

Letter to Editor

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Psychotic experiences and non-heterosexuality among Latino and Asian Americans

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Jacob et al. (2019) found that non-heterosexuality was associated with greater odds of reporting psychotic experiences (PEs) over the past 12 months among English adults. Up until their publication, only one other study had been conducted on the topic, which found a significant association between sexual minority status and PEs among sexually active adults in the Netherlands. These emerging findings warrant further replication in other contexts, where the conceptualizations and experiences of sexuality and psychosis can vary. The United States is a socially and culturally variegated country, with growing Latino and Asian populations. Thus, I examined the associations between non-heterosexuality and PEs among Latino and Asian Americans to test whether the associations found in England and Netherlands hold true among racial and ethnic minority groups in the U.S.

I used data from the National Latino and Asian American Survey [NLAAS; (Alegria et al., 2004)], a cross-sectional, nationally representative probability survey of Latino and Asian adults (over the age of 17) in the general population of the U.S. Lifetime PEs were assessed using the WHO-CIDI 3.0 Psychosis Screen (Kessler & Üstün, 2004), which is a validated measure used in countries across the globe (McGrath et al., 2015). Respondents were asked to report the occurrence of six types of PE, including two types of hallucinations (visual, auditory), and four types of delusions (thought insertion, thought control, telepathy, delusions of persecution). Endorsing at least one of these experiences constituted a positive endorsement of any PE. Responses were not considered to be PEs when occurring in the context of dreaming, being half-asleep, or being under the influence of alcohol/drugs. Sexual orientation was measured using the item, 'Thinking back on the last 12 months, have your sexual experiences been with (a) females only, (b) mostly females, (c) equal number of males and females, (d) mostly males, and (e) males only?' Men who answered 'females only' and women who answered 'males only' were coded as heterosexual. All other respondents were coded as non-heterosexual.

Respondents who did not complete the items of interest were dropped from the analyses. This included people who were not sexually active ($N = 604$), people who 'did not know' the answer to the question ($N = 32$), and people who refused to answer ($N = 111$). Multivariable logistic regression models were used to examine the associations between non-heterosexuality and different types of lifetime PEs, adjusting for age, sex, income, education, and race. The analyses were then stratified by race (Latino, Asian) to test for effect modification.

Around 4.16% ($N = 212$) of the entire NLAAS weighted sample reported non-heterosexuality [3.83% ($N = 111$) among Latinos; 5.08% ($N = 101$) among Asians]. About 8.75% ($N = 392$) of the entire sample reported lifetime PEs [9.49% ($N = 275$) among Latinos; 6.69% ($N = 117$) among Asians]. In multivariable logistic regression models, non-heterosexuality was not associated with 'any PEs', visual hallucinations, or delusions (Table 1). However, non-heterosexuality was associated with 'any hallucination' and auditory hallucination. Among Latinos, non-heterosexuality was associated with any PEs, and any hallucination, specifically auditory hallucination, but was not associated with visual hallucination or delusions. Non-heterosexuality was not associated with PEs among Asian Americans.

I found evidence to suggest that non-heterosexuality was differentially associated with certain PEs, conditional on the racial population being examined. These findings align comfortably with social stress theories [see minority stress theory (Meyer, 1995); family stress theory (Patterson, 2002)], but also suggest potential effect modification by race.

The first major challenge of studying sexuality in large epidemiology studies is the absence of nuanced measures of sexuality, which is a complex construct. Over the past century, the binary notion of sexuality has become antiquated and has given way to the conceptualization of sexuality as a continuum (see Sell, 1997), made up of components such as behaviors, desires, and identities. To further complicate matters, these components may not all align with each other (e.g. the dissonance between sexual behaviors *v.* identities in the work of Humphreys (1970)). Further, queer theorists have set forth postmodern narratives to subvert the continuous conceptualization of sexuality, casting sexuality as a construct that can be multiple, paradoxical, and evolving (see Turner, 2000). As such, the sexuality variable available in the NLAAS data was admittedly crude, placing respondents into only one of two categories.

Second, Latino and Asian Americans are not monolithic populations, as there is considerable heterogeneity between and within subgroups. Anthropologists have observed that

Table 1. Sexual behaviors and lifetime PEs among Latino and Asian Americans

	Any PEs	Hallucinations			
		Any Hallucination	Visual	Auditory	Delusions
Total (N = 4021)					
Heterosexual	1.00	1.00	1.00	1.00	1.00
Non-heterosexual	1.83 (1.00–3.37)	2.01 (1.08–3.76)*	1.21 (0.46–3.16)	3.40 (1.67–6.94)**	0.62 (0.15–2.53)
Latinos (N = 2237)					
Heterosexual	1.00	1.00	1.00	1.00	1.00
Non-heterosexual	2.28 (1.12–4.64)*	2.54 (1.23–5.23)*	1.42 (0.57–3.54)	4.23 (1.90–9.40)**	0.51 (0.08–3.25)
Asians (N = 1784)					
Heterosexual	1.00	1.00	1.00	1.00	1.00
Non-heterosexual	0.66 (0.18–2.46)	0.66 (0.16–2.70)	0.65 (0.13–3.24)	0.23 (0.02–2.21)	1.26 (0.22–7.05)

National Latino and Asian American Survey (NLAAS; 2002–2003).

Results are presented as odds ratios (OR) with 95% confidence intervals (95% CI). * $p < 0.05$, ** $p < 0.01$.

Models are adjusted for age (continuous), sex (male, female), income (poor, near-poor, non-poor, relative to the federal poverty line), and education (less than high school diploma, high school diploma or general educational development, some college, or college and beyond). The main model is also adjusted for and race (Latino, Asian).

Survey weights were used to account for the complex multistage design of the NLAAS, including individual sampling factors (e.g. unequal probabilities of selection, non-response).

different cultures can regard certain expressions of psychosis as normative (Larøi et al., 2014), though it is worth mentioning that cross-national studies seem to indicate that PEs are consistently linked to negative health outcomes regardless of how psychosis is understood within a given country (see McGrath et al., 2016; Scott et al., 2018). Also, attitudes toward sexual behaviors, desires, and identities can vary across ethnic subgroups, with non-heterosexuality being more or less stigmatized depending on the context. For example, some ethnic groups are more religious than others (Social & Trends, 2012), which may inform attitudes towards non-heterosexuality, while also shaping the phenomenology of psychosis. Due to inadequate power, I did not disaggregate the racial categories into subgroups, but I acknowledge that this is an important direction for future research.

Studies can build on Jacob and colleagues' findings by examining how sexuality and PEs are expressed and regarded in different contexts. Given the potential for PEs to serve as health indicators, it is also important to engage in translational work to explore how screening for PEs might inform preventive interventions and other psychosocial treatments to eliminate health disparities that impact non-heterosexual populations.

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