

Exploring COVID-19 Related Factors and Psychological Distress Among Men Who Have Sex with Men (MSM) Living with HIV in Argentina: Qualitative and Quantitative Cross-Sectional Study

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Abstract

Our study aimed to understand how COVID-19 impacted the wellbeing of men who have sex with men (MSM) living with HIV. In this mixed-methods study we conducted a quantitative survey among 97 MSM living with HIV as well as in-depth qualitative 9 interviews with MSM living with HIV and health representatives. Results revealed that a high frequency of participants perceived some degree of impact on sexual activity due to COVID-19, with most of the MSM engaging in sex less frequently. Our results also indicate that an increase in precarious food, housing, and medical care access caused by the COVID-19 pandemic has had a significant negative impact on mental health. The qualitative findings demonstrated the benefit of communication at each level of care from patient, to care navigator, care provider, and the Ministry of Health in improving the care among PLWH.

Introduction

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) continues to spread, despite recent developments of effective vaccines [1]. At the end of July 2021, the total number of globally confirmed cases was at approximately 200,000,000 and deaths at 4,000,000 [2]. While many factors are still under investigation, older age, immunological dysfunction, and comorbid conditions have been seen as high risk factors for severe Coronavirus Disease (COVID-19) [3]. One group of focus are people living with HIV (PLWH) as untreated HIV causes immunological harm. The COVID-19 pandemic has also affected mental health among people living with HIV, resulting in increased stress, anxiety, and depression [4–6].

Though many studies are currently ongoing around the world to assess the impact of COVID-19 in PLWH, examining local disparities can inform better tailored interventions. In March 2020, with 128 official cases, the President of Argentina declared a nationwide shelter-in-place order with aims to reduce the number of new COVID-19 cases. Since then, a gradual lifting of restrictions has been implemented. Until September 2021, the country had reported more than 4,500,000 positive cases and 100,000 deaths [7]. A previous study by Ballivian et al. (2020) found that among PLWH, resilience served as a buffer between economic disruption and mental health and loneliness. However, these findings may not be generalizable to key HIV groups such as men who have sex with men (MSM) [8]. Our study seeks to contribute to filling key gaps in the research by using mixed methods to shed light on important stressors during the COVID-19 lockdown in Argentina that may not have been captured in the existing literature.

The current study aims to explore key COVID-19 related outcomes among MSM living with HIV in Argentina. **Specifically, in this study we conducted a quantitative survey among HIV-positive MSM as well as in-depth interviews to MSM and health representatives in order to understand how COVID-19 is impacting their general wellbeing, including mental health, substance use, sexual activity, and HIV treatment.**

Methods

Study design

This mixed methods study integrated data from quantitative survey responses from a sample of HIV patients and qualitative interviews with HIV patients, a clinic care coordinator, an HIV care provider, and a representative of the Argentine Ministry of Health. All methods were carried out in accordance with relevant guidelines and regulations (Declaration of Helsinki). All research procedures were revised and approved (Comité de Ética en Investigación Biomédica del Instituto Alberto C. Taquini de Investigaciones en Medicina Traslacional (IATIMET), Facultad de Medicina). At the time of the recruitment (June to August 2020), Buenos Aires and the surrounding areas were under preventive and obligatory/mandatory social isolation decree law that prohibits social meetings and attendance at places of social recreation, among others.

Quantitative Survey: Participants, Measures and Procedure

Participants were men who have sex with men older than 18 years of age previously diagnosed with HIV, that were under care at Nexo AC (a non-governmental organization that provides services related to HIV and other STIs to sexual minorities).

The survey was developed using the COVID-19 interview items for vulnerable populations compiled by the Center of Drug Use and HIV/HCV research [N2 COVID-19 Check-in Survey Items] [9]. The final quantitative survey was housed using *Google Forms* and contained 52 questions with aims to assess socio demographic characteristics, HIV treatment and adherence, COVID-19 related stressors, assumed risks, mental health issues and behavior change in sexual activity and substance use, and symptoms and diagnosis related to COVID-19. Quantitative survey links were sent to participants by email. If participants consented to participate in the study, they immediately started the online survey that took around 10 minutes to complete.

Based on the responses of the following 3 questions, “In the past 7 days, have you felt... 1) nervous, anxious, or on edge, 2) depressed, 3) lonely?”, a mental health score was calculated. Responses were on a 5 point Likert scale from “Never or less than a day” (score=0) to “5-7 days” (score=4) a cumulative score was calculated with possible scores ranging from 0-12.

Qualitative survey: Interview procedures and participants

In the qualitative phase, six patients and three key informants were recruited. Patients were men identified as MSM, older than 18 years of age, living with HIV and being at care in Nexo. Key informants included a care coordinator and a care provider from Nexo in addition to a representative from the Argentine Ministry of Health. Interviews were semi-structured and focused on the central themes of: 1) COVID-19 and HIV, 2) treatments, 3) personal perceptions, and 4) the functioning of the health system (delivery of medication and consultations).

Analysis

All quantitative data was analyzed using IBM SPSS Statistics Base 22.0 (IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.). Frequencies/percentages and means/standard deviations were calculated for all categorical and continuous study variables, respectively. Bivariate statistics between mental health and COVID-related stressors were calculated using two-sample t-tests.

During the in depth interviews, detailed notes of the main themes based on the perceptions detailed by the participants were taken. A qualitative description approach was employed to analyze the data [10], which is well-suited for gaining firsthand knowledge of patients' and professionals' experiences on particular topics [11].

Results

Characteristics of the study_group

Ninety-seven (n=97) participants constitute the study sample. As shown in Table 1, the majority of participants were older than 35 years of age (54.7%), with a median age of 37 years old (p25-p75, 31-44), and 54,6% lived in Ciudad Autónoma de Buenos Aires. Four participants reported living in informal housing, like shantytowns. Regarding formal education level, 76.3% completed more than high school level. More than half (54.2%) had a formal job and 40.2% had social security. Most of the participants (95.9%) were under HIV treatment. While all participants were diagnosed with HIV and started medical care at Nexo AC, 25.8% continue under care in other medical centers.

Social and sexual relationships

Regarding social and sexual relationships during confinement, MSM reported being in contact (including remote and face-to-face contact) with a median of 10 individuals for 12 days of the previous two weeks. This data is in line with the fact that 68% of MSM received some kind of support (emotional or economical) almost once a week. However, participants had close contact with a median of 2 persons and for a median of 4 days during the previous two weeks. When specifically asked about sexual partners, 84.5% of MSM reported having had 1 or no partners during the previous 2 weeks. In relation with perception of impact on their sexual activity, 43% of participants felt that confinement "much or extremely" impacted their sexual activity. In fact, 41.3% of them stated that they had sex with their main partner less frequently and 57.1% that they had sex less frequently. No cases of intimate partner violence were reported in the sample (Table 2).

HIV and COVID-19 related issues

Among those under HIV treatment, 87.1% reported no changes on their use of HIV medication, while 8.6% MSM reported missing their medication less frequently and 4.3% participants, more frequently during confinement. On the other hand, 18.3% of participants reported having had problems with the access to HIV medication, 12.4% with finding STIs services and 9.3% with finding healthcare providers (Table 1S).

Among COVID-19 outcomes, 62.9% believed there was some likelihood of becoming ill with coronavirus, 15.4% believed there was some likelihood of having had sex with someone with coronavirus, 6.2% experienced symptoms, 5.2% were tested, and 1% was diagnosed with SARS-CoV-2. In relation to information about COVID-19, 7.2% reported being confused about the nature of the disease, how to prevent it and/or the need for distancing measures. When participants were asked about a list of preventive measures against COVID-19, a high percentage of participants agreed with most of the popular recommendations like “practicing social distancing”, “wearing a face mask”, “washing hands”, and “using hand sanitizer” (Table 2S).

Substance use

Half of the group (50.5%) did not change their drinking behavior, 3.1% had drunk more, 18.6% had drunk less, and 27.8% never drunk. In relation with smoke habits, almost 70% did not smoke, and, according to previously reported classification, 20.3% are light (<1-5 cigarettes per day), 3.1% moderate (6-10 cigarettes per day), and 7.2% severe smokers (>10 cigarettes per day) [12]. Regarding other drugs consumed in the past 2 weeks, marijuana use was reported by 16.5%, sedatives and sleeping pills by 10.3%, and cocaine by 2.1% of the MSM (Table 3S).

Mental health

In order to study the impact of the COVID-19 pandemic and confinement on mental health, we asked MSM about fears and concerns. Most of the MSM (74.2%) reported having been somewhat or very concerned about coronavirus in the previous 2 weeks. A total of 55.7% felt nervous, anxious or on edge, 46.4% felt depressed, 43.3% felt lonely at least 1 day during the previous 7 days. A total of 23.7% felt hopeful about the future most of the days (5-7 days per week). Additionally, 23.7% had physical reactions when thinking about the pandemic. Regarding the feeling of having any loss or problems during the pandemic, 55.3%, 34.4%, 21.9%, 18.7%, and 8.2% reported loss or fear of losing their source of income, health insurance, enough food, enough medication, and a place to stay, respectively. More detailed information is available on Table 3.

Using the variables related to nervousness/anxiety, depression, and loneliness, a psychological distress score was calculated with a mean value of 5 (p25-p75, 3-7). As shown on table 4, a higher score was significantly associated with a greater impact on sexual activity ($p<0.001$), having had negative physical reactions (sweating, trouble breathing, nausea, or heart palpitations) when thinking of COVID-19 ($p=0.008$), not being at Nexo under care ($p=0.037$), loss or fear of losing their health insurance ($p=0.003$), or a place to stay ($p=0.002$), due to the pandemic.

Qualitative Results

In-depth interviews of six HIV-positive patients and three system representatives (Nexo coordinator, Nexo physician and health government representatives) reveal that individuals with HIV had an increased risk perception of COVID-19 due to their HIV status, despite little research confirming that HIV indeed

increases COVID-19 risk. In this line we found dissimilar results: we observed patients who interrupted their HIV treatment because they did not feel safe going to the pharmacy, and also patients who increased treatment adherence and patients who resumed treatment during the pandemic because they felt more vulnerable to COVID-19. All participants expressed some degree of concern, fear and discomfort about the quarantine situation and the spread of COVID-19. Participants mentioned that changes in mood were related to the situation of confinement, the inability of meeting in person, and in some cases, the loss of work.

Participants who needed to attend health services during the quarantine did not report problems receiving care, solving problems in person or in many cases, virtually. Information from all the interviews reveals that HIV treatment interruptions were few and if an interruption occurred it was for less than one month. The main reason cited for treatment interruption was that patients were not able to go to the hospital pharmacy because of mobility restrictions, however subsequent authorizations implemented helped to remedy this issue. Other difficulties cited by patients with social security and prepaid insurance plans were that medication deliveries were not being sent in the appropriate amount of time.

Nexo NGO was adapting rapidly to the COVID-19 situation by providing multiple options for patients to receive prescriptions and medical care. The use of virtual means of communication through email and WhatsApp had been implemented in the organization before COVID-19 so the negative impact of transitioning from face-to-face encounters was diminished. In preparation for appointments, the coordinator mentions the development of a system to better prepare for virtual appointments with HIV care providers. This includes asking for related health information for the reason of their visit such as pictures of injuries, full list of symptoms, and other supporting information. This information is then combined and sent to the attending provider before their appointment.

The Health Systems representative recognized the rapid capacity of HIV care to meet the demands of HIV patients during COVID-19. The representative emphasized that this was the result of coordinated work between different levels of government and in coordination with civil society organizations, which deployed a group of volunteers to deliver medications to patients who could not receive them otherwise. Additionally, the provider stated that all emergency situations were dealt with without difficulties and that they were able to effectively solve them by phone or video call. In agreement with the other participants, they mentioned the changes in provision of necessary medications with a photo of a prescription, later without a prescription, and then patients were given medication for 2 or 3 months to reduce their need to mobilize.

In addition, given the precariousness of the labor market, there has been an increase in the number of patients returning to government funded healthcare because patients no longer have social security nor prepaid insurance due to the impossibility of sustaining payments. In regards to the future, they emphasized the need to organize the demand for viral load studies after COVID-19 as they have been suspended. This will be a topic in which the situation of each patient, their treatments, the time without studies, among other variables, will have to be considered.

Discussion

The current COVID-19 pandemic has placed us in an unprecedented position, challenging health systems to care for patients affected by this new virus as well as other pre-existing diseases. HIV, as a chronic manageable infectious disease that requires lifelong treatment, has been impacted by COVID-19 pandemic. International studies demonstrated that the pandemic and confinement have resulted in interruptions to HIV prevention, testing and treatment services, as well as deleterious effects on mental health, specifically among some vulnerable groups like MSM [13, 14]. Due to the different COVID-19 mitigation plans, as well as cultural differences among countries, characterizing the impacts of the pandemic and the governmental response among MSM at a local level is imperative.

In this study we explored for the first time how COVID-19 impacted on MSM living with HIV that were under care at a medical service in an NGO. Our study included a sample of MSM with a low level of formal jobs and social security, despite a high formal education level. This quanti-qualitative study reveals a broad spectrum of results that may have an impact on the course of the HIV epidemic among MSM. During the beginning of the strict confinement due to the COVID-19 pandemic, MSM reported being affected in their sexual activity, with most of the MSM having sex less frequently, reducing the number of contacts. Results also showed a maintenance and even increase on ART adherence as well as patients who resumed treatment as a consequence of feeling more vulnerable to COVID-19. In this scenario, it would be feasible to think about a reduction in the risk of acquisition and transmission of STIs, including HIV. These results are in agreement with studies performed in other countries. A study performed among MSM (including HIV-positive and HIV-negative individuals) in Belgium demonstrated that MSM reduced sexual contact during the lockdown, suggesting that the risk for STIs transmission decreased [15]. In an interesting study, Jenness and colleagues developed an epidemic model that evaluated both the social distance impact on sexual activity and disruptions in STIs health service delivery. Results reveal that the benefit of a reduction in sexual activity offsets the costs of STIs service disruptions, but only to a point. If the community returns to usual sexual risk behaviors before clinics resume routine services, the impact in terms of additional HIV and STI cases would be devastating, acquiring an additional number of HIV infections. When service disruption far outlasts sexual distancing, the subsequent increase in STI incidence may last 5 years or longer [16]. This highlights that further research is needed to investigate whether and to what extent the transmission of HIV and other STIs could have been affected during the confinement period and the impact of the future of the epidemic.

Results also showed that some patients interrupted ART due to several reasons, like travel restrictions, fear of traveling in public service to pick up medication and some delays on the delivery of medications. In this scenario, supportive care became essential. Patients linked to non-governmental organizations were able to remedy this situation thanks to the help of volunteers who provided legal advice (in the case of problems with the social security), or mental health care (in case of depression) or made transfers of medication (for high-risk individuals).

Since 2000 Nexo NGO offers HIV testing and medical care for MSM. In the last years, previous to the pandemic outbreak, medical care for HIV-positive MSM had included remote procedures to monitor patients, including email, telephone and/or Whatsapp communication for appointments, prescriptions and, in some cases, for medical advice. The high ART adherence registered in our study sample is surely related to the link of the patients with the organization, which has provided virtual means of communication for medication and medical service before the COVID-19 pandemic. Several reports are showing the negative consequences of the COVID-19 pandemic and quarantine on several health aspects. For example, lower-than-expected rates of influenza and Pneumococcus vaccination were identified in 13 Spanish speaking countries in the Americas [17], decrease in liver transplants were reported in Argentina [18], abrupt reduction in cardiovascular diagnostic testing were identified across the globe [19], and negative psychological effects of quarantine including post-traumatic stress symptoms, confusion, and anger were recognized in several studies [20].

Our results indicate that an increase in precarious food, housing, and medical care access caused by the COVID-19 pandemic has had a significant negative impact on mental health. Various health justice strategies such as housing assistance/rent moratoriums, food bank availability/delivery, and tele-/at home- healthcare have been suggested and implemented in various locations in the United States and other countries to protect vulnerable populations [21]. Despite efforts made by local organizations to ensure medication access during COVID-19, our findings suggest that an expansion in governmental and non-governmental services could potentially improve the mental health outcomes of MSM living with HIV.

Despite early difficulties in accessing ART due to differences in insurances' coverage of medications delivery, more than 95% of our sample reported ART use. This is in stark contrast to the percentage of PLWH on ART nationwide (67%) [22]. Moreover, our sample was achieving greater than 90% ART adherence, and around 10% indicated greater adherence since COVID-19. Based on the interview from the Ministry of Health representative, ART adherence and uptake may be increasing due to COVID-19-related fear. However, based on theories of fear and health promotion [23, 24] the positive effects of COVID-19 related fear on ART adherence may quickly dissipate without further intervention. Future research should continue to focus on identifying barriers and perceived benefits to ART access and adherence and use results to improve interventions targeted at maintaining the improvement in ART outcomes caused by COVID-19 related fear.

The qualitative findings demonstrated the benefit of communication at each level of care from patient, to care navigator, care provider, and the Ministry of Health in improving the care among PLWH. When patients and health providers maintain open communication, like the model used in Nexo NGO, providers can rapidly identify issues and report these issues to the proper authorities; in turn, governmental organizations can implement policy and coordinate countrywide efforts that aim at reducing the barriers of vulnerable populations. During the COVID-19 response in Argentina, this type of rapid response is positive and should be used as a model for future situations.

Despite the strengths of the study, there were some limitations worth noting. First, we utilized a convenience sample whose experiences may not be reflective of all PLWH in Argentina. Second, due to the cross-sectional nature of the study, causality cannot be determined. Third, surveys were based on self-report, thus potentially leading to social desirability bias.

Despite preventative intent, enforced lockdowns and physical distancing may be leading to increased health and economic precarity, which our study has shown to have a significant impact on the mental health of MSM living with HIV in Argentina. There is a need for governmental and non-governmental agencies alike to work together in addressing precarious food, housing, and medical care access caused by the COVID-19 pandemic with aims of alleviating poor mental health outcomes. Moreover, despite the negative mental health outcomes caused by COVID-19, fear induced by the virus has improved ART uptake and adherence. Interventions should seize this moment in reducing barriers and increasing the perceived benefit of prolonged ART adherence to maintain the positive effects of COVID-19 induced fear on ART outcomes.

Declarations

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Conflicts of interest: Authors declare that they have no conflict of interest.

Ethics approval: All research procedures were approved by the Institutional review board (Comité de Ética en Investigación Biomédica del Instituto Alberto C. Taquini de Investigaciones en Medicina Traslacional (IATIMET), Facultad de Medicina, Universidad de Buenos Aires).

Informed consent: Informed consent was obtained from all individual participants included in the study.

Authors' contributions: ABA, RM, MGC and MAP conceived and designed the study; ABA and RM coordinated participants' recruitment and performed qualitative surveys; ABA, NM, RM and MAP analyzed the data; AA and MAP wrote the paper. All authors read and approved the final manuscript.

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Tables

Table 1. Socio-demographic characteristics of n=97 MSM living with HIV recruited between June-August 2020 in Argentina during the COVID-19 pandemic.

Variables		All participants (N=97)	
		n	%
Age category	18-34	43	45.3
	35-72	52	54.7
Place of residence	CABA	53	54.6
	Buenos Aires Province	41	42.3
	Other	3	3.1
Housing situation	House or apartment	93	95.9
	Informal housing	4	4.1
Formal education level	High school level	23	23.7
	Higher than high school	74	76.3
Employment	Formal job	52	54.2
	Unemployed or informal job	44	45.8
Health insurance	Insured	39	40.2
	Uninsured	58	59.8
HIV treatment	Yes	93	95.9
	No	4	4.1
Location of medical care	Nexo AC	72	74.2
	Other	25	25.8

Table 2. Social and sexual relationships during the COVID-19 pandemic among 97 HIV MSM recruited between June-August 2020 from Buenos Aires, Argentina.

Variables	All participants (N=97)	
	n	%
In the past 2 weeks, -how many friends or loved ones have you been in touch with through phone, Skype, Facebook, Zoom, WhatsApp, or face-to-face contact?	Median (p25-p75)	10 (4.5-17.5)
-how many days you have been in touch with friends or loved ones through phone, skype, Facebook, zoom, WhatsApp, or face to face contact?	Median (p25-p75)	12 (5-14)
-how many people have you been in close contact with (within 2 meters) for 4 hours or more in a single day?	Median (p25-p75)	2 (1-4)
- how many days you have been in close contact with (within 6 feet) for 4 hours or more?	Median (p25-p75)	4 (1-14)
- how often have you received support (e.g., emotional, material, or financial) from friends or loved ones to help you during the COVID-19 pandemic?	Every day	25 25.8
	Several times a week	27 27.8
	Once a week	14 14.4
	Once in 2 weeks	12 12.4
	Never	19 19.6
In the past 2 weeks, how many people have you had sex with, including men, women, transgender women, and transgender men? Please include all people in the past 2 weeks with whom you had oral, anal, or vaginal sex.	0	43 44.3
	1	39 40.2
	2 or more	15 15.5
In the past 2 weeks, how much has COVID-19 impacted your sexual activity?	Not at all	34 35.1
	A little	21 21.6
	Much	21 21.6
	Extremely	21 21.6
In the past 2 weeks, how has COVID-19 impacted your sexual activity? (Check all that apply.)	You have sex with main sex partner more frequently	1 1.6
		26 41.3
		0
	You have sex with main sex partner less frequently	0 57.1
		0
	36	

	You have sex with casual sex partner more frequently		
	You have sex with casual sex partner less frequently		
	You have sex more frequently		
	You have sex less frequently		
Which of the following types of intimate partner violence are you experiencing during COVID-19? Check all that apply.	You have been physically abused	0	
	You have been sexually abused	0	100
	You have been emotionally abused	0	97
	You have been financially abused		
	You have been intimidated		
	You have not experienced any type of violence		

Table 3. Fears and mental health during COVID-19 pandemic among 97 HIV MSM recruited between June-August 2020 from Buenos Aires, Argentina.

Variables		All participants (N=97)	
		n	%
In the past 2 weeks how concerned have you been about coronavirus?	Not at all concerned	8	8.2
		17	17.5
	Not very concerned	53	54.6
	Somewhat concerned	19	19.6
	Very concerned		
In the past 7 days, how often...			
Have you felt nervous, anxious, or on edge?	Not at all or less than 1 day	43	44.3
		19	19.6
	1-2 days	21	21.6
	3-4 days	14	14.4
	5-7 days		
Have you felt depressed?	Not at all or less than 1 day	52	53.6
		26	26.8
	1-2 days	12	12.4
	3-4 days	7	7.2
	5-7 days		
Have you felt lonely?	Not at all or less than 1 day	55	56.7
		19	19.6
	1-2 days	13	13.4
	3-4 days	10	10.3
	5-7 days		
Have you felt hopeful about the future?	Not at all or less than 1 day	22	22.7
		20	20.6
	1-2 days	32	33.0
	3-4 days	23	23.7
	5-7 days		

Have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when thinking about your experience (e.g., social distancing, loss of income/work, concerns about infection) with the coronavirus/COVID-19 pandemic?	Not at all or less than 1 day	74	76.3
	1-2 days	17	17.5
	3-4 days	3	3.1
	5-7 days	3	3.1

How likely is the following event would you experience during the COVID-19 pandemic?

You would lose your source of income ⁽¹⁾ N=85	Very unlikely	19	19.6
	Somewhat unlikely	19	19.6
	Somewhat likely	20	20.6
	Very likely	11	11.3
		16	16.5
You would lose your health insurance ⁽²⁾ N=61	You have lost your source of income	22	22.7
		18	18.6
		12	12.4
	Very unlikely	7	7.2
	Somewhat unlikely	2	2.1
You would not have enough food ⁽³⁾ N=96	Somewhat likely	41	42.3
	Very likely	34	35.1
		16	16.5
	You have lost your health insurance	5	5.2
		35	36.1
You would not have enough medication to last a month ⁽⁴⁾ N=91	Very unlikely	39	40.2
		8	8.2
	Somewhat unlikely	9	9.3
	Somewhat likely	70	72.2
	Very likely	19	19.6
You would not have a place to stay ⁽⁵⁾ N=97			

Very unlikely	6	6.2
Somewhat unlikely	2	2.1
Somewhat likely		
Very likely		
Very unlikely		
Somewhat unlikely		
Somewhat likely		
Very likely		

Cases who reported to previously did not have: a source of income (1), health insurance (2), enough food (3), enough medication or did not take medications (4), or a place to stay (5) were excluded from the analysis.

Table 4. Psychological distress score impacts of COVID-19 among 97 HIV MSM recruited between June-August 2020 from Buenos Aires, Argentina

Variable		Psychological distress score	P value
In the past 2 weeks, how much has COVID-19 impacted your sexual activity?	Not at all/A little	4.65	<0.001
	Much/Extremely	6.76	
Have you had physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart, when thinking about your experience (e.g., social distancing, loss of income/work, concerns about infection) with the coronavirus/COVID-19 pandemic?	Not at all or less than 1 day	5.12	0.008
	1-7 days per week	7.00	
Location of medical care	Nexo AC	5.24	0.037
	Other	6.52	
How likely is the following event would you experience during the COVID-19 pandemic?			
You would lose your health insurance	Very/somewhat unlikely	5.05	0.003
	Very/somewhat likely or lost your health insurance	7.09	
You would not have a place to stay	Very/somewhat unlikely	5.28	0.002
	Very/somewhat likely or lost your place to stay	8.75	

Supplementary Files

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- [Supplementarymaterial05102021.docx](#)