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SOCIOCULTURAL FACTORS OF MOTHER-TO-CHILD TRANSMISSION OF HIV IN BAMAKO-MALI

FACTEURS SOCIOCULTURELS DE LA TRANSMISSION DU VIH DE LA MÈRE À L'ENFANT À BAMAKO-MALI

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Résumé

Cet article s'inscrit dans le domaine de la sociologie de la santé. Ce faisant, il vise essentiellement à identifier les facteurs socioculturels qui augmentent la transmission du Virus de l'Immunodéficience Humaine (VIH) de la mère à l'enfant dans le district sanitaire de Bamako-Mali ; en s'appuyant exclusivement sur la méthode quantitative. Les résultats de l'étude montrent que les normes sociales et les conditions de statut social sont des facteurs qui augmentent la transmission du VIH de la mère à l'enfant dans la société malienne. Le statut de la personne avec qui la femme a partagé sa séropositivité, la personne vivant avec elle depuis son infection (polygamie) ont des implications sur l'infection par le VIH chez les enfants. Ces résultats fournissent en grande partie une riche preuve empirique de la sociologie de la santé pour contenir la transmission du VIH de la mère à l'enfant.

Mots clés : Facteurs socioculturels, transmission mère-enfant du VIH, PTME (Prévention de la transmission mère à l'enfant)

Abstract

This paper is part of the field of health sociology. In doing so, it essentially aims to identify the sociocultural factors that increase mother-to-child transmission of Human Immunodeficiency Virus (HIV) in the health district of Bamako-Mali, using exclusively quantitative method. The results of the study show that social norms and status conditions are factors that increase mother-to-child transmission of HIV in Malian society. The status of the person with whom the woman shared her HIV status and the person living with her since her infection (polygamy) have implications for HIV infection in children. These findings provide rich empirical evidence for the sociology of health to contain mother-to-child transmission of HIV.

Keywords: sociocultural factors, mother-to-child transmission of HIV, PMTCT (Prevention Mother to Child Transmission)

INTRODUCTION

After 30 years of existence, the epidemic of Human Immunodeficiency Virus/Acquired Immuno-Deficiency Syndrome (HIV/AIDS) continues to challenge the scientific community. There are around 34 million people that are living with HIV worldwide, including 23.5 million in Africa (UNAIDS, 2011). In sub-Saharan Africa, child infection with HIV by the mother is an essential route of the epidemic of AIDS, since 60% of women and 10% of children are infected with HIV. In 2008, an estimated 390 000 children in sub-Saharan Africa were infected, compared to 40000 worldwide (UNAIDS and WHO, 2009). Thus, the issue of mothers-to children infection with HIV has dominated the epidemic, raising specific medical, social, economic, educational and ethical matters (A. Degrees de Lou, 2003).

In health and social contexts, the estimated rate of mother-to-child transmission of HIV (MTCT) unveils iniquity of people facing infection by HIV as well as prevention and unfair access to treatment. According to the data produced by experts from international health institutions across sub-Saharan African countries, 90% of infections with HIV in children are due to the transmission of HIV by the mother to child transmission, while 10% are from contaminated blood or sexual abuse (K. M. De Cock et al., 2000). It is important to note that when there is no treatment, the transmission rate is estimated at 15-30% during pregnancy and childbirth, and at 5-20% during breastfeeding (P. Hancart-Petitet et al., 2008). In fact, this rate can be below 2% when preventive measures (antiretroviral during pregnancy, prophylactic cesarean section and access to free milk substitutes) are correctly implemented (M. L. Newell, 2001; WHO, 2004). However, in many countries of the Sub-Saharan countries such as Mali, not only prevention programs are limited but they are also struggling to succeed in spite of social, cultural and economic constraints and barriers. Indeed, socio-economic factors that are based on culture, lifestyle and economic that explain the reluctance and failures of prevention of mother to child transmission of HIV.

In African societies, HIV is a global threat that is sexuality transmitted, the main mode of transmission; but also, through procreation. However, P. Lall (2014) noted that the vulnerability of Indian women to the infection with HIV does not result from their behavior linked to sexual risk. For this author, the most prominent factors are related to their socioeconomic status, such as their level of education and sociodemographic determinants, including their region of residence. Procreate while being HIV-positive or sick with AIDS is a concern faced by the scientific community from all sides. Indeed, the issue of mother-to-child transmission of HIV appeared not only in terms of chronic disease involving patient and health institutions, but also as the sick and social relationships as well as family and work (T. Ndoye, 2012). Therefore, living and procreating with HIV has become problematic in Mali since procreation assumes a lifestyle change and usual procreation of HIV-positive women. It is noteworthy to mention that among women, procreation remains a foremost social, cultural and economic matters; and more often a way to stabilize their matrimony. Many women, through instructions of their doctors, know that procreation can expose themselves and their children to the risk of infection (S. Carillon, 2011). Further, prevention programs against vertical transmission of HIV are faced with a difficulty to announce an HIV status to the spouse. Thus, an announcement of an HIV status to a couple seems to show a social dimension of the disease. Women fear to reveal their HIV status to their spouses because of social and family treatment such as rejection, exclusion, divorce, etc. that they can undergo (B. Martin-Chabot, 2008).

Accordingly, circumvention of medical instructions by HIV-positive women would sometimes be linked to social stigma of AIDS patients. It should be pointed out that self-stigmatization is the major form for people living with HIV in Africa. Indeed, self-stigmatization is

estimated to be 46% compared to 40% for stigma in interpersonal relationships and 11% for stigma in health services (O. Ky-Zerbo et al., 2014).

As a matter of fact, during the 20th conference on retroviruses and infections in Atlanta, the mother-to-child transmission was considered as the second track of infection with HIV in Africa. From an estimated 5 million children infected with HIV worldwide, 75 to 90% are from mother-to-child; and 90% of contaminated children are found in Africa (CROI, 2013). Indeed, mother-to-child transmission of HIV remains a public health problem. However, except the names of the molecules, people living with HIV don't know much about the disease, including those who are planning to procreate (T. Ndoye, 2012). Certainly, an HIV-positive woman who intend to procreate without any knowledge about the disease, especially its modes of infections can surely obstruct the prevention of mother-to-child transmission of HIV. Choosing these infected women was not unbiased because of the weight of their social and cultural capital (P. Bourdieu, 1980). It is also important to note that the fear of negative consequences was an impediment. Furthermore, at a community level, stigma was a major barrier. The key structural obstacles and enablers were the health system, including access to services and attitudes of health workers (I. Hodgson et al., 2014).

Moreover, the reduction of risk for mother-to-child transmission of HIV, though a medical issue, is also a concern for social sciences, particularly health sociology. In spite of efforts made to reduce children's infections, women are still transmitting HIV to their children. There are standard protocols to support antiretroviral HIV and AIDS in Mali. Among 364 Children under 18 months, receiving retroviral support of life, 35 of them were tested with positive results. In December 2015, 253 children under 18 months were administered a serological test; Nine were tested positive to HIV, that is a 3.5% positivity rate (Health Ministry Report, 2016).

Despite significant progress in the response to AIDS in Mali, the virus continues to wreak havoc on women. Indeed, HIV-positive pregnant women is a more disturbing situation because 62% of them have neither access to prevention and screening nor advantage of anti-retroviral treatment (CSLS/MSHP report, 2013). Therefore, cases of transmission continue to increase. Accordingly, CSLS/MSHP (2013) reported that out of 217,495 pregnant women, 51.2% were administered a serological test. The same report assessed that out of 1134 retroviral cases, 120 children were infected, about 10.50%. In 2014, the National High Fight against AIDS registered 1182 infected through mother-to-child transmission of HIV/AIDS. Therefore, it is noticeable that the geographical coverage in prevention of mother to child transmission of HIV is 29%. However, it is important to take into account the prevention of this disease in whole country. It is noteworthy to mention that 129 functional sites have been created in Bamako and surroundings. Thus, out of 86,814 pregnant women tested in 2009, 1641 were found to be HIV-positive, which is about 87%. These HIV-positive pregnant women received antiretroviral (CSLS Report, 2009). Further, this report indicated that more than 60 sites of pediatric care and resource centers are now available in the country. In addition, 34% of children born from HIV positive mothers received antiretroviral (ARV) in 2009.

This situation of HIV infected children has become a public health problem in Mali. This justifies an interest in covering the socio-cultural factors of mother-to-child transmission of HIV in Bamako-Mali. In order to examine the causes of the failure to prevent mother-to-child transmission of HIV in Bamako-Mali, the following questions were formulated: What are the socio-cultural factors that increase mother-to-child transmission of HIV? Do social norms increase mother-to-child transmission of HIV? Do social status increase mother-to-child transmission of HIV?

This paper is part of the field of Health sociology and medicine. Its main objective is twofold. First, it attempts to explore in a general way the socio-cultural factors of mother-to-child transmission

of HIV in the health district of Bamako-Mali. Specifically, it aims to investigate the social norm factors that increase the risk of mother-to-child transmission of HIV and to understand the social status factors that increase the risk of mother-to-child transmission of HIV..

1. MÉTHODOLOGIE

This study involved 160 pregnant women living with HIV in the district of Bamako-Mali. These HIV-positive pregnant women were between 15 and 45 years of age. The study population was therefore composed of HIV-positive women treated at prevention of mother-to-child transmission sites in this age group. It should be noted that only those who tested positive and were included in the care structures for people living with HIV in the health district of Bamako (Bamako referral health centers in). All women living with HIV, six months of age or older and followed up in the prevention of mother-to-child transmission of HIV facilities in Bamako were included in the study population. Here, the focus is specifically on pregnant women in the prevention of mother-to-child transmission programs in the district of Bamako.

For the participants in the questionnaire, at each prevention mother-to-child transmission of HIV sites, 60 women from township 5 hospital, 60 women from township 6 hospital, and 40 women from township 1 hospital participated in the test. Based on this logic, the quantitative data analysis focused on demographic and socio-cultural variables. These records were scored, coded, and entered into SPSS version 25. It should be noted that prior to analyzing the data, the researcher performed data cleaning on these records. Data cleaning included descriptive statistics for all variables, information on all variables, information on missing data, linearity and homodasticity, normality, multivariate outliers, multicollinearity, and singularity (N. V. Ivankova et al, 2002)

In this part of the work, it is appropriate to recall that descriptive statistics is a set of methods for describing and analyzing in a quantified way phenomena identified by numerous elements of the same nature that can be counted and classified. It concerns univariate analysis (frequency and/or explorative analysis), bivariate analysis (multiple correlation and/or multiple regression analysis) and multivariate analysis (analysis by ANOVA test). At this level, data distribution tables, graphical representations or the establishment of central tendencies as well as measures of dispersion have been developed. Descriptive statistics lead to the calculation of different indicators. The Anova test was used to verify the research hypothesis. Therefore, control variables, such as age, education level, independent variables and the dependent variable were used.

2. RESULTATS

2.1. Frequency Analysis

About 160 HIV-positive women participated in this syudy. The frequency analysis of socio-demographic variables showed the following results in terms age with 48.8% between 14-20 years, 19.4% between 21-25, 9.4% between 26-30 years, 8.1% between 31-35 years, 6.3% between 36-40 years, and 8.1% between 41-45 years. At the level of ethnic group, the results revealed Sonrai = 3.1%, Peulh = 38.1%, Mianka = 48.1%, Somono = 1.3%, Malinke = 3.1%, and Bambara = 6.3%. Furthermore, in terms of religion, the results showed: More religious = 48.8%, Somewhat religious = 19.4%, Religious = 9.4%, Not religious = 6.3%, Totally not religious = 8.1%. In addition, regarding the level of education of the 160 women interviewed, 50% = 80 are educated. However, the levels of education were as follows: primary = 12.5%, lower secondary = 9.4%, upper secondary = 10.0%, University = 11.3%, Bachelor = 16.3%, Others = 40.6% (Figure n°1).
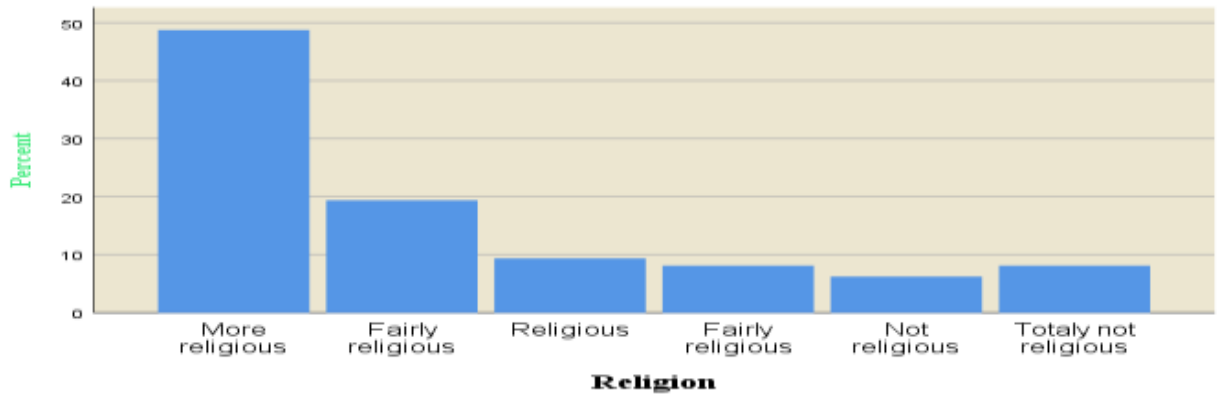
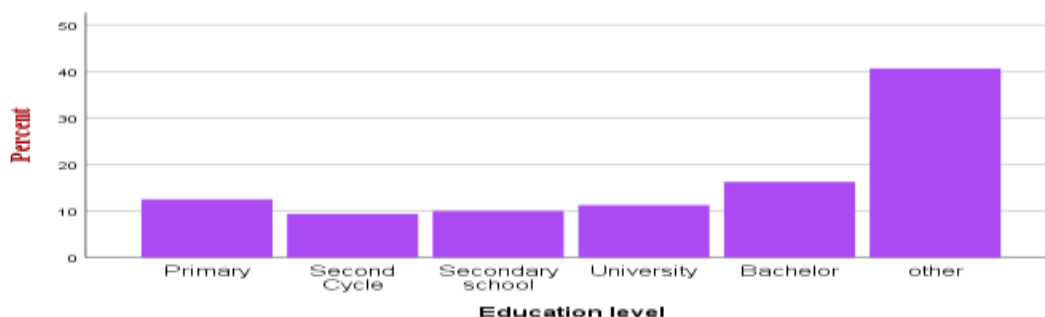**Figure n°1 The frequency analysis of socio-demographic variables**

A 1

A 2

A 3

A 4
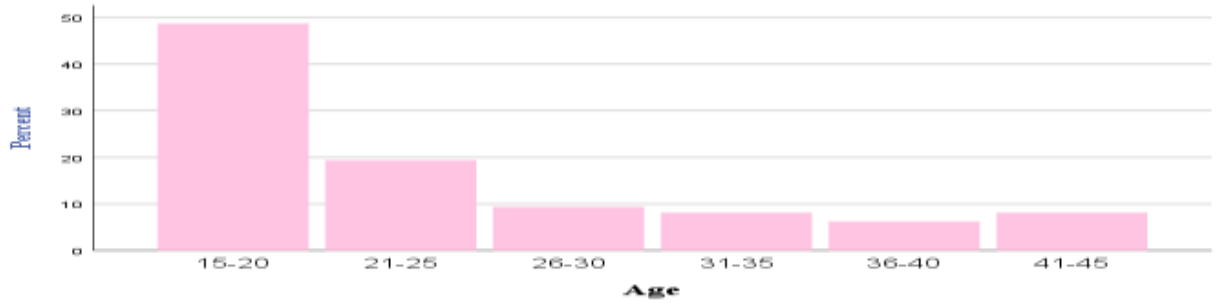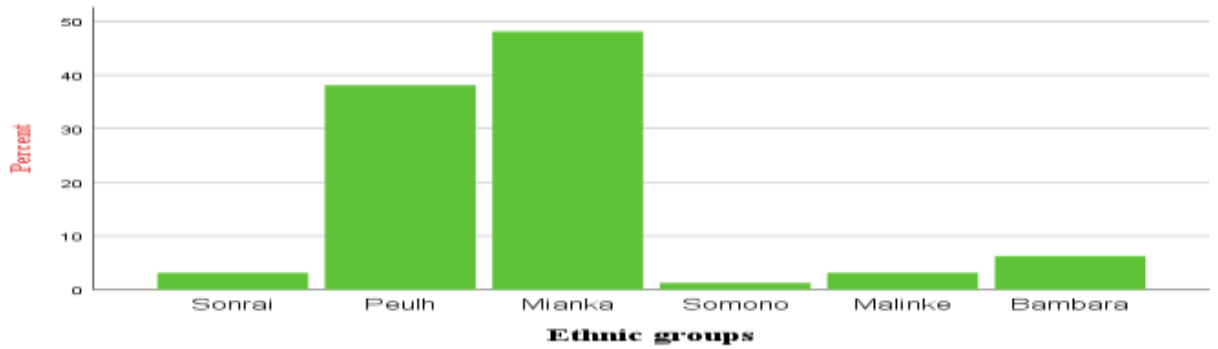
Figure 1 Demographic characteristic of the sample for quantitative survey (n = 160): A1 describes the frequency of groups of age included in this study, A2 describes the frequency of ethnic groups included in this study, A3 describes the frequency of groups of religion included in this study, A4 describes the frequency of groups in different level of education included in this study.

2.2. Multivariate Analysis

2.2.1. Multiple Correlation Study

The multiple correlative analysis between all the socio-cultural (SOC) variables revealed the following relationships: between the variables marital status of HIV-positive women and life status, there is a significant and moderate negative correlation $(r = -.400, p = .000)$; between marital status of HIV-positive women and the status of people who share (Status Per) her HIV status, the relationship is significant and moderate negative $(r = -.577, p = .000)$; between marital status of HIV-positive women and her relationship, the association is significant positive and moderate $(r = .412, p = .000)$; between living status of HIV-positive women and Status Per the relationship is significant positive moderate $(r = .366, p = .000)$; between living status of HIV-positive women and her relationship, there is a negative and low significant association $(r = -.186, p < .019)$; and finally, between Status Per and its relationship, there is a negative and high significant association $(r = -.832, p < .000)$ (Table n°1).

Table n°1 Correlations of Sociocultural variables

		MS	LS	SP	R
Marital Stat	Pearson Correlation	1			
	Sig. (2-tailed)				
Life Stat	Pearson Correlation	-.400**	1		
	Sig. (2-tailed)	.000			
Status Per	Pearson Correlation	-.577**	.366**	1	
	Sig. (2-tailed)	.000	.000		
Relationship	Pearson Correlation	.412**	-.186*	-.832**	1
	Sig. (2-tailed)	.000	.019	.000	
	N	160	160	160	160

**. Correlation is significant at the 0.01 level (2-tailed).

2.2.2. Multiple Regression

Based on the result of this study the predictive effect of socio-cultural variables on mother-to-child transmission of HIV were measured. The predictive effect of the living status variable on the dependent variable having HIV-positive children with $\beta = -.160, t =$

$2.18, p < .001; CI\ lower\ Bound =$
$.620\ and\ Upper\ Bound = 1.613$ was realized. Similarly, the variable marital status can be considered a predictor of mother-to-child transmission of HIV with $\beta = .102, t = 2.308, p < .007; CI\ lower\ Bound =$
$.780\ and\ Upper\ Bound = 1.283$. Thus, the quality of the person with whom the HIV-positive woman shares her HIV status, has a

significant predictive effect on mother-to-child transmission of HIV with $\beta = -1.225, t = -43.121, p < .1; CI\ lower\ Bound =$
$.225\ and\ Upper\ Bound = 4.446$. Finally, social relationships of women living with HIV have a significant predictive effect on mother-to-child transmission of HIV $\beta = .046, t = 1.852, p < .1; CI\ lower\ Bound =$
$.289\ and\ Upper\ Bound = 3.458$ (Table n°2).

Table n°2 Multiple regression analysis of Sociocultural variables

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	7.018	.199		35.264	.000		
Marital Stat	-.160	.049	-.045	-3.236	.001	.620	1.613
Life Stat	.102	.044	.029	2.308	.022	.780	1.283
Status Per	-1.225	.028	-.994	-43.121	.000	.225	4.446
Relationship	.046	.025	.038	1.852	.066	.289	3.458

Dependent Variable: How many HIV positive children?

Source: Field survey data, 2021

Scatterplot

Dependent Variable: Do you how many HIV positive children?
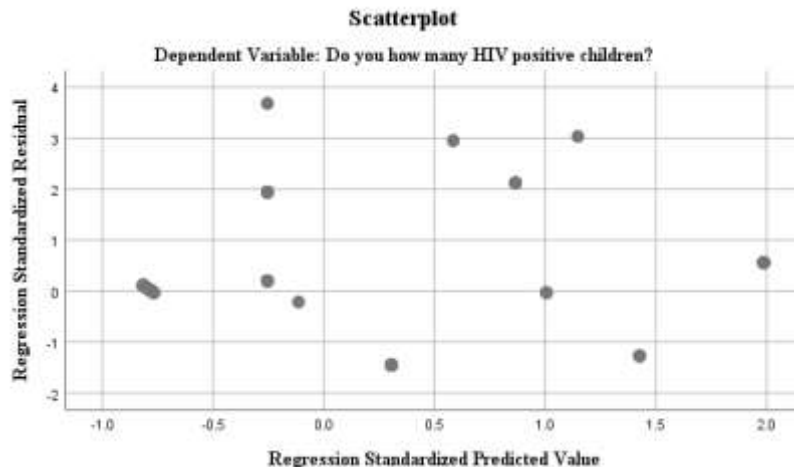
2.3. Result and Explanation of ANOVA Test

2.3.1. Comparison of Group's Means Difference

Since controlled variables were used in this study, the Anova test was chosen to see the difference between the various group of participants. Hence, the between subject and

within subject design was applied to assess these differences. In addition, a manipulation was planned if some of these phenomena can describe the fact that when transmission of HIV from mother to child can be measured differently due to socio-cultural factors. Then, interest was also on the difference between participants (such as age) and the level of socio-cultural factors on mother-to-child transmission of HIV. Therefore,

this study focused on the mean differences between age group and education level. Thus, the aim was to identify if there are disparities between socio-cultural factors in mother-to child-transmission of HIV.

2.3.2. Result of within subject design without experimentation

The result presents the average number of errors found for each treatment condition. As expected, the number of errors decreased; but increased when the sample group increased. Following the order of description, the change in the difference in mean appears to occur between the level of marital status and that of the living status with $F(1,154) = 2015.645, p = .000, \omega^2 = .990, \text{power} = 100$. According to this table, the null hypothesis, which said there is no difference between the population mean and the sample size mean such as the means of marital and living status is rejected. With an effect size .99, there is a 100% chance that the effect can be replicated if the study is repeated.

The description of the change in the difference in means seems to occur between the level of living status and the level of status Per with $F(1,154) = 14.462, p = .000, \omega^2 = .086, \text{power} = .966$. With this table, the null hypothesis, which said there is no difference between the mean of population and the mean of sample size, such as the mean of living status and status Per is rejected. With an effect size .09, there is a 96% chance that the effect can be replicated if the study is repeated.

The ratio of the change in the difference in means seemed to occur between the level of status Per and the level of relationship with $F(1,154) = 125.603, p = .000, \omega^2 = .449, \text{power} = 100$. With this table, the null hypothesis, which said there is no difference between the mean of population and the mean of sample size, such as the mean of status Per and the relationship is rejected. With an effect size .45, there is a 100% chance that the effect can be replicated if the study is frequent. The explanation for the modification in mean difference appears to occur between the level of relationship and the level of marital status with $F(1,154) = 69.423, p = .000, \omega^2 = .311, \text{power} = 100$. According to this table, the null hypothesis, which said there is no difference between the mean of population and the mean of sample size, such as the mean of relationship and marital status is rejected. With this effect size .31, there is a 100% chance that the effect can be replicated if the study is repeated (Table n°3).

Table n°3 within subject design without experimentation

	Source	SSM	Df	F	Sig.	ω^2	Power
STMTC	Marital Stat- Living Stat	314.56	1	2015.64	.000	.929	1.000
	Living stat- Status Per	1.94	1	14.46	.000	.086	.966
	Status Per-Relationship	35.70	1	125.60	.000	.449	1.000
	Relationship-MTCT	17.25	1	69.42	.000	.311	1.000
	Total	**24.03**	**154**				

Source: Field survey data, 2021

2.3.3. Result of Interaction within subject design sociocultural on MTCT of HIV with Between subject design: age

Using a 6×5 (Group Type $\times$ Number of others) ANOVA revealed that there is a statistically significant difference. The main effect for Group Type approximating from 1 = 15-20, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-40, 6 = 41-45 and the change in the difference in means appears to occur between the level of marital status and the level of living status with $F(1,154) = 397.216, p = .000, \omega^2 = .928, \text{power} = 100$. This result showed that the null hypothesis, which said that there is no difference between the sample size and the population of the main effect for Group Type like if the age of women is between: 1 = 15-20, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-40, 6 = 41-45, and the change in the difference of means seems to occur between the level of management status and the level of living status is rejected. This main effect at .93 has a 100% chance to repeat if the study continues.

It was found a statistically significant difference with a main effect for Group Type like 1 = 15-20, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-40, 6 = 41-45, and the change means difference seems to occur between the level of living status and the level of status Per, $F(5, 154) = 602.056, p = .000, \omega^2 = .951, power = 100$. This result showed that the null hypothesis, which said that there is no difference between the sample size and population of the main effect for the Group Type as if the age women is between: 1 = 15-20, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-40, 6 = 41-45 is rejected. The change in mean difference appears to occur between the level of living status and the level of status Per. This main effect at .95 has a 100% chance to repeat in a continuing study.

This result revealed there is a statistically significant difference in the main effect for the identical Group Type of 1 = 15-20, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-40, 6 = 41-45 and the difference in means appears to occur between the level of status Per and the relationship $F(5, 154) = 23.688, p = .000, \omega^2 = .435, power = 100$. This result showed that the null hypothesis, which said that there is no difference between the sample size and the population of the main effect for the Group Type with the age of women is between: 1 = 15-20, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-40, 6 = 41-45 is rejected. The change in mean difference appears to occur between the level of status Per and the level of relationship. This main effect at .43 has a 100% chance of being repeated in the continuation of the study.

This study found that there is a statistically significant difference in the main effect for the comparable Group Type of 1 = 15-20, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-40, 6 = 41-45. The change in the difference in means seems to occur between the level of status Per and the relationship $F(5, 154) = 214.064, p = .000, \omega^2 = .874, power = 100$. This result showed that the null hypothesis, which said that there is no difference between the sample size and the population of the main effect for Group Type like if the age of women is between: 1 = 15-20, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-40, 6 = 41-45 is rejected. The change in mean difference appears to occur between the level of status Per and the level of relationship. This main effect at .87 has a 100% chance of repeating with continued study (Table n°4).

Table n°4 Interaction within subject design socio-cultural on mother-to-child transmission of HIV with between subject design: age

	Source	SSM	df	F	Sig.	ω^2	Power
STMTC * Age	Marital Stat- Living Stat	309.95	5	397.22	.000	.93	1.000
	Living stat- Status Per	404.10	5	602.06	.000	.95	1.000
	Status Per-Relationship	33.66	5	23.69	.000	.43	1.000
	Relationship-MTCT	265.90	5	214.06	.000	.87	1.000
	Total	**24.034**	**154**				

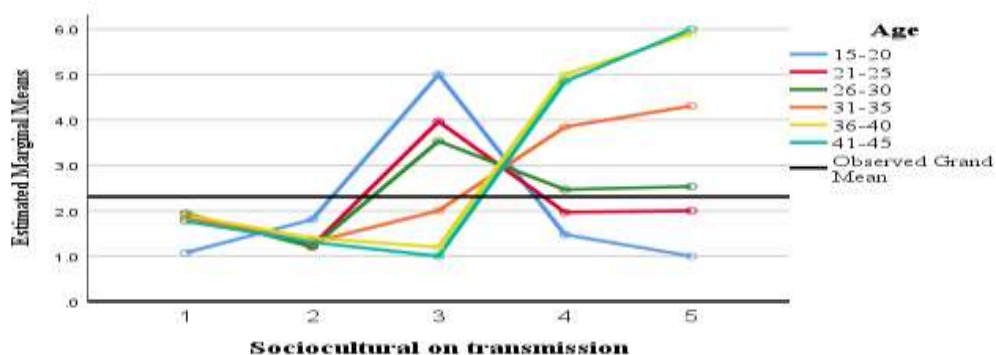*Source: Field survey data, 2021*

Figure 2 *Anova test sociocultural on transmission: the blue line describes age group between 15-20, the red line describes age group between 21-25, the orange line describes age group between 26-30, the green line describes age group between 31-35, the yellow line*

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*describes age group between 36-40, the aqua
blue line describes age group between 41-45.*

2.3.4. Result of Between-Subjects Effects

Overall, participants in Group conditions 1
= 15-20, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-
40, 6 = 41-45 detected errors on average
differently than participants in Group conditions
1 =15-20, 2= 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-
40, 6 = 41-45. There was a main effect between
the means of the six included groups $F(1,154) =$
$14763.560, p = .000, \omega^2 = .990, \text{power} =$
1.00. Then, the main effect, using Turkey's HSD,
indicated that each treatment mean was
significantly different than the other treatment
means, $F(5,154) = 83.103, p = .292, \omega^2 =$
$.730, \text{power} = 100$. Subsequently, with this
main effect $.99$, between the intercept of the six
groups, so the power proposed that there is 100%
probability that this effect can be looked at if the
same study is repeated (Table n°5).

Table n°5 Between- subjects effects

Source	SSM	Df	F	Sig.	ω^2	Power
Intercept	3222.752	1	14763.560	.000	.990	1.000
Age	90.703	5	83.103	.000	.730	1.000
Total	**33.617**	**154**				

Source: Field survey data, 2021

2.3.5. Explanation of Anova Test Results

When comparing the mean of the different socio-
cultural factors on mother-to-child transmission
of HIV with age, it turns out that none of these
means is equal to the observed grand mean. This
implies that the six groups overlap in two sizes
of the population mean. But some statistically
significant differences at the group level at
different stages of the determinants of socio-
cultural factors of mother-to-child transmission
of HIV are observed. As on the figure of socio-
cultural: marital status of age group, it is found
that women between 15 and 20 carry out low
level of marital status than those who are older
than this indicated interval. This same difference
was noted in relationship and transmission of
HIV. But this age interval has a high level of
living status and the type of person they share
their HIV status than the other groups.
Nevertheless, the results revealed that women
older than 26 years are expected to highly
transmit HIV to their child.

3. DISCUSSION

Based on different theoretical models that guided
the study, especially the in-depth socio-
anthropological analysis of the causes of the
failure to prevent mother-to-child transmission
of HIV showed that there are significant
predictive links between socio-cultural barriers
and mother-to-child transmission of HIV in
Bamako.

With regard to the result of this study on the
correlation between variables of different factors
such as: socio-cultural and mother-to-child
transmission of HIV, it was estimated a
significant relationship between variables of
these different factors. Moreover, after analyzing
the multiple regression in the model, the result
showed that there is a statistically significant
prediction of socio-cultural on the dependent
variable HIV transmission.

In order to test the hypotheses and verify the
assumptions, the mean of the different socio-
cultural factors on mother-to-child transmission
of HIV with age was compared. It was
determined that none of these means are equal to
the observed grand mean. This implies that the
increase in mother-to-child transmission of HIV
is related to socio-cultural barriers faced by HIV-
positive women. Indeed, the study explored these
barriers categorically.

Looking at the result of the correlation between
the sociocultural variables, it was estimated that
there was a significant relationship between
variables of these different factors. Hence, at the
level of socio-cultural factors composed of the

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variables: the marital status of the woman, her living status, the status of the person with whom she shared her HIV status, her social relationship, are statistically significant. In fact, there is a partial correlation between them, in other words, some of these variables need to use other variables to explain the relationships they express.

Furthermore, by observing the results of the regression of socio-cultural factors on mother-to-child transmission of HIV, a significant dictating effect of socio-cultural variables such as the marital status of the woman, her living status, the status of the person with whom she shared her HIV status, and her social relationship on mother-to-child transmission of HIV from was explored. The more socio-culturally appropriate women are, the less they infect their children.

The study showed that there was a significant association between certain socio-demographic characteristics and increased risk of mother-to-child transmission of HIV in Bamako district with a P-value for the level of education less than or equal to 0,05. This result is contrary to that of a study of risk factors for mother-to-child transmission of HIV in Lubumbashi, Democratic Republic of the Congo (D. T. Ngwej et al. 2015), whose characteristics were not significantly associated with maternal socio-demographic descriptions such as age, parity, education level, occupation and marital status, and TMTC (p>0,05). In fact, it appeared in this study that age and level of education have important links in the transmission of HIV from mother to child in the district of Bamako. The older you are, the more you infect your child. In addition, when women are illiterate or do not have a high-level education, they can infect their children more.

For hypothesis testing and verification of assumptions, the mean of the different socio-cultural factors on mother-to-child transmission of HIV was compared with age. It was determined that none of these means is equal to the observed grand mean. It was also found that women over 26 years of age are assumed to transmit HIV highly to their children. In addition, the increased risk of mother-to-child transmission of HIV in the district of Bamako is due women's lack of schooling, culture, denial of the disease, the social environment of the couple and women's low-income, which partly explain women's choice to adopt behaviors that put them at risk of mother-to-child transmission of HIV.

It should be noted that understanding the socio-cultural factors that increase the risk of mother-to-child transmission of HIV involves a constructivist analytical framework. Childbearing in the context of HIV/AIDS requires a change in one's usual cultural and social framework. AIDS as a chronic disease is part of this dimension of changing social practices (A. Desclaux, 2008; P. Hancart-Petitet, 2OO8; T. Ndoye, 2012).

CONCLUSION

The study provided rich empirical evidence to demonstrate the importance of health sociology and medicine in understanding the phenomenon of HIV transmission, particularly mother-to-child transmission of HIV in Bamako-Mali. The results showed that socio-cultural factors increase the risk of mother-to-child transmission of HIV. With regard to socio-cultural factors, it should be pointed out that denial of the disease, non-sharing of serological status and the breakdown of social ties are determining factors in mother-to-child transmission of HIV in Mali. All of these practices are social factors inherent in the vertical transmission of HIV.

In summary, this study has shown that the factors of mother-to-child transmission of HIV in Bamako-Mali are distinctive, including maternal feelings and desires, beliefs, and practical difficulties; sociocultural factors, such as marital status (polygamy) and social living conditions. Moreover, it is beneficial for this theme to be the subject of future socio-anthropological research, but also in a multidisciplinary approach because of its global nature.

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