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Factors Influencing the use of Prevention of Mother-to-Child Transmission of HIV (PMTCT) Services in Ilala District, Dar Es Salaam Tanzania

Peter G. Pesambili
Department Of Community Development and
Project Management University of Iringa

Abstract:- The aim of this study was to exterminate the factors influencing the use of Prevention of Mother-To-Child Transmission of HIV (PMTCT) Services in Ilala District Dar es salaam Region. Interviews, questionnaire, and documentary reviews were used for data collection. The study used quantitative approach to analyse data mathematically. The study found that age, sex, and marital status were influencing the use of PMTCT services. Other factors included limited support from partners in the use of PMTCT services and education levels of women, level of income and stigmatization. This study was conducted after a determination that there are limiting number of documented studies which has been published on the socio-economic demographic and cultural factors influencing the use of PMTCT of HIV services in Ilala district where about 49,823 expectant mothers were tested for HIV/AIDS status and the status of their children born in 2018 and the results indicated that 2.7% were HIV/AIDS positive. The study recommends that the government through its sectoral ministries and partner agencies should strengthening community awareness on HIV, engaging male involvement in PMTCT care, and getting friendly service for the better PMTCT service utilization

Keywords:- *Prevention, Mother to child transmission, HIV/AIDS, Tanzania.*

I. INTRODUCTION

The risk for infants born to women living with Human Immune Virus and be infected is 5-10% infants infected during pregnancy, 10-15% infants infected during labour and delivery, 5-20% infants infected during breast feeding, and overall, 20-45% of infants will be HIV infected if there is no intervention (MoHSW, 2012). MTCT of HIV remains the major means by which children under the age of 15 years are infected with HIV. With statistics indicated that Mother to Child Transmission of HIV it contributes to 90% of children infections (Nketiah, 2013).

The risk of MTCT remains high in Africa, where there is a high prevalence of pregnancy and poor health-seeking behaviour among young girls and women. Pregnant adolescent and young mothers also have unique challenges that would hinder them from accessing HIV care (Atuyambe, *et al.*, 2018). For pregnant adolescents; obtaining access to relevant services, such as prenatal care, skilled attendants during birth, and PMTCT services, is more difficult (Birungi *et al.*, 2016). Due to their young age, teenage mothers must deal with disapproving health care providers. In addition, those living with HIV may face stigma and discrimination in health care settings which in turn outcomes to poor adherence to medication and attending clinic on expected appointment date for receiving PMTCT services and this increases the risk of MTCT of HIV (Hamilton, et al., 2017).

PMTCT interventions provide a critical opportunity to prevent vertical transmission of HIV from mother to child during pregnancy, labour, and delivery (Gamell *et al*., 2013).

It was therefore the focus of this study to determine factors influencing the use of prevention of mother-to-child transmission of HIV (PMTCT) services, at Ilala District Dar Es Salaam Region in Tanzania. The health facilities providing counselling and testing services to people living with HIV/AIDS are much expanding, including special program of PMTCT, but the barriers to service provision are significant (George, 2013).

II. LITERATURE REVIEW

A. Empirical Review

Results from various studies have found mixed evidence of an association between age and utilization of PMTCT services. Nketiah, (2013) said that young age of women has been identified as a predisposing determinant for utilization of PMTCT services. Zhao, (2015) in Vietnam found that older women (more than 25 years old) were more likely to utilize PMTCT. Tran, (2012) in China also found that women between the ages of 25 and 30 and women older than 30 were more likely to have adequately utilized antenatal than younger women. Efendi, (2016) also said that increased age is associated with more utilization of PMTCT services.

Rosliza, (2017) argued that the utilization of PMTCT services was almost nine times more likely for women reported their husbands to approve PMTCT than women with those whose husbands did not approve ANC service. Moreover, some husbands are not influencing and motivating their partners on using PMTCT services for protecting their child to be affected.

Tanzania, HIV knowledge is rather high, with 87% to 90% possessing some knowledge on HIV (Tanzania Demographic and Health Survey, 2010). Onasoga, (2018) argued that educated women were more aware of health problems, know more about the availability of health care

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services, and utilize the information more effectively than non-educated women. Worku, (2013) in Central Ethiopia found that women with some educations were more than two times more likely to attend ANC as compared with those who had no education. Onasoga, (2018) stated that health knowledge is an important factor whereby it enables women to be aware of their rights and health status in order to seek appropriate health services. Furthermore, Ali, (2019) proposed that no significant relationship was found between knowledge of PMTCT and early antenatal booking.

Karama (2014) in Addis Ababa, Ethiopia found that lack of awareness and knowledge about the availability and benefit of PMTCT services, shortage of PMTCT service providers and lack of adequate and separate room for PMTCT services, poor involvement of partners/husbands in PMTCT services, poor disclosure HIV status to partners, and psychological unpreparedness due to fear of being positive for HIV were the main barriers preventing mothers from HIV testing and increasing the success of the PMTCT programs. Vidler et al. (2016) argued that financial barriers related to the cost of health services and transportation to the health facility also influence whether a woman will seek maternal services and may be relevant in the context of user fees in Tanzania.

Rutaremwa, *et al*. (2015) said that, the evidence from settings like Tanzania suggests that cultural factors, such as religious beliefs and fear of stigma, as well as other factors such as household characteristics and household size can also influence healthcare utilization. Gourlay (2013), claimed that, adherence to PMTCT services throughout the breast-feeding period, when the infant is at risk of MTCT is limited due to stigma, lack of knowledge and weak health systems in countries like Tanzania.

B. Conceptual Framework

The conceptual framework of the study was aimed at bringing together the variable under the study. These include independent, dependent, and intervening variables. The independent variables such as age, marital status, education, stigma, and income influence the dependent variable that is PMTCT services.

Intervening variables such as Testing and counselling for pregnant women and their partners, adherence to appointment such as attending clinic, bringing back the baby for check-ups and for HIV testing (EID), adherence to medication, Viral Load (VL) testing participating in ongoing education and counselling, having a safe delivery in a health facility, practicing safer infant feeding can influence positively or negatively the dependent variable.

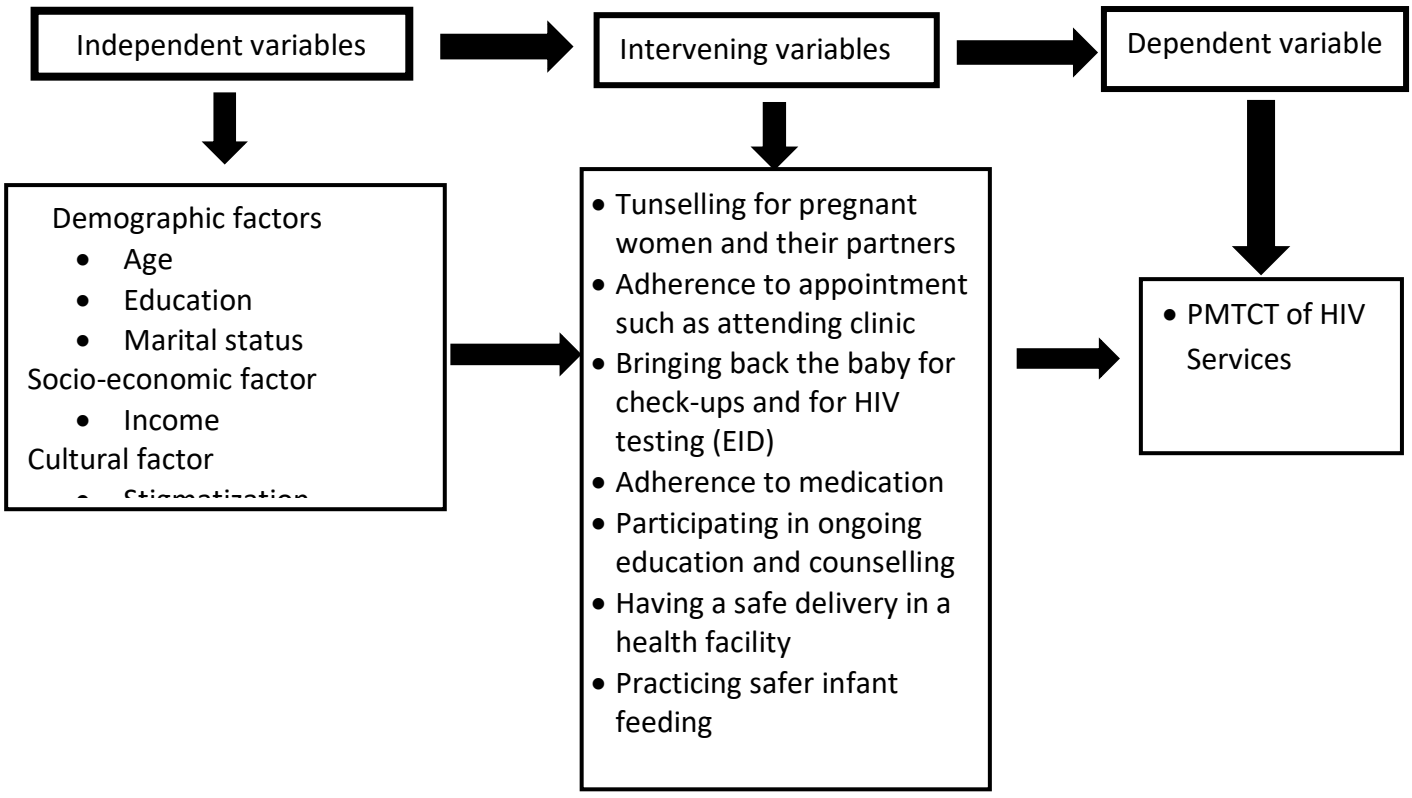

Fig 1: Conceptual framework of the study on factors influencing the use of PMTCT of HIV services

ISSN No:-2456-2165

III. METHODOLOGY

A. Research Design

The study used a case study design under the non-experimental design. The reason behind using this approach is this design assumes that the group under study is less heterogeneous, and a sample size is normally small. So, the selection of these areas was based on the evidence that, it reflected the nature of the characteristics of PMTCT services in Tanzania as a whole.

B. Study Area

The study was conducted in Ilala District Council particularly in two hospitals located in Ilala district which are Mnazi Mmoja HC and Buguruni HC.

The two hospitals in Ilala were selected for this study because they were suitable for generalization of information since Ilala District has many clients in the service (biggest TX curr) such as the total number of clients in the services at Ilala in 2020 were 57623 clients, while other districts are less than that, such as Temeke 46,121, Kinondoni 37,075, Ubungo 21,362 and Kigamboni 6963 (Data set Report Form. Action, 2020). Thus, from above viewpoint, the selected study areas were appropriate for the study.

C. Population of the Study

The study population for this research included doctors, counsellors and nurses working in PMTCT program, as well as HIV positive mothers and pregnant women obtaining PMTCT services. This population was the ideal for this study as they are aware of the PMTCT program and services hence provided informed answers to the questions that were asked in this study.

D. Sampling Frame

This study included a total number of 96 respondents, where by the researcher used 18 key informants who were; 4 doctors, 8 nurses, and 6 counsellors working in PMTCT program

E. Sample Size

This study included a total number of 96 respondents; where by the researcher used 4 doctors, 8 nurses, 6 counsellors 28 HIV positive mothers and 50 HIV positive pregnant women. According to Kothari (2015) regardless of population size, minimum sub-sample of 30 is acceptable minimum sample for studies involving statistical analysis. The sample was obtained from the Cochran (1963) formula which is n= N=Z2pq/e2.

F. Sampling Procedures

In this study both probability and non-probability sampling procedures were applied whereby under the probability sampling cluster sampling technique was used to obtain HIV positive mothers and HIV positive pregnant women who attend clinic and use PMTCT services. The reason to use this sampling technique to this category was that, mother and pregnant women using PMTCT services cannot be deliberately selected as you cannot expect someone specific to attend clinic on the day of data collection so under this technique respondent can easily be substituted by another respondent. Furthermore, non-probability sampling technique was employed to obtain doctors, counsellors and nurses working in hospitals which provide PMTCT services.

The reason behind non-probability sampling technique was that, these three categories of respondents have required enough knowledge about PMTCT service, and they can give information that the researcher is interested in.

G. Methods of Data Collection

The study adopted mixed research approach in which both quantitative and qualitative data were used. In this context, open ended and closed questionnaires were administered to 68 respondents involving doctors, counsellors and nurses providing PMTCT service, HIV positive mothers and HIV positive pregnant women who attend clinic at the hospitals whereassemi-structured interviews were used to get in-depth information with HIV positive mothers and pregnant women. relevant documents and information were reviewed such as PMTCT clinic Secondary data were collected through various progress reports from relevant facilities with different health implementation reports.

H. Data Analysis and Presentation

This study employed qualitative technique to analyze data in the form of logical statements and arguments through content analysis. Also, the study used quantitative approach to analyze data mathematically, whereby calculations of numbers, percentages, tables, and charts were used to summarize the amount of data obtained from the field. Qualitative data obtained through interview conducted with HIV positive mother and pregnant women seeking services in PMTCT clinics and quantitative data obtained by using questionnaires distributed to doctors and nurses and counsellors working in PMTCT clinics were analyzed using descriptive statistics through Statistical package for social science (SPSS, Version 22).

IV. RESULTS AND DISCUSSIONS

A. Results

a) Demographic Information of Respondents

Results (Table: 1) shows that most of the respondents (90%) were female while 10% of respondents were male. This was because most of the respondents found at the clinics were women and they are the ones bearing the triple gender roles and the PMTCT services were heavily directed to them than their counterparts. Results further reveal that, majority (39.6%) were aged between 30-34 years, followed by 21.9% who were aged between 25-29 years, while 19.8% were between 35-39 years old. In addition, 7.3% were aged between 20-24 years old, 5.2% were between 15-19 and the least 6.3% were aged 40-44 years old.

ISSN No:-2456-2165

Category	Frequency (n=96)	Percent (%)
Sex		
Male	10	10
Female	86	90
Total	96	100
Age		
15-19	5	5.2
20-24	7	7.3
25-29	21	21.9
30-34	38	39.6
35-39	19	19.8
40-44	6	6.3
Total	96	100
Marital status		
Never in Union	34	35.4
Married	38	39.6
Widowed	4	4.2
Divorced	4	4.2
Separate	16	16.7
Total	96	100
Education level		
No Formal Education	7	7.3
Primary	60	62.5
Secondary	20	20.8
Higher	9	9.4
Total	96	100

Table 1: Profile of respondents

Source: Compiled from Field Data, 2021

The results (Table 1) further show that most (62.5%) of the participants had primary education level, 20.8% had attained secondary education level, 9.3% reported to have attained higher education levels from colleges and universities while 7.3% reported to have attained no formal education. Also, it is observed that majority (39.6%) of the respondents were married, 35.4% reported to be never in union, 16.7% were separated, while the least 4.2% were divorced, and widows. This means that most respondents lived as couples and that could be participating in the PMTCT program.

b) Demographic factors influencing the use of PMTCT Services

Demographic factors are factors such as age, sex, and marital status. These affect each other and are interlinked. In this study results (Table: 2) show that most (78%) of the respondents agreed that age was influencing the use of PMTCT Services, 18% of the respondents claimed that age did not influence the use of PMTCT services while few (4%) reported to be not aware if age influence the use of PMTCT Services.

Results in this study further reveal that the majority (50%) of the respondents stated that age affects to a very large extent the use of PMTCT services among women while 17.6% reported that age influence the use of PMTCT at a large extent, 11.8% said age influence the use of PMTCT at a moderate extent and the least 10.3% said that age influence the use of PMTCT at a minimal and very minimal extent.

Age Influence	Frequency(n=96)	Percent
Yes	53	77.9
No	12	17.6
Don't know	3	4.4
Total	68	100.0
Extent Age Influence	Frequency(n=96)	Percent
To very large extent	34	50.0
Tolarge extent	12	17.6
To moderate extent	8	11.8
To minimal extent	7	10.3
To very minimal extent	7	10.3
Total	68	100.0
Age group	Frequency (n=96)	Percent (%)
15-25	41	60.3

ISSN No:-2456-2165

25-45	23	33.8
above 45	4	5.9
Total	68	100.0
Marital status influence appointment date	Frequency(n=96)	Percent
Yes	38	60.0
No	26	38.0
Don't know	4	6.0
Total	68	100.0

Table 2:- respondents of a young age

Results (Table: 2) show that the respondents of a young age were mostly few in PMTCT services compared to the elders. Most (60.3%) of the respondents under the age group of 15-25 were found to be very few at the hospitals and the main reason stated was their fear of stigma after disclosure, while those aged from 25-45 years old were found many in the hospital because these are already adults and do not fear stigma fear disclosure. These results were through interviews conducted with some nurses and doctors at Mnazi Mmoja HC where it was stated by one nurse that

.... young pregnant women are particularly disadvantaged in attending clinic on promised date, young HIV-pregnant women face discrimination can be at the family, working place or in health facilities, and they often are incapable of tolerating or fighting stigma, so it is easy for them to choose to leave the service.

It is very different for the elderly who know the importance of medication and attending the clinic to protect their children from mother-to-child transmission. (Interview with nurses and doctors, 2021)

From these results the researcher concludes that age as one among the demographic factors influences the use of Prevention of Mother-To-Child Transmission of HIV services at a large extent. Emlet and colleagues supported the findings in this study by stating that although encounters with prejudice and discrimination might not lessen with age, it is possible that the overall internalization of those enacted messages may indeed lessen with time (Emlet et al., 2018). In addition, the older PLWHA may also have more social and family support to adjust and understand the implications of their illness, thus resulting in lower levels of HIV-related stigma.

In this paper the researcher asked the participants about the clinical attendance of married and unmarried women and returning on dates of appointment in order to examine the influence of marital status on the use of PMTCT Services. The results collected show that most (60%) of the respondents agreed that marital status affect appointment date on the use of PMTCT Services while 38% disagreed. Findings reveal that most (65%) of the respondents said that they do not receive any support from their partners in the use of PMTCT services while 35% reported to be supported by their male counterparts in accessing and using of PMTCT services. During interviews with HIV positive women at the two selected hospitals the researcher found out that some women live with their husbands without them knowing that they are HIV positive and the reason reported was fear of discrimination and breaking down of marriage. Patient concerns around stigma, discrimination and hostile reactions of family and community are realities in many communities and thus play a significant role in the decision to come forward and test, enrol and be retained in PMTCT care. Also, it is reported that the lack of male partner support is a significant barrier to seeking care and adherence to PMTCT (Busza *et al*., 2012).

The results show that most (67.6%) of the respondents agreed that marital status influences the adherence of medication and use of PMTCT services while 23.5% disagreed. The findings are in line with a study by Kirsten (2015) that found that the only factor significantly influencing adherence to PMTCT in the antenatal phase was disclosure to the partner, family, or friends. Therefore, interpersonal relations, especially those with the partner, can influence the decision to access treatment and adherence to medication

Results have shown that mother's knowledge on prevention of mother-to-child transmission of HIV is essential in order to use available prevention options. The same is reported in this study as it has been shown that most (56%) of the respondents agreed that education levels influence the use of PMTCT Services. Findings from this study suggest that educated women are more knowledgeable about MTCT of HIV and understand the benefits of testing for HIV during pregnancy. This finding reaffirms the results from other Sub-Saharan African countries showing that mothers with a secondary educational level or above are likely to be more knowledgeable about mother-to-child transmission (Newell, et al., 2014). Results also show that most (48.5%) of the participants in this study reported that Education Levels influence the use of PMTCT Services at a very large extent.

c) Socio-economic factors influencing the use of PMTCT services

Results collected from the field show that most (76.5%) of the respondents in this study agreed that income status influence the use of PMTCT Services. It is also observed that 16.1% of the participants in this study disagreed that Income status influence the use of PMTCT Services. It is well documented in the literatures that socioeconomic factors, such as wealth status and income affect maternal healthcare utilization. Vidler et al. (2016) argued that financial barriers related to the cost of health services and transportation to the health facility also influence whether a woman will seek maternal services and is seen relevant in the context of user fees in Tanzania.

It can be observed that most (50%) of the participants used in this study reported that income status affects the use of PMTCT Services at a very large extent, while 26.5% said it affects at a large extent. These results further support that income status whether of a household or of an individual it influences the use of PMTCT Services, clinic attendance and adherence to medication. It was also stated in interviews with women at the clinics that;

...In reality, women who test positive face a difficult decision about how to feed their babies which is complicated by poor access to proper feeding counselling support and the influence of family members also financial problem to buy babies formula or cow milk… (Interview with pregnant woman, 2021)

d) Cultural factors influencing the use of PMTCT services

The results obtained show that 69% of the respondents in this study agreed that stigmatization is one among the cultural factors influencing the use of Prevention of Mother-To-Child Transmission of HIV services while 27% disagreed. These findings are in line with Gourlay, (2013), who claimed that, adherence to PMTCT services throughout the breastfeeding period, when the infant is at risk of MTCT is limited due to stigma, lack of knowledge and weak health systems in countries like Tanzania.

It was also reported through interviews with some of the nurses that were conveniently involved in this study that

"…In our community HIV related stigma tends to be firmly linked in people's minds to sexual behaviour, which again is regarded as 'promiscuous' behaviour. This attitude puts PLHAs into unnecessary hostile and embarrassing situation, they face discrimination and sometimes neglect…" (Interview with care service providers, 2021)

Results show that most (63.2 %) of respondents reported that PLWHA are heavily constrained by self-stigma which occurs when an individual internalizes feelings of shame or blame due to his/her negative social judgment of the HIV positive status. It was further supported in this study by one respondent when it was stated that

"…I have not taken my medication on two occasions when relatives and neighbours were in my house and have never disclosed my status to them. I did not have time to take out the medicine from my drawer. I frequently face this problem of trying to hide my medicine from others because I am living in a rented single room and I feared if they see my ARVs they will tell others I am infected…" (Female respondent at Buguruni HC, 2021)

The study found that the fear of stigma experienced by people on PMTCT results in non-adherence to medication through several ways. Firstly, it was noted that patients prefer a distant CTC to the extent of avoiding CTC(s) available near to their homes, thereby risking irregular replenishment of their ARVs.

Similar findings have been reported in other African countries, where many respondents were unwilling to seek treatment at the nearest health facility. Nyamhanga (2017) found that nondisclosure of HIV+ status to the spouse was due to fear of violence and divorce/separation and it affected some women's attendance of CTCs, as they lacked the fare and were unable to justify their absence from home on the clinic day.

B. Discussions

a) Demographic factors influencing the use of PMTCT Services

The main respondents in this study were doctors and nurses working in hospitals under PMTCT units, as well as HIV positive pregnant women and HIV positive mothers.

The findings reveal that 90% of participants were female while 10% of respondents were male. This was because most of the respondents found at the clinics were women and they are the ones bearing the triple gender roles and the PMTCT services are heavily directed to them than their counterparts. Majority (39.6%) were aged between 30-34 years, followed by 21.9% who were aged between 25-29 years, while 19.8% were between 35-39 years old.

Moreover, the study observed that 7.3% were aged between 20-24 years old, 5.2% were between 15-19 and the least 6.3% were aged 40-44 years old. The results further show that most (62.5%) of the participants had primary education level, 20.8% had attained secondary education level, 9.3% reported to have attained higher education levels from colleges and universities while 7.3% reported to have attained no formal education. Also, it is observed that majority (39.6%) of the respondents were married, 35.4% reported to be never in union, 16.7% were separated, while the least 4.2% were divorced, and widows. This means that most respondents lived as couples and that could be participating in the PMTCT program.

b) Demographic factors influencing the use of PMTCT Services

Demographic factors are factors such as age, sex, and marital status. These affect each other and are interlinked. In this study results show that majority (78%) of the participants agreed that age influences the use of PMTCT Services, 18% of the participants said that age does not influence the use of PMTCT Services while few (4%) reported to be not aware if age influence the use of PMTCT Services. It was supported during interviews with HIV positive pregnant women who attend clinic at Amana regional referral hospital that age influence use of PMTCT when it was narrated that;

... A pregnant woman living with HIV at a young age faces myriad challenges imposed by social surroundings that limits her capacity to focus on the proper use of ARTs. In my life due to being young and lacking experience about PMTCT services my first child got infected when I was giving birth. At that time, I didn't have enough understanding of medication, and the ways to protect my baby from getting infected, but now I have three children and these two are not affected, because now am old and experienced… (Interview with pregnant woman at Amana HC, 2021)

Results in this study reveal that the majority (50%) of the respondents stated that age affects to a very large extent

the use of PMTCT services among women while 17.6% reported that age influence the use of PMTCT at a large extent, 11.8% said age influence the use of PMTCT at a moderate extent and the least 10.3% said that age influence the use of PMTCT at a minimal and very minimal extent.

The findings from this study are consistent with findings from several studies in South Africa (Belayneh et al. 2016) that also found that age influence the use of PMTCT services and adolescent women were found to be less likely to know their HIV status before their first ANC visit compared with adult women. Typically, older women are more likely to be married, have spousal or other social support which is vital for coping with pregnancy related stress and the added burden of a possible HIV diagnosis. Furthermore, Nketiah, (2013) said that young age of women has been identified as a predisposing determinant for utilization of prevention of mother-to-child transmission services.

The results collected in this study show that 60% of the participants in this study agreed that marital status affect appointment date on the use of PMTCT Services while 38% disagreed. These findings are supported by other studies that reported that unmarried HIV-positive pregnant women are less likely to access care and acquire ARV drugs than married women, with little change over time, potentially reflecting an absence of support from male partners. In contrast, a few African studies found married or cohabiting women were less likely to use PMTCT ARVs or other HIV services, perhaps due to perceived negative reactions from partners.

Studies have shown that pregnant young adults face discrimination by health professionals as being pregnant as an unmarried woman is often viewed negatively in many African settings (Gourlay *et al.*, 2015; Kea *et al.*, 2018).

Again majority 65% of the respondents said that they do not receive any support from their partners in the use of PMTCT services while 35% reported to be supported by their male counterparts in accessing and using of PMTCT services. During interviews with HIV positive women at the two selected hospitals the researcher found out that some women live with their husbands without them knowing that they are HIV positive and the reason reported was fear of discrimination and breaking down of marriage.

Patient concerns around stigma, discrimination and hostile reactions of family and community are realities in many communities and thus play a significant role in the decision to come forward and test, enroll and be retained in PMTCT care. Studies concerning male involvement in PMTCT services have shown that only 1 of 223 of the male partners had HIV testing. Men have a significant influence on uptake of reproductive health services and other interventions. Also, it is reported that the lack of male partner support is a significant barrier to seeking care and adherence to PMTCT (Busza *et al.*, 2012)

In addition, 67.6% of the participants in this study agreed that marital status influences the adherence of medication and use of PMTCT services while 23.5% disagreed. Others 8.8% reported to not be aware. These findings are supported by a quantitative study by Kirsten (2015) that found that the only factor significantly influencing adherence to PMTCT in the antenatal phase was disclosure to the partner, family, or friends. Therefore, interpersonal relations, especially those with the partner, can influence the decision to access treatment and adherence to medication

Results show that most (56%) of the respondents agreed that education levels of women influence the use of PMTCT Services and as we have seen from the demographic information of respondents that majority of the women involved in this study had primary education levels meaning that their knowledge of and participation in PMTCT services is minimal. Other findings from this study as seen in table below reveal that majority (40%) of the study participants disagreed that education levels do not influence the use of PMTCT Services while 4% stated to be unaware.

Research studies from various parts have shown that mother's knowledge on prevention of mother-to-child transmission of HIV is essential in order to use available prevention options. This was further elaborated in this study during interviews with HIV positive mothers attending at the clinics when it was stated that

…Women, who have adequate knowledge on HIV prevention, protect themselves, their husband and their children from HIV infection and are more likely to undergo HIV testing than women who do not have adequate knowledge on HIV. Furthermore, women, who do not realize mother-to-child transmission of HIV and its prevention, have limited uptake of PMTCT services… (Interview with pregnant woman at Mnazi Mmoja HC, 2021)

Findings from this study suggest that educated women are more knowledgeable about MTCT of HIV and understand the benefits of testing for HIV during pregnancy. This finding reaffirms the results from other Sub-Saharan African countries showing that mothers with a secondary educational level or above are likely to be more knowledgeable about mother-to-child transmission (Newell, *et al.*, 2014).

Furthermore, studies on utilization and acceptability of PMTCT services showed that many women decline HIV testing in ANC due to poor understanding of PMTCT interventions and improving the education of female children is very important if we are to increase PMTCT utilization (National Agency for the Control of AIDS, 2017).

c) Socio-economic factors influencing the use of PMTCT services

Results in this study show that most (76.5%) of the respondents in this study agreed that income status influence the use of PMTCT Services and it was also stated in interviews with women at the clinics that;

...The reality is that pregnant women who test positive face a difficult decision about how to feed their babies which is complicated by poor access to proper feeding counselling support and the influence of family members also financial

problem to buy babies formula or cow milk… (Interview with pregnant woman, 2021)

It is also observed that 16.1% of the participants in this study disagreed that Income status influence the use of PMTCT Services while 7.4% reported to not be aware. It is well documented in the literatures that socioeconomic factors, such as wealth status and income affect maternal healthcare utilization. Vidler *et al*. (2016) argued that financial barriers related to the cost of health services and transportation to the health facility also influence whether a woman will seek maternal services and is seen relevant in the context of user fees in Tanzania.

Also, most (50%) of the participants used in this study reported that income status affects the use of PMTCT Services at a very large extent, while 26.5% said it affects at a large extent. Other participants 13.2% reported that income status affect the use of PMTCT Services at a moderate extent while 10.3% said it affects at very minimal extent. These results further support that income status whether of a household or of an individual it influences the use of PMTCT Services, clinic attendance.

d) Cultural factors influencing the use of PMTCT services

Results obtained show that 69% of the respondents in this study agreed that stigmatization is one among the cultural factors influencing the use of Prevention of Mother-To-Child Transmission of HIV services while 27% disagreed. These findings are in line with Gourlay, (2013), who claimed that, adherence to PMTCT services throughout the breastfeeding period, when the infant is at risk of MTCT is limited due to stigma, lack of knowledge and weak health systems in countries like Tanzania.

In our community HIV related stigma tends to be firmly linked in people's minds to sexual behaviour, which again is regarded as 'promiscuous' behaviour. This attitude puts PLHAs into unnecessary hostile and embarrassing situation, they face discrimination and sometimes neglect. Moreover, 82.4% reported that stigmatization affect HIV positive pregnancy mothers at a very large extent and it was stated by one respondent in an interview that

…Stigma is a very big problem in our society especially to HIV positive mothers, they do not disclose their HIV status and hence they fail to practice safe breast feeding because they fail to justify to the relatives or partners/husbands why they are not giving their children water or why they do not implement alternative feeding practice to their babies.… (Interview with pregnant woman, 2021)

Stigma emerged as a major barrier to the participants' utilization of PMTCT services as noted by one mother:

Stigma is a major issue. Young mothers fear that their results will be shared or discovered by other people especially if they test positive. (Interview with pregnant woman, 2021).

Similarly, key informants stressed the role of stigma as a barrier to utilization of PMTCT services by was noted by one key informant:

Stigma is the biggest challenge adolescent mother's face. They first stigmatize themselves and then the stigma that comes from the community. Young mothers think that when one is tested positive, they are going to die and they lose hope in themselves... (Interview with Mid wife nurse, 2021).

V. CONCLUSION

This study was conducted after a determination that there are limiting number of documented studies which has been published on the socio-economic demographic and cultural factors influencing the use of PMTCT of HIV services in Ilala district where about 49,823 expectant mothers were tested for HIV/AIDS status and the status of their children born in 2018 and the results indicated that 2.7% were HIV/AIDS positive. The number of children born with negative status ware 40312 and 1521 children were HIV positive. PMTCT interventions provide a critical opportunity to prevent vertical transmission of HIV from mother to child during pregnancy, labor, and delivery.

VI. RECOMMENDATIONS

Based on the findings and conclusions, the study recommends the following:

The government through its sectoral ministries and partner agencies should strengthening community awareness on HIV, engaging male involvement in PMTCT care, and getting friendly service for the better PMTCT service utilization. It would be expected that the quality of service could impact on the use of such services even if some of the service may be offered free of charge at Government owned health facilities.

Also, since information provided by health professionals may be more detailed and thus enhance knowledge, the number of antenatal clinics attended by pregnant women could impact the level of knowledge. Thus, further research could explore the association between number of times a woman attends ANC (and is educated about PMTCT) and knowledge prevalence or intent to use available PMTCT services.

This study was set out to determine factors influencing the use of PMTCT services, at Ilala District Dar Es Salaam region in Tanzania by specifically focusing and paying attention on the demographic factors (age, marital status, and education levels) influencing the use of PMTCT services, socio-economic factors (income) influencing the use of PMTCT services and cultural factors (Stigmatization) influencing the use of PMTCT services.

A lot can be still be done there are many other demographic, socio-economic, and cultural factors that still inhibit the use of PMTCT services. The study recommends that other researches be done to examine the factors that are left out by this study to fill more knowledge gaps

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