Austin Journal of HIV/AIDS Research

Open Access

Austin Publishing Group

Research Article

Opportunities and Challenges in Implementing PMTCT Services in Fishing Community of Lake Victoria of Tanzania Side: A Cross Sectional Qualitative Survey with Health Care Providers

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Received: May 18, 2018; **Accepted:** June 21, 2018; **Published:** June 28, 2018

Abstract

This study aimed at exploring socioeconomic and structural opportunities influencing health workers in implementing Prevention of mother-to-child transmission (PMTCT) programmes in fishing community of Lake Victoria of Tanzania side. This study was a cross sectional survey using qualitative methods, whereby, in-depth interviews with health professionals was conducted.

The socio-ecological health perspective guides the study while the thematic framework analysis was used in analyzing data. Reported achievements in current study include reduced violence, discrimination and stigma from partners. Others are increased partners' involvement in PMTCT services, increased number of women who test for HIV during pregnancy, improved adherence to ART, early infants' diagnosis of HIV, linking other community members to access HIV/AIDS services from HIV counseling and testing centers (CTC).

Generally, PMTCT has saved lives of many HIV positive pregnant women and their babies. However, there are structural and socioeconomic factors challenging the implementation of PMTCT services. Understanding of the socioeconomic structural opportunities and challenges can enhance the implementation of the program with a respective area

Keywords: Health Workers; PMTCT; Opportunities; Challenges; Fishing Community; Lake Victoria; Tanzania

Introduction

HIV/AIDS is still a global public health problem. Eastern and southern African regions are most affected part in the world [1]. To date, tremendous efforts have been made to control the spread of HIV globally including Sub-Saharan Africa [2,3]. The Most at Risk Populations (MARPs) have been identified and strategically targeted for control of the spread of HIV [4]. These included long-distance truck drivers, military personnel, female sex workers, refugees, internally displaces persons, plantation workers miners, teachers, female traders on borders and fishermen [5–8]. Reports indicate that efforts made amongst these MARPs vary significantly; for instance, fishing communities are reported to be inadequately served with HIV/AIDS services [9–12]. Similar challenges had previously been reported [12,13]. All the past and present reports assert that women in these communities are mostly affected with HIV/AIDS compared to men [11,13].

During the past decade, significant progress has been made in scaling-up PMTCT services to pregnant women, particularly in resource constrained countries. PMTCT seeks to eliminate the heavy burden MTCT presses on individuals, families [14,15]. However, these progresses vary from country to country and within countries [17]. For example, in areas such as fishing communities of Lake Victoria, where HIV prevalence continues to be higher than the national prevalence average [10,11,18]. Challenges hindering the reduction of spread of HIV in fishing communities are numerous. These include health systems [10,19] while other are from the community [11,20] all of these challenges have been negatively affecting the uptake of HIV/AIDS services including PMTCT in fishing communities of Lake Victoria. A number of studies have been conducted regarding HIV/AIDS in fishing communities of Lake Victoria and the rest of Africa; these include access to health care [10] status, negotiation, and HIV risks among female migrants [21], HIV self-testing (HIVST) [22], understanding the socio-structural context of high HIV transmission [18], HIV prevalence and service uptake [11,19]. Nevertheless, none of the above studies has focused on PMTCT service provision despite the fact that women and children are reported to be the most affected by HIV/AIDS than men in these communities, besides HIV/AIDS health services have been reported to be inadequate or unavailable [19,23]. This study therefore aimed at exploring the socioeconomic, cultural and structural opportunities and challenges influencing health workers in implementing PMTCT services in fishing community of Lake Victoria of Tanzania side.

Information gathered from this study provides insights on structural, socioeconomic and contextual factors in the study areas to health care providers and health planners as well as policy makers for immediate attention and improvement towards reaching the national and global target of reducing Mother to Child Transmission of AIDS

Citation: Mgabo MR, Msuya SE andMushi D. Opportunities and Challenges in Implementing PMTCT Services in Fishing Community of Lake Victoria of Tanzania Side: A Cross Sectional Qualitative Survey with Health Care Providers. Austin J HIV/AIDS Res. 2018; 5(2): 1042.

(MTCT) by 90% by 2020.

Methods

Setting

Data was collected from two districts; Musoma and Sengerema, which are found in Musoma and Mwanza regions respectively. Sengerema district has a total population of 663,034 where 33016 are females of whom 143,592 are women of reproductive age [26]. The district has 50 health facilities one Hospital, 4 health centres and 45 dispensaries (personal communication with District Medical Officer). This was before Sengerema District split into two districts (Sengerema and Buchosa).

On the other hand, Musoma rural district has a total population of 178,356 people; females being 91,032 and women of reproductive age are estimated to be 38,631 [26]. Currently Musoma district has only one health centre, 23 government owned dispensaries, and three privately owned dispensaries no hospital.

The selection of these districts was based on their HIV prevalence, which ranged from 1.9-10.1 for Musoma and 1.6-9.1 for Sengerema [27], their involvement in fishing activities [28,29], coupled with unavailability or inadequate HIV/AIDS services reported from similar settings [6,10,30].

Study design

This study was a cross sectional survey using qualitative methods commenced from December 2015 to march 2016, whereby in-depth interviews with health professionals were conducted. Working experience of the interviewed health professionals in the study area enabled the researchers to explore on the opportunities and challenges affecting provision, utilization and uptake of PMTCT service.

Sampling and sample size

The sample size was estimated according to the saturation principle; that is, data collection stops when no new data is obtained in the subsequent interviews [31,32]. Eighteen in-depth interviews were conducted with key informants from ten health facilities; five facilities from Sengerema and five from Musoma district. These facilities we purposively selected by considering their geographical dispersions, they were found within a range of 5 kilometers from the Lakeshores. Key informants selected required to have worked in the study sites for not less than a period of one year and being involved in either HIV/AIDS Care, Treatment (CTC) and ANC /or PMTCT. At most two key informants were selected for interview from a facility. Key informants included either of the following; the facility in-charge; PMTCT coordinators at the antenatal care unit and the officer responsible for PMTCT services. In the case the facility had CTC, the CTC coordinator was involved.

Data collection

Three trained and experienced qualitative research assistants interviewed the consented participants. Three days orientation on the study objectives, interview guide as well as interviewing skills on sensitive personal matters was done to impart necessary skills to the researcher assistants. A standardized interview guide with open-ended questions was used for data collection. This was developed by the researchers with guidance from Tanzania PMTCT pocket book [33] and piloted to 4 health personnel from Mwanza Municipality. A few questions were reviewed to make the interview guide clearer. The interview guide covered 2 main areas (1) opportunities for the utilization of PMTCT services from both demand and supply side (2) Challenges in provision of PMTCT from demand and supply side. Kiswahili language was used for interview. The interviews were audio recorded, transcribed and then translated into English. Interviews lasted between 35 to 50 minutes. Data saturation was reached after 16 interviews; however, 18 interviews were conducted for assuring data reliability. Moreover, the obtained data was triangulating with available reports from the districts' medical officer's office, Ministry of Health and Social Welfare as well as other available national and international reports.

Data processing and analysis

The framework approach as described by [34] was adopted for data analysis. This approach provides systematic visible stages through which the readers can clearly understand the stages from which the study results were obtained. Moreover, framework analysis is inductive, meaning that it allows for the inclusion of a priori as well as emergent concepts [31,34].

The data analysis involved familiarization with the scripts, identifying a thematic framework, charted onto the thematic framework by defining and illustrating the concepts, views and experiences of the key informants. Then the main researcher shared with the co- researchers for a further discussion and consensus was reached. Lastly interpretation of the results was done based on the socio-ecological perspective [24,25].

For better understating on structural, socioeconomic and cultural opportunities and challenges facing health workers in implementing PMTCT programme in fishing communities, this study employs the socio-ecological model [24,25]. This model maintains that the barriers to successful PMTCT delivery can be divided into individual level factors, peer and family influences, the community context and the social cultural environment. This model looks beyond individuals and inter persons [24,25] .

Ethical consideration

Ethical approval was obtained from Kilimanjaro Christian Medical University College Research and Ethics Review Committee (Cert No. 1008). Permission to enter the facilities was granted by the District Medical Officers (DMOs) of Sengerema and Musoma. Respondents were briefed about the study objectives and benefits. Respondents provided a written consent for the interview and audio recording before being involved in the interview. All key informants accepted to be audio recorded. Through the course of the study, optimum confidentiality was assured and maintained. All interviews were conducted in the facility setting, in a room where privacy was maintained. A stipend of 5000 Tanzania shillings (approximately US $2) was provided to informants to cover transport cost, lunch and time spent at the clinic.

Results

In this section, themes and categories were identified after the data analysis. Relevant quotations from key informants were used to support the themes. The themes identified include available trained staff, community appreciation on the PMTCT, availability of ARVs, reduced stigma and violence, existence of fear of disclosure,

Table 1: Participants characteristics.

Characteristics	Frequency (%)
Sex	
Male	06(33)
Female	12(67)
Health workers cadre	
Clinical Officer	04(22)
Nurse/Midwife	14(78)
Respondents by level of facility	
Health Centre	03(17)
Dispensary	15(83)
Working section/ Department	
ANC/PMTCT	14(78)
CTC	04(22)
Working experience	
1 - 2 years	01(6)
3- 5 years	14(78)
More than 5 years	03(16)
Ever attended training on PMTCT in the past five years	
Yes	16(89)
No	02(11)
Would like to attend more training on PMTCT?	
Yes	18(100)
No	0(0)

understaffed health personnel, challenging working environment, lack of privacy and working space, irregular ANC attendance, by-passing nearby health facilities, non-adherence to ARVs, low male involvement in PMTCT, and underutilization of family planning services. All the above themes were categorized into opportunities and challenges from demand side and demand side.

Socio-demographic characteristics of the participants

Of the 18 key informants, 12(67%) were female, 17(94%) have been working in the study sites for a period of 3 to 5 years, 16(89%) informants had attended PMTCT training and all participants said they would like to attend PMTCT training again in future. This study involved 10 facilities; 7 dispensaries and 3 heath centres. Majority of the informants 15 (83%) were from the dispensary as indicated in (Table 1).

Opportunities and challenges influencing the utilization of PMTCT services

The current study identified a number of opportunities and challenges from the supply side as well as from the demand sided as presented below,

Opportunities from supply side

Availability of ART drugs, trained health personnel in PMTCT and Provision of HIV/AIDS health education: Opportunities identified from the supply side include; availability of ART drugs, availability of health personnel trained in PMTCT, provision of HIV/AIDS health education and reduced male violence to women tested HIV positive as narrated

"We have been trained on PMTCT service provision ... ARVs are available, this encourages many women to come for PMTCT…they prefer to deliver at health facilities under our help" Reported a clinical officer from Musoma, in-charge of a facility with over four years working experience. Across the study, this was repeatedly reported by participants.

Utilization of PMTCT services from demand side: Majority of women feared to disclose their HIV status… they suffered with prolonged sickness in silence which resulted into abortions …. non-disclosure in most cases denied HIV positive women access or adherence to ARVs as a consequence, their health [HIV positive women] deteriorated to death…efforts in health education and promoting HIV/AIDS/, MTCT/PMTCT awareness have borne fruits though fear of disclosure still exist" commented a nurse with over 5 years working experience from Sengerema. This was also mentioned from the demand side.

On the other hand, reduced fear and stigma, community appreciation on the programme, male involvement, access to Antiretroviral Therapy (ART) and HIV/ AIDS counseling were mentioned as key opportunities for utilization of PMTCT as illustrated in the quotes below

"...In a situation where intimate relations were not good, HIV status disclosure was not an easy thing…life of women found HIV positive was miserable! …Some were divorces, other committed suicide! But nowadays there are remarkable changes though stigma and low male involvement in PMTCT still exist." Said a nurse from Musoma with 4 years working experience. This was repeatedly reported across the inter-views in both districts.

"Previously violence or divorce when a woman tested HIV-positive were a lot but this keeps on reducing due to health education provided on HIV/AIDS! Narrated a nurse working in PMTCT for the past three years in Musoma. Similar situations were reported from a number of facilities from both study sites.

On the other hand, "PMTCT helps to link women who are not pregnant to access HIV care and treatment form CTC…," commented a nurse from Sengerema with over five years working experience. This was reported by a number of visited facilities

Challenges in provision of PMTCT services from supply side

Various challenges were identified from the supply side regarding provision of PMTCT services. These included understaffing, which led to long waiting time for the clients and overworking of the few available staff, inadequate working space, difficult working environment and delayed results for HIV Early Infant Diagnosis as narrated below

Understaffing: "The ANC is always overcrowded, clients are of different health services demands … still we are [nurses] few, this makes others [clients] to wait for some hours! Lamented a nurse from a health centre in Musoma.

Challenging working environment: "When it comes to providing outreach services, we are sometimes compelled to sail in boats to some Islands. …a number of health personnel fear the Lake,

it is life threatening… Some health workers have asked for transfer to the mainland while some have completely refused to report to their working stations. This has been one of the reasons for shortage of human resources for health in fishing communities!" Reported one of the District Medical Officers.

Privacy and space for counseling: Most the dispensaries complained of lacking rooms for counseling, which in turn compromised privacy in providing services to clients "Some women wished to be counseled privately but we do not have a room to do this. Instead, we do provide group counseling, this result in denying the attention to some women …besides most of the dispensaries are understaffed. …in this regard; we cannot declare that we do offer counseling thoroughly! Said a facility in-charge with 3 years working experience from Musoma, similar challenges were mentioned across the survey.

Delay of results for HIV Early Infants Diagnosis (HEID) as well as shortage of drugs and supplies: Delayed HEID results and shortage of drugs and supplies were reported by majority of key informants. "Often there is a delay in receiving HEID results for a Zone Laboratory, it can take a minimum of three months to get HEID results" said a facility in-charge from Sengerema with over 3 years working experience. The same was repeatedly across the study sites.

"It is very common to find drugs for opportunistic infection (OI) being out of stock. …patients have to buy them from the drug shops. …they complain…. they think we [health personnel] hide and steal OI drugs" said a facility in-charge with over 5 years working experience in Musoma. These complaints were reported by many facilities across the study sites.

"When Kits for dried blood spots collection are out of stock we were not doing HIV early diagnosis to infant" Reported a facility in-charge with over 3 years working experience in Musoma. Majority of the facilities visited in Sengerema reported similar challenge.

Challenges in provision of PMTCT from the demand side

Various challenges were identified to negatively impact on provision of PMTCT services. These include irregular ANC attendance, by-passing the nearby ANC, fear of disclosure of HIV seropositivity, stigma, non-adherence to ARV, and underutilization of family planning services as narrated below,

"Some women do attend ANC very late almost towards the end of second trimester…some just attend once. Majority say that this is done just to avoid transport costs and other non- medical cost associated with attending ANC, such as money for lunch and transport" reported the ANC in-charge from Musoma with 3 years working experience. This was reportedly expressed in across facilities in Sengerema as well.

"Some pregnant and nursing mothers tend to by-pass the nearby facilities going far for ANC services… some go even beyond Mwanza.... they don't want to be known as being HIV positive…. some do it because of fear and lack of trust in some nurses…they [patients] say some of us [nurses] disclose their HIV seropositivity! Reported a nurse from Sengerema with over three years working experience. Similar information was reported from both Musoma and Sengerema

"Some clients come for ARV drugs untimely…. some delay for some few days, some for a week or more! Said a facility in-charge with over 5 years working experience from Musoma. This was repeatedly reported in both Sengerema and Musoma

"Seeing ARVs being thrown on the way from the facility is very common" reported nurses from Musoma, similar experience of throwing drugs were reported in Sengerema.

"It's not surprising to see an HIV-positive woman being pregnant just after one year of giving birth…some in less than two years after last birth! This tells us that these women may not be using family planning methods" reported a nurse with three years' working experience from Musoma. Similar challenge was reported across the study.

"It is very challenging! You know women who have not disclosed their HIV positive status to their partners can hardly negotiate for safe and protected sex or use of family planning in consent with the partner. Then what do you expect" Urged a nurses from Sengerema with two years working experience

"Some men do not allow their wives/partners to use contraceptives. Yet they [men] refuse to use condoms regardless of knowing or not knowing their HIV status…. Others say if we are already HIV positive so what do we prevent? besides drugs are available for free, what should we fear? I get infected and get drugs!" lamented a nurse with three years working experience from Musoma.

"You know what? ...most of them do not fear HIV! …they [some men] are not faithful…. yet they do not prefer safe sex at all. ...so however much we struggle to achieve the control over mother to children HIV infections, without changing these men's behavior our struggle will not be fruitful! …Means towards changing men should be sought! Men's negligence or refusal to have protected sex was commonly reported to all both districts.

Discussion

Implementation of PMTCT services is influenced by multiple factors. The current study found a number of factors influencing the implementation of PMTCT services. For instance, availability of ARVs was appreciated as it has brought hope to HIV positive women and their babies. However, some women still fear to disclose their HIV status to their male partners. Similar findings on HIV positive females' fear of disclosing HIV serostatus to their male intimate partners have been reported [35-37].

Although previous studies have been suggested that involving male partners in PMTCT services could reduce the negative consequences that male partners have in female partner adherence to HIV/AIDS preventive services including PMTCT [37-39]. In the current study males' involvement in ANC was found to be low especially on the first day a pregnant mother where HIV test is supposed to be done. Following poor male attendance to ANC and HIV test, male attendance on the first day has been made compulsory. Some men were reported to refuse accompanying their wives while others were away for fishing and other occupation for wining a daily bread. In either absence or refusal of their male partners, some women reported to be accompanied by men who were not their husbands "they use motorcyclists in a disguise of the male partners".

The current study found that it is not a practice for males to accompany their female partners when it comes to seeking ANC heath services. On the other hand, some women reported to fear the consequences if found HIV positive. Similar to this, Colombini and colleagues in their recent study done in Kenya found that nearly one third of the respondents reported experiencing physical and/or emotional violence inflicted by their male partners following the seropositive-disclosure [40]. This is in support of Hampanda who maintains that in many sub-Saharan Africa population women's health outcomes and health-seeking behavior are intrinsically related to social structures of gender inequality. This is because majority of women hold very little socio-economic power in their lives and health decision-making [25]. In their views, Colombini and colleagues suggest that HIV status disclosure can be a period of heightened risk for partner stigma, abuse, and financial withdrawal. However, Colombini and colleagues suggest that male partners' involvement in sexual and reproductive health (SRH) should neither prevent women from accessing SRH services if they are not accompanied by their spouses nor health providers should not pressurize women to disclose or to bring their spouses [40]. As suggested by Colombini and colleagues, if desired results need to be achieved in implementing PMTCT, strategies employed to involve males need to be keenly contextually tailored to weakening that the norms and values hindering males involvement instead of being superimposed [40].

The current study reports that some women tended to by-pass the nearby facilities going to too far for PMTCT services fearing to be identified as HIV positive by people from community. Previous studies have associated by-passing health facilities with almost or less similar reasons such as disrespect [41] and fear of stigma [10], sometimes it aimed at going for quality care [42]. However, all of these have negative adverse impacts in HIV positive women's life including PMTCT retention and drug adherence.

As suggested by Vogel et al, if self-stigma develops from public, interventions to reduce or eliminate self-stigma needs to be developed to interrupt this public stigma at the individual level despite the perceptions of public stigma [43]. Though this has been the approach used in counseling people found HIV positive in Tanzania, Nayar and colleagues have different views. In Nayar and colleagues views, interventions on stigma reduction should focus on multiple socio-ecological levels, which include individuals (knowledge, attitudes, skills), interpersonal relations (family, friends, social networks), organizational contexts (organizations, social institutions, work place), community (cultural values, norms, attitudes), and national and local laws and policies [44]. This corresponds with Hampanda's view, who maintains that stigma cannot be addressed solely through biomedical education and individual counseling efforts. Instead, biomedical and social approaches are needed to address the complex behavior of HIV positive mothers' adherence to PMTCT [25].

Additionally, this study identified more structural challenges, these include delayed of the HIV Early Infant Diagnosis (HEID) results as well as shortage of drugs particularly drugs for treating opportunistic diseases and shortage of HEID kits. Similar challenges of stock out for opportunistic drugs and HEID Kits have been recently reported in Tanzania [45,7] and in various countries in Sub Saharan Africa [46]. For attaining effective results in implementing PMTCT programme, these challenges need to be resolved. Lack of drugs for opportunistic infection as well as untimely HEID have adverse effects to people living with HIV/AIDS. These effects include chances of developing Tuberculosis due to delayed IED laboratory report which might lead to a delay in ART initiation (Kisesa and Chamla, 2016).

Furthermore, difficult working environment such as fear of travelling in Lake Water compelled some health personnel to shift to the main land or not reporting at newly appointed working stations on the Islands. This has been claimed to contribute to shortage of human resources for health in fishing community particularly on islands. Similar has been previously reported [19,10,47]. This being a structural challenge, it needs to be solved by strengthening the health care systems, including providing hardship allowances and other incentive to employees in hard to reach areas like these of fishing communities. Similar strategies have been suggested in Tanzania [48,49,50] but the challenge has been its implementation [51].

Conclusion

Health care in selected fishing communities of Sengerema and Musoma districts have achieved notable results. These include access to HIV preventive services, Heath education and promotion, and male involvement which have reduced violence, discrimination and stigma as well as increased HIV testing among women and utilization of PMTCT services as well as increased awareness on the necessity of early infant diagnosis and linking community members who are not qualifying for PMTCT to CTC services. However, a number of challenges found to prevail, these include low male involvement in ANC/PMTCT, existence of stigma, fear of disclosure that lead some women bypass the nearby health facilities, inadequate human resources for health, inadequate supply of drugs for opportunistic infections to people living with HIV/AIDS. The observed challenges in this study emanate from socio-cultural and structural contextual attributes. As maintained in several studies, health challenges differ considerably by context [8,52,53] , imposing strategies form other social settings might not work as expected because of socio-cultural and structural barriers variability. Thus, it is crucial to develop contextual tailored strategies for attaining desired health outcomes. Thus, we recommend in planning any programme including PMTCT service provision and utilization, a clear understanding on the structural and socioeconomic opportunities and challenges from the socio-ecological perspective is worthy to be well integrated.

Acknowledgements

The authors would like to thank all health professionals who participated and shared their experience with the research team. Extended thanks go to Musoma and Sengerema District Reproductive and Child Health Coordinator (RDCHACOs) for their collaboration as well as Ms. Beatrice John, Ms. Mercy Nyambo and Mr. Daudi Sweke for their assistance in data collection. Lastly, I would like to thank the Institute of Rural Development Planning for funding this study.

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Citation: Mgabo MR, Msuya SE andMushi D. Opportunities and Challenges in Implementing PMTCT Services in Fishing Community of Lake Victoria of Tanzania Side: A Cross Sectional Qualitative Survey with Health Care Providers. Austin J HIV/AIDS Res. 2018; 5(2): 1042.