



COVID-19 anti-Asian racism, perceived burdensomeness, thwarted belongingness, and suicidal ideation among Asian American Emerging Adults

Brian TaeHyuk Keum & Michele J. Wong

To cite this article: Brian TaeHyuk Keum & Michele J. Wong (2023) COVID-19 anti-Asian racism, perceived burdensomeness, thwarted belongingness, and suicidal ideation among Asian American Emerging Adults, International Review of Psychiatry, 35:3-4, 302-309, DOI: 10.1080/09540261.2023.2182186

To link to this article: <https://doi.org/10.1080/09540261.2023.2182186>



© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 25 Feb 2023.



Submit your article to this journal [↗](#)



Article views: 656



View related articles [↗](#)



View Crossmark data [↗](#)

RESEARCH ARTICLE



COVID-19 anti-Asian racism, perceived burdensomeness, thwarted belongingness, and suicidal ideation among Asian American Emerging Adults

Brian TaeHyuk Keum  and Michele J. Wong

Department of Social Welfare, University of California, Los Angeles, CA, USA

ABSTRACT

Since the start of the COVID-19 pandemic, there has been a significant surge in COVID-19 related anti-Asian racism and hate crimes. Given the ostracising and dehumanising narrative of COVID-19 related anti-Asian hate, we examined whether COVID-19 anti-Asian racism would be associated with suicidal ideation through increased thwarted belongingness and perceived burdensomeness among Asian American emerging adults. With data from 139 participants ($M_{age} = 23.04$), we conducted a path analysis of COVID-19 anti-Asian racism (four items) predicting suicidal ideation (item nine; Patient Health Questionnaire-9) via perceived burdensomeness and thwarted belongingness (Interpersonal Needs Questionnaire). COVID-19 anti-Asian racism significantly predicted suicidal ideation. The indirect effect through perceived burdensomeness was significant but not through thwarted belongingness; greater COVID-19 anti-Asian racism was associated with greater perceived burdensomeness, which in turn was associated with greater suicidal ideation. The significance of perceived burdensomeness was substantiated given the non-significant direct effect. The results suggest that the ongoing COVID-19 anti-Asian racism may be an alarming risk factor for suicidal ideation for Asian American emerging adults.

ARTICLE HISTORY

Received 15 February 2023
Accepted 15 February 2023

KEYWORDS



COVID-19 racism; anti-Asian hate; thwarted belongingness; perceived burdensomeness; suicidal ideation

COVID-19 anti-Asian racism and suicidal ideation among Asian American Emerging Adults: the role of perceived burdensomeness and thwarted belongingness

Among Asian Americans, suicide deaths are most prevalent for those in their emerging adulthood (Centers for Disease Control and Prevention, 2019). Emerging adulthood, often defined as ranging from ages 18 to 29 (Arnett, 2000), is a critical and sensitive transition period from late adolescence to adulthood where exposure to adverse events can exacerbate the risk of developing suicidal ideation, especially for emerging adults without robust coping resources (Nestor et al., 2022). Trends from the National Violent Death Reporting System between 2018 and 2019 suggest that while age-adjusted suicide rates decreased for White individuals, the rates increased for Asian individuals (Ramchand et al., 2021). Epidemiological data suggest that Asian Americans tend to be ‘hidden ideators,’ as suicide deaths among

Asian Americans are often not precipitated by any warning signs (e.g. reports of suicidal ideation; Chu et al., 2018). Thus, they are likely to suffer in silence, until they choose to act on their ideation. Given this context, scholars have emphasised the culture-specific risk factors of suicide (e.g. racial discrimination), as well as proximal factors that prolong suicidal ideation among Asian Americans (Chu et al., 2017).

Racism has been identified as a major risk factor predicting thoughts of suicide among Asian American college students (Keum et al., 2022; Wong et al., 2011). Racism denigrates and invalidates racial minority individuals in the U.S. based on their racial/ethnic group membership at multiple levels, including at the individual (e.g. interpersonal racial discrimination), cultural (e.g. White supremacy and cultural devaluation of people of colour), and systemic levels (e.g. policies and structures that disadvantage people of colour systematically (Harrell, 2000)). Both epidemiological (Oh et al., 2020) and longitudinal (Wang et al., 2021) studies have found significant associations

CONTACT Brian TaeHyuk Keum  briankeum@luskin.ucla.edu  Department of Social Welfare, University of California Los Angeles, 337 Charles E. Young Drive, Los Angeles, CA 90095, USA

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

between racial discrimination and suicide risk among racial minority youths and adults. Importantly, scholars have called for empirical attention to anti-Asian racism as a distal risk factor that can trigger proximal risk factors of suicidal ideation among Asian Americans (Wong et al., 2011).

In conjunction, the emergence of COVID-19 anti-Asian racism has significantly reinforced the anti-Asian narrative in the current sociopolitical climate. The World Health Organization (2020) alarmed the world about increasing racist stereotyping and stigma against Asian individuals due to the misinformation about the COVID-19 outbreak. Nguyen et al. (2020) conducted a social media sentiment analysis and found that racist tweets against Asians increased by 68% from November 2019 to March 2020 when the initial outbreak occurred. One study based on data from a national online survey (Dhanani & Franz, 2020) found that 40% of the participants willingly admitted that they would engage in at least one discriminatory act towards Asian individuals. By June 2021, the Stop AAPI Hate Reporting Centre received more than 9,000 hate crime cases across the U.S. (Horse et al., 2021). Emerging U.S. national studies have all found that Asian individuals experienced a marked increase in anti-Asian racism rooted in pandemic-related anti-Asian sentiments and xenophobia (Gover et al., 2020). Such hate has spread without boundary, as studies have reported rampant and ongoing COVID-19 anti-Asian racism in online settings, workplaces, and schools, to name a few (Horse et al., 2021; Saw et al., 2021). Inevitably, COVID-19 anti-Asian racism has been found to be associated with a host of mental health issues including symptoms of depression, anxiety, stress, post-traumatic stress disorder, substance use, and physical symptoms (Keum & Choi, 2022; Saw et al., 2021).

Against this backdrop, the role of interpersonal needs (Joiner, 2007) may be particularly important to consider in understanding Asian Americans' potential suicidal ideation associated with COVID-19 anti-Asian racism. Wong et al. (2011) suggest that anti-Asian racism creates an unfulfilled interpersonal expectation, reinforcing the message that Asian Americans do not belong (thwarted belongingness) to the mainstream, White-dominated society in the U.S. and are a burden (perceived burdensomeness). Both aspects are well-established concurrent proximal predictors of suicide risk (Chu et al., 2017). In the context of COVID-19 anti-Asian racism, Asian American emerging adults may be experiencing greater levels of perceived burdensomeness and thwarted

belongingness given the racist and false narrative that Asian Americans are to blame for starting the pandemic, spreading the virus, and bringing chaos to society (Dhanani & Franz, 2020). Racial discrimination embodying these sentiments may exacerbate racism-related vigilance and mistrust of others among Asian Americans, amounting to unmet social needs (thwarted belongingness) and feelings of social isolation and rejection (Chae et al., 2021).

More importantly, COVID-19 anti-Asian racism may also evoke significant feelings of perceived burdensomeness as it may unjustly shame Asian Americans. Shame is why perceived burdensomeness may be a particularly salient response among Asian Americans who experience COVID-19 anti-Asian racism. For some Asian individuals, perceiving that they have brought shame to their close friends, family, and their communities may amplify feelings of being a burden to their loved ones and society. Shame may induce self-negative internalisation and distress, particularly among Asian ethnic groups with strong collectivistic values and norms within which Asian Americans may engage in negative self-evaluations if they perceive themselves to be falling short of their family's or society's expectations (Wong et al., 2014). The role of shame is important in the context of COVID-19 anti-Asian racism, as Asian Americans who experience racism feel excluded and ostracised from the dominant White cultural norms in the U.S. (Wong et al., 2011). For example, Keum and Choi (2021) found that gendered racism significantly predicted depressive symptoms and problematic alcohol use through shame which are outcomes comorbid with suicidal ideation. Regarding suicide risk, Wong et al. (2021) found that among suicide notes left by Asian decedents, messages asking for forgiveness were commonly observed suggesting that absolving feelings of perceived burdensomeness may have been the main motivator for suicide. Indeed, past studies have found that perceived burdensomeness is a more robust mediator than thwarted belongingness in explaining the link between racism and suicidal ideation (Hollingsworth et al., 2017; Keum et al., 2022; Keum, 2023; Wong et al., 2021).

The present study

The ripple effects of the COVID-19 pandemic and anti-Asian racism are likely to have a long-term impact on Asian Americans' mental health (Saw et al., 2021). To engage in early prevention efforts, it is imperative for researchers to acknowledge and

understand the role that COVID-19 anti-Asian racism may have on risky behavioural outcomes such as suicidal ideation (Keum et al., 2022). Based on our review and conceptualisation, we examined whether COVID-19 anti-Asian racism can indirectly predict suicidal ideation through thwarted belongingness and perceived burdensomeness among Asian American emerging adults. We conducted a path analysis to test the direct effect of COVID-19 anti-Asian racism on SI, and the indirect relationships through perceived burdensomeness and thwarted belongingness (parallel pathways; see Figure 1). We controlled for gender, nativity, and education as they can affect the perception of racism and reports of suicidal ideation among Asian Americans. Below were our hypotheses:

Hypothesis 1: COVID-19 anti-Asian racism will significantly predict suicidal ideation (Greater COVID-19 anti-Asian racism → Greater suicidal ideation).

Hypothesis 2: COVID-19 anti-Asian racism will significantly predict suicidal ideation through perceived burdensomeness (Greater COVID-19 anti-Asian racism → Greater perceived burdensomeness → Greater suicidal ideation).

Hypothesis 3: COVID-19 anti-Asian racism will significantly predict suicidal ideation through thwarted belongingness (Greater COVID-19 anti-Asian racism → Greater thwarted belongingness → Greater suicidal ideation).

Participants and procedure

Participant ($N = 139$; $M_{age} = 23.04$, $SD = 2.13$) demographics are presented in Table 1. The study was approved by the Institutional Review Board (#21-

000543). Participants were recruited via Qualtrics Panel Service who send surveys to a targeted population of respondents across the nation to collect a representative sample. Participants are recruited from various sources, including website intercept recruitment, member referrals, targeted email lists, gaming sites, customer loyalty web portals, permission-based networks, social media, etc. Participants were invited to participate in an online survey consisting of study variable measures and demographic items. The inclusion criteria for the study were: (1) between 18–29 years old, (2) self-identify as an Asian American, and (3) live in the U.S. Informed consent was provided and obtained from all participants. The survey took 15 to 20 minutes to complete and included two attention check items (e.g. ‘Please choose always’). All participants were compensated up to \$10 in a format (e.g. cash, gift cards, rewards points, mileage points, etc.) depending on the platform they were recruited from.

Measures

COVID-19 anti-Asian racism

We used the COVID-19 racial discrimination items that were adapted in Cheah et al. (2020). The authors adapted 4 items from the Asian American Racism-Related Stress Inventory to assess Asian Americans’ exposure to COVID-19 related racist messages and behaviours. The items are: ‘Someone said something negative about Asian people (e.g. their diet) related to the COVID-19 outbreak,’ ‘Someone said something about avoiding places with Asian people because of the COVID-19 outbreak,’ ‘Someone tried to avoid me because I am Asian during the COVID-19 outbreak,’ ‘I felt self-conscious in public because I was worried about how others may think of me due to the

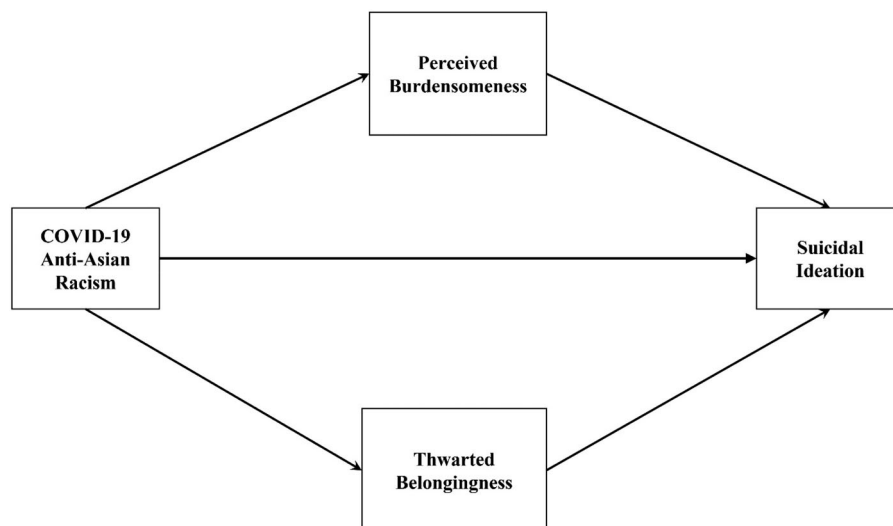


Figure 1. Hypothesised path model.

Table 1. Participant demographics ($N = 139$).

Variable	Categories	% (n)	Variable	Categories	% (n)	Variable	Categories	% (n)
Ethnicity	Chinese	33 (46)	Education	Bachelor's degree	45 (62)	Nativity	U.S. born	74 (103)
	Indian	16 (23)		High school diploma	14 (19)		Foreign born	27 (36)
	Filipino	11 (17)		Some college	12 (16)	Gender	Woman	50 (70)
	Vietnamese	11 (16)		Associate degree	12 (17)		Man	50 (69)
	Japanese	9 (14)		Master's degree	10 (14)			
	Korean	7 (11)		Doctoral degree	4 (5)			
	Thai	2 (4)		Post-baccalaureate	2 (3)			
	Laotian	2 (3)		Less than high school	1 (2)			
	Bangladeshi	2 (3)		Other	1 (1)			
	Taiwanese	2 (3)		Income	Just enough money	58 (81)		
	Hmong	1 (2)			Satisfaction	Not enough money	25 (35)	
	Singaporean	1 (2)			More than enough money			
	Indonesian	1 (2)						
	Cambodian	1 (1)						
Other	1 (2)							

Mean age was 23.04 ($SD = 2.13$). Percentages are approximate and may not equal 100.

COVID-19 outbreak.' Scores are summed up with higher scores indicating greater exposure to COVID-19 anti-Asian racism. Internal consistency was adequate ($\alpha = .84 - .86$) and the construct was significantly associated with poorer mental health among Chinese American families (Cheah et al., 2020).

Thwarted belongingness and perceived burdensomeness

The Interpersonal Needs Questionnaire-15 Van Orden et al. (2012) was used to assess perceived burdensomeness and thwarted belongingness. Six items assess perceived burdensomeness (e.g. 'These days, I think I am a burden on society') and nine items assess thwarted belongingness (e.g. 'These days, I feel like I don't belong'). Items are rated on a seven-point Likert-type scale ranging from 1 (not at all true for me) to 7 (very true for me) with higher scores indicating higher levels of both scales. The INQ-15 has demonstrated construct validity and adequate reliability among racially diverse samples (Van Orden et al., 2012) and has been used in racial minority samples with good reliability (e.g. Hollingsworth et al., 2017; Wong et al., 2011).

Suicidal ideation

We used item nine ('I have thoughts of ending my life') of the Patient Health Questionnaire-9 (PHQ-9; Kroenke & Spitzer, 2002) to assess suicidal ideation. Participants respond on a 4-point Likert-type scale (0 - *not at all* to 3 - *nearly every day*) about their recent suicidal ideation (past 2 weeks). Higher scores indicate a greater frequency of suicidal ideation. Validity and measurement invariance of PHQ-9 with racially diverse college students has been supported (Keum et al., 2018).

Data analysis

A total of 139 individuals participated in the survey. There were no missing data. We tested our

hypothesised parallel mediation model (Figure 1) using path analysis in *Mplus* 8.7 (Muthén & Muthén, 2017) with maximum likelihood estimation with robust standard errors. We specified COVID-19 anti-Asian racism as the predictor, perceived burdensomeness (PB) and thwarted belongingness (TB) as parallel mediators, and suicidal ideation (SI) as the dependent variable. We controlled for gender, nativity, education, and income satisfaction. We evaluated the model fit using the Yuan-Bentler (YB) scaled χ^2 test and several approximate fit indices (Hu & Bentler, 1999): (a) the root mean square error of approximation (RMSEA; close to $< .08$ for 'acceptable' fit); (b) the comparative fit index (CFI; $> .95$ for 'good' fit); and (c) the standardised root mean square residual (SRMR; close to $< .08$ for 'acceptable' fit). To examine specific path coefficients and indirect (i.e. mediation) effects, we followed best practices and adopted the bootstrap method using 5,000 random samples. We used 99% Confidence Intervals (CI) to assess the statistical significance of the mediation effects where CIs excluding 0 were deemed equivalent to $p < .01$.

Results

Bivariate correlations, internal reliability estimates, and descriptive statistics are in Table 2. Using the criteria that kurtosis and skewness between -2 and $+2$ suggest univariate normality (George & Mallery, 2010) all the variables were considered to have a normal distribution.

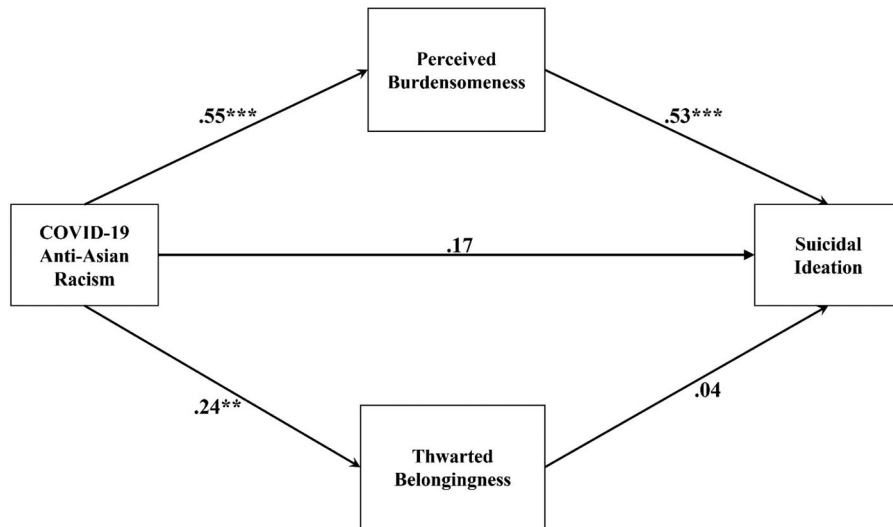
Parallel mediation model

Our hypothesised parallel pathway fit the data well: $\chi^2_{YB} = 9.901$, $df = 9$, $p = .36$; RMSEA = .027 [.000, .101]; CFI = .99; SRMR = .04. Figure 2 lists the completely standardised path coefficients and Table 3 lists the total

Table 2. Descriptive statistics and bivariate correlations of study variables.

Variables	Min	Max	Descriptives							1	2	3
			<i>M</i>	<i>SD</i>	Skewness	Kurtosis	α					
1. COVID-19 AAR	4.00	24.00	10.19	5.30	.62	-.51	.88	–				
2. PB	6.00	42.00	19.39	11.18	.31	.31	.95	.55**				
3. TB	9.00	57.00	33.60	9.42	-.29	.30	.72	.24**	.22**			
4. SI	0	3.00	1.02	1.07	1.15	.60	–	.49**	.65**	.18**		

COVID-19 AAR: COVID-19 anti-Asian racism; PB: Perceived Burdensomeness; TB: Thwarted Belongingness; SI: Suicidal ideation.
 ** $p < .01$.

**Figure 2.** Estimated path model.

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3. Estimate of indirect effects from bootstrap analysis.

IV	Mediator(s)	DV	Standardised Effect Estimate	SE	95% Bootstrap CI
Total Effect					
COVID-19 anti-Asian racism		SI	.481**	.07	[.296, .666]
Total Direct Effect					
COVID-19 anti-Asian racism		SI	.179	.09	[-.062, .420]
Total Indirect Effect					
COVID-19 anti-Asian racism		SI	.302**	.06	[.148, .455]
Specific Indirect Effect					
COVID-19 anti-Asian racism → PB →		SI	.292**	.06	[.139, .446]
COVID-19 anti-Asian racism → TB →		SI	.009	.02	[-.036, .055]

PB: Perceived Burdensomeness; TB: Thwarted Belongingness; SI: Suicidal ideation. ** $p < .01$.

direct, total indirect, and specific indirect effects. Overall, COVID-19 anti-Asian racism significantly predicted SI (standardised effect $\beta = .481$, 99% bootstrapped CI = [.296, .666]). The total effect was decomposed into a non-significant direct effect ($\beta = .179$, 99% bootstrapped CI = [-.062, .420]) and a significant total indirect effect through the hypothesised mediators (standardised total indirect effect $\beta = .302$, 99% bootstrapped CI = [.148, .455]) that explained 63% of the total effect. The indirect pathway from COVID-19 anti-Asian racism to SI via PB was significant (standardised total indirect effect $\beta = .292$, 99% bootstrapped CI = [.139, .446]). The indirect pathway from COVID-19 anti-Asian racism to SI via TB was not significant

(standardised total indirect effect $\beta = .009$, 99% bootstrapped CI = [-.036, .055]). Thus, COVID-19 anti-Asian racism indirectly predicted SI through PB but not via TB. The significance of the mediator was substantiated given the non-significant direct effect. The model accounted for 46% of the variance in SI.

Discussion

This study sought to test the role of COVID-19 anti-Asian racism as a risk factor for suicidal ideation among Asian Americans. Specifically, we examined whether the link between COVID-19 anti-Asian racism and suicidal ideation could be explained by

perceived burdensomeness and thwarted belongingness. Our findings indicated that greater COVID-19 anti-Asian racism coincides with an increased risk for suicidal ideation among Asian Americans, supporting our first hypothesis. Furthermore, this link was significantly mediated via perceived burdensomeness, supporting our second hypothesis. However, the indirect pathway from COVID-19 anti-Asian racism to suicidal ideation through thwarted belongingness was not significant. These findings suggest that suicidal ideation may be motivated by perceived burdensomeness, which may have particular salience for Asian Americans prone to feeling shame related to COVID-19 anti-Asian racism.

In line with prior studies, perceived burdensomeness was a significant proximal predictor of suicidal ideation among Asian Americans (Chu et al., 2017; Wong et al., 2011). As we alluded to, perceived burdensomeness may be particularly relevant given the cultural relevance of shame in many Asian cultures (Keum & Choi, 2021; Wong et al., 2021). COVID-19 anti-Asian racism that unjustly blames and dehumanises Asian Americans for starting the pandemic likely evoked feelings of being a burden to their community and society. On the other hand, thwarted belongingness was not a significant mediator. It may be that feelings of not belonging in a White-dominated society in the U.S. is already prevalent among Asian Americans' everyday experiences (i.e. perpetual foreigner stereotypes, invisibility), such that COVID-19 anti-Asian racism does not increase feelings of thwarted belongingness beyond what they already encounter (Gover et al., 2020; Wong et al., 2011). Further, in response to the rise in anti-Asian hate crimes, Asian American communities and families may have increased their support to one another, helping to strengthen their sense of belonging within their community. Indeed, Lee and Waters (2021) find that social support significantly buffered the effects of discrimination on depressive symptoms for Asian Americans during the COVID-19 pandemic.

The current research adds to the growing body of work examining the unique risks of COVID-19 anti-Asian racism on suicidal ideation among Asian Americans (Rudenstine et al., 2022; Zhou et al., 2021). For example, COVID-19 related racial/ethnic discrimination was associated with greater odds of suicidal ideation, depression, anxiety, non-suicidal self-injury, and binge drinking among Asian American/Pacific Islander university students (Zhou et al., 2021). Within the context of increased racial discrimination and hate crimes targeting Asian

Americans in the U.S., Rudenstine et al. (2022) found higher odds of suicidal ideation among Asian American participants. These are an alarming set of findings that position COVID-19 anti-Asian racism as a threat to the welfare and livelihood of Asian Americans.

Our findings suggest there may be period effects for Asian Americans exposed to COVID-19 anti-Asian racism (i.e. COVID-19 pandemic as a racialised historical event that changes the nature of race relations and racial sentiment towards Asian Americans), leading to disparities in life expectancy related to suicide (Gee et al., 2012). Although the long-term consequences of COVID-19 anti-Asian racism on Asian Americans are still emerging, there is prior work demonstrating period effects linked to historical events such as 9/11 (Samari et al., 2018). A review by Samari et al. (2018) of the public health implications of Islamophobia and Muslim racialisation finds consistent associations between Islamophobia and poor mental health (e.g. psychological distress, depression), suboptimal health behaviours (e.g. poor self-rated health, chronic diseases), and reduced health care-seeking behaviours (Samari et al., 2018). The COVID-19 pandemic is likely a racialised historical event for Asian Americans with long term consequences for their health and life expectancy.

Limitations and future research

Despite the strengths of the current study, there are a few noteworthy limitations. First, the cross-sectional nature of the data limits our ability to determine any causal implications of the results. Although there is growing evidence that points to COVID-19 anti-Asian racism as a significant precursor to developing suicidal ideation (Rudenstine et al., 2022), and as a robust mediator (Hollingsworth et al., 2017), future studies should explore the temporal sequence of our findings with longitudinal data. Second, the majority of our sample was comprised of U.S.-born Asian Americans with East Asian roots, which may limit the generalisability of these findings beyond the major identities represented in the sample. For instance, COVID-19 anti-Asian racism has been linked to President Donald Trump and his administration's public use of the terms 'Chinese virus,' 'China virus' and 'Kung flu,' which may increase experiences of COVID-19 anti-Asian racism for Chinese and other East Asians and could be perceived differentially for those of South and Southeast Asian backgrounds (Gover et al., 2020). Thus, future studies should

incorporate a more representative sample to consider the disparate impact of COVID-19 anti-Asian racism among Asian ethnicities with various intersecting identities. Third, although we used a measure of COVID-19 anti-Asian racism that was adapted in a previous study (Cheah et al., 2020), future studies should consider developing and employing an original COVID-19 anti-Asian racism that comprehensively assesses the full breadth of the discrimination experience. Finally, despite the adequate utility of single items in nationally representative studies (e.g. Jackman et al., 2021), future research should employ more rigorous measures of suicidality.

Conclusion

In conclusion, this study demonstrates the need for future research to examine perceived burdensomeness as a significant motivator for suicidal ideation among Asian Americans exposed to COVID-19 anti-Asian racism. These findings motivate the further empirical investigation of factors that may be more proximal to evoking suicidal thoughts, such as COVID-19 racism-related feelings of perceived burdensomeness. Further, this research brings urgent attention to potential COVID-19 pandemic-related period effects that will continue to negatively impact Asian Americans' health and life expectancy if policies and future mental health interventions are not available to mitigate the harmful effects of COVID-19 anti-Asian racism.

Ethical approval

The study received IRB approval from the University of California Los Angeles.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

No funds, grants, or other support was received.

ORCID

Brian TaeHyuk Keum  <http://orcid.org/0000-0001-6018-2094>

Data availability statement

Data may be available upon request from the first author.

References

- Centers for Disease Control and Prevention. (2019). WISQARS (Web-based Injury Statistics Query and Reporting System)|Injury Center|CDC. U.S. Department of Health & Human Services. <https://www.cdc.gov/injury/wisqars/index.html>
- Chae, D. H., Yip, T., Martz, C. D., Chung, K., Richeson, J. A., Hajat, A., Curtis, D. S., Rogers, L. O., & LaVeist, T. A. (2021). Vicarious racism and vigilance during the COVID-19 pandemic: mental health implications among Asian and black Americans. *Public Health Reports (Washington, D.C. : 1974)*, 136(4), 508–517. <https://doi.org/10.1177/00333549211018675>
- Cheah, C. S. L., Wang, C., Ren, H., Zong, X., Cho, H. S., & Xue, X. (2020). COVID-19 racism and mental health in Chinese American families. *Pediatrics*, 146(5), e2020021816. <https://doi.org/10.1542/peds.2020-021816>
- Chu, C., Buchman-Schmitt, J. M., Stanley, I. H., Hom, M. A., Tucker, R. P., Hagan, C. R., Rogers, M. L., Podlogar, M. C., Chiurliza, B., Ringer, F. B., Michaels, M. S., Patros, C. H. G., & Joiner, T. E. Jr., (2017). The interpersonal theory of suicide: A systematic review and meta-analysis of a decade of cross-national research. *Psychological Bulletin*, 143(12), 1313–1345. <https://doi.org/10.1037/bul0000123>
- Chu, J., Lin, M., Akutsu, P. D., Joshi, S. V., & Yang, L. H. (2018). Hidden suicidal ideation or intent among Asian American Pacific Islanders: A cultural phenomenon associated with greater suicide severity. *Asian American Journal of Psychology*, 9(4), 262–269. <https://doi.org/10.1037/aap0000134>
- Dhanani, L. Y., & Franz, B. (2020). Unexpected public health consequences of the COVID-19 pandemic: A national survey examining anti-Asian attitudes in the USA. *International Journal of Public Health*, 65(6), 747–754. <https://doi.org/10.1007/s00038-020-01440-0>
- Gee, G. C., Walsemann, K. M., & Brondolo, E. (2012). A Life Course Perspective on How Racism May Be Related to Health Inequities. *American Journal of Public Health*, 102(5), 967–974. <https://doi.org/10.2105/AJPH.2012.300666>
- George, D., & Mallery, P. (2010). *SPSS for windows step by step: A simple study guide and reference 17.0 update*. (10th ed.), Pearson Education, Inc.
- Gover, A. R., Harper, S. B., & Langton, L. (2020). Anti-Asian hate crime during the COVID-19 pandemic: Exploring the reproduction of inequality. *American Journal of Criminal Justice : AJCJ*, 45(4), 647–667. <https://doi.org/10.1007/s12103-020-09545-1>
- Harrell, S. P. (2000). A multidimensional conceptualization of racism-related stress: Implications for the well-being of people of color. *The American Journal of Orthopsychiatry*, 70(1), 42–57. <https://doi.org/10.1037/h0087722>
- Hollingsworth, D. W., Cole, A. B., O'Keefe, V. M., Tucker, R. P., Story, C. R., & Wingate, L. R. (2017). Experiencing racial microaggressions influences suicide ideation through perceived burdensomeness in African Americans. *Journal of Counseling Psychology*, 64(1), 104–111. <https://doi.org/10.1037/cou0000177>
- Horse, A. J. Y., Jeung, R., Lim, R., Tang, B., Im, M., Higashiyama, L., Schweng, L., & Chen, M. (2021). *Stop AAPI Hate National Report* (through June 2021). Stop

- AAPPI Hate. <https://stopaapihate.org/stop-aapi-hate-national-report-2/>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Jackman, K. B., Caceres, B. A., Kreuze, E. J., & Bockting, W. O. (2021). Suicidality among Gender Minority Youth: Analysis of 2017 Youth Risk Behavior Survey Data. *Archives of Suicide Research: official Journal of the International Academy for Suicide Research*, 25(2), 208–223. [10.1080/13811118.2019.1678539](https://doi.org/10.1080/13811118.2019.1678539) 31642392
- Joiner, T. (2007). *Why people die by suicide*. Harvard University Press.
- Keum, B. T. (2023). Impact of online racism on suicide ideation through interpersonal factors among racial minority emerging adults: the role of perceived burdensomeness and thwarted belongingness. *Journal of Interpersonal Violence*, 38(5-6), 4537–4561. <https://doi.org/10.1177/08862605221117247>
- Keum, B. T., & Choi, A. Y. (2021). Gendered racism, family and external shame, depressive symptoms, and alcohol use severity among Asian American men. *Cultural Diversity and Ethnic Minority Psychology. Advance Online Publication*, <https://doi.org/10.1037/cdp0000505>
- Keum, B. T., & Choi, A. Y. (2022). COVID-19 racism, depressive symptoms, drinking to cope motives, and alcohol use severity among Asian American emerging adults. *Emerging Adulthood*, 10(6), 1591–1601. <https://doi.org/10.1177/21676968221117421>
- Keum, B. T., Miller, M. J., & Inkelas, K. K. (2018). Testing the factor structure and measurement invariance of the PHQ-9 across racially diverse U.S. college students. *Psychological Assessment*, 30(8), 1096–1106. <https://doi.org/10.1037/pas0000550>
- Keum, B. T., Wong, M. J., & Salim-Eissa, R. (2022). Gendered racial microaggressions, internalized racism, and suicidal ideation among emerging adult Asian American women. *International Journal of Social Psychiatry*, 0(0), 207640221089536. <https://doi.org/10.1177/0020764022110895>
- Kroenke, K., & Spitzer, R. L. (2002). The PHQ-9: A new depression diagnostic and severity measure. *Psychiatric Annals*, 32(9), 509–515. <https://doi.org/10.3928/0048-5713-20020901-06>
- Lee, S., & Waters, S. F. (2021). Asians and Asian Americans' experiences of racial discrimination during the COVID-19 pandemic: Impacts on health outcomes and the buffering role of social support. *Stigma and Health*, 6(1), 70–78. <https://doi.org/10.1037/sah0000275>
- Muthén, L. K., & Muthén, B. O. (2017). *Mplus user's guide*. (Ed.), Muthén & Muthén.
- Nestor, B. A., Liu, Q., Tran, T., & Cole, D. A. (2022). The cross-sectional, longitudinal, and transitional associations between perceived support and suicidal ideation and behavior in late adolescence and emerging adulthood: Adjacent-category logit models. *Suicide and Suicide & Life-Threatening Behavior*, 52(5), 908–917. <https://doi.org/10.1111/sltb.12888>
- Nguyen, T. T., Criss, S., Dwivedi, P., Huang, D., Keralis, J., Hsu, E., Phan, L., Nguyen, L. H., Yardi, I., Glymour, M. M., Allen, A. M., Chae, D. H., Gee, G. C., & Nguyen, Q. C. (2020). Exploring U.S. Shifts in Anti-Asian Sentiment with the Emergence of COVID-19. *International Journal of Environmental Research and Public Health*, 17(19), 7032. <https://doi.org/10.3390/ijerph17197032>
- Oh, H., Waldman, K., Koyanagi, A., Anderson, R., & DeVlyder, J. (2020). Major discriminatory events and suicidal thoughts and behaviors amongst Black Americans: Findings from the National Survey of American Life. *Journal of Affective Disorders*, 263, 47–53. <https://doi.org/10.1016/j.jad.2019.11.128>
- Ramchand, R., Gordon, J. A., & Pearson, J. L. (2021). Trends in suicide rates by race and ethnicity in the United States. *JAMA Network Open*, 4(5), e2111563. <https://doi.org/10.1001/jamanetworkopen.2021.11563>
- Rudenshine, S., Schulder, T., Bhatt, K. J., McNeal, K., Ettman, C. K., & Galea, S. (2022). Suicidal ideation during COVID-19: The contribution of unique and cumulative stressors. *Psychiatry Research*, 310, 114475. <https://doi.org/10.1016/j.psychres.2022.114475>
- Samari, G., Alcalá, H. E., & Sharif, M. Z. (2018). Islamophobia, health, and public health: a systematic literature review. *American Journal of Public Health*, 108(6), e1–e9. <https://doi.org/10.2105/AJPH.2018.304402>
- Saw, A., Yellow Horse, A., & Jeung, R. (2021). *Stop AAPPI Hate Mental Health Report*. <https://ncvc.dspace.direct.org/handle/20.500.11990/2268>
- Van Orden, K. A., Cukrowicz, K. C., Witte, T. K., & Joiner, T. E. (2012). Thwarted belongingness and perceived burdensomeness: Construct validity and psychometric properties of the Interpersonal Needs Questionnaire. *Psychological Assessment*, 24(1), 197–215. <https://doi.org/10.1037/a0025358>
- Wang, L., Lin, H.-C., & Wong, Y. J. (2021). Perceived racial discrimination on the change of suicide risk among ethnic minorities in the United States. *Ethnicity & Health*, 26(5), 631–645. <https://doi.org/10.1080/13557858.2018.1557117>
- Wong, Y. J., Kim, B. S. K., Nguyen, C. P., Cheng, J. K. Y., & Saw, A. (2014). The interpersonal shame inventory for Asian Americans: scale development and psychometric properties. *Journal of Counseling Psychology*, 61(1), 119–132. [10.1037/a0034681](https://doi.org/10.1037/a0034681) 24188650
- Wong, Y. J., Deng, K., & Li, Y. (2021). “Please forgive me.” Asian and Pacific Islander Americans' suicide notes. *Asian American Journal of Psychology, No Pagination Specified-No Pagination Specified*, 13(2), 158–167. <https://doi.org/10.1037/aap0000234>
- Wong, Y. J., Koo, K., Tran, K. K., Chiu, Y.-C., & Mok, Y. (2011). Asian American college students' suicide ideation: A mixed-methods study. *Journal of Counseling Psychology*, 58(2), 197–209. <https://doi.org/10.1037/a0023040>
- World Health Organization. (2020). *A guide to preventing and addressing social stigma associated with COVID-19*. <https://www.who.int/publications/m/item/a-guide-to-preventing-and-addressing-social-stigma-associated-with-covid-19>
- Zhou, S., Banawa, R., & Oh, H. (2021). The mental health impact of COVID-19 racial and ethnic discrimination against Asian American and Pacific Islanders. *Frontiers in Psychiatry*, 12, 708426. <https://doi.org/10.3389/fpsy.2021.708426>