzis, 1998). Interview transcripts and observational field notes will also be read several times by the primary researcher and the research assistant to obtain a sense of the overall data and compare the findings.

Ethical considerations

This study will seek approval from the National health Sciences Research Committee in Malawi and the ethics Committee at City University London.

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