

Asian American Attitudes and Behaviors Toward COVID-19 Vaccination, A Systematic Review

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Background

- Coronavirus (COVID-19) was declared a pandemic by the WHO in March 2020
- The U.S. Food and Drug Administration (FDA) issued an Emergency Use Authorization (EUA) for a COVID-19 vaccine in December 2020
- The CDC reports that 66.4% of Americans have at least one COVID-19 vaccine dose

Objective

Our study aimed to understand Asian American COVID-19 vaccination perceptions, focusing on vaccine intention, acceptance, and hesitancy.

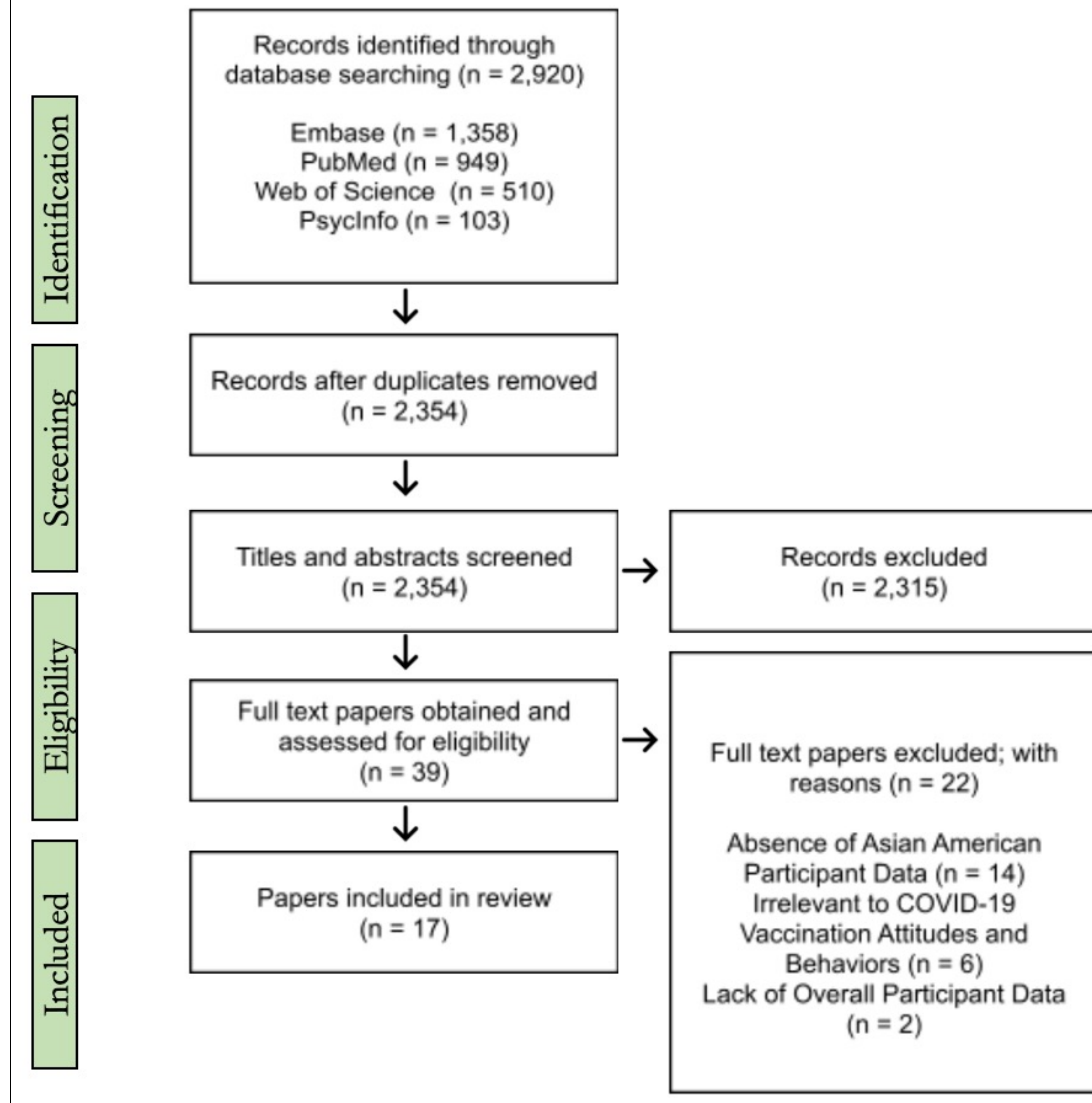
Methods

- We conducted a systematic review across four databases: PubMed, PsycInfo, Embase, and Web of Science and followed the Systematic Review PRISMA Protocol
- The search strategy combined synonyms of COVID-19, Asian American, vaccine intention, acceptance and apprehension
- Inclusion criteria selected observational studies, surveys, cross-sectional, case-control, case-series or cohort studies and articles containing control groups $n \geq 10$ Asian Americans
- Two reviewers independently assessed full-text articles for inclusion, disagreements were settled through team consensus

Selected References

1. Allen, J. D., Abuelezam, N. N., Rose, R., & Fontenot, H. B. (2021). Factors Associated with the Intention to Obtain a COVID-19 Vaccine Among a Racially/Ethnically Diverse Sample of Women in the USA. *Translational Behavioral Medicine*, 11(3), 785–792. <https://doi.org/10.1093/tbm/ibab014>
2. Brandt, E. J., Rosenberg, J., Wasieleski, M. E., Amaro, X., Wasag, J., & Chang, T. (2021). National Study of Youth Opinions on Vaccination for Covid-19 in the U.S. *Journal of Adolescent Health*, 68(5), 869–872. <https://doi.org/10.1016/j.jadohealth.2021.02.013>
3. Malik, A. A., McFadden, S. A. M., Elharake, J., & Omer, S. B. (2020). Determinants of COVID-19 Vaccine Acceptance in the US. *EClinicalMedicine*, 26, 100495. <https://doi.org/10.1016/j.eclinm.2020.100495>
4. Niño, M. D., Hearne, B. N., & Cai, T. (2021). Trajectories of Covid-19 Vaccine Intentions among U.S. Adults: The role of Race and Ethnicity. *SSM - Population Health*, 15, 100824. <https://doi.org/10.1016/j.ssmph.2021.100824>

Results



Author (Year)	Design	Number of Participants	Mean Age
Allen (2021)	Cross-Sectional	92	30-39
Brandt (2021)	Cross-Sectional	131	N/A
Dorman (2021)	Cross-Sectional	4,335	N/A
Ghaffari-Rafi (2021)	Cross-Sectional	97	N/A
Hagan (2021)	Cross-Sectional	1,805	N/A
Kuter (2021)	Cross-Sectional	848	N/A
Lang (2021)	Cross-Sectional	58,730	N/A
Malik (2020)	Cross-Sectional	99	N/A
Momplaisir (2021)	Cross-Sectional	845	N/A
Niño (2021)	Cross-Sectional	252	44.84
Parente (2021)	Cross-Sectional	125	N/A
Park (Differences - 2021)	Cross-Sectional	1646	40.6
Park (Vaccine - 2021)	Cross-Sectional	1646	40.6
Shaw (2021)	Cross-Sectional	317	N/A
Sutton (2021)	Cross-Sectional	82	N/A
Yamashita (2021)	Cross-Sectional	N/A	N/A
Yim (2021)	Cross-Sectional	38	N/A

Result Category	Vaccine Willingness	Predictive Factors	Vaccine Concerns	Sub-Group Variation
Number of Articles	10	6	6	2

Vaccine Willingness Across Racial Groups: 10 articles reported that Asian Americans had greater willingness to receive the COVID-19 vaccine compared to other racial groups, including Black, Hispanic, and White participants. These findings were consistent across different study populations, including healthcare workers, pregnant women, cancer patients, and children.

Key Predictive Factors: Age, education level, gender, household income, immigration status, insurance status, and marital status were key factors in predicting Asian American vaccine hesitancy levels. Limited English Proficiency (LEP), shelter-in-place length, region, and caregiver status were not significantly associated with COVID-19 vaccination willingness and hesitancy levels.

COVID-19 Vaccine Concerns: Two common reasons reported for vaccine hesitancy were long-term vaccine side effects and distrust in vaccine information providers, including the U.S. government and medical institutions. Beliefs that COVID-19 vaccine trials and production were rushed also played a role in vaccine hesitation. Similarly, Asian American participants expressed the belief that the COVID-19 vaccine was experimental in nature as one additional reason to delay vaccination efforts.

Asian American Cultural Group Variation: Two articles found that cultural groups within Asian Americans were associated with COVID-19 vaccine concerns and willingness levels.

Discussion/Conclusion

This systematic review informs clinicians and public health officials on COVID-19 vaccine intention within Asian American communities, including common reasons against vaccination. Further research is needed to identify age-based trends within ethnic subgroups. Armed with this information, officials can better target messaging to address vaccine safety and efficacy concerns in minority populations.