

Supernatural beliefs, religious affiliations, and HIV testing among recently arrived Asian-born men who have sex with men in Australia

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Background

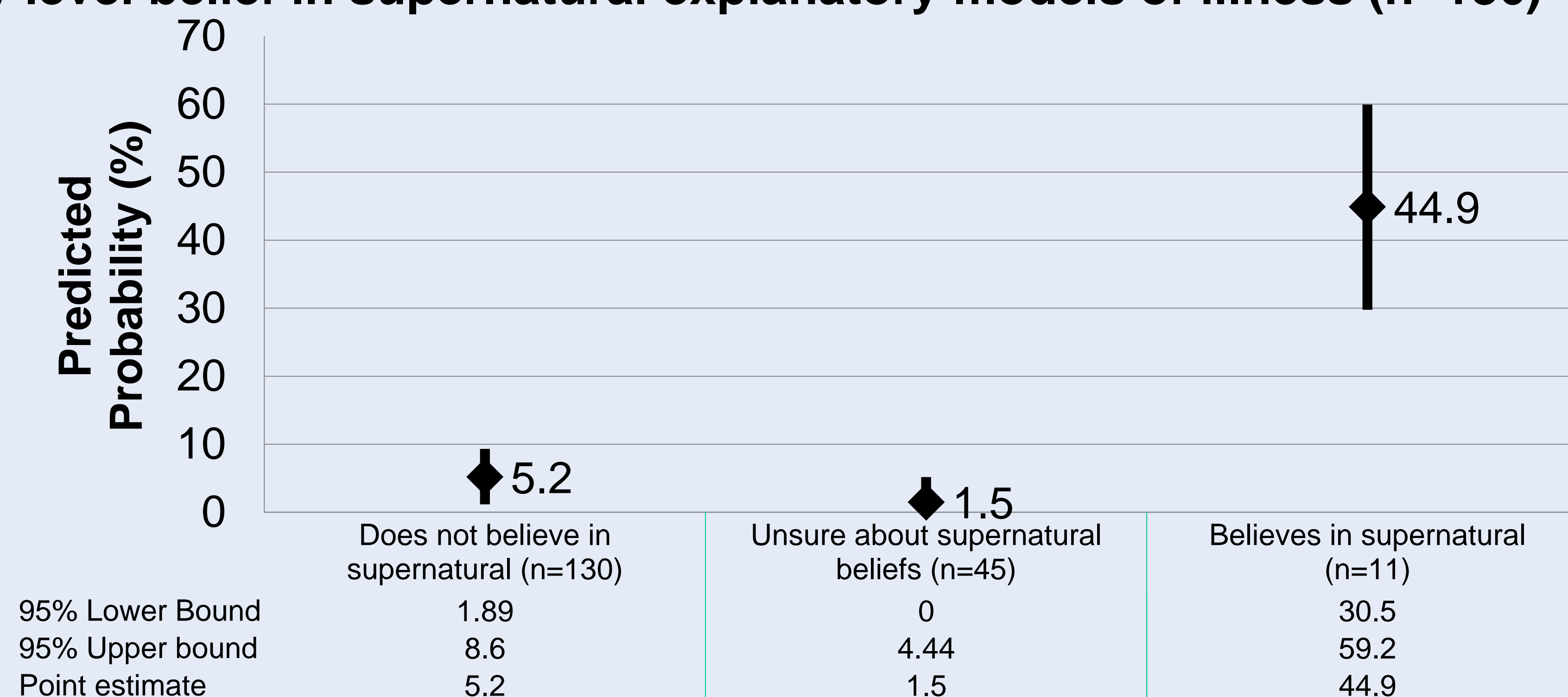
HIV testing rates among recently arrived (<5 years) Asian-born men who have sex with men (MSM) in Australia remain suboptimal¹

Research with MSM in East Asia indicates that belief in supernatural determinants of health (supernatural beliefs) may be an important barrier to greater HIV test uptake²

Study objectives:

- To examine the potential association between supernatural beliefs and HIV testing among recently arrived Asian-born MSM in Australia
- To examine the potential association between religious affiliation and HIV testing among recently arrived Asian-born MSM in Australia

Adjusted predicted probabilities (%) of “Did not test for HIV in past year” by level belief in supernatural explanatory models of illness (n=186)



Methods

Eligibility

- >18 years old
- Identified as a man
- Born in Asia
- Arrived in Australia within the past five years
- Ever had sex with another man
- Never diagnosed with HIV

Data collection

- Nationwide online survey
- Feb 2020 – Feb 2021
- Recruitment through gay social networking apps, SMS/emails to Sexual Health Centres & community organizations working with MSM, ads on University student portals

Measures

- Outcome: whether or not received HIV test in past year
- “My health is determined by supernatural mechanisms (e.g., gods, Buddha(s), Bodhisattvas, ancestral spirits, deities or ghosts).” (1) strongly disagree, (2) disagree, (3) unsure, (4) agree, (5) strongly agree

Analysis

- Control variables: age, sexual behaviours, educational attainment, years living in Australia, government health insurance, religious affiliation, and sexual orientation
- Multiple logistic regression

Participant characteristics (N=186)

	n (column %)	Did not test for HIV in the past year [n (row %)]	Tested for HIV in the past year [n (row %)]
Overall	186 (100%)	10 (5.4)	176 (94.6)
Belief in supernatural determinants of health			
No	130 (69.9)	6 (4.6)	124 (95.4)
Unsure	45 (24.2)	1 (2.2)	44 (97.8)
Yes	11 (5.9)	3 (27.3)	8 (72.7)
Age, mean (SD)	28.8 (6.0)	28.8 (6.3)	28.8 (6.0)
Years living in Australia (SD)	2.8 (1.4)	2.5 (1.5)	2.9 (1.4)
Religious affiliation			
None	75 (40.3)	3 (4.0)	72 (96.0)
Buddhist	32 (17.2)	3 (9.4)	29 (91.6)
Muslim/Hindu/Other	42 (22.6)	0 (0.0)	42 (100)
Christian	37 (19.9)	4 (10.8)	33 (89.2)
Educational attainment			
High school	16 (8.6)	2 (12.5)	14 (87.5)
Tertiary diploma/vocational/English college	24 (12.9)	4 (16.7)	20 (83.3)
Undergraduate bachelor	75 (40.3)	0 (0.0)	75 (100)
Postgraduate	71 (38.2)	4 (5.6)	67 (94.4)
Has Medicare government healthcare card			
Yes	63 (33.9)	3 (4.8)	60 (95.2)
No	123 (66.1)	7 (5.7)	116 (94.3)
Any condomless sex (past 6 months)			
Yes	137 (73.7)	5 (3.7)	132 (96.3)
No	49 (26.3)	5 (10.2)	44 (89.8)
Sexual orientation			
Gay	151 (81.2)	8 (5.4)	143 (94.6)
Bisexual/Straight/Other	35 (18.8)	2 (5.7)	33 (94.3)
Number of casual sex partners (past 6 months)			
0	17 (9.1)	3 (17.7)	14 (82.3)
1	39 (21.0)	1 (2.6)	38 (97.4)
2-3	57 (30.7)	3 (5.3)	54 (94.7)
>3	73 (39.3)	3 (4.1)	70 (95.9)

Limitations

- Possible selection bias due to non-random, online sample
- Possible information bias due to participant self report

Conclusion

Supernatural beliefs may be an important but underappreciated barrier to HIV testing among recently arrived Asian-born MSM in Australia

Religious affiliation not significantly associated with HIV testing in previous year

References

- Medland NA, Chow EPF, Read THR, Ong JJ, Chen M, Denham I, et al. Incident HIV infection has fallen rapidly in men who have sex with men in Melbourne, Australia (2013-2017) but not in the newly-arrived Asian-born. BMC Infect Dis. BMC Infectious Diseases; 2018;18:1–10.
- Pan, S. W., Carpiano, R. M., Smith, M. K., Ong, J. J., Fu, H. Y., Huang, W. T., Tang, W. M., & Tucker, J. D. (2020). Supernatural explanatory models of health and illness and healthcare use in China among men who have sex with men. Global Public Health, 15(1), 83–96.