High level of mpox knowledge and stigma among LGBTQIA+ communities in Brazil

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BACKGROUND

- Globally in 2022, Brazil ranks second in number of mpox cases and deaths.
- Stigma and discrimination, especially against the LGBTQIA+ community, might result in structural barriers to access health services, leading to undertesting and underreporting of cases.
- We aim to evaluate community knowledge of mpox, as well as to describe sociodemographic and behavioral aspects according to self-reported mpox diagnosis.

METHODS

- Cross-sectional on-line survey conducted among adults (>18 years) living in Brazil through advertisements on Scruff, Grindr, Instagram, and Facebook.
- Questions addressed sociodemographics; mpox knowledge, symptoms, and diagnosis; sexual behavior; HIV testing; and STI diagnoses.
- For statistical comparison, we used chi-square and Kruskal-Wallis tests.
- For spatial distribution (confirmed vs. non-confirmed mpox diagnosis) to identify potential outbreaks of occurrence, we used kernel estimator with adaptive radius and Gaussian function.

Figure 1. Spatial distribution of individuals with confirmed and non-confirmed mpox diagnosis.

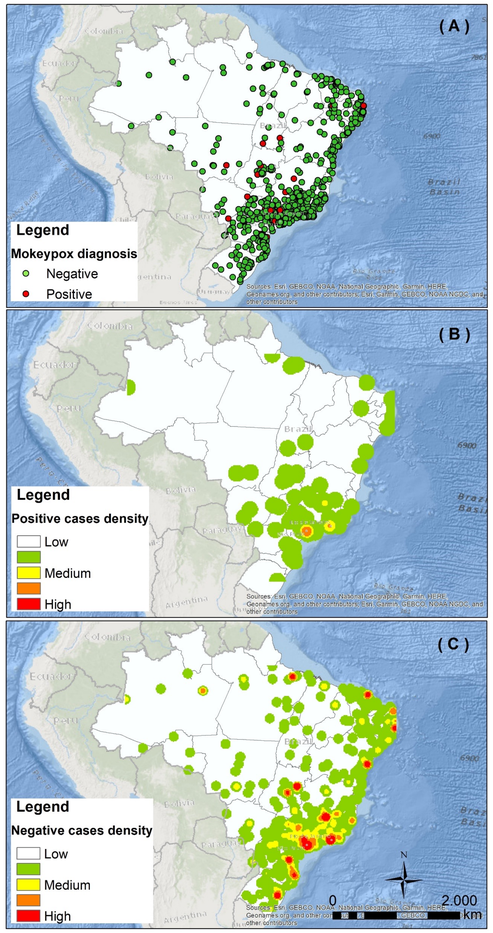


Table 1. Socio-behavioral characteristics according to confirmed and non-confirmed mpox diagnosis.

	Mpox diagnosis			
	No	Yes	Total	p-value
	5912 (%)	324 (%)	6236 (%)	
Age Median (IQR)	37 (31,44)	34 (30,39.2)	36 (31,44)	< 0.001
Gender: Cisgender man	5371 (90.8)	314 (96.9)	5685 (91.2)	0.022
Sex partners				
Any gender	5330 (90.2)	323 (99.7)	5653 (90.7)	< 0.001
Cisgender man	5132 (86.8)	320 (98.8)	5452 (87.4)	< 0.001
Sex partner with suspicious or confirmed mpox	206 (3.5)	112 (34.6)	318 (5.1)	< 0.001
Number of sex-partners Median (IQR)	4 (1,10)	10 (5,20)	4 (1,10)	< 0.001
Sex practices (N=5193)				
Insertive vaginal sex	278 (5.6)	10 (4.0)	288 (5.5)	0.28
Receptive vaginal sex	157 (3.2)	2 (0.8)	159 (3.1)	0.034
Insertive anal sex	2996 (60.6)	214 (85.9)	3210 (61.8)	< 0.001
Receptive anal sex	2874 (58.1)	187 (75.1)	3061 (58.9)	< 0.001
Insertive oral sex	3760 (76.1)	218 (87.6)	3978 (76.6)	< 0.001
Receptive oral sex	3662 (74.1)	220 (88.4)	3882 (74.8)	< 0.001
Condomless sex (N=5193)				
Any	3535 (72.9)	215 (87.4)	3750 (73.6)	< 0.001
Condomless insertive vaginal sex	172 (3.5)	3 (1.2)	175 (3.4)	0.052
Condomless receptive vaginal sex	112 (2.3)	2 (0.8)	114 (2.2)	0.124
Condomless insertive anal sex	2212 (44.7)	180 (72.3)	2392 (46.1)	< 0.001
Condomless receptive anal sex	2126 (43.0)	162 (65.1)	2288 (44.1)	< 0.001
Condomless insertive oral sex	1957 (39.6)	56 (22.5)	2013 (38.8)	< 0.001
Condomless receptive oral sex	2884 (58.3)	195 (78.3)	3079 (59.3)	< 0.001
Transactional sex (N=5064)	175 (3.6)	19 (7.9)	194 (3.8)	< 0.001
Frequented sex venues	2173 (36.8)	206 (63.6)	2379 (38.1)	< 0.001
Substance use				
Binge drinking	3465 (58.6)	200 (61.7)	3665 (58.8)	0.267
Binge drinking before/during sex	1565 (26.5)	115 (35.5)	1680 (26.9)	< 0.001
Any illicit substance use	2354 (39.8)	160 (49.4)	2514 (40.3)	< 0.001
Chemsex	1429 (24.2)	118 (36.4)	1547 (24.8)	< 0.001

Table 2. HIV testing and status, PrEP use and STI diagnoses according to confirmed and non-confirmed mpox diagnosis.

	Mpox diagnosis			
	No	Yes	Total	p-value
	5912 (%)	324 (%)	6236 (%)	
HIV status				< 0.001
Negative	4191 (70.9)	194 (59.9)	4385 (70.3)	
Positive	1353 (22.9)	122 (37.7)	1475 (23.7)	
Unknown	367 (6.2)	8 (2.5)	375 (6)	
Last HIV test (N=5861)				< 0.001
≤ 3 months	2335 (42.1)	234 (74.1)	2569 (43.8)	
>3-6 months	1039 (18.7)	36 (11.4)	1075 (18.3)	
> 6 months	2171 (39.2)	46 (14.6)	2217 (37.8)	
PrEP use (N=4738)				< 0.001
Never	3132 (69)	85 (42.3)	3217 (67.9)	
Current	1106 (24.4)	96 (47.8)	1202 (25.4)	
Past	299 (6.6)	20 (10.0)	319 (6.7)	
STI diagnoses				
Any	628 (10.6)	81 (25.0)	709 (11.4)	< 0.001
Syphilis	442 (7.5)	61 (18.8)	503 (8.1)	< 0.001
Gonorrhea	166 (2.8)	22 (6.8)	188 (3)	< 0.001
Chlamydia	94 (1.6)	16 (4.9)	110 (1.8)	< 0.001

Table 3. Changes in sexual behavior according to self-reported mpox diagnosis.

	Mpox diagnosis			p-value
	No	Yes	Total	
	5912 (%)	324 (%)	6236 (%)	
Any change	2878 (48.7)	186 (57.4)	3064 (49.1)	0.002
Reduced number of sex partners	2226 (37.7)	149 (46.0)	2375 (38.1)	0.003
Avoided sex parties	1596 (27.0)	122 (37.7)	1718 (27.5)	< 0.001
Avoided bars and clubs	1050 (17.8)	70 (21.6)	1120 (18.0)	0.079
Inspected partners for monkeypox lesions	860 (14.5)	66 (20.4)	926 (14.8)	0.004
Asked partners about monkeypox symptoms	749 (12.7)	50 (15.4)	799 (12.8)	0.147
Anal sex only with condoms	742 (12.6)	50 (15.4)	792 (12.7)	0.129
Sex abstinence or avoided any type of sex	644 (10.9)	36 (11.1)	680 (10.9)	0.902
Avoided kissing	409 (6.9)	26 (8.0)	435 (7.0)	0.446
Virtual sex	382 (6.5)	12 (3.7)	394 (6.3)	0.047
Washed bed linen and other (e.g., towels) after sex	284 (4.8)	26 (8.0)	310 (5.0)	0.009
Self-masturbation with partner in the space without touching him/her/they	90 (1.5)	2 (0.6)	92 (1.5)	0.188
Wear face masks during sex	79 (1.3)	5 (1.5)	84 (1.3)	0.753
Dated people only using clothing	80 (1.4)	2 (0.6)	82 (1.3)	0.258
Oral sex with condoms only	63 (1.1)	2 (0.6)	65 (1.0)	0.439
Used gloves for anal fisting or fingering	20 (0.3)	1 (0.3)	21 (0.3)	0.929

RESULTS

- From October to November 2022, 6236 participants completed the survey: 5686 (91.2%) cisgender man, 252 (4.0%) non-binary or queer, 247 (4.0%) cisgender women, 15 (0.2%) transgender man and 15 (0.2%) transgender women.
- Most identified with one LGBTQIA+ identity (6032; 96.7%), white (3877; 62.2%), had college education (4902; 78.7%), and low/middle income (4070; 73.0%).
- Most had heard of mpox (6044; 96.9%) and reported **willingness to use mpox vaccine** (5008; 95.1%).
- Majority agrees that LGBTQIA+ communities are being **stigmatized due to mpox** (5258; 84.4%).
- Overall, 324 (5.6%) reported a mpox diagnosis; 318 of them (98.1%) reported lesions, 178 (56.0%) local pain and 316 (99.4%) attended health facilities for investigation.
- Hotspots of participants reporting mpox diagnosis were concentrated at metropolitan areas of São Paulo and Rio de Janeiro (Figure 1).
- Among participants who reported no mpox diagnosis (N=5912), 4974 (84.1%) reported knowledge of mpox lesions, 288 (4.9%) had a suspicious lesion, but only 54.9% (n=158/288) attended a health facility for investigation.
- Participants reporting mpox diagnosis vs. not diagnosed were younger, reported sex partners with suspicious/confirmed mpox and more sexual contacts (Table 1).
- HIV testing in the prior 3 months, current PrEP use, HIV and other STI diagnoses were higher among those reporting mpox diagnosis (Table 2).
- Participants reporting mpox diagnosis more frequently reported changes in sexual behavior after mpox onset (Table 3).

CONCLUSIONS

- Our results point to a high mpox awareness and stigma among LGBTQIA+ communities.
- Stigma and discrimination associated with a mpox diagnosis adds to the already existing structural barriers, preventing proper access to diagnosis and care.
- Mpox assessment should include comprehensive sexual health screenings, as well linkage to HIV prevention and care services.
- Expanding access to gender competent care is critical to avoid mpox underdiagnosis and address stigma and discrimination in health services.

ADDITIONAL KEY INFORMATION

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