

## Measuring Mental Health with the SRQ-20 in Patients Living with HIV Followed at the Point-G University Hospital

Kamate E<sup>1\*</sup>, Diakite A<sup>2</sup>, Diallo K<sup>3</sup>, Cisse T<sup>1</sup>, BA BS<sup>1</sup>, Ouologuem D<sup>1</sup>,  
Magassouba O<sup>1</sup>, Sogoba D<sup>1</sup>, Samake K<sup>1</sup>, Coulibay S<sup>4</sup>, Minta DK<sup>1</sup>

<sup>1</sup>Psychologist Infectious Diseases Department of Point G University Hospital,  
Bamako, Mali

<sup>2</sup>Radiotherapy Department, Hospital of Mali, Mali

<sup>3</sup>Health Sciences Training and Research Unit, Assane Seck University of Ziguinchor,  
Senegal

<sup>4</sup>Department of Psychiatry, CHU Point-G Bamako, Mali

\*Corresponding Author: Kamate E, Psychologist Infectious Diseases Department of  
Point G University Hospital, Bamako, Mali.

DOI: 10.31080/ASMS.2023.07.1538

Received: March 21, 2023

Published: April 06, 2023

© All rights are reserved by Kamate E., et al.

### Abstract

**Introduction/Objectives:** Despite the indisputable effectiveness of antiretroviral (ARV) treatment today, people living with HIV are still at increased risk of developing mental health disorders in resource-limited countries. Our work aimed to reduce the prevalence of mental health among patients living with HIV followed at the CHU du Point-G.

**Methods:** This was a descriptive cross-sectional study through prospective recruitment from August to December 2022 in HIV patients. The patients who accepted, benefited from an individual interview through a questionnaire containing the SRQ-20 French version.

**Results:** A total of 122 patients were enrolled, of which 55.74% were women. The mean age was  $42.60 \pm 11.55$  years with extremes at 22 and 73 years. The mean duration on ARV treatment was  $9.11 \pm 5.35$  years. The predominant occupations were housewives (30.1%), shopkeepers (22.8%) and teachers (8.9%). The prevalence of positive results for SRQ-20 was estimated to be 61.5% (95% CI 52.72-70.23; 75 cases) with a predominance of women (57.33%).

**Conclusion:** The results of our study show that there is an urgent need to address the issue of mental health in the context of HIV/AIDS in Mali today.

**Keywords:** SRQ-20; HIV; PHAs; Point G

### Introduction

Antiretroviral (ARV) treatment has profoundly altered the prognosis of HIV infection, which has become a chronic disease [1,2]. It is no longer limited to the sole expression of opportunistic infections favored by immunosuppression as in the early days of its discovery [3,4]. HIV infection affects all areas of human existence, whether through the physical and psychological impact

of the disease, emotional and sexual life, or the difficulties of social and professional integration [1,4]. Thus, people living with HIV are at increased risk of developing mental health disorders [5-7] that can interfere with care-seeking behavior, reduce adherence to treatment, and induce higher mortality rates [5,8,9]. Health refers to a state of physical, mental and social well-being and is not limited to the absence of disease. It is an integral part of health;

indeed, there is no health without mental health, says the World Health Organization (WHO) [10].

Thanks to the effectiveness of ARVs, HIV has become a chronic pathology with which, from the point of view of physical quality of life, one can live much like the general population, with some additional constraints. Thus, the majority of HIV-positive people are doing well, biologically speaking at least [11].

While HIV treatment reduces the risk of certain mental health disorders [5,12], some frequently prescribed antiretrovirals (ARVs) may also cause neuropsychiatric side effects among 50% of people they are given [5]. And HIV is associated with a multitude of neurocognitive disorders, including asymptomatic dementia, mild dementia, HIV-associated dementia [13]. Also, people living with HIV may experience depression and anxiety as they adjust their lives to chronic illness, when they are victims or when they anticipate stigma or when they manage the permanent stressors of life [5,13,14]. Mental health is therefore a legitimate topic in the field of HIV/AIDS. But in Mali, few studies addressing the measurement of mental health have been conducted. The objective of the present study was to measure, with the WHO QRS-20, the mental health of people living with HIV followed at the Point-G University Hospital.

## Methods

Our study took place at the Centre Hospitalier Universitaire du Point G. This was a descriptive cross-sectional study through prospective recruitment. Data collection took place from August to December 2022. It involved 122 HIV-infected patients, aged at least 18 years, followed by at least 1 year at the Infectious and Tropical Diseases or Internal Medicine departments of the Point G University Hospital. We did not include HIV-positive patients with a known psychiatric history, those under 18 years of age and those followed outside the CHU du point G.

Only patients who agreed to participate in the study benefited from an individual interview through a survey sheet. In addition to the two groups of variables selected, namely: sociodemographic variables (age, sex, marital status, type of marriage regime) and history and experience variables of the disease (duration of ARV treatment, type of HIV, circumstance of testing, who proposed it, counselling and information for those around you), the WHO 20-

item French version SRQ-20 was used to screen participants for mental health or well-being [15].

The SRQ-20 is a 20-point instrument that can ask respondents about symptoms and problems related to neurotic disorders that maybe present in patients who have access to health services. They reflect depressive symptoms, anxiety and psychosomatic complaints. Respondents were asked to recall whether these symptoms had been experienced in the past 30 days. Each question has two answer choices, "yes" and "no". Each of the 20 items is rated 0 or 1. The answer "yes" is assigned a score of 1 and the answer "no" a score of 0. A score 1 indicates that the symptom was present in the heart of the last month, a score 0 indicates that the symptom was absent, so the maximum score is 20. A score greater than 7, indicates the existence of a probable mental disorder [15-18].

Since it is an instrument that can be self-administered or administered by an interviewer, we chose the second option. The interviews took place at the Department of Infectious and Tropical Diseases and at the headquarters of the association of PLHIV of the CHU du Point-G. Conducted by the psychologist, the duration of the interviews varied between 30 to 45 minutes. The languages used were "Bamanakan" and French. Data capture and statistical analysis were performed using SPSS 20.0 software.

## Results

A total of 122 HIV-PLAs were interviewed. Women accounted for 55.74% (n = 68) versus 44.26% (n = 54) of males for a sex ratio of 0.79. The mean age was  $42.60 \pm 11.55$  years with extremes at 22 and 73 years. The most important occupations were housewives (37 cases; 30.1%), shopkeepers (28 cases; 22.8%) and teachers (11 cases; 8.9%). Sixty-five point six percent (65.6%; n = 80) of them were married, the majority of whom were monogamous at 58.8% (n = 47). Subjects with the basic level were the most represented with 35.2% (n = 43) followed by the out-of-school with 30.3% (n = 37) and secondary with 16.4% (n = 22).

HIV1 was predominant with 119 (97.5%) cases. The mean time to discover HIV status was  $9.11 \pm 5.35$  years. Disease was the circumstance of screening in 63.9% of cases (n = 78) followed by pregnancy in 13.11% of cases (n = 16) and diagnosis of a partner in 8.2% of cases (n = 10); Most had shared their status at 73.8% (n = 90).

= 90) and this was mainly shared with partners in 47.2% (n = 42) and family with 15.7% (n = 14).

Of all participants, analysis of the SRQ-20 results revealed that 61.5% (n = 75) had a high or negative score indicating the presence of neurotic disorders. Women were predominant in 57.33% of cases (n = 43/75). The mean RRS-20 total score was 9.27 (SD = 4.94).

Depressively/anxiously, feeling nervous, tense or worried was reported in 67.21% of cases (n = 82) with a predominance of women in 52.44% of cases (n = 43/82); Easily frightened was reported in 48.36% of cases (n = 59) of which just over half were women in 52.44% of cases (43/83); and Feeling unhappy was reported in 45.90% of cases (n = 56) with a predominance of women in 62.5% (n = 35/56).

In terms of somatic dimension, the frequency of headaches was 45.90% in participants (n = 56); poor digestion in 36.88% of cases (n = 45); low appetite in 50.82% of cases (n = 62); poor sleep was reported in 59.02% of cases (n = 72), tremor of the hands in only 19.67% of cases (n = 24), and unpleasant sensations in the stomach in 40.98% of cases (n = 50).

For the dimension of vital energy reduction, 76.23% of participants reported being easily tired in the last 30 days (n = 93); 44.26% found it difficult to make decisions (n = 54) in the last 30 days; 45.90% found it difficult to enjoy your daily activities (n = 56); their daily work suffered in 44.26% of cases (n = 54); they felt constantly tired in 72.95% of cases (n = 89); and they struggled to think clearly in 33.61% of cases (n = 41).

Regarding the dimension of depressive thoughts, inability to play a useful role was reported by 44.26% of participants (n = 54); while 65.57% (n = 80) of participants reported loss of interest in things; the thought of ending one's life in 24.6% of cases (n = 30); and the feeling of being a worthless person in 40.98% of cases (n = 50).

## Discussion

The results obtained in this descriptive cross-sectional study suggest the need and benefits of assessing the mental health of people living with HIV, who are followed in our health services for better overall care. In Mali, very few studies have addressed this theme, let alone with the SRQ-20.

In our study the average age of our patients was  $42.60 \pm 11.55$  years with a predominance of women at 55.74%. This result is comparable to that of Kawiya, *et al.* and Nakimuli-Mpungu, *et al.* in similar studies that reported respectively ( $41 \pm 10.4$  years and  $41.7 \pm 11.1$  years) with female predominance in (65% and 67%) [19,20].

The most important occupation was the housewife at 30.1%. This result is different from that of Nakimuli-Mpungu, *et al.* which found a predominance of farmers at 42% [20]. This difference is explained by the difference in the places of study, namely the urban and rural areas. Sixty-five-point six percent (65.6%) of participants were married, comparable to that of Kawiya, *et al.* which bring in 66% of married [19]. Subjects with the fundamental level were the most represented in our study with 35.2%. This result is similar to that of Kawiya, *et al.* and Nakimuli-Mpungu, *et al.* who also reported the basic level of education with 55% and 60 respectively [19,20].

The mean time to discover HIV status was  $9.11 \pm 5.35$  years. This result is close to that of Nogueira, *et al.* in a similar study with 8.0 years [21].

Of all participants, analysis of SRQ-20 results revealed 61.5% score signifying the presence of neurotic disorders. This result is significantly higher than that of Gelaw, *et al.* who reported 38.4% in a similar study among HIV-positive women in Ethiopia [22]. This difference can be explained by the difference in the population studied and the methodology used. However, our result supports the idea of Sikkema, *et al.* that there is an urgent need to address mental health in the context of HIV/AIDS worldwide, particularly in resource-limited countries [23].

On the depressive/anxious level, we found 45.35% depression, higher than that of Kaggwa, *et al.* who reported 28.2% in a literature review study on depression in Uganda [24]. This difference can be explained by the difference in the type of study. Compared to signs related to depression/anxiety, "feeling nervous, tense or worried" was reported in 67.21% of cases; "easily frightened" in 48.36%; and "se sentir unhappy" was reported in 45.90% of cases. These results are close to that of Fischer, *et al.* who reported respectively "feeling nervous, tense or worried" at 60.87%, "easily frightened" at 46.09%; and "se sentir unhappy" in 53.91% [24].

Somatically, the frequency of “headaches” was 45.90% in participants; “poor digestion” in 36.88% of cases; “low appetite” in 50.82% of cases ; “poor sleep” was reported in 59.02% of cases, “hand tremor” in only 19.67%of cases, and “ unpleasant sensations in stomach” in 40.98% of cases. In a similar study of adolescents and young adults in Zimbabwe, Haney, *et al.* who reported less significant results for the same symptoms respectively (26.7%; 13.6%; 16.4%; 10.3%; 5.6%; 14.3%) [25]. This difference can be explained by the age difference, which is very important in almost all aspects of a chronic disease such as HIV.

Regarding the reduction of vital energy, 76.23% of participants reported being easily tired during the last 30 days; 44.26% found it difficult to make decisions in the last 30 days; 45.90% found it difficult to enjoy your daily activities; their daily work suffered in 44.26% of cases; they felt constantly tired in 72.95% of cases; And they struggled to think clearly in 33.61% of cases. These results tell us about the impact of chronic illness such as HIV on an individual’s mental health.

In our study, symptoms related to depressive thoughts were greater than those of Fischer, *et al.* and even greater than those of Haney, *et al.* who reported “inability to play a useful role” in 42.61% and 30.3%, “loss of interest in things in 58.26% and 11.7%, thought of ending one’s life in 19.13% and 2.8%, and “feeling worthless “ in 33.91% and 9.5% of cases. This difference can be explained by the difference in the study and age population because Fischer, *et al.* study involved only HIV-positive women and Haney, *et al.* study concerned adolescents and young adults only.

No.	Items	N	%
1.	Do you often have headaches?	56	45,9
2.	Is your appetite low?	62	50,8
3.	Do you sleep badly?	72	59,0
4.	Are your hands shaking?	24	19,7
5.	Are you easily scared?	59	48,4
6.	Do you feel nervous, tense or worried?	82	67,2
7.	Do you have poor digestion?	45	36,9
8.	Do you have trouble thinking clearly?	41	33,6
9.	Do you feel unhappy?	56	45,9
10.	Are you crying more than usual?	30	24,6

11.	Do you find it difficult to enjoy your daily activities?	56	45,9
12.	Do you find it difficult to make decisions?	54	44,3
13.	Is your daily work suffering?	54	44,3
14.	Are you incapable of playing a useful role in life?	54	44,3
15.	Have you lost interest in things?	80	65,6
16.	Do you feel like a worthless person?	50	41,0
17.	Did the idea of ending your life cross your mind?	30	24,6
18.	Do you feel tired all the time?	89	73,0
19.	Do you have uncomfortable sensations in your stomach?	50	41,0
20.	Are you easily tired?	93	76,2

**Table 1:** Prevalence of neurotic symptoms and mental disorders from SRQ-20.

Variable	N	%	Average
Dimension I: Depression/anxiety			56,75 ± 18,43
Do you feel nervous, tense or worried?	82	67,2	
Do you feel unhappy?	56	45,9	
Are you easily scared?	59	48,4	
Are you crying more than usual?	30	24,6	
Dimension II: somatic symptoms			51,5 ± 15,01
Do you sleep badly?	72	59,0	
Do you often have headaches?	56	45,9	
Do you have uncomfortable sensations in your stomach?	50	41,0	
Do you have poor digestion?	45	36,9	
Are your hands shaking?	24	19,7	
Is your appetite low?	62	50,8	
Dimension III: decrease in vital energy			64,5 ± 19,40
Does your daily work suffer?	54	44,3	
Do you feel tired all the time?	89	73,0	
Are you easily tired?	93	76,2	
Do you find it difficult to make decisions?	54	44,3	

Do you find it difficult to enjoy your daily activities?	56	45,9	
Do you have trouble thinking clearly?	41	33,6	
Dimension IV: Depressive thoughts			53,5 ± 17,80
Have you lost interest in things?	80	65,6	
Do you feel like a worthless person?	50	41,0	
Are you incapable of playing a useful role in life?	54	44,3	
Did the idea of ending your life cross your mind?	30	24,6	

**Table 2:** Manifestations of the SRQ-20 questionnaire by dimensions.

**Conclusion**

After an analysis of the SRQ-20 results giving 61.5% of mental health problems in our sample, it is now clear that there is a clear need for psychosocial interventions to prevent, screen, diagnose and treat mental health problems among people living with HIV in Mali. The SRQ-20 is an ideal instrument for achieving this objective.

**Bibliography**

1. El Fane M., et al. "The mental health of patients living with HIV in the infectious diseases department of the CHU Casablanca, Morocco". *Annales Médico-psychologiques* (Paris) (2018).
2. Préau M., et al. "Anhedonia and depression in the context of HIV infection with multi-drug antiretroviral therapy (ANRS-EN12-VESPA)". *Encephale* 34 (2008): 385-393.
3. Kel CL., et al. "Psychiatric disorders and HIV infection". In: *Psychiatry, HIV and Hepatitis C* (2009): 53-61.
4. Minta DK., et al. "Psychiatric manifestations among people living with HIV in the internal medicine and infectious diseases departments at the University Hospital of Point Bamako, Mali". *Rev Cames Sante* 1 (2013): 84-89.
5. UNAIDS/PCB. "Thematic segment: Mental health and HIV/AIDS: promoting human rights, an integrated and people-centred approach to improving antiretroviral therapy, well-being and quality of life". Geneva: UNAIDS (43)/18.32 (2018): 41.

6. Ciesla JA and Roberts JE. "Meta-analysis of the relationship between HIV infection and risk for depressive disorders". *American Journal of Psychiatry* 158.5 (2001): 725-730.
7. Patel P., et al. "Noncommunicable diseases among HIV-infected persons in low-income and middle-income countries: a systematic review and meta-analysis". *Aids* 32 (2018): S5-s20.
8. Sudfeld CR., et al. "Depression at antiretroviral therapy initiation and clinical outcomes among a cohort of Tanzanian women living with HIV". *Aids* 31.2 (2017): 263-271.
9. Todd JV., et al. "Effects of Antiretroviral Therapy and Depressive Symptoms on All-Cause Mortality Among HIV-Infected Women". *American Journal of Epidemiology* (2017): 1-10.
10. WHO. "Mental health: strengthening our action". Geneva: WHO (2018).
11. Bernède M. "Quality of life with HIV: an improvement in trompe-l'oeil?" *Transversal HIV and AIDS Today* (2019).
12. Wagner GJ., et al. "Impact of HIV antiretroviral therapy on depression and mental health among clients with HIV in Uganda". *Psychosomatic Medicine* 74.9 (2012): 883-890.
13. Chibanda D., et al. "Mental, neurological, and substance use disorders in people living with HIV/AIDS in low- and middle-income countries". *Journal of Acquired Immune Deficiency Syndromes* 67 (2014): S54-67.
14. Kinyanda E., et al. "Prevalence and risk factors of major depressive disorder in HIV/AIDS as seen in semi-urban Entebbe district, Uganda". *BMC Psychiatry* 11 (2011): 205.
15. Beusenberg M and Orley J. "A user's guide to the self reporting questionnaire (SRQ)". Geneva: Division of Mental Health, World Health Organization (1994): 90.
16. Van der Westhuizen C., et al. "Validation of the Self Reporting Questionnaire 20-Item (SRQ-20) for use in a low-and middle-income country emergency centre setting". *International Journal of Mental Health and Addiction* 14.1 (2015): 37-48.
17. Sartorius N and Janca A. "Psychiatric assessment instruments developed by the World Health Organization". *Social Psychiatry and Psychiatric Epidemiology* 31 (1996): 55-69.
18. Chipimo PJ and Fylkesnes K. "Comparative validity of instruments for mental distress in Zambia". *Clinical Practice and Epidemiology in Mental Health* 6 (2010): 4-15.

19. Kawiya HH, *et al.* "Missed opportunities to address common mental disorders and risky alcohol use among people living with HIV in Zomba, Malawi: A cross sectional clinic survey". *PLoS ONE* 18.2 (2023): e0278160.
20. E Nakimuli-Mpungu, *et al.* "Cross-cultural adaptation and validation of the self-reporting questionnaire among HIV+ individuals in a rural ART program in southern Uganda". *HIV/AIDS-Research and Palliative Care* 4 (2012): 51-60.
21. Nogueira LFR, *et al.* "Common Mental Disorders are associated with higher viral load in People Living with HIV". Rio de Janeiro; *Saude Debate* 43.121 (2019): 464-476
22. MulualemMihretGelaw, *et al.* "One-Third of Perinatal Women Living with HIV Had Perinatal Depression in Gondar Town Health Facilities, Northwest Ethiopia". *HIV/AIDS - Research and Palliative Care* (2021): 887-895.
23. Sikkema KJ, *et al.* "Improving mental health among people living with HIV: a review of intervention trials in low- and middle-income countries". *Global Mental Health* 2.19 (2015): 1-23.
24. Kaggwa MM, *et al.* "Prevalence of depression in Uganda: A systematic review and meta-analysis". *PLoS ONE* 17.10 (2022): e0276552.
25. Fischer M, *et al.* "Measuring and understanding depression in women in Kisoro, Uganda". *Culture, Medicine and Psychiatry* 43 (2019): 160-180.
26. Haneya E, *et al.* "One size does not fit all: Psychometric properties of the Shona Symptom Questionnaire (SSQ) and symptomology among adolescents and young adults in Zimbabwe". *Journal of Affective Disorders* 167 (2014): 358-367.