A Parallel Mediation Model Examining Sexual Minority Identity & Psychological Distress During the 2022 Mpox Outbreak

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We have no known conflicts of interest to disclose.

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We would like to thank Michael Razon for his support in the earlier drafts of this manuscript.

Abstract

Sexual minority (SM) individuals experience disease stigma, the negative or discriminatory attitudes that others have toward an individual who is perceived to be living with a disease. These experiences with stigma may be heightened during epidemics that induce the fear of infectious diseases, the persistent worry and fear about being infected with an infectious disease, which may result in stigmatized individuals reporting more psychological distress. Therefore, the current study examined the mediating roles of the fear of mpox and internalization of discriminatory experiences among SM and non-SM individuals during the 2022 mpox outbreak in relation to psychological distress. One hundred and forty-six participants, with half self-identified as SM individuals, responded via an online survey. The results indicated that SM individuals reported more fear of mpox and more internalization of discriminatory experiences than non-SM individuals. A parallel mediation analysis examined the fear of mpox and internalization of discriminatory experiences as potential mechanisms for the relationship between SM identity and psychological distress. The results suggest that internalization better explained the relationship between SM identity and psychological distress than the fear of mpox. Findings have important implications for psycho-social interventions and clinical practices to reduce psychological distress caused by disease-related stigma.

Keywords: sexual minorities, mpox, monkeypox, infectious diseases, psychological distress

Introduction

Sexual minority (SM) individuals have long faced systemic stigma and discrimination that contribute to persistent health disparities. Recognizing this, the American Psychological Association (2021) emphasized the psychological toll of minority stressors, including the unique

burdens faced by SM communities during public health crises. One such burden is disease-related stigma, or the negative perceptions of individuals believed to carry infectious diseases, which has been associated with heightened psychological distress (Fattoracci et al., 2021).

The 2022 mpox outbreak (formerly monkeypox; Ulaeto et al., 2023) resurfaced this pattern of stigmatization. Although the first mpox case in the United States was identified in May 2022 (Team Verywell Health, 2022), a federal public health emergency was not declared until August. During this time, men who have sex with men were disproportionately impacted, and public health messaging often focused on this group. While such messaging aimed to curb transmission, it also reinforced harmful stereotypes and fueled social stigma (Kupferschmidt et al., 2022; März et al., 2022; Sah et al., 2022). Qualitative research has documented how SM individuals were targeted and blamed on social media for the outbreak, leading to elevated psychological strain (Dsouza et al., 2023; Movahedi Nia et al., 2023; Owens & Hubach, 2023). Despite the official end of the mpox public health emergency in late 2022, the psychological effects of this stigmatization remain underexplored in empirical research. Notably, little is known about how fear of mpox and internalized discrimination contributed to mental health outcomes among SM and non-SM individuals during the outbreak. Therefore, the current study addresses this gap by investigating how fear of mpox and internalized stigma were associated with psychological distress among SM and non-SM individuals during the 2022 mpox outbreak.

Sexual Minority Distress

Psychological distress refers to the psychological dysfunction that an individual experiences when faced with stressful events, which may include symptoms of stress, depression, and anxiety (Ridner, 2004). Previous research has found that SM individuals have

reported more substance misuse and diagnosis of any mental or severe mental illness compared to non-SM individuals (Medley et al., 2016). Moreover, SM individuals are twice as likely to have a mental health disorder in their lifetime and 2.5 times more likely to experience depression, anxiety, and substance misuse (American Psychiatric Association, 2017). These findings suggest that SM individuals are at a higher risk for psychological distress than non-SM individuals.

Various research has linked stigma, discrimination, and victimization to psychological distress. Stigma refers to the negative attitudes and beliefs toward an individual or group (e.g., gay men are promiscuous), while discrimination is the behaviors associated with those beliefs (e.g., avoiding SM individuals, homophobic slurs). As many have theorized, stigma often leads to people categorizing themselves as the "in-group" and others as the "out-group" and may lead the "in-group" to stigmatize and discriminate against the "out-group" (Saeed et al., 2020). Specifically, SM individuals may be categorized as the "out-group" due to their marginalized identity as sexual minorities. In a longitudinal study of SM and transgender adolescents, those who experienced victimization reported more psychological distress as young adults (Birkett et al., 2015). Other researchers found that among a sample of lesbian, gay, bisexual, transgender, queer, and questioning (LGBTQ) college students, discrimination in the form of microaggressions and victimization predicted less self-esteem, more stress, and more anxiety (Seelman et al., 2017).

Furthermore, SM and transgender individuals who experienced perceived pathology discrimination (e.g., someone assumed they had HIV/AIDs) reported more psychological distress specifically, more depression, anxiety, and stress (Fattoracci et al., 2021). Indeed, in a qualitative study that examined social media posts of the mpox outbreak, some users reported experiencing

psychological distress after seeing homophobic posts that labeled the mpox outbreak as the "gay disease" and blamed gay men for spreading mpox (Hong, 2023). These findings suggest that stressors like stigma, discrimination, and victimization are linked to psychological distress among SM individuals. Therefore, the proposed study will examine SM individuals' coping through internalizing discriminatory experiences during the monkeypox outbreak and its link to psychological distress.

Theoretical Frameworks: Minority Stress Theory and the Stress Process Model

To frame how discriminatory experiences are linked to SM individuals' distress, the current study is grounded in the minority stress model (Meyer, 2003) and the stress process model (Pearlin et al., 1981; Turner, 2023) The minority stress model posits that individuals with marginalized identities (i.e., SM individuals) are more likely to experience multiple stressors related to those identities. There are two distinct types of stressors: proximal and distal. Distal stressors (e.g., homophobia, transphobia, heterosexism) originate from the surrounding environment, while proximal stressors are the thoughts, feelings, and emotions due to direct and indirect distal stressors. Indeed, researchers found that SM individuals' experiences and levels of minority stressors (stigmatization, discrimination, and victimization) predicted more depression, suicidality, and substance use (Mongelli et al., 2019) Furthermore, 30% of over 16,000 respondents in a global report expressed the concern of possibly being discriminated against for contracting and spreading mpox (Word Health Organization, 2023). Though some SM individuals may not be infected with mpox, the fear of mpox (proximal stressor) and experiences with discrimination (distal stressor) may be linked to psychological distress. For instance, [MASKED FOR REVEW] found that victimization distress partially explained the relationship

between everyday discrimination and the fear of mpox among sexual minorities during the 2022 mpox outbreak. In other words, sexual minorities experiencing discrimination predicted more distress, and that distress predicted more fear of mpox.

In addition, the stress process model (Pearlin et al., 1981; Turner, 2023) explains the process in which individuals' experiences with stress can have a toll on their overall wellbeing, which is explained by an individual's personal and social resources. For instance, Turner (2023) updated the stress process model and examined how an individual's demographics, like race and gender, are linked to stressors that may negatively impact their overall well-being. The relationship between these stressors and overall well-being could be explained and depends on an individual's personal resources (e.g., self-esteem) and social resources (e.g., social support). Applying both minority stress and the stress process model to the current study, we examine how the internalization of discriminatory experiences (a form of maladaptive coping) and the fear of mpox (a potentially stigmatizing stressor) explain the relationship between SM identity and psychological distress. In other words, we predict that SM individuals, compared to non-SM individuals, will report more fear of mpox and internalize experiences with discrimination, which will predict more psychological distress.

Internalization of Discrimination as Coping

According to stigma management theory (Goffman, 1963; Clair et al., 2005), individuals with concealable stigmatized identities, such as non-heterosexual orientations, may engage in complex strategies to manage stigma, including concealment, selective disclosure, and hypervigilance. These strategies are often employed in response to dominant heteronormative and cisnormative narratives that cast SM individuals as deviant or responsible for disease transmission. As mentioned above, the emotional and psychological toll of navigating such

environments is profound, as SM individuals may experience shame, isolation, and anxiety not only due to fears of infection but also from the burden of stigma associated with their identity. Individuals who experience stigma and discrimination engage in several forms of coping, which could be adaptive or maladaptive. Adaptive coping strategies may improve an individual's adaptation and resilience, while maladaptive coping may include avoidant behaviors, anxious symptoms, dissociation, and internalization of adverse events (Cortez et al., 2025).

For our study, we were particularly interested in maladaptive coping via internalization, when individuals self-blame or ascribe discriminatory experiences to themselves (Wei et al., 2010). Indeed, in a longitudinal study, sexual and gender minority students, compared to their heterosexual counterparts, reported more blame, depression, anxiety, and distress (Riley et al., 2016). In the same study, blame significantly mediated the relation between sexual orientation and negative mental health outcomes. In other words, SM students' negative mental health outcomes (depression, anxiety, and distress) were explained by self-blame over time. In another study, sexual minorities who coped via internalization were found to be positively correlated to internalized homophobia, depression, and anxiety and negatively correlated to life satisfaction (Ngamake et al., 2014). Furthermore, SM college students of color who experienced racial microaggressions reported more psychological distress and internalization, which explained this relationship (Barrita & Wong-Padoongpatt, 2023) In a global report of over 16,000 participants, nearly 27% expressed feelings of shame after learning about the mpox outbreak (World Health Organization, 2023). These findings suggest that SM individuals are more likely to internalize discriminatory experiences than non-SM individuals that are linked to and predict more negative psychological outcomes. Therefore, we hypothesize that internalization via coping will mediate the relation between SM identity and psychological distress.

Fear of Infectious Diseases

The fear of infectious diseases can be characterized by the persistent worry and fear about being infected with an infectious disease, even in the absence or lack of physical symptoms (Pappas et al., 2009). As a result, the fear of infectious diseases may cause distress. For instance, the fear of COVID-19 predicted more stress, anxiety, and depression among college students (Rodriguez-Hidalgo et al., 2020). Furthermore, the fear of infectious disease historically impacted SM individuals, notably during the HIV/AIDS epidemic and onwards. Research involving HIV-negative men who have sex with men found increased internalized homophobia and negative affect (Starks et al., 2013). The consequences associated with the anticipation of infection of HIV and AIDS could be paralleled to mpox, given the common stigma connecting the diseases with sexual identity and behaviors (Gonsalves et al., 2022).

Similarly, in a global report of over 16,000 respondents, nearly 60% expressed fears and concerns about contracting mpox after learning about the outbreak (World Health Organization, 2023). Indeed, several studies found that SM individuals were fearful that the mpox outbreak would parallel the HIV/AIDS epidemic, such as the perceived stigmatization (i.e., labeling mpox as a "Gay Disease") and discrimination that SM individuals experienced during the HIV/AIDS epidemic (Dsouza et al., 2023; Hong, 2023; Anoop & Sreelakshmi, 2023). Fear of infectious disease, as related to SM individuals, may connote harmful psychological effects and adverse health behaviors compared to non-SM individuals. These findings suggest that the fear of mpox is a stressor for SM individuals' well-being.

In addition, public health prevention and treatment efforts have often lacked inclusivity regarding the identities and lived experiences of SM individuals, particularly SM women. While gay men and other men who have sex with men have been the primary focus of infectious

disease research and intervention, especially in the context of HIV/AIDS, SM women have been largely overlooked and rendered invisible. Historical accounts, for instance, note that SM women's concerns were marginalized during the HIV/AIDS epidemic, even as they played critical caregiving roles for affected men (Drescher, 2016). This erasure reflects broader systemic gaps in health research and services.

Like SM men, SM women experience stigma, discrimination, and structural barriers to accessing care, challenges that are compounded by intersecting identities such as gender, race, and ethnicity. Additionally, research indicates that SM women may underestimate their risk of sexually transmitted infections due to misconceptions that such infections are primarily transmitted through heterosexual activity (Baptiste-Roberts et al., 2017), and may be less likely to use protective measures in same-sex sexual encounters (Emetu et al., 2020). These dynamics can delay seeking treatment and contribute to the spread of asymptomatic infections.

In the context of the 2022 mpox outbreak, this oversight is particularly salient. A study in Northern California found that one-quarter of mpox-infected individuals identified as cisgender women (Contag et al., 2023), challenging the perception that the outbreak solely affected SM men. These findings underscore the need for prevention and treatment efforts that are inclusive of the full spectrum of SM identities and that account for the complex intersections of gender, sexuality, and other social identities in public health responses.

The Current Study

The current study examined internalization and fear of mpox as possible explanations for the relationship between SM identity and psychological distress. Since the 2022 mpox outbreak, a flurry of publications has focused largely on medical knowledge (e.g., transmission and spread of mpox; Titanji et al., 2024; Yon et al., 2023) and risk factors (e.g., unprotected sexual activities;

Ugwu et al., 2025). However, few studies have examined SM individuals' experiences with discrimination and coping during the mpox outbreak. Therefore, the current study examined 1) differences in experiences with the fear of mpox among SM and non-SM individuals, and 2) whether the fear of mpox is linked to more psychological distress among SM individuals. The final aim examines fear of mpox and internalization as possible explanations for the relationship between SM identity and psychological distress. Our hypotheses are as follows (see Figure 1):

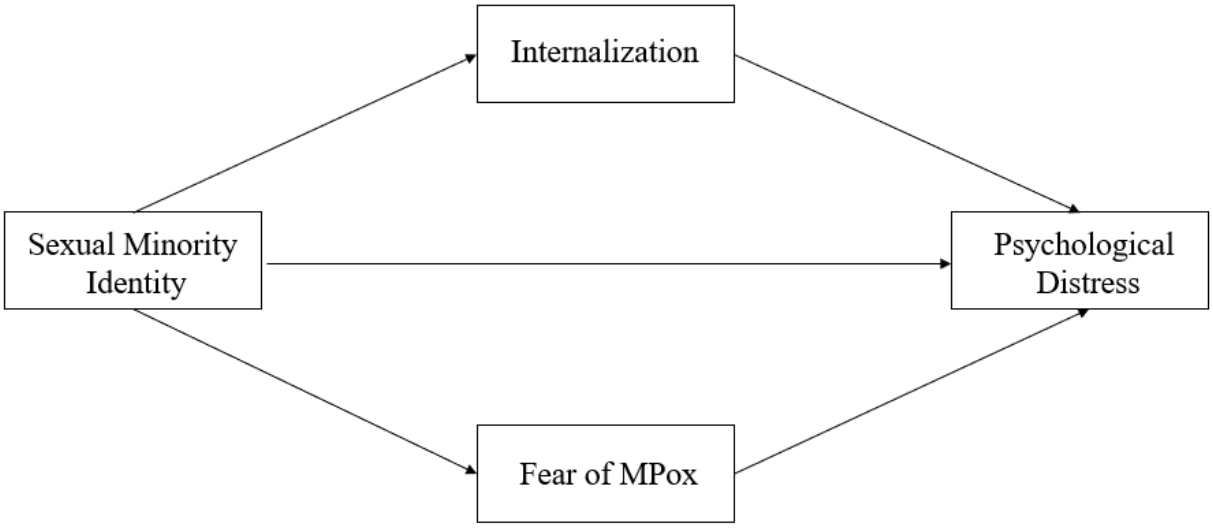
Hypothesis 1: SM individuals, compared to non-SM individuals, will report more internalization of discriminatory experiences, more fear of mpox, and more psychological distress.

Hypothesis 2: SM identity will predict psychological distress.

Hypothesis 3: Fear of mpox and the internalization of discriminatory experiences will mediate the relationship between SM identity and psychological distress.

Figure 1

Proposed parallel mediation model to explain the association between SM identity and psychological distress (anxiety and depression)



Method

Participants and Procedure

Data collection for the current study was between September 2022 and May 2023, with all participant responses coming from a minority-serving institution in the southwest region of the United States. Based on the data collection timeframe, we provide mpox trends with data from the Center for Disease Control (CDC; 2023a). September 2022 had an average of 169.23 mpox cases, compared to May 2023, with an average of 2.97 cases (CDC, 2023a). This drastic reduction in mpox cases suggests that prevention and treatment efforts were effective as eligible individuals began to receive their second dose of the mpox vaccine in September 2022 (CDC, 2023b).

Participants were recruited from an undergraduate psychology research pool and compensated with one research credit for their participation. The sample consisted of 153 respondents; however, 7 respondents did not identify their sexual identity and were removed from the final analyses, leaving us with a final sample of 146 respondents (see Table 1 for participant demographics).

Interested participants were directed to a survey on Qualtrics, where they were informed about the study's aims, the time to complete the survey, and their rights to withdraw from the study at any time. Informed consent was obtained from all participants. Those we did not obtain informed consent were not allowed to participate in the study. The survey took approximately 15 minutes to complete. Multiple attention checks (e.g., "Select answer choice 'strongly disagree") were conducted throughout the study. After completing the survey, participants were debriefed and given resources on mental health and services. If applicable, participants earned research credits for their participation.

Table 1

Participant demographics (N = 146)

Variables	Frequency	Percentage
Race[1]		
White	42	28.8%
Hispanic / Latino	52	35.6%
Black	24	16.4%
Asian / Native Hawaiian Pacific Islander	50	34.2%
American Indian / Alaska Native	3	2.0%
Southwest Asia / North Africa	3	2.0%
Race not listed	3	2.0%
Gender		
Agender	3	0.2%
Androgyne	1	0.6%
Cis male	43	29.4%

Cis female	77	53.8%
Demigender	1	0.6%
Genderqueer	6	4.1%
Gender questioning	5	3.4%
Trans male	1	0.6%
Trans female	2	1.4%
Undisclosed / Prefer not to say	9	6.2%
Sexual Identity		
Straight	67	45.9%
Asexual	8	5.5%
Bisexual	56	38.4%
Gay	4	2.7%
Lesbian	8	5.5%
Pansexual	9	6.2%
Queer	8	5.5%
Questioning	7	4.8%
Same gender loving	2	1.4%

Note. [1]Percentage does not equal 100% as participants were able to choose more than one option for race.

Measures

Psychological Distress. Two scales were combined to measure psychological distress because they were highly correlated. The 6-item Patient Reported Outcomes Measurement System (PROMIS) Emotional Distress – Depression-Short Form 6a measured participants' depression (Healthmeasures.net, 2022a). These items were rated with a 5-point Likert-type scale: 1 = *Never*, 5 = *Always*. The scale included items such as "I felt hopeless" and "I felt depressed." Higher mean scores represent higher depression. The internal reliability for this scale was excellent, with an alpha of 0.93 for the full sample, 0.91 for SMT participants, and 0.94 for non-SMT participants.

The 6-item PROMIS Emotional Distress – Anxiety-Short Form 6a measured participants' anxiety (Healthmeasures.net, 2022b). Participants rated these items using a 5-point Likert-type

scale*:* 1 = *Never*, 5 = *Always*. The scale included items such as "I felt fearful" and "I felt tense." Higher mean scores represent higher anxiety. The internal reliability for this scale was excellent, with an alpha of 0.92 for the total sample and 0.91 for both SM and non-SM participants. Both scales combined provided an excellent internal reliability of 0.95 for the total sample, 0.93 for SM participants, and 0.95 for non-SM participants.

Internalization. The Internalization subscale within the Coping with Discrimination Scale is a 5-item subscale that measures participants' beliefs, responsibility, and blame for experiences with discrimination (Wei et al., 2010). Items were rated with a 7-point Likert-type scale: 1 = *Never like me,* 7 = *Always like me.* A sample item includes "I wonder if I did something wrong." Higher mean scores represent higher internalization. The internal reliability for this scale was acceptable, with an alpha of 0.72 for the total sample, 0.72 for SM participants, and 0.66 for non-SM participants.

Fear of Mpox. The 7-item Fear of Covid-19 Scale measured participants' fear of mpox (Ahorsu et al., 22). Items were modified to fit the mpox outbreak. For example, "It makes me most uncomfortable to think about COVID-19" was modified to "It makes me most uncomfortable to think about monkeypox." Responses ranged from a 5-point Likert-type scale: 1 = *Strongly Disagree*, 5 = *Strongly Agree*. Higher mean scores represent higher fear of mpox. The internal reliability for this scale was good, with an alpha of 0.89 for the total sample, 0.91 for SM participants, and 0.85 for non-SM participants.

Sexual Minority Identity. Participants were asked to self-identify their sexual identity. Those who identified as a sexual minority were coded as 1, and those who did not identify as a sexual minority (identified as heterosexual/straight) were coded as 0.

Demographics. Participants provided information about their age, race/ethnicity, gender, sexual identity, and socioeconomic status.

Sample Size Calculation

The minimum required sample size was estimated with G*Power version 3.1.9.7 statistical programming for computing power for regression coefficients (Faul et al., 2007). Results indicated the required sample size to achieve 95% power for detecting a medium effect, at a significance criterion of $\alpha = .05$, was $N = 89$ for mediation analysis. Thus, the obtained sample size of $N = 146$ is adequate to test the study hypotheses.

Research Involving Human Participants

This research was approved by the Institutional Review Board (IRB), Office of Research Integrity, Human Subjects of the [UNIVERSITY NAME, MASKED FOR REVIEW]. The study was conducted in accordance with U.S. federal regulations, codes, and guidelines regarding human research: 45 CFR 46 (the Common Rule), the Belmont Report, the Nuremberg Code, and the World Medical Association Declaration of Helsinki.

Planned Analyses

Independent samples t-tests were used to examine differences between SM and non-SM individuals' reports of psychological distress, internalization of discriminatory experiences, and the fear of mpox. Next, a linear regression was used to examine the second hypothesis if SM identity predicted psychological distress. We followed Tabachnick & Fidell's (2013) recommendations for multiple regression assumptions: linearity, homoscedasticity, non-multicollinearity, independence of errors, and outliers. For linearity, each scatter plot indicated a linear relationship between SM identity, internalization of discriminatory experiences, fear of mpox, and psychological distress. For homoscedasticity, we graphed the

standardized residuals and the standardized predicted values and visually inspected the Loess lines. Non-multicollinearity was assumed based on correlation analyses, as all correlations were below 0.80 (see Table 3), and all variance inflation factor (VIF) scores were below 10. Next, the normality of residuals was assessed with a P-P plot, which showed that the residuals followed a normal distribution. Independence of errors was assumed based on the obtained Durbin-Watson statistic value of 1.92 (< 2) and suggests that the residuals were not correlated. For the last assumption, we used Mahalanobis Distance to screen for outliers and found none ($p < .001$).

Next, a parallel mediation analysis was used to examine whether the fear of mpox and the internalization of discriminatory experiences significantly mediated the relationship between SM identity and distress. We entered fear of mpox as the first mediator and internalization as the second mediator. All the analyses were performed with IBM SPSS Statistics (Version 28.0).

Results

Differences between Sexual Minorities and Non-Sexual Minorities

To test our first hypothesis, we conducted four separate independent sample *t*-tests to examine differences between SM and non-SM individuals' psychological distress, internalization of discriminatory experiences, and the fear of pox. The findings suggest that SM individuals significantly reported more psychological distress ($p < .001$), internalization of discriminatory experiences ($p < .001$), and the fear of mpox ($p < .001$) compared to non-SM individuals (see Table 2). Bivariate correlations and Cronbach's alpha of the variables of interest are shown in Table 3.

Table 2

Descriptive statistics and independent samples t-test results

Variable	Sexual Minorities	Non-Sexual Minorities (*n*	Total (*N* = 146)	*t*(144)	*p*	Cohen's *d*

	(n = 79)		= 67)						
	Mean	*SD*	*Mean*	*SD*	*Mean*	*SD*			
1. Psychological Distress	2.887	0.871	2.153	0.886	2.550	0.949	5.036	< .001	-.836
2. Depression	2.709	0.937	2.055	0.947	2.409	0.993	4.184	< .001	-.695
3. Anxiety	3.065	0.958	2.251	0.914	2.692	1.019	5.224	< .001	-.868
4. Internalization	2.919	1.001	2.310	0.913	2.639	1.005	3.809	< .001	-.633
5. Fear of Mpox	2.962	1.361	2.226	1.097	2.624	1.296	3.555	< .001	-.590

Note. All scales ranged from 1 – 5. Sexual minority identity is coded 0 = No, 1 = Yes.

Table 3

Bivariate correlations and Cronbach's alpha

Variable	**1**	**2**	**3**	**4**	**5**	**6**
1. Sexual Minority Identity						
2. Psychological Distress	0.387**	(0.95)				
3. Depression	0.329**	0.941**	(0.93)			
4. Anxiety	0.399**	0.944**	0.776**	(0.92)		
5. Internalization	0.303**	0.602**	0.505**	0.628**	(0.72)	
6. Fear of Mpox	0.284**	0.260**	0.229**	0.261**	0.215**	(0.89)

Note. Sexual minority identity is coded 0 = No, 1 = Yes. **p < .01

Sexual Minority Identity Predicting Psychological Distress

We used a linear regression to test our second hypothesis. SM identity was entered as the predictor variable and psychological distress was entered as the outcome variable. The findings suggest that SM identity accounted for 15% of the variance in our model (R^2 = .150). In addition, the results indicated that SM identity significantly predicted psychological distress, B = 0.734, SE = .146, p < .001, 95% CI [-1.022, -0.446]. SM individuals, compared to non-SM individuals, reported a .734 unit increase in psychological distress, supporting hypothesis 2.

Parallel Mediation Analysis.

To test our third hypothesis, we used Hayes' PROCESS Macro (2022) Model 4 to examine whether the fear of mpox and internalization of discriminatory experiences were potential mediators between the SM identity and psychological distress relationship (see Table 4). The predictors accounted for 41.6% of the variance in predicting psychological distress (R^2 = .416). The results revealed that SM identity significantly and negatively predicted the fear of mpox (path a1), B = 0.736, SE = 0.207, p =.0005, 95% CI [-1.145, -0.327]. Individuals with an SM identity were significantly associated with more fear of mpox. However, the fear of mpox did not significantly predict psychological distress (path b2), B = 0.066, SE = 0.049, p = .18, 95% CI [-0.032, 0.164]. The indirect effect of SM identity on psychological distress via the fear of mpox was not statistically significant (Effect = -0.049, 95% CI [-0.145, 0.031]). When testing our second mediator, SM identity significantly predicted internalization of discriminatory experiences (path a2), B = 0.609, SE = 0.160, p = .0002, 95% CI [-0.924, -0.293] and internalization of discriminatory experiences significantly predicted psychological distress (path b1), B = 0.491, SE = 0.064, p < .0001, 95% CI [0.365, 0.618]. Results indicated a partial mediation as SM identity remained significant when controlling for both mediators (fear of mpox

and internalization of discriminatory experiences), $B = 0.387$, $SE = 0.131$, $p = .003$, 95% CI [-0.646, -0.127]. When examined together, the internalization of discriminatory experiences, but not the fear of mpox, remained a significant mechanism for the relation between SM identity and psychological distress (see Fig 2 for the parallel mediation model), partially supporting hypothesis 3.

Table 4

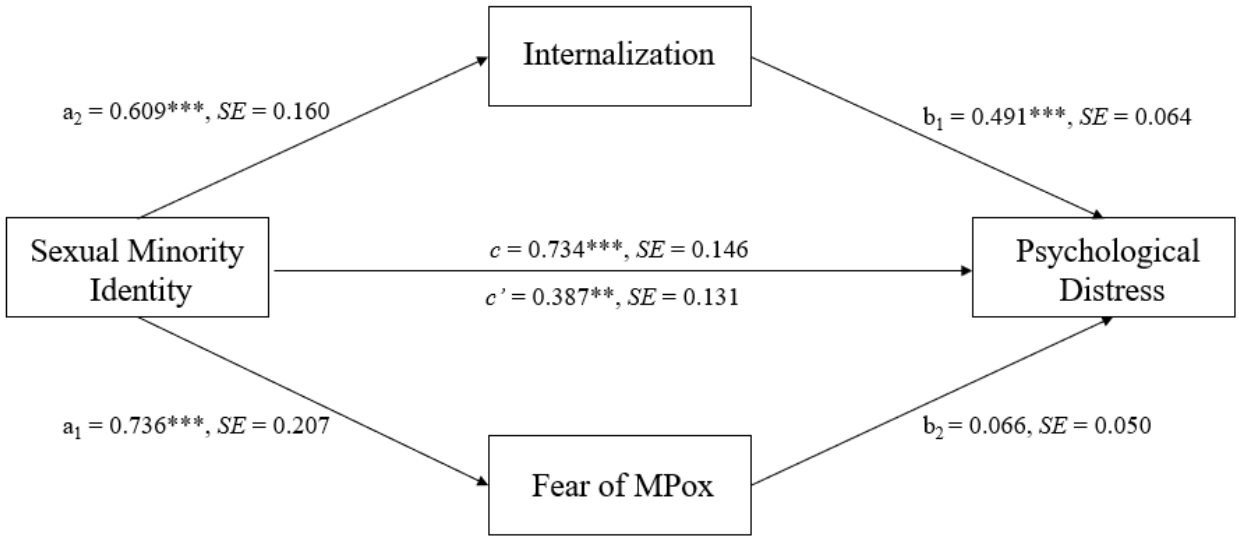
Results of mediation analysis.

Independent Variables	Fit Index						95% CI	
	R	R^2	*F*	*B*	SE	*t*	LLCI	ULCI
Dependent variable: fear of mpox								
Constant	0.284	0.081	12.634***	3.698	0.319	11.585***	3.067	4.329
SM identity				0.736	0.207	3.555***	-1.145	-0.327
Dependent variable: internalization								
Constant	0.303	0.092	14.507***	3.528	0.246	14.321***	3.041	4.0144
SM identity				0.609	0.160	3.809***	-0.924	-0.293
Dependent variable: distress								
Constant	0.645	0.416	33.732***	1.643	0.329	4.999***	0.994	2.293
SM identity				0.387	0.131	2.923**	-0.646	-0.127
Fear of mpox				0.066	0.049	1.335	-0.032	0.164
Internalization				0.492	.0641	7.668***	0.365	0.618

Note. Sexual minority identity is coded 0 = No, 1 = Yes. *B* = unstandardized coefficient. *p < 0.05, **p < 0.01, ***p < 0.001.

Figure 2

Parallel mediation results



Sexual minority identity is coded 0 = No, 1 = Yes.

Discussion

The findings suggest new knowledge about the relations among SM identity, internalization, the fear of mpox, and psychological distress. Our results supported our first hypothesis and replicated previous research in which those with an SM identity, compared to those with a non-SM identity, predicted more psychological distress (Medley et al., 2004). Furthermore, the findings partially supported our second hypothesis, highlighting a pathway that explains the relation between SM identity and psychological distress when examining the internalization of discriminatory experiences and the fear of mpox as mediators. The internalization of discriminatory experiences was a stronger mediator than the fear of mpox for the relation between SM identity and psychological distress. Perhaps the perceived stigma and discrimination associated with an infectious disease may be more harmful to individuals rather than the actual disease itself. As others have found, the perceived discrimination and stigma associated with an infectious disease delayed individuals seeking prevention and treatment (Person et al., 2004).

Furthermore, the findings provide further evidence for the minority stress model (Meyer, 2003), such as how different stressors (the fear of mpox and the internalization of discriminatory experiences) are linked to SM individuals' psychological outcomes. Given that those living with an SM identity often experience numerous stressors, the current findings highlight that the internalization of these stressors is linked to more psychological distress than non-SM individuals. Similarly, the current findings coincide with the stress process model by allowing researchers to examine the various ways in which stigma is associated with mental health outcomes (Pearlin et al., 1981; Turner, 2023). As previous research found, social media was a vehicle that fueled further stigmatization of SM individuals (Dsouza et al., 2023; Movahedi Nia

et al., 2023; Owens & Hubach, 2023). By the time of the drafting of this manuscript, mpox cases continue to increase in parts of Central and Eastern Africa, while cases have dropped tremendously in the U.S. (CDC, 2025). We hope that continuing prevention and treatment efforts do not accidentally stigmatize those affected. Thus, when preventing and containing infectious disease outbreaks among individuals with stigmatized identities, it is important to consider how social media and news outlets can perpetuate and maintain stigma linked to mental and behavioral health outcomes.

Limitations and future research

The current study presents several limitations. First, data collection began several months after the height of the mpox outbreak and was collected in an area with low rates of mpox cases (Centers for Disease Control and Prevention, 2023). Future studies should consider a more prompt study of infectious diseases that may further exacerbate marginalized individuals' stigmatizing experiences and psychological distress. Second, combining racial and sexual identity into one sample to conduct the main analyses limits the interpretation for specific populations. However, the sample identified mainly as cis women and bisexuals, a group that is often invisible within queer psychological studies. Future studies should explore these groups at the intersection of race and sexual minority identity. Third, the sample consisted of college students who may not be generalizable to those living with an SM identity. Future studies should collect a more diverse and representative sample that examines older SM individuals' experiences. Finally, the measures do not assess clinical diagnoses for psychological distress, specifically depression and anxiety. Future studies should examine whether pre-existing mental health conditions were exacerbated during and after the 2022 mpox outbreak.

Conclusion

The current study quantitatively explored SM individuals' experiences during the 2022 mpox outbreak. Specifically, examining the internalization of discriminatory experiences and the fear of mpox as possible explanations for the relation between SM identity and psychological distress. The findings suggest that internalizing discriminatory experiences was a stronger mediator (better explanation) than the fear of mpox for SM individuals' psychological distress. As public health officials navigate future infectious disease outbreaks, it is important to consider these findings to reduce the stigmatization of marginalized individuals and communities (Wong-Padoongpatt et al., 2022).

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