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Disclosure and religion among people living with HIV/AIDS in France.**AIDSIMPACT SPECIAL ISSUE**

Marie Préau^{1,2,3}, Anne Deborah Bouhnik^{2,3}, Nicolas Roussiau¹, France Lert⁴, Bruno Spire^{2,3}

¹ LabÉCD, Psychology department, Nantes University, Nantes, France

² INSERM Research Unit 379 "Epidemiology and Social Sciences applied to medical innovation", Marseille, France

³ Southeastern Health Regional Observatory (ORS-PACA), Marseille, France

⁴ INSERM U687, Saint-Maurice, France

Corresponding author: Marie PRÉAU

INSERM U379, 23 rue Stanislas Torrents, 13006 Marseille, France

LabÉCD, Psychology department, Nantes University, Nantes, France

☎: +33 2 40 14 13 04 📠: + 33 2 40 14 12 55

@: preau@marseille.inserm.fr

Disclosure and religion among people living with HIV/AIDS in France.

The aim of this study was to examine associations between the importance of religion and disclosure of HIV seropositivity within sero-nonconcordant couples. In 2003, a face-to-face survey was conducted among patients selected in a random stratified sample of 102 French hospital departments delivering HIV care. Respondents who reported being in a couple with a non-HIV-positive partner were asked whether they had disclosed their HIV positive status to their partner and if religion represented an important aspect of their life. Among the 2,932 respondents, 1,285 were in a sero-non-concordant regular partnership. Among these, 37.5% reported that religion played an important role in their life; 7.2% had not disclosed their HIV-positive status to their partner, and 11.6% were unaware of their partner's HIV status. Lack of HIV-disclosure to the partner was encountered more often among those who considered religion as an important aspect of their life. After multiple adjustment for socio-demographic factors, and for partnership characteristics, the importance of religion in the respondent's life remained independently associated with a lack of HIV-disclosure to the regular partner. In conclusion, individuals who place importance on religion appear to have difficulties in disclosing their HIV-positive status due to the associated stigma and fear of discrimination.

Key Words: religious beliefs, disclosure, condom use, stigma

Introduction

All individuals who have learned about their HIV antibody status have been faced with an important decision regarding whom they should share this information with (Holt et al., 1998; Levy et al., 1999). The phenomenon of disclosure of one's HIV seropositivity to significant others is often perceived as a double-edged sword. It may open up the opportunity of receiving social support; however, it may also lead to added stress due to stigmatization, discrimination and disruption of interpersonal relationships (Levy et al., 1999; R. L. Sowell, Seals, Phillips, & Julious, 2003). Conversely, concealing one's HIV status from others may be stressful in itself, and can interfere with obtaining and adhering to potentially critical medical treatments.

Types of disclosure may range from voluntary self-disclosure to forced disclosure due to prevailing circumstances and, at times, disclosure to significant others by professionals/family members without the consent of the patient. Different types of disclosure may have different effects on the emotional well being of the individual. (Chandra, Deepthivarma, Jairam, & Thomas, 2003)

Researchers have documented a direct relationship between an individual's mental health status and both the degree and comfort of disclosure of one's seropositive status (Préau et al., 2007). Moreover, concealment has been identified as playing a significant role in how individuals cope with their disease (Holt et al., 1998).

Thus disclosure itself can be of various types and the decision to disclose can be influenced by a wide range of factors including demographic characteristics of the individual such as ethnicity, degree of symptomatology, apprehensions about the societal reactions to disclosure, perceived benefits of disclosure and several psychosocial characteristics of patients.

Religion is an important though often neglected aspect of life in people living with HIV/AIDS (PLWHA). Confronting a major medical crisis may be a time when people turn to their religious faith with positive consequences on adherence, quality of life and coping strategies. The past several years have seen a virtual explosion of research in the area of religion, spirituality, coping, and health. Religion is often a central issue for patients dealing with chronic illness and most HIV-infected patients belonging to an organized religion use their faith to cope with their illness (Cotton et al., 2006; McCormick, Holder, Wetsel, & Cawthon, 2001; R. Sowell et al., 2000). Authors have shown that helping to address the spiritual needs of patients in the medical or community setting may be one means of decreasing depressive symptoms in PLWHA (Carrico et al., 2006; Yi et al., 2006). An examination considering both subject religiosity as well as a sense of self-efficacy may predict depressive symptoms in HIV-infected gay men better than an examination that considers either variable in isolation (Woods, Antoni, Ironson, & Kling, 1999). With a longitudinal design, it has been shown that an increase in spirituality/religiousness after HIV diagnosis can predict a slower disease progression (Ironson, Stuetzle, & Fletcher, 2006). Moreover, several psychosocial factors related to HIV progression such as depression (Bouhnik et al., 2005), hopelessness, optimism, coping (avoidant, proactive), social support, have been identified after adjustment on immuno-virological characteristics and adherence. Adherence has been shown to be influenced by disclosure (Peretti-Watel, Spire, Pierret, Lert, & Obadia, 2006). However there was no information on how religion may interfere with these psychosocial factors.

In this context, we hypothesized that religiosity and more precisely the importance of religion in everyday life may be associated with disclosure of HIV-seropositivity.

The aim of this study was to examine associations between the importance of religion and disclosure of HIV seropositivity in social and interpersonal contexts of PLWHA.

Methods

Data Collection

In 2003, the French National Agency of AIDS Research (ANRS, France) financially supported a national cross-sectional survey conducted among a random stratified sample of PLWHA, enrolled from 102 French hospital departments delivering HIV care. Its aim was to describe the socio-economic and living conditions of PLWHA in France. The stratification criteria were the hospital departments' geographic location and the HIV caseload. Eligible subjects were outpatients at least 18 years of age and who had been diagnosed with HIV at least 6 months previously. Those who were foreign citizens had to have been living in France for at least six months. At each participating hospital, participation in the survey was proposed to each eligible outpatient at the end of their consultation, whether they were attending a regular or a special HIV related appointment. The participants gave their written informed consent and were each given a 15-euro voucher. In addition, the sample size was proportional to the number of HIV-infected patients being followed in the unit.

Weighting procedure

Overall, non-participation reached 41% of the randomized patients, with substantial differences therein according to patients' HIV transmission category, employment status and immunological status. Major socio-demographic and health-related characteristics were collected both among respondents and non-respondents in order to introduce a weighting procedure which would take participation bias into account. This weighting procedure

involved two steps: first, considering the unequal probability of enrolment related to the heterogeneous frequency of patients' hospital visits, a weight was attributed to each individual corresponding to the inverse number of hospital visits he (she) had reported for the preceding year; second, to account for non-response, an additional weight was computed using a method of calibration adjustment (Deville and Särndal 1992), in such a way that the weighted distribution of the participants regarding their transmission group, employment status and immunological status was comparable to that of the entire eligible population.

Questionnaires

Individuals who agreed to participate answered a face-to-face questionnaire (398 closed-ended questions) administered by a trained interviewer using the CAPI (Computer Assisted Personal Interview) system. This questionnaire dealt with a range of aspects of the daily life of PLWHA and their socio-economic conditions. In parallel, the consulting physician completed a short medical questionnaire.

Participants selected

This analysis was restricted to participants who indicated having a regular partnership with a partner either HIV-negative or of unknown HIV status.

Variables

Religion

Participants were asked in what religion they were brought up (none / Catholic / Muslim / Protestant / Other). A second question asked about the place of religion in participants' life using a Likert scale (Very important / important / not very important / not important at all).

Socio-demographic sub-groups

In order to take into account the heterogeneity of the studied population in terms of social and lifestyle-related characteristics, we classified participants into seven exclusive groups according to their sex, their origin and their HIV mode of transmission. Men were divided into “homosexual men”, current or former injecting drug users (“male IDUs”), those infected through heterosexual contact and born in France (“native born heterosexual men”), and those infected through heterosexual contact but born abroad (“immigrant heterosexual men”). In a similar way, women were divided into “female IDUs”, “native born heterosexual women” and “immigrant women”. In order for these categories to be mutually exclusive, we chose to give priority to the HIV mode of transmission. For example, an immigrant homosexual man would be classified as a homosexual man.

Regular partnership characteristics

Participants were asked whether they were in a regular partnership at the time of the survey. Those individuals who reported having a regular partner were asked about the length of the relationship and whether they had disclosed their HIV-positive status to their steady partner. Similarly, participants were asked whether they were aware of their partner's HIV-status. In addition, specific questions about the use of condoms with their steady partner were also asked: unsafe sex was defined as reporting inconsistent condom use during the prior 12 months with the steady partner either HIV negative or of unknown HIV status.

Medical characteristics

The medical questionnaire included information about each participant's viral load, CD4 cell count, clinical stage, time of diagnosis and HIV-treatment.

Statistical Analysis

Chi-squared tests were used to compare those participants who reported having disclosed his/her HIV-positive status to his/her non-HIV positive regular partner with those who did not.

To identify the factors independently associated with not having disclosed one's HIV positive status, logistic models were used. A stepwise procedure was used to select statistically significant factors in a multivariate model (entry threshold $p < 0.20$). Only factors which remained associated with a p -value ≤ 0.05 were finally kept in the multivariate model. Statistical analyses were performed using the SPSS v 12.0.1 software program (SPSS, Inc., Chicago, IL, U.S.A.).

Results

Participants selected

Among the 2,932 participants in the VESPA survey, 1285 reported having a regular partnership with a partner either HIV-negative or of unknown HIV status. In 11.6% of cases, the HIV-status of the partner was unknown to the participant.

Descriptive data are provided in table 1. Mean age was 42 years, women represented 30.7% of the sample, 21.6% were migrants. Only 28.1% of individuals had graduated from high school, 47.6% had children and 55.8% were employed. Seventy six percent reported having a satisfactory household financial situation, while 16.0% and 8.2% reported having a difficult and very difficult situation respectively.

Thirty six percent of the study population was diagnosed as having contracted HIV after 1995. Eighty percent were being treated with HAART, 20.8% were at the C-stage, 69.8% had an undetectable viral load (< 400 copies/ml) and 91.4% had a CD4 cell count > 200 /ml.

With respect to partnership characteristics, the average length of the relationship was 10.0 years (SD=9.9). As previously mentioned, in 11.6% of cases, the HIV-status of the partner

was unknown to the participant. By contrast, 7.2% of participants had not disclosed their HIV-positive status to their partner. Sixteen percent of individuals reported that condom use had been a source of tension or discord with their partner during the prior 12 months, and unsafe sex with his/her non-HIV-positive steady partner was reported by 24.6% of individuals.

Importance of religion

The majority of participants were Catholic (71.4%), less than 10% were Muslim (6.3%), and 4.1% were Protestant while 14.7% reported having been brought up in no religion. Moreover, 37.5% considered religion as an important aspect of their life.

Disclosure of HIV-status to his/her non-HIV positive regular partner

Table 1 shows that HIV-disclosure was less likely among younger participants. Migrant men and women were also more likely to have not disclosed their HIV-status to their regular partner, as well as those participants who considered religion as an important aspect of their life. Regarding partnership characteristics, participants in a more recent relationship disclosed their HIV-status to their partner less frequently. This was similarly true for those who did not know the HIV-status of their regular partner and those reporting that condom use was a source of tension within their regular partnership. By contrast, sexual risk taking was not associated with HIV-disclosure.

Regarding medical characteristics, those individuals diagnosed after 1995 were less likely to have disclosed their HIV-status to their regular partner as were those who were not on HAART-treated.

In a multivariate analysis, the importance of religion remained associated with a lower probability of having disclosed HIV positive status to the regular partner after multiple

adjustment for age, partnership duration, unawareness of the regular partner's HIV-status and having been diagnosed after 1995. In addition, migrant men and women remained associated with lower rates of HIV-disclosure.

Discussion

Our results show that among PLWHA, disclosure of one's HIV-positive status is associated with the place of religion in one's life, and that religious engagement does not seem to help individuals to disclose their seropositivity. These results could be explained by previous researches showing that PLWHA reported distress regarding HIV-stigma in the context of religious beliefs (Coleman, 2004). Moreover, among homosexuals, despite studies showing that men integrate their gay and Christian identities meaningfully into their lives using a variety of adopted identity integration strategies, it is usually assumed that being gay or lesbian and being Christian is contradictory as Christian doctrine states that every genital act must be within the framework of marriage (Miller, 2007; Walton, 2006). It seems important to cite an article based on accounts provided by gay male Christians in managing the stigma imposed on them by the Church. These accounts describe how they have developed a positive self-image and have become involved in the politics of counter-rejection of the Church and its official positions on the issue of homosexuality (Yip, 1999). Relationship between religious beliefs and disclosure could be explained by the bias of HIV stigma. But it seems important to note that disclosure was not already associated with less adherence or HIV progression that depends to the extent of disclosure (Peretti-Watel, Spire, Pierret, Lert, & Obadia, 2006).

Apart from religious beliefs, factors associated with disclosure relate with characteristics of the relationship such as the partner status or the length of the relationship. Time since diagnosis and more precisely having been infected in the pre-HAART period is associated

with disclosure of HIV status to their regular partner (Batterham, Rice, & Rotheram-Borus, 2005; Skunodom et al., 2006) as older age (Batterham, Rice, & Rotheram-Borus, 2005; Rice, Batterham, & Rotheram-Borus, 2006). Migrants patients in France are also less likely to disclose their HIV serostatus (Skunodom et al., 2006) indeed due to fear of stigmatisation (Bairan et al., 2007). It seems important to note that there is no medical predictor of disclosure as previously shown in other studies (Strachan, Bennett, Russo, & Roy-Byrne, 2007).

Concerning condom use, a question remains: should organized religious bodies not also support the promotion of condoms to combat the spread of HIV? It seems important to recall that for example the Vatican is considering granting its approval of condom use to prevent HIV in marriage ("Prevention. Vatican ponders condoms to prevent HIV in marriage", 2006). Some specific religious orientations limit health education to sexual abstinence and fidelity (Solomon, 1996) and despite the fact that people have access to preventive methods such as condom use they don't use these prevention strategies due to their religious beliefs. In the context of HIV infection, condom use and religious beliefs are always associated.

All of these results underline the important impact of religious beliefs on health behaviour and social interaction around HIV-seropositivity. The question of the place of religious communities with PLWHA and their family cannot be avoided.

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Table 1. Factors associated with disclosure of HIV infection to their non-HIV positive regular partner (VESPA-ANRS, n=1285)

| | Total | Disclosed his/her HIV-positive status to his/her non-HIV regular partner | | p-value | AOR (No versus yes) | CI(95%) | p-value |
|---|-------|--|-------------|---------|------------------------|----------|---------|
| | | Yes | No | | | | |
| | | 1285 | 1192 (92.8) | | | | |
| | % | % | % | | | | |
| Age | | | | | | | |
| < 40 | 41.4 | 41.1 | 46.2 | 0.048 | 1 | | <.001 |
| 40-49 | 40.4 | 41.2 | 29.0 | | 1.1 | 0.6-2.1 | |
| > 49 | 18.2 | 17.7 | 24.7 | | 5.4 | 2.4-12.1 | |
| Level of education > High school certificate | 28.1 | 28.4 | 24.7 | 0.454 | | | |
| Employed | 55.8 | 56.4 | 49.5 | 0.196 | | | |
| Group | | | | | | | |
| MSM | 29.8 | 30.2 | 24.5 | <.001 | 2.8 | 0.9-8.6 | 0.036 |
| IDU men | 13.2 | 13.6 | 8.5 | | 3.7 | 0.9-14.3 | |
| Heterosexual men born in France | 20.7 | 21.8 | 6.4 | | 1 | | |
| Migrant heterosexual men | 5.6 | 4.9 | 13.8 | | 6.4 | 1.9-22.0 | |
| IDU women | 4.7 | 4.9 | 3.2 | | 2.4 | 0.4-13.8 | |
| Heterosexual women born in France | 14.9 | 15.0 | 13.8 | | 1.8 | 0.5-6.2 | |
| Migrant heterosexual women | 11.0 | 9.6 | 29.8 | | 5.7 | 1.7-19.1 | |
| Religion is an important or very important aspect of your life | | | | | | | |
| No | 62.5 | 64.3 | 39.8 | <.001 | 1 | | 0.013 |
| Yes | 37.5 | 35.7 | 60.2 | | 2.1 | 1.2-3.9 | |

| | | | | | | | |
|---|------------|------------|-----------|-------|------|-----------|-------|
| Regular partner HIV-status | | | | | | | |
| HIV ? | 11.6 | 7.2 | 67.7 | <.001 | 1 | | <.001 |
| HIV-negative | 88.4 | 92.8 | 32.3 | | 0.04 | 0.02-0.07 | |
| Length of regular partnership | 10.0 (9.9) | 10.3 (9.9) | 6.0 (9.5) | <.001 | 0.94 | 0.91-0.98 | 0.001 |
| Condom as a source of tension within regular partnership | | | | | | | |
| No | 84.1 | 85.1 | 71.0 | <.001 | | | |
| Yes | 15.9 | 14.9 | 29.0 | | | | |
| Sexual risk taking within regular partnership | | | | | | | |
| No | 75.4 | 75.9 | 68.8 | 0.125 | | | |
| Yes | 24.6 | 24.1 | 31.2 | | | | |
| HIV-diagnosed after 1995 | | | | | | | |
| No | 63.7 | 65.7 | 38.7 | <.001 | 1 | | 0.038 |
| Yes | 36.3 | 34.3 | 61.3 | | 1.8 | 1.0-3.3 | |
| HAART-treated | | | | | | | |
| No | 19.7 | 19.0 | 28.0 | 0.037 | | | |
| Yes | 80.3 | 81.0 | 72.0 | | | | |
| Undetectable viral load | | | | | | | |
| No | 30.2 | 29.6 | 37.6 | 0.105 | | | |
| Yes | 69.8 | 70.4 | 62.4 | | | | |
| CD4 cell count > 200 mm3 | | | | | | | |
| No | 8.6 | 8.6 | 8.6 | 0.988 | | | |
| Yes | 91.4 | 91.4 | 91.4 | | | | |