THE STIGMA EFFECT ON PROVISION OF HEALTHCARE SERVICES FOR PREGNANT WOMEN LIVING WITH HIV IN TANZANIA

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Abstract

Globally, more than a half of the adults living with HIV are women. In addition, the stigma faced by pregnant women living with HIV is a major barrier when it comes to their access to healthcare services. Stigma to pregnant women could be further compounded by lack of support from family and the community at large. Therefore, the study examines the relationship between stigma and other barriers to HIV positive pregnant women's access to healthcare. In addition, it examines family and community for the women's access to healthcare services. The study on which the paper is based was conducted in Njombe, Mtwara and Dodoma regions. The study adopted the cross-sectional research design and data was collected from 311 respondents *using a pre-structured questionnaire with open and close-ended questions. Generally, the findings show that there is a significant relationship between stigma and barriers to healthcare services for pregnant women living with HIV. The findings also show that the quality of services received by the women was poor. Additionally, it was also found that there were significant moderating effects of family involvement and community support on stigma and barriers to healthcare services. The study observed that health systems cannot achieve the prevention of VT targets without the involvement of the families and community. Therefore, in order to scale up quality services and supportive environments, there must be community involvement in healthcare services particularly conversations between the community and healthcare providers to accommodate community perception about HIV treatment and care. The study recommends that there is a need to promote family involvement and community support to curb stigma and thus reduce barriers to the healthcare services among pregnant women living with HIV. Moreover, more efforts should be exerted on the improvement of the access to health care services.*

Keywords: Barriers, Health Care Services, Pregnant Women, HIV, Stigma

INTRODUCTION

Globally, huge progress has been achieved on the trends of the HIV/AIDS epidemic in the past 20 years (UNAIDS, 2021). Despite the downward trend, millions of new infections are being reported every year and the immense scale of the AIDS pandemic remains (UNAIDS, 2021). Therefore, measures to prevent new HIV infection are required. Moreover, there has been a striking increase in HIV infection in some parts of the world (Aishat and Ayinde Olubunmi, 2016; Mwendah and Mallya, 2014; UNAIDS, 2021). Eastern and southern Africa remain the regions that are heavily affected by HIV, accounting for approximately 55% of all people living with HIV with an estimated 58% of new infections among women and girls (UNAIDS, 2021).

According to UNAIDS (2021), among the 36 million adults living with HIV, 19.3 (54%) are women aged 15 years and above. Likewise, of the 1.3 million adults newly infected with HIV, 660,000 are women aged 15 years and above.

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Therefore, the fastest growing group of adults living with HIV is women and many of them are at the reproductive age (UNAIDS, 2021). In 2020, there were 1.7 million people living with HIV in Tanzania and 68,000 were newly infected with HIV, out of which 1 million were women aged 15 years (UNAIDS, 2021). Moreover, in Tanzania, about a quarter (26%) of the pregnant women living with HIV are aged between 15 and 24 years (UNAIDS, 2021).

The increasing number of women living with HIV worldwide makes prevention campaigns and measures to be critical, not only for women's health but also to reduce the future HIV infection among infants in sub-Saharan Africa (SSA), where half the female population is of childbearing age (Newell, 2001). Additionally, pregnant women are up to two times more likely to acquire HIV than other women, and infection during pregnancy has been demonstrated to increase at an odds 15-fold of VT (vertical transmission) (UNAIDS, 2014). Moreover, VT accounts for over 95% of all paediatric HIV infections worldwide (Byamugisha, Tumwine, Semiyaha and Tylleskar, 2010; UNAIDS, 2013), yet many researches on HIV infections exclude pregnant women.

The global community has been committed to eliminating mother-to-child transmission (EMTCT), which is also known as VT of HIV as a public health priority (WHO, 2021). HIV can be transmitted from an HIV-positive woman to her child during pregnancy, childbirth and breastfeeding. VT accounts for the vast majority of infections in children (0-14 years). As more women contract the virus, the number of children infected through VT has been growing (Olugbenga-Bello, Adebimpe, Osundina and Abdulsalam, 2013). Therefore, eliminating vertical HIV transmission requires improvements across the continuum of efforts to provide pregnant women with proper health care services through pregnancy, childbirth and breastfeeding so as to protect themselves from HIV infection.

However, poor service delivery, living in hard-to-reach areas, and stigma attached to HIV are significant barriers to the wider uptake of services (UNICEF, 2021). Despite new HIV infections among children declining by more than half (54%) between 2010 and 2020 mainly due to the increased provision of antiretroviral therapy to pregnant and breastfeeding women living with HIV (UNAIDS, 2021); the momentum has slowed considerably due to many pregnant women in Africa living with HIV not being on treatment (UNAIDS, 2017). Consequently, 9 in 10 paediatric HIV infections occurred in sub-Saharan Africa in 2020 (UNICEF 2021).

Furthermore, VT constitutes a substantial burden of new HIV infections in SSA, and prevention of VT is undermined (Chinkonde, Sundby and Martinson, 2009; Merdekios and Adedimeji, 2011). In addition, the UN's ambitious goals to reduce the VT of HIV have not been met in much of SSA (Hardon,*et al*, 2012). For example, despite the aims to reduce the VT rate to less than 5% by 2017 in Tanzania, VT rates remain high (AVERT, 2020).

Socio-cultural barriers and weakness in healthcare system are barriers considered to hinder healthcare services. Nkuoh *et al.*, (2010) state that men's participation in VT is affected by socio-cultural barriers centred in tribal beliefs and traditional gender roles to healthcare services. The barriers identified included the belief that pregnancy is a ''woman's affair''; the man's role is primarily to provide financial support for the woman's care; and the man's perception that he will be viewed as jealous by the community if he comes to clinic with his pregnant wife.
Studies conducted in Botswana and Zambia have shown the above could be a result of

barriers such as stigma, traditional norms on breastfeeding, and the role of family and community members in women's decisions to participate in programmes to prevent VT of HIV (Nyblade Rutenberg and Field-Nguer, 2001; WHO, 2010). However, when it comes to Tanzania, not much is known with regard to the feeling of stigma and what pregnant women with HIV infection go through in attending heath care services. Furthermore, evidence suggests that very little is known about how to best address the health service needs of pregnant women who are the key population affected by HIV (UNC, 2016).

Therefore, the paper provides an insight on how pregnant women and their developing children may ultimately benefit from interventions critical to their health and wellbeing. The paper also examines the effect of stigma and family as well as community related barriers on the uptake of healthcare services by pregnant women living with HIV in Tanzania. In addition, it tests the following hypotheses H1: Stigma has a significant relationship with barriers to accessing healthcare; H2: Stigma has a significant relationship with barriers to quality healthcare; H3: Integrated healthcare services have a significant moderating effect on stigma and barriers to healthcare services; H3a: Family-centred care participation has a significant moderating effect on stigma and barriers to healthcare services; H3b: Family-centred care delivery has a significant moderating effect on stigma and barriers to healthcare services, and H3c: Community support has a significant moderating effect on stigma and barriers to healthcare services.

Theoretical Framework

The paper is guided by Max Weber's Theory of Social Action (TSA). According to Max Weber (1978), when a man assigns a certain meaning to his conduct it becomes social since the meaning he assigns to it relates to the behaviour of other persons and it is oriented toward their behaviour (Priya, 2015; Weber, 1978). Therefore, based on the TSA strengthening community and peer support, promotion of family-centred care including male involvement and ending stigma can all be achieved through strong social relationships. However, Weber's TSA has been criticised for stressing too much on the element of voluntary subjective meaning of the actor and not providing a satisfactory account of meaningful action since if the meaning is too much divorced from the actor; it becomes an objective category imposed by the sociologists (Parsons, 1965; Schultz, 1964). Despite those criticisms, Weber's theory of Social Action has inspired sociologists and it is useful in explaining the involvement of families and community in providing integrated health care to pregnant women living with HIV. The theory is also useful in addressing the issues of stigma to mitigate the VT hence, its applicability in guiding the paper.

RESEARCH METHODOLOGY

Description of the Study Area

The study was conducted in three regions in Tanzania namely, Njombe, Mtwara and Dodoma. The choice of the regions was based on Tanzania HIV/AIDS and Malaria Indicator Survey (2012) and National Bureau of Statistics (2015) reports on HIV prevalence among women in Tanzania. Njombe region has a high prevalence rate of 15.4%, Mtwara region has an average prevalence rate of 6.0% and Dodoma region has a low prevalence rate of 2.1%. Therefore, the study covered the three levels of prevalence of HIV among women.

Research Design

The study on which the manuscript is based employed the explanatory research design using the survey strategy. Researcher chose the explanatory research design to test the relationship between independent and dependent variables developed from theoretical and empirical review.

Sampling Procedures

The study applied the probability sampling technique where every member of the population has an equal chance of being included in the sample to allow generalisation of the study findings (Babbie, 1992; Creswell, 2012; Cooper and Schindler, 2014; Kothari, 2004). Therefore, the study listed all names of health care providers (Nurses, Midwives and Doctors) from the district health database, pregnant and women who had given birth were available for MNCH services; and a unique number was assigned to each individual. The researcher chose the number of individuals from the population until the number required by the sample size was obtained.

Sample Size

According to Kline (2011), sample size in Structural Equation Modelling (SEM) affects the precision of the results. Large samples are generally required in SEM for acceptable precision and the acceptable sample is between
200 and 500 cases. Therefore, 400 respondents were chosen in such a way that even if the response rate was to be 50%, the cases would not fall below the SEM's acceptable level of 200 cases. However, after a thorough cleaning of questionnaires, 311 respondents were selected from the participants including Postnatal and Antenatal women and other members of the community who were receiving health services, thus producing a response rate of 78% which is satisfactory.

Data Collection Instruments

Primary data was collected using a structured questionnaire with questions set along the 5-point Likert scale which are easily answered by the respondents (Trochim, 2006). This instrument was chosen since it facilitated the collection of data from a relatively large sample and was also appropriate for the quantitative approach this study employed.

Ethical Issues

In order to protect the autonomy, privacy, willingness, respect and confidentiality of individuals who participated in the study, the researcher obtained consent from participants before the collection of data. Also, the study obtained a research approval from the Institute of Social Work, which was under the then Ministry of Health, Community Development, Gender, Elderly and Children[6]. The Regional and District Medical Officers made all the logistical arrangements for visiting the sites to be studied.

The subjects of the study involved adults over the age of 18. Additionally, all study participants were pre-informed of the nature of the research and its purpose, potential benefits and risks of participating in the study (also written on the data collection tool) and informed consent was obtained before taking part in the study.

DATA ANALYSIS

The IBM-SPSS was used to determine descriptive statistics (frequencies, means and percentages). SEM was used to analyse data as it tends to explain the optimal behaviour of variables and predict their future behaviour (Davcik, 2014). The researcher employed SEM by using AMOS 18 as it allows making use of several indicator variables per construct simultaneously, which leads to more valid conclusions at the construct level (Kline, 2011). It also takes measurement error into account by explicitly including measurement error variables that correspond to the measurement error portions of observed variables. Therefore, conclusions about relationships between constructs were not biased by measurement error (Hair, Black, Babin and Anderson, 2010).

RESEARCH FINDINGS

Respondents Socio-demographic Characteristics Among the 311 respondents contacted in this study, majority were females (74.9%). Respondents aged between 26 and 35 years were 31.8%, and those between 36 and 45 years were 30.9%. On the marital status of the respondents, majority were married and living together (50.5). Regions where respondents resided included 55.0% from Njombe, 18.3% from Dodoma and 26.7% of respondents were from Mtwara. Table 4.1 shows all the details of the study respondents' characteristics.

Table 4.1: Respondents' Profile

N = 311		Frequen	Percent
Gender of the	Male	78	25.1
	Female	233	74.9
Age of the respondent	18-25	54	17.4
	26-35	99	31.8
	36-45	96	30.9
	46-55	41	13.2
	56-65	16	5.1
	Above 65	5	1.6
Marital Status of the respondent	Married and living together	157	50.5
	Married but temporarily living/working away	4	1.3
	In a relationship and living together	15	4.8
	In a relationship but not living together	12	3.9
	Single	36	11.6
	Divorced/separated	35	11.3
	Widow/widower	41	13.2
	Missing system	11	3.5
Respondent's economic status	Doing business	110	35.4
	Employed	41	13.2
	Dependant to partner	76	24.4
	Dependant to relatives	49	15.8
	Missing system	35	11.3
Region where respondents reside	Njombe	171	55.0
	Dodoma	57	18.3
	Mtwara	83	26.7

Reliability and Validity

The study variables are stigma (Stig), barrier to access healthcare (BaAcc), barrier to quality healthcare (BaQu), family-centred care participation (FamCP), family- centred care delivery (FamCD) and community support (ComSup). The Variable Inflation Factor (VIF) for each of the independent variables in our study ranges from

1.150 to 1.652, which satisfies the rules of the thumb for the VIF of VIF < 3 which indicates no multicollinearity problem (O'brien, 2007). Convergent and discriminant validity, as well as reliability were established when performing a

CFA (Table 4.2). The tests established were: Composite Reliability (CR), Average Variance Extracted (AVE), and Maximum Shared Variance (MSV). The test illustrates that there is no validity concerns as CR > 0.7, AVE > 0.5 and MSV < AVE. Moreover, the square root of AVE is greater than inter-construct correlations (Hair, Black, Babin, and Anderson, 2010).

Table 4.2: Convergent Validity and Discriminant Validity

Item	CR	AVE	MSV	MaxR(H)	BaQu	FamCP	ComS	Stigm	BaAcc	FamCD
BaQu	0.870	0.627	0.364	0.878	**0.792**					
FamCP	0.787	0.553	0.389	0.919	0.194	**0.744**				
ComSupp	0.826	0.543	0.384	0.942	0.200	0.540	**0.**			
Stigm	0.805	0.585	0.332	0.959	0.429	0.337	0.	**0.765**		
BaAcc	0.874	0.643	0.364	0.975	0.603	0.470	0.	0.576	**0.802**	
FamCD	0.890	0.731	0.389	0.980	0.075	0.624	0. 62	0.298	0.355	**0.855**

Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis was used to determine the measurement of reliability and validity. As depicted in Figure 1 and Table 4.3 below, the measurement model goodness of fit indices was as indicated in Figure 1. Although the GFI and AGFI were less than 0.90 and RMSEA was larger than 0.05, the most important index Cmin/df was less than 3.00 and CFI was larger than 0.90, indicating acceptable reliability. Therefore, the measurement model is acceptable.

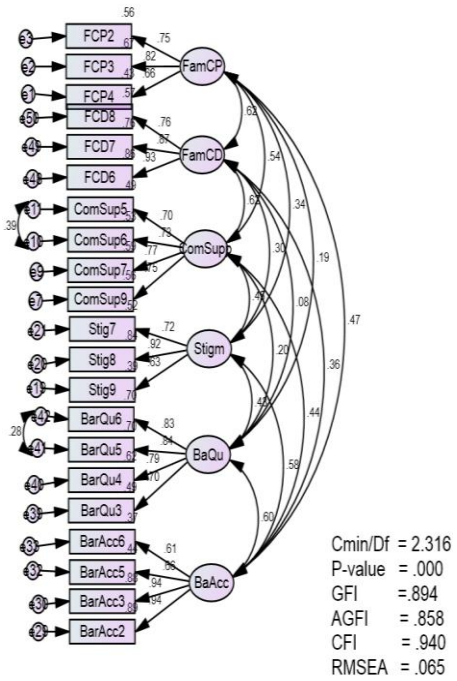

Figure 1: Confirmatory Factor Analysis (CFA)

Table 4.3: CFA of Dimensions and Items

Item Relationship			Estimate	S.E.	C.R.	P	Standardized Regression Weights
FCP4	<---	FamCP	.822	.075	10.902	***	.659
FCP3	<---	FamCP	1.000				.818
FCP2	<---	FamCP	.826	.068	12.157	***	.746
ComSup9	<---	ComSup	1.000				.749
ComSup7	<---	ComSup	.790	.065	12.194	***	.771
ComSup6	<---	ComSup	.811	.071	11.481	***	.728
ComSup5	<---	ComSup	.790	.072	11.002	***	.698
Stig9	<---	Stigm	1.000				.628
Stig8	<---	Stigm	1.285	.116	11.075	***	.918
Stig7	<---	Stigm	1.156	.111	10.395	***	.720
BarAcc2	<---	BaAcc	1.860	.147	12.613	***	.942
BarAcc3	<---	BaAcc	1.846	.147	12.583	***	.936
BarAcc5	<---	BaAcc	1.186	.120	9.915	***	.661
BarAcc6	<---	BaAcc	1.000				.611
BarQu3	<---	BaQu	.858	.070	12.304	***	.701
BarQu4	<---	BaQu	.944	.069	13.734	***	.788
BarQu5	<---	BaQu	.990	.051	19.484	***	.837
BarQu6	<---	BaQu	1.000				.834
FCD6	<---	FamCD	1.000				.928
FCD7	<---	FamCD	.936	.044	21.066	***	.872
FCD8	<---	FamCD	.868	.052	16.654	***	.756

Source: Field Data (2022)

Structural Model - Hypotheses Testing

After the model fit in the CFA was performed, the model fitting was performed again in the structural model –SEM (Figure 2). The SEM was conducted on the structural model using AMOS 20 to test the hypotheses formulated. The full structural equation model is considered and the hypotheses to be tested relate to the pattern of the causal structure linking several variables in the study. Overall, the mediation structural model fits the data well. Most of the fit statistics met the minimum requirements (Cmin/df = 2.279; GFI = .956; CFI = .978; and RMSEA = .064. The signs of structural paths were consistent with the study's hypothesized relationships.

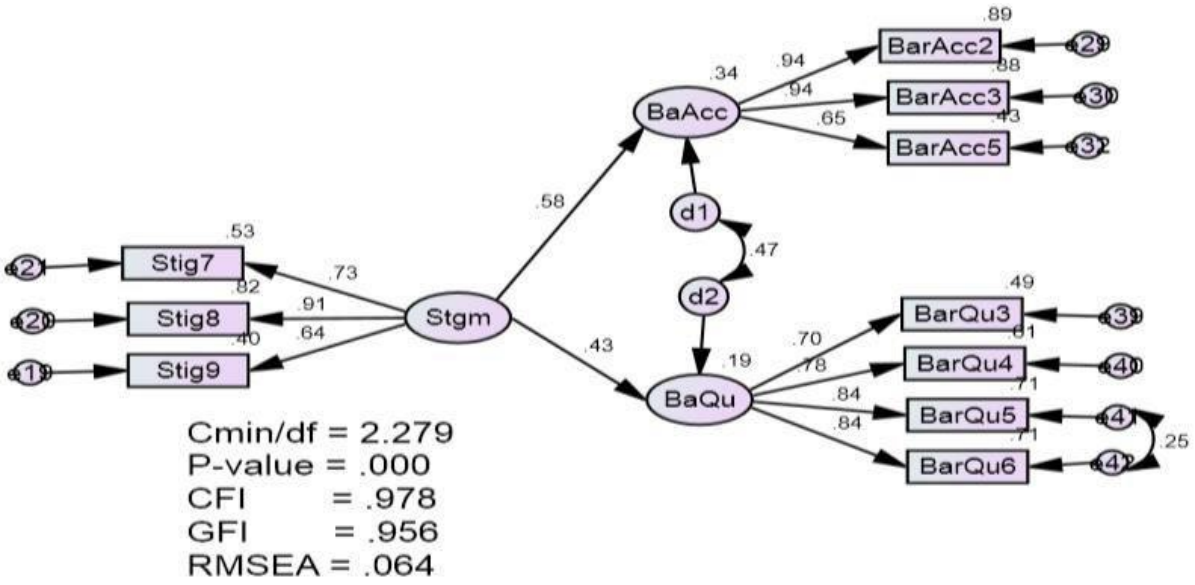

Figure 2: Structural Model

The Stigma and Barriers Faced by Pregnant Women Living with HIV

The hypothesized research model exhibited a good fit with the observed data (Table 4.4). All the hypothesized paths are supposed to be significant at p-value ≤0.05 so as to be accepted, otherwise, the hypothesis will not be accepted by the model. The study's hypothesis stated that "Stigma has a significant relationship with barriers to access to healthcare and barriers to quality healthcare". The H_1 and H_2 were supported as the results show that stigma has a significant relationship with both barriers to access healthcare and barriers to quality healthcare. In other words, the regression weight for the influence of stigma on barriers to accessing healthcare is significantly at $\beta = 0.751$, while the influence of stigma on barriers to quality healthcare was supported at $\beta = 0.457$. The standardised regression weights of the output and result of the hypotheses testing providing support for hypotheses are presented in Table 4.4. It is worth noting that the influence of stigma is more significant on barriers to accessing healthcare (75%) than on barriers to quality healthcare (46%).

Table 4.4: Standardised Regression Estimates

Item Relationship			Estimate	S.E.	C.R.	P	Standardized Regression Weights
BaAcc	<---	Stgm	.751	.082	9.166	***	.583
BaQu	<---	Stgm	.457	.071	6.433	***	.432
Stig9	<---	Stgm	.867	.083	10.473	***	.635
Stig8	<---	Stgm	1.088	.087	12.547	***	.907
Stig7	<---	Stgm	1.000				.727
BarAcc2	<---	BaAcc	1.007	.038	26.721	***	.943
BarAcc3	<---	BaAcc	1.000				.938
BarAcc5	<---	BaAcc	.635	.046	13.868	***	.654
BarQu3	<---	BaQu	.847	.069	12.260	***	.699
BarQu4	<---	BaQu	.925	.068	13.574	***	.780
BarQu5	<---	BaQu	.989	.051	19.533	***	.844
BarQu6	<---	BaQu	1.000				.842

*** = Significant at $p \leq 0.001$

Source: Field Data (2022)

Family Care and Community Support for Pregnant Women Living with HIV

The study model assumes that the involvement of the families and community is a largely untapped potential, which must be harnessed to scale up quality services in supportive environments (Mburu *et al*., 2012; Rollins, 2012). In addition, individual factors such as lack of male partner support and stigmatisation influence the prevention of vertical transmission of HIV by pregnant women (Gaillard *et al*, 2002).

Since there are moderating effect hypotheses in this study, the researcher need to refer to the statistical rules for moderations in AMOS before analysing the hypotheses. According to Hair *et al.,* (2010), moderations enable a more precise explanation of causal effects by providing a method for explaining not only how X affects Y, but also under what circumstances the effect of X changes depending on the moderating variable of Z. Interaction variables are often treated like multi-group, i.e., high vs low values of age, income, and size. Essentially, the moderation regression equation specifies that the slope of the line relating X to Y changes at different levels of Z, or equivalently, that the slope of the line relating Z to Y changes at different levels of X.

Saunders (1956) first demonstrated that a product term accurately reflects a continuous variable interaction. Similarly, natural polynomial or powered variables (X_2, X_3, etc.) can be used to represent higher-order nonlinear effects of a variable such as a quadratic or cubic trend of age or time. In determining whether slopes of regression lines for X→Y are significantly different at differing values of Z, the way is to calculate a p-value for the regression of XZ→Y through AMOS. The region of significance defines the specific values of *Z* at which the regression of *Y* on *X* moves from non-significance to significance (Preacher, Rucker and Hayes, 2007). There are lower and upper bounds to the region. In many cases, the regression of Y on the focal predictor is significant at values of the moderator that are less than the lower bound and greater than the upper bound, and the regression is non-significant at values of the moderator falling within the region.

The moderation effect in this study was performed in SPSS by creating new variables by standardising all variables in the model stigma (ZStig), barrier to access healthcare (ZBarAcc), barrier to quality healthcare (ZBarQu), family-centred care participation (ZFCP), family-centred care delivery (ZFCD) and community support (ZComSup) and then computing the product variable e.g. stigma X barrier to access healthcare (ZStig _x_ ZBarAcc). Then the model was formed in AMOS, checked for significance, and adjusted as per the model fit issues. When the moderations were significant, they were plotted to interpret the moderation effects.

The Moderating Effect of Family-centred Care Participation on Stigma and Barriers to
Healthcare Services

The hypothesis was set that "Family-centred care participation has a significant moderating effect on stigma and barriers to healthcare services." The results indicated that the hypothesis was fully supported. In other words, the regression weight for the effect of family-centred care participation in the relationship between stigma and barriers to healthcare services is significantly different from zero (ZBarAcc<---ZStig_X_ZFCP and ZBarQu<--- ZStig_X_ZFCP).

Table 4.5: Regression Weights of the Moderation Model for Family-Centred Care Participation

			Estimat	S.E.	C.R.	P
ZBarAcc	<---	ZStig	.40	.048	8.434	***
ZBarQu	<---	ZStig	.34	.053	6.424	***
ZBarAcc	<---	ZStig_X_ZF	.14	.040	3.691	***
ZBarQu	<---	ZStig_X_ZF	.18	.044	4.336	***
ZBarAcc	<---	ZFCP	.26	.048	5.471	***
ZBarQu	<---	ZFCP	.07	.053	1.487	.137

*** = Significant at $p \leq 0.001$

Source: Field Data (2022)

Since the moderations were significant (Table 4.5), they were plotted (Figure 3) to interpret the moderation effects. It is also worth noting that family-centred care participation has a significant moderating effect on all of the relationships. Moreover, Figure 3 shows that family- centred care participation strengthens the positive relationship between stigma and both barriers to access healthcare services and barriers to quality healthcare services. It is worth noting that the moderating effect of family-centred care participation is more significant on barriers to accessing healthcare (26%) than on barriers to quality healthcare (8%).

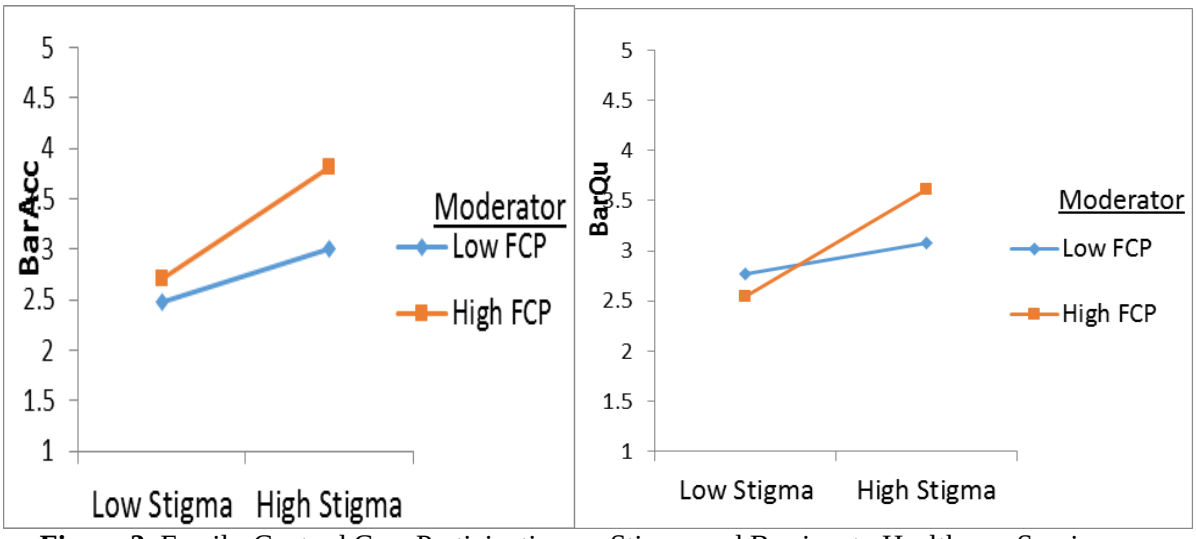

Figure 3: Family-Centred Care Participation on Stigma and Barriers to Healthcare Services

Source: Field Data (2022)

The Moderating Effect of Family-Centred Care Delivery on Stigma and Barriers to Healthcare Services

The hypothesis was set that "Family-centred care delivery has a significant moderating effect on stigma and barriers to healthcare services." The results show that the hypothesis was fully supported. In other words, the regression weight for the effect of family-centred care delivery in the relationship between stigma and barriers to healthcare services is significantly different from zero (ZBarAcc<--- ZStig_X_ZFCD and ZBarQu<--- ZStig_X_ZFCD).

Table 4.6: Regression Weights of the Moderation Model for Family-Centred Care Delivery

			Estimate	S.E.	C.R.	P
ZBarAcc	<---	ZStig	.430	.050	8.630	***
ZBarQu	<---	ZStig	.370	.054	6.846	***
ZBarAcc	<---	ZStig_X_ZF	.093	.045	2.075	.038
ZBarQu	<---	ZStig_X_ZF	.134	.048	2.764	.006
ZBarAcc	<---	ZFCD	.195	.050	3.913	***
ZBarQu	<---	ZFCD	-.031	.054	-.572	.567

*** = Significant at $p \leq 0.001$

Source: Field Data (2022)

Since the moderations were significant (Table 4.6), they were plotted (Figure 4) to interpret the moderation effects. It is also worth noting that, family-centred care delivery has a significant moderating effect on all the relationships. Moreover, Figure 4 depicts that family-centred care delivery strengthens the positive relationship between stigma and both barriers to access healthcare services and barriers to quality healthcare services. It is also clear that the moderating effect of family-centred care delivery is more significant on barriers to accessing healthcare (19%) than on barriers to quality healthcare (-3%).

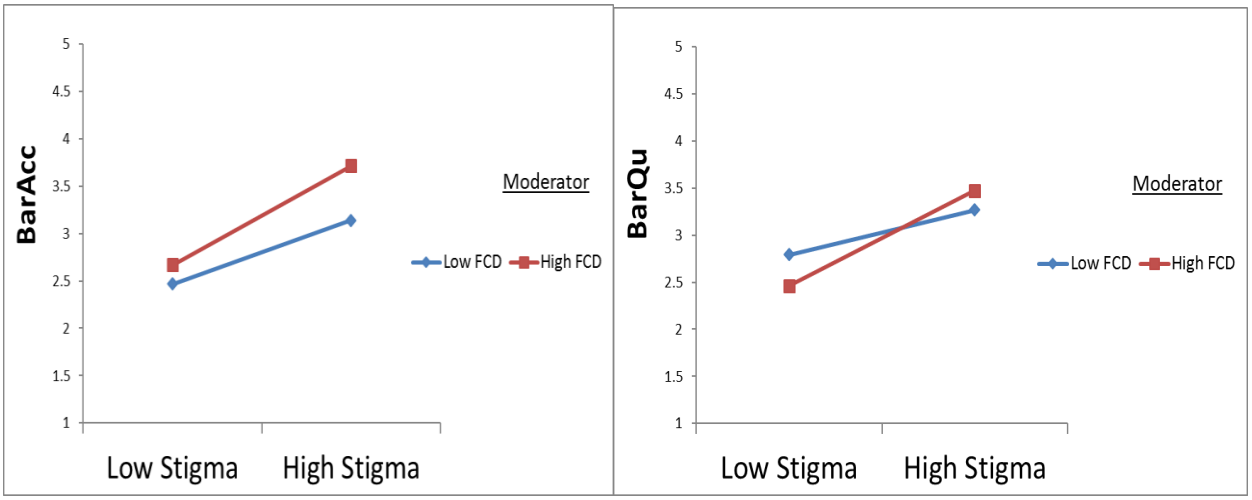

Figure 4: Family-Centred Care Delivery on Stigma and Barriers to Healthcare Services

Source: Field Data (2022)

The Moderating Effect of Community Support on Stigma and Barriers to Healthcare Services

The hypothesis was set that "Community support has a significant moderating effect on stigma and barriers to healthcare services." The results show that the hypothesis was fully supported. In in other words, the regression weight for the effect of community support in the relationship between stigma and barriers to healthcare services is significantly different from zero (ZBarAcc<--- ZStig_X_ZComSup and ZBarQu<--- ZStig_X_ZComSup).

Table 4.7: Regression Weights of the Moderation Model for Community support

			Estimat	S.E.	C.R.	P	Label
ZBarAc	<--	ZStig	.40	.051	8.058	***	
ZBarQ	<--	ZStig	.34	.055	6.233	***	
ZBarAc	<--	ZStig_X_ZComS	.12	.046	2.676	.007	
ZBarQ	<--	ZStig_X_ZComS	.15	.051	2.957	.003	
ZBarAc	<--	ZComSup	.22	.051	4.393	***	
ZBarQ	<--	ZComSup	.06	.055	1.089	.276	

*** = Significant at $p \leq 0.001$

Source: Field Data (2022)

Since the moderations were significant (Table 4.7), they were plotted (Figure 5) to show the moderation effects. It is also worth noting that community support has a significant moderating effect on all the relationships. Moreover, Figure 5 below shows that community support strengthens the positive relationship between stigma and both barriers to access healthcare services and barriers to quality healthcare services. It is evident that the moderating effect of community support is more significant on barriers to accessing healthcare (22%) than on barriers to quality healthcare (6%).

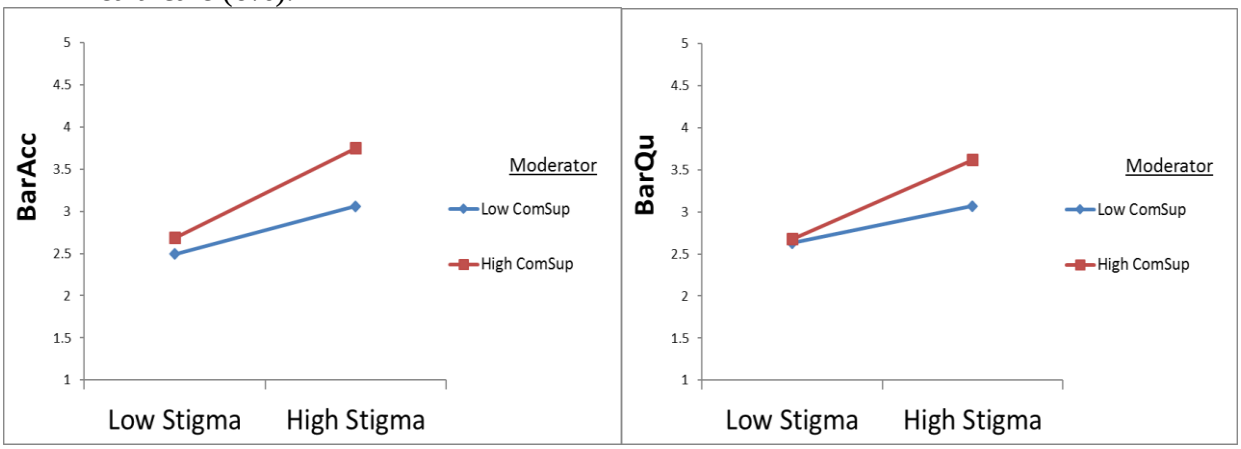

Figure 5: Community Support on Stigma and Barriers to Healthcare Services

Source: Field Data (2022)

DISCUSSION OF FINDINGS

The purpose of the paper was to examine the relationship between stigma and barriers to accessing healthcare services. This study also examined the moderating effect of the integrated healthcare services and relationship between stigma and barriers to accessing quality healthcare services. Barriers to healthcare services are being signified by barriers to accessing healthcare and quality healthcare services, while integrated healthcare services are signified by family-centred care participation, family-centred care delivery and community support. The results from hypothesis testing through SEM indicated that stigma has a significant relationship with both barriers to accessing healthcare and barriers to accessing quality healthcare services. These findings are consistent with the previous studies done in Malawi, Ethiopia, Cameroon and Kenya which emphasised the influence of stigma on barriers to accessing healthcare services (Mirkuzie, 2008; Ndonga et al, 2014; Nkuoh et al, 2010; Nyasulu & Nyasulu, 2011).

The results of this study are supported by ideas from Max Weber through the theory of Social Action which the study takes allegiance to. The theory describes patterned human interaction which is intentional, meaningful and symbolic. Max Weber observes the need for a strong social relationship for society to function optimally. Moreover, the study findings support that idea and have specifically observed the need to strengthen family involvement and community support, focusing on promotion of community support in health care services, family-centred care – including male involvement in ending stigma.

In relation to the effects of community involvement, the study found that indeed community involvement has some influence on stigma and barriers to accessing health care services in sampled areas. This insists on community involvement in healthcare services particularly issues involving conversations between the community and healthcare providers to accommodate community perception about HIV treatment and care so that the community is involved and effectively participates in the control activities of the disease.

Although all kinds of barriers to health care services are influenced by stigma, it is worth noting that the results of the current study revealed that barriers to accessing healthcare services are more influenced by stigma compared to barriers to accessing quality healthcare services. Therefore, more intervention efforts in Tanzania need to be focused on combating barriers to accessing healthcare services.

Furthermore, this study observed some influence of family centred care on stigma and barriers to healthcare services. This means that the need for family involvement is still of great importance to curb barriers to accessing healthcare services. However, other factors affect the access to healthcare services. Several stress points have been noted through this study. These include the need for healthcare providers to help families to identify strengths, skills and knowledge related to child's healthcare.

Similar observations have been made in earlier related studies. For instance; family-centred approaches to HIV prevention and care present an important direction for preventing paediatric infections while improving overall family health (Betancourt et al, 2010; Luyirika *et al.*, 2013; Mvungi, Nyoni, Rweyemamu & Bingi, 2013).

This study has brought insights into several issues relating to integrated healthcare services. These findings are in support of other studies elsewhere (UNAIDS, 2013, Mburu *et al.*, 2012; Nyblade, Rutenberg and Field-Nguer, 2001), which insist on the importance of healthcare provision. However, there was also a little influence of integrated healthcare services on barriers to accessing quality healthcare services. This also includes providing families and communities with opportunities to become more knowledgeable about HIV and its treatment and care.

Conclusion and Recommendations

This study has added weight to the arguments on the importance of participation of the society in health care matters. This argument has been raised many times in the past (Auvinen *et al.*, 2010; Byamugisha *et al.*, 2010; Marston *et al.*, 2009; Mburu *et al., 2012*; Nyblade, Rutenberg and Field-Nguer, 2001; NACOPHA, 2013; Rollins, 2012; UNAIDS, 2013). In cementing this argument firmly, Mburu *et al.*, (2012) and Rollins (2012) maintained that health systems cannot achieve the prevention of VT targets without the involvement of the families and community. This would scale up quality services in supportive environments.

The study portrayed that barriers to accessing healthcare services are more influenced by stigma compared to barriers to accessing quality healthcare services. Therefore, more intervention efforts in Tanzania need to be focused on combating barriers to accessing

healthcare services. Moreover, family centered care participation and delivery can significantly effect the consequences of stigma and barriers to access health care services. Therefore, in order to manage stigma and strengthen the access to health care services, family participation in caring for pregnant women living with HIV is encouraged.

Moreover, community support can significantly have consequences on stigma and barriers to health care services. Hence, community support lessens the stigma and strengthen access and quality of health care services to pregnant women living with HIV. Therefore, the study suggests the improvement of healthcare service provision, particularly on how communities and families are involved in healthcare service provision to improve experience, quality and accessibility of healthcare services, particularly, for pregnant women living with HIV in Tanzania.

Therefore, it is an optimal utilization of integrated healthcare services and strengthening the counselling services to both families and communities is recommended to lessen stigma, improve access and, quality of health care services to pregnant women living with HIV AIDS which can ultimately lower the possibility of VT.

Limitations and Area for Further Study

Although this study contributed to establishing the effect of stigma on provision of health care services for pregnant women living with HIV, limitations were noted. This study selected groups of variables from stigma and barriers to health care services. Nevertheless, other variables which have not been considered in this study may have also been important. Methodologically, quantitative method may not capture the behavioural side of stigma and barriers to health services. Therefore, qualitative study could be considered in order to explore further the understanding of stigma and barrier to health services by pregnant women living with HIV.

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