Factors of HIV-positive serological status disclosure by patients followed up in the department of infectious diseases of Point G teaching hospital, Bamako, Mali.

Facteurs influençant le partage du Statut sérologique du VIH par les patients suivis au Service des Maladies Infectieuses du CHU du Point G, Bamako, Mali.

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Abstract

Introduction: Sharing HIV status would be a key element in the care of in People Living with HIV (PLHIV) There is lack of data on this disclosure in Mali. This study aimed to have preliminary data on the self-disclosure of HIV status PLHIV in Mali. Methods: We interviewed a sample of 302 HIVpositive patients on ARV and followed up in the Infectious Disease Unit at CHU Point G from May to August, 2018. Fisher or Chi-square test were used to analyze factors Results: These patients were predominantly female in 70.9% of cases (sex ratio = 2.4), the most represented age group was 45 years and older, the mean age was 42.8 ± 10 , 5 years with a minimum of 20 years and a maximum of 71 years. The non-educated accounted for 35.1%. The majority of patients were married (58.6%) and resided in Bamako and its surroundings. Most of them (73.2%) claimed they shared their HIV status in with at least one person in their entourage, the sharing was done most frequently with the spouse (47.6%). The reasons for patients to share their status were the sense of duty (27.1%), motivation to push the informed person to have an HIV test (19.4%) and the recognition due to the support provided by this person (12.5%). The reasons for not sharing were the fear of rejection (30,3%), the nonperception of the importance of informing the other because one is under treatment (24.2%) and lack of trust in others (18,2%). Factors influencing the sharing of HIV status were: marital status, positive reaction of patient at the test result announcement, duration of knowledge of HIV status. In addition, sharing his HIV status favored adherence to ARV therapy. Conclusion: The benefits of self-disclosure of HIV status appear in this survey and the factors influencing this disclosure are mainly the positive reaction of patient at the time of post test counseling. Health professional should pay particular attention to this counseling. Keys words: HIV, serological status, Disclosure, factor, Bamako.

Résumé

Introduction : Le partage du statut sérologique VIH serait un élément clé dans la prise en charge des Personnes Vivant avec le VIH (PVVIH). Il y a peu de données sur ce partage au Mali. Cette étude visait à fournir de données préliminaires sur le partage du statut sérologique VIH par les PVVIH au Mali. **Méthodes :** Nous avons interrogé un échantillon de 302 patients séropositifs sous ARV et suivis au service des Maladies Infectieuses du CHU Point G de mai à août 2018. Les tests de Fisher ou du Chideux ont été utilisés pour l'analyse des facteurs. **Résultats :** Les patients étaient majoritairement de sexe féminin dans 70,9% des cas (sex-ratio = 2,4), la tranche d'âge la plus représentée était de 45 ans et plus, l'âge moyen était de 42,8 \pm 10,5 ans avec un minimum de 20 ans et un maximum de 71 ans. Les

personnes sans instruction représentaient 35,1%, la majorité des patients étaient mariés soit 58,6% et résidaient à Bamako et ses environs. La majorité des patients ont été recrutés pour consultation. Français La majorité de ces patients ont partagé leur statut VIH dans 73,2% avec au moins une personne de leur entourage. Dans l'entourage, le partage se faisait le plus souvent avec le conjoint (47,6%). Les raisons pour lesquelles les patients partageaient leur statut étaient le sens du devoir (27,1%), la motivation à amener la personne informé a se faire dépister (19,4%) et la reconnaissance du soutien apporté par la personne (12,5%). Les raisons pour lesquelles les patients pour lesquelles les patients ne partageaient pas leur statut étaient la peur du rejet (30,3%), la non-perception de l'importance d'informer l'autre parce que l'on est sous traitement (24,2%) et le manque de confiance envers autrui (18,2%). Les facteurs influençant le partage du statut VIH étaient : le statut matrimonial, la réaction positive du patient à l'annonce du résultat du test, la durée de connaissance du statut VIH. De plus, le partage de son statut VIH favorisait l'adhésion au traitement ARV. **Conclusion** : Les bénéfices du partage du statut VIH apparaissent dans cette enquête et les facteurs influençant cette révélation sont principalement la réaction positive du patient au moment du counseling post-test. Les professionnels de santé doivent accorder une attention particulière à ce counseling. **Mots clés** : VIH, statut sérologique, partage, facteurs, Bamako.

INTRODUCTION

Despite the improvement of the prognosis of HIV infection, since the advent of High Activity Anti-Retroviral Therapy (HAART), the disclosure of their seropositivity remains difficult for people living with Aids (PLWA). Social connotation of this pandemic, questions about transmission that may arise at disclosure and possible sexual behavior related to no respect of social morality rules, make the decision of disclosure heavy to take. Disclosing one's serological status risks to impair the relationship with the partner that can worsen social effect of HIV infection. In fact, sharing serological status in not always volunteer, it can be done by a tier, some people can let the other understand without necessarily « tell » them directly they are seropositive for HIV. The environment is important but there are many individual factors to take in account for disclosure [1].

Many studies show the complexity of the disclosure of HIV status by many approaches like humans right, public health, or as contradictions between public health obligations and the respect of medical secret disclosure of [2,3]. Nevertheless, HIV seropositivity seem to be a very important aspect of the fight against HIV/Aids helping to take measure of individual protection, improving by the same time High Active Antiretroviral Therapy (HAART) and the access to psychologic, economic and social support [4,5,6,7]. Moreover, when infected persons talk openly, it results collective awareness of the reality of the disease that is favorable for the adoption preventive behavior within the community [3].

However, the HIV infection in sub-Saharan Africa remain stigmatizing, negative reactions can counterbalance the positive effects of sharing the information and compromise access to treatment till the ultimate stage of the disease [8]. Management of HIV is not only limited to the infected person but also include care of partners, or all the family. In sub-Saharan Africa, manty studies about associated factors of HIV status disclosure have been conducted principally in Eastern and Southern Africa [9,10,11,12,13,14].

In Mali, to evoke one's seropositivity to HIV would be extremely difficult. This secret, heavy for the patient, is also a factor of increasing contamination and a treat of the implication of relative in the disease reality. Although the question of disclosure is crucial, it remains poorly considered. Only two studies were conducted in Mali, one about the disclosure to stable sexual partner [1], and the other was a qualitative study conducted only in female at CESAC in Bamako [15].

No study was conducted on the patient disclosing their HIV status to other relatives, nor about factors influencing this disclosure. So, there is the need to determine the frequency of HIV status disclosure to relatives, to describe the social and demographic characteristics of these relatives; to determine advantages and inconvenient of this disclosure and to identify factors influencing this disclosure.

METHODS

We conducted a cross sectional, descriptive and analytical survey, conducted from May, 15 to August, 15 2018. We interviewed all patient followed up at the clinic of Infectious diseases of Point-G teaching Hospital in Bamako, Mali. The sample size calculated with Schwartz formula was 302 patients using the estimated proportion of PLWA that disclose their status in ARCAD-SIDA study (e.g. 73%) [1].

Inclusion criteria for this study were: patients aged of 18 y/o and more, that know their HIV status for 6 months or more and giving informed consent to participate to the study.

Data collection was done with individual questionnaire comporting the following parameters: sociodemographic characteristics, delay between knowledge of HIV status and the disclosure, CD4 count and viral load at the time of diagnosis and present; data related to HIV testing, it circumstance, date, author, pre and post-test counseling, patient immediate reaction at announcement of HIV test result. We have used the registry of the ward for complementary data.

Data entering and analysis were done using SPSS 22.0 software. Chi square and Fischer exact tests were used (according to convenience) as well as Mann Whitney U test to study factors influencing the disclosure of HIV status, with a threshold of $p \le 0.05$ for signification.

Ethics considerations: informed consent was obtained prior to participation to the study. Confidentiality was guaranteed all along the study by anonymizing the questionnaires, and protecting electronical file by a password.

RESULTATS

Frequency of disclosure

We interviewed 302 patients, in the ward of Infectious Diseases of Point G Teaching Hospital. Among them, 221 have disclosed their HIV status to at least one person, a frequency of 73.2%.

Sociodemographic characteristics

Interviewed subjects have a mean age of $42.8\pm$ 10.5 y/o (ranged from 20 to 71 y/o). Females were the most represented with sex ratio (M/F) of 0.41. Majority of patients come from the town of Bamako (83%) with 20.2 % for Commune 5. Most of our patients were married in monogamy regimen e.g. 37.7%. [Table I]

Table I	:	Sociodemographic data

Variable	Modality	Ν	%
Age	18 -24 y/o	4	1.3
	25 -34 y/o	69	22.8
	35-44 y/o	96	31.8
	≥45 y/o	133	44.0
Sex	Female	214	70.9
	Male	88	29.1
Residence	Bamako	251	83.0
	Out of Bamako	49	16.3
	out Mali*	2	0.7
School level	None	106	35.1
	Coranic	20	6.6
	Primary	74	24.5
	Secondary	73	24.2
	University	29	9.6
Marrital status	Monogamy	114	37.7
	Polygamy	63	20.9
	Single	29	9.6
	Divorced	28	9.3
	Widowed	66	21.9
Total	· · ·	302	100.0

Discovery and announcement of seropositivity to HIV

discovery Circumstance of HIV of seropositivity was frequently the presence of clinical symptomatology suggesting HIV infection (76.8% of cases). A pre-test counseling was not done in 57.6% of cases, but a post-test counseling was done in 95.4% of case. Medical Doctor was the health care worker that have announced their test results to patients most of the time (92.7% of cases). In 56% of case at the announcement of their seropositivity to HIV, patients had positive attitude.

Disclosure of HIV seropositivity

Disclosure of HIV seropositivity was deliver to one person in 56% of cases and to two persons in 17.2 % of case. It has been done within the legal period of 6 weeks in 81.5% of case. Person that benefits from disclosure were by decreasing frequency the partner (47.6%), sister or brother (0.9%). The mostly evoked circumstance for the disclosure was an ongoing illness e.g. 64.8% of cases. The mostly told reason of the disclosure was duty toward the informed person e.g. 27.1% of cases.

While most of the persons toward the one disclosure have been done (76.0%) ignore the seropositivity of the patient before, their immediate reaction was acceptation in 80.2% of cases. Patients declared to have discuss the reason why the disclosed their serological status with the informed person in 90.0 % of cases. Then, 64.7% of patients have talked about the question of the serological status of the informed person. For the second person receiving disclosure from HIV positive patient, 94.2% were not aware of this status before disclosures. The reason of disclosure has been discussed in 84.6% of cases. For patients that have not disclosed their HIV status, 90.9% did not seen the importance for other to know their status.

Factors influencing the disclosure

There was no statistically significant correlation between HIV status disclosure and the sex, the age, the school level of patients as well as their knowledge of HIV transmission ways.

Contrarily patients living in couple mostly disclosed their HIV status as compared to single (78.2% vs 65.9% of cases; p<0.05). Those who have positive reaction at the HIV test result announcement disclosed mostly their status as compared to those who have negative reaction (78.7% vs 66.2%; p<0.05). Patients that known their HIV status since more than two years have mostly disclosed this status than those who known this status for less than two years (76.6% vs 66.0% of cases; p=0.04) [Tableau II]

Disclosure	Yes	No		Total	Р	
Factors	Count	(%)	Count	(%)	N	
Sex						
Female	161	75.2	53	24.8	214	0.25
Male	60	68.2	28	31.8	176	
Age group (y/o)						
< 35	54	74.0	19	26.0	73	
35-44	60	62.5	36	37.5	96	0.1
\geq 45	107	80.5	26	19.5	133	
Living in couple						
Yes	140	78.2	39	21.8	179	0.02
No	81	65.9	42	34.1	96	
Positive reaction at tes	st result					
Yes	133	78.7	36	21.3	169	0.02
No	88	66.2	45	33.8	133	
Time after test result	(years)					
< 2	64	66.0	33	34.0	97	0.04
≥ 2	157	76.6	48	23.4	205	
Adherence to HAART	ר -					
Good	195	88.2	28	11.8	221	0.02
Bad	63	77.8	18	22.2	81	
Total	221	73.2	81	26.8	302	

Table II : Factors associated with disclosure.

The absence of disclosure of HIV seropositivity.

There were many reasons evoked for the nondisclosure. Fear of lake of understanding from relatives was the most evoked reason 30.3% of cases. In 24.2% of patients there were no perception of the importance to let their relative know their status because they are already taking medication against the disease. In patients that have not disclosed their status to anybody, 65.2% used strategies to hide their seropositivity to their relatives. Mostly used strategies are to hide themselves when taking HAART and to hide HIV drug changing their boxes respectively in 30.2% and 25.5% of cases.

Support and Advantages of the disclosure

Patients have been encouraged to share their status in 68.9% of cases. They have been informed about how to proceed for the disclosure in 67.2% of cases and 3% of them have been helped by association of PLWA to make the disclosure.

Disclosure was considered as advantageous by 95% of patient because that allows to have family support. Majority of those who disclosed their status considered they are not stigmatized; they represented 93.2% of case. There was no bouleversement in their marital status in 95.5% of cases. Patients who disclosed their seropositivity to HIV were observant rather than those who did not disclosed e.g. 88.2% vs 77.8% (p<0.05).

DISCUSSION

1. Limits of the study

Because of the sensibility of the subject, we faced the refusal of some patients to participate in the study, others who agreed to talk about their status saw painful memories come up and their condition forced us to stop interviewing them.

2. Disclosure of HIV serostatus

Patients shared their HIV status themselves in 73.2% of cases. This proportion was lower than Kouanda's one [16] in Burkina Faso in 2010-2011, which reported a sharing rate of 81%. This could be explained by the fact that his study was conducted in several sites, the high sample size and its inclusion criterion which was the knowledge of serostatus to HIV without

time restriction while our inclusion criterion did not take not include patients whose HIV status was known less than 6 months ago.

However, our result is similar to the one of ARCAD-SIDA [4] in Mali and Courtherut [17] in Senegal, which reported respectively status disclosure rates of 73% and 66%. On the other hand, it is higher than Salami's [18] in Nigeria and Donaldson's in Haiti [19] who respectively found a disclosure rate of 39.5% and 38.6%; this difference could be explained by the fact that in Salami's study the majority of people were in a polygamous union limiting communication and in Conserve's it was a population consuming alcohol, having not just control of all decisions, only 75% were on HAART while the author found that 50% felt more open about their HIV status when they discovered the benefits of HAART.

3. Sociodemographic data

3.1. The age of patients

Our study population was young adult subjects (mean age 42.8 years). This average age is higher than that found by Conserve and al in Haiti in 2011 and Konan and al in Côte d'Ivoire in 2004 (respectively 35 and 36 years) [19,20]; this difference could be explained by the fact that with the increasing accessibility of HAART to patients there is a tendency for the HIV-infected population to become older, moreover in his study Donaldson had an upper limit of 60 years for the age of patients as inclusion criteria as compared to our study where the upper limit of the age range was open. On the other hand, our population is younger than the one in the studies of ARNS [21] and Courtherut [17] in Senegal, their means age were respectively 51.3 and 46.5 years. These last two studies had as inclusion criteria: "patients followed up on treatment for 10 years" while our study also included patients who were followed up for less than 10 years.

3.2. Sex of patients

The female gender with 70.9% predominated in our sample. This result is consistent with most studies [16-18], where women predominated at variable rate from 58.5% to 79.5%. This is because HIV has become a feminizing disease because of the social, economic and cultural vulnerability of women as well as some of their anatomical and genetic predispositions.

3.3. The level of Schooling

Patients were in the majority uneducated and represented 35.1% of the cases in our study, this rate is lower than those of Kouanda in Burkina Faso [16] and Coutherut in Senegal [17] which reported respective rates of 44.9% and 43.4%. This difference could be explained by higher overall literacy rates in these countries compared to Mali [UIS UNESCO].

3.4. Marital status

Patients living in couples excluding divorced, single or widowed accounted for 58.6% of our sample. This finding was also made in Senegal and Nigeria [17, 18], while Kouanda [16] in Burkina reported a predominance of those who do not live in couples: widowers (35,1%); divorced (14.3%) and single (10.4%). Indeed, many patients are often screened after the death of the spouse [22], it is also important to specify that the situation as a couple at the time of our study does not exclude the fact that the subject was widowed or divorced by the past. Konan YE in Côte d'Ivoire [20] had found a predominance of single (68%), which could be explained by the fact that his recruitment to a socio-medical assistance center where they were taken care of people in social distress.

4. People with whom HIV seropositivity has been shared

In our study, HIV seropositivity was disclosed toward different family members, but spouses were the ones with the most concerned, 47.6% of disclosure. In couples, the information of the spouse may express the desire to bring him or her to be tested, it may also be related to the desire to avoid the transmission of the disease through the use of measures of prevention. Sharing with spouses was found with less frequency by several authors Kouanda et al [16] in Burkina in 2010, Salami et al [18] in Nigeria in 2011 and Courtherut [17] in Senegal in 2011, respectively found 28.8%, 20.6% and 27%. This difference could be explained either by the study population that includes a majority of patients who do not live in a relationship [16], or by the improvement of methods of raising patients' awareness of the potential dangers of exposing their spouses to HIV transmission in cases of non-disclosure of their HIV status [17]. Salami, however, found that even if one is living in a couple, being in a polygamous marriage could hinder sharing with the spouse

because of the magnitude of the consequences that might result [10].

5. Non-disclosure of HIV status

In our study, a minority of 21.8% of our patients did not disclose their HIV status themselves. Our result is lower than that of Kouanda et al [16] in Burkina Faso, which found a nondisclosure rate of 29%. This could be explained by the fact that he includes patient once he knows his HIV status while our inclusion criteria were to know HIV status for at least 6 months, we found further a relationship between disclosure rate and the time of HIV status knowledge. In her study Courtherut [17] in Senegal found a rate of 34% that can be explained by the fact that the majority of our patients had access to post-test counseling where emphasis is made on the necessity to inform at least partners. Salami et al [18] in Nigeria in 2011 found a 60.5% no-share rate and he explained this by the fact that the majority of people were in a polygamous household and feared being labeled as having sexual debauchery.

6. Reasons for non-disclosure of HIV seropositivity

In our study, patients who did not share their HIV-positive status were afraid of being stigmatized and for this, they mentioned different reasons: the fear of the lack of understanding by the entourage (30,3%); the non-perception of the importance of sharing the HIV status already being treated (24.2%); lack of trust in someone (18.2%); shame (18.2%) and fear of the serious consequences of the disclosure of their status on their social life (4.5%). These reasons are found in other studies [16,17].

7. Factors that influence the sharing of HIV status among patients around them

7.1. Sociodemographic factors

There was no significant statistical link between sharing HIV status and sex, age, education, and knowledge of HIV transmission in our study. Contrarily, Coutherut and Desclaux [21] as well as Kankou JM and al in ANRS VIHVO study found that women were more likely to disclose their HIV status to relatives and that disclosure was associated with a higher literacy level [24]. Ahn JV and al in childbearing women found age and literacy to be influencing factors of disclosure [25].

However, we found a statistically significant relationship between marital status and the sharing of HIV status. For example, being in a couple promotes sharing of HIV status and, as a result, marital status influences the sharing of HIV status. The life of proximity strengthens the bonds, increases the confidence, the understanding and the complicity between the members of the couple thus favoring the sharing of the secret on the seropositivity with the partner, with other close relations of the couple or the two at a time. Other authors [16,17,18,24] found disclosure to one's steady partner was associated with a better social context and marital status.

7.2. The positive reaction to the announcement and sharing of HIV status.

Having a positive reaction to the announcement of HIV status influences status sharing. This can also be explained by the fact that by already accepting that the disease exists one tends to be more adherent to the treatments.

7.3. The relationship between duration of knowledge of HIV status and HIV status sharing.

In our study, Patients that known their HIV status since more than two years have mostly disclosed this status. Kankou JM and al found the same correlation but for a duration of five years. Knowing one's serological status for a long time facilitates the sharing of HIV serostatus because it takes into account the patient's acceptance of his / her status as a PLWHA, a status that is devaluing and difficult to internalize [24]. The duration of knowledge of the infected status is the culmination of a long process in which the choice of the person or persons to be informed, the form and timing of the sharing are carefully thought by the patient to minimize the harmful effects.

8. Point of view of patients about the disclosure of their HIV serostatus

8.1. Advantages of sharing HIV status with relatives

In our study, HIV serostatus is found to be advantageous by 95% of patients and as an advantage, they said they received physical support (some were accompanied by the person with whom the serological status was shared

they facilitate their displacement), others received financial support (they were helped to pay their lab test, or travel costs to come at visits), or some were given moral support, namely listening to the PLWAs when he is depressed, comfort him when everything goes wrong, Daskalopoulou and al in large multicenter study found patient that disclosed their HIV status to 'most or all' of their friends and family were more likely to have symptoms of depression (RR = 1.4), anxiety (RR=1.3), and to report ART non-adherence (RR=1.3) [23]. Among the bride and groom, there was a strengthening of family ties, trust between partners and the peace of consciousness. Seven of our patients had a change of marital status after sharing their seropositivity i.e. went from single to married.

8.2. Disadvantages of sharing HIV status with relatives.

A minority (6.8%) of our patients has been stigmatized after sharing their HIV status. Negative reactions are characterized by isolation, rupture of social ties and guilt. Isolation takes the form of rupture of physical contact or indifference. The cessation of sexual intercourse by a married couple. Two of our patients were faced with verbal abuse, the spouse was accused of infidelity and probable contamination. A patient was no longer allowed to work or make food in her own home. Three patients had a breakdown of social ties by cancelling their marriage plans after sharing their HIV + status with the joint potential. For some, they were no longer considered as family and the occurrence of this disease was attributed to their sexual debauchery. Heggeness and al, found when studying emotion dysregulation role for certain types of HIV disclosure that greater HIV-related stigma is associated with reduced HIV disclosure for individuals with greater emotion dysregulation. However, emotion dysregulation did not moderate the relations between negative selfimage (e.g., shame, guilt) or disclosure concerns and HIV disclosure [26].

CONCLUSION

At the end of our study, it appears that HIV status disclosure is relatively frequent among patient followed up in Point G teaching hospital and is primarily directed towards the spouse and then to the family members. Living in couple, initial positive reaction at the test result as well as the course of the follow-up (i.e. after at least two years) are the main factors that favor the disclosure. The favorable opportunity of sharing was sickness; duty was the most evoked reason and the expected benefits secondary to sharing were financial or emotional support. Disclosure favors the adherence of patients to HAART. Thus, intervention should be set up to improve disclosure rate and strengthen the fight against HIV transmission.

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