

Primary Risk Factors for COVID-19 Vaccine Hesitancy: Misinformation and Mistrust

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Introduction

- Vaccine hesitancy has been identified by the World Health Organization (WHO) as one of the top 10 major threats to global health.
- Since the beginning of the pandemic, COVID-19 has surpassed 760 million cases and resulted in 6.8 million deaths. However, vaccinations can prevent millions of deaths caused by vaccine-preventable diseases such as COVID-19.
- United States Census Bureau Data estimates that over 40% of the US population are hesitant toward vaccines.
- Vaccine hesitancy is characterized by the uncertainty of whether an individual decides to receive the vaccine.
- Potential reasoning behind COVID-19 vaccine hesitancy:
 - Existing misinformation and conspiracy theories regarding vaccines
 - Mistrust in vaccines and healthcare systems
 - Behavioral intention, fear of side effects and religious/cultural beliefs.

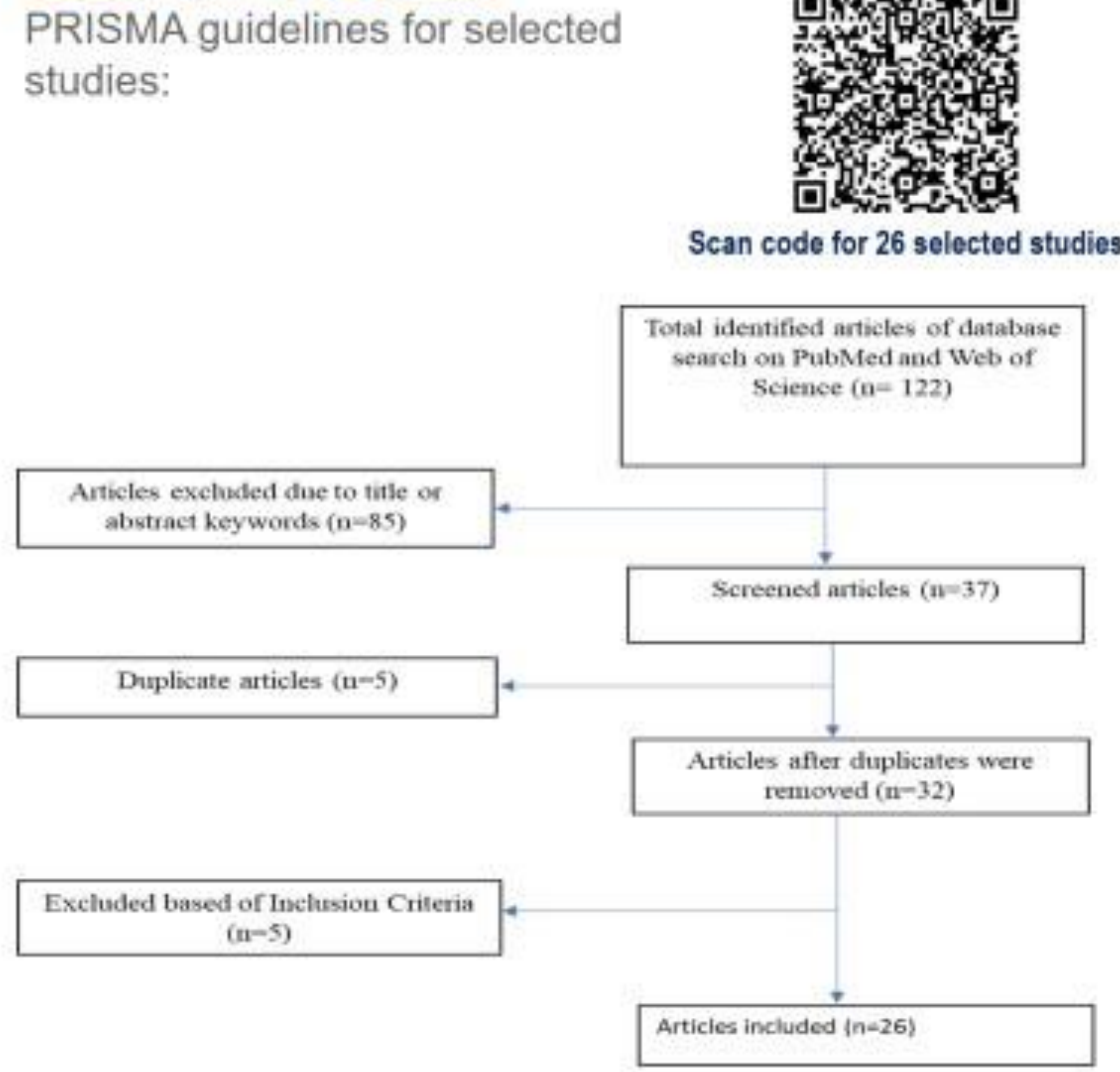
Aims

- To review the current evidence about the correlates of misinformation and mistrust based on people's socioeconomic status (SES), race/ethnicity, where they live, sources from where they mostly receive information.
- To review current evidence about the effects of misinformation and mistrust on COVID-19 vaccine hesitancy.
- To summarize strategies that have been identified to reduce COVID-19 vaccine-related misinformation and mistrust.

Methods

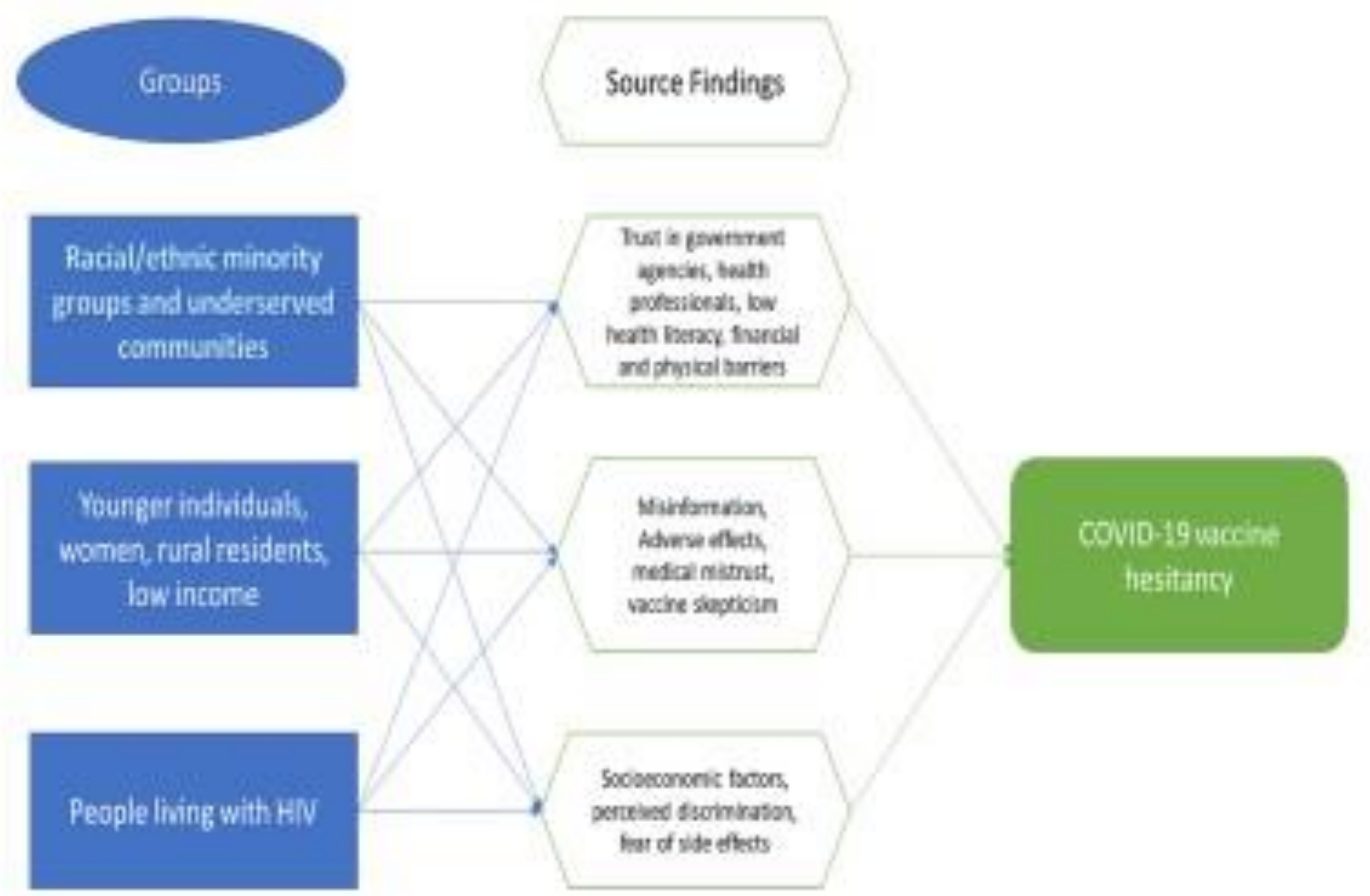
- Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statements for the selection of research articles.
- Search Strategy:** Peer-reviewed literature on PubMed and Web of Science about COVID-19 vaccine hesitancy, misinformation, mistrust published from December 2020 to January 2023.
- Inclusion Criteria:**
 - Mistrust or misinformation in relation to SES, race, geographic location and primary sources of information
 - Misinformation or mistrust being the primary risk factors for COVID-19 vaccine hesitancy
 - Evaluation strategy to reduce misinformation and mistrust concerning COVID-19 vaccinations.

Search Results



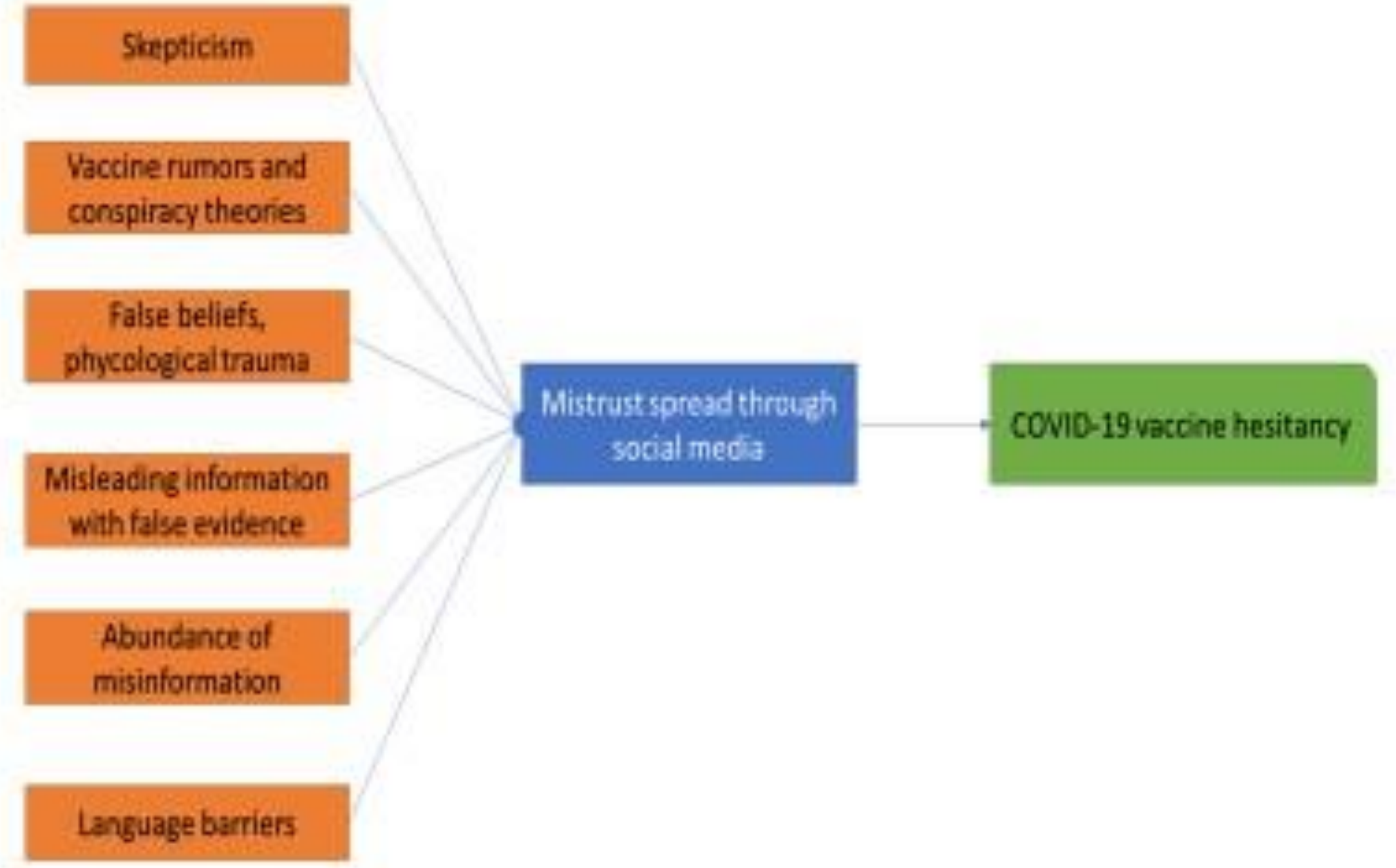
COVID-19 Vaccine Hesitancy Among Underserved Populations

- Black or African Americans conveyed the highest medical mistrust with an average score of 2.35, followed by Hispanics with a score of 2.22, while the average score for other racial/ethnic groups for the total sample was 1.83.
- Young individuals, women, those with low education and low income in the rural areas have 21.2% higher chance of mistrusting and denying the vaccine.



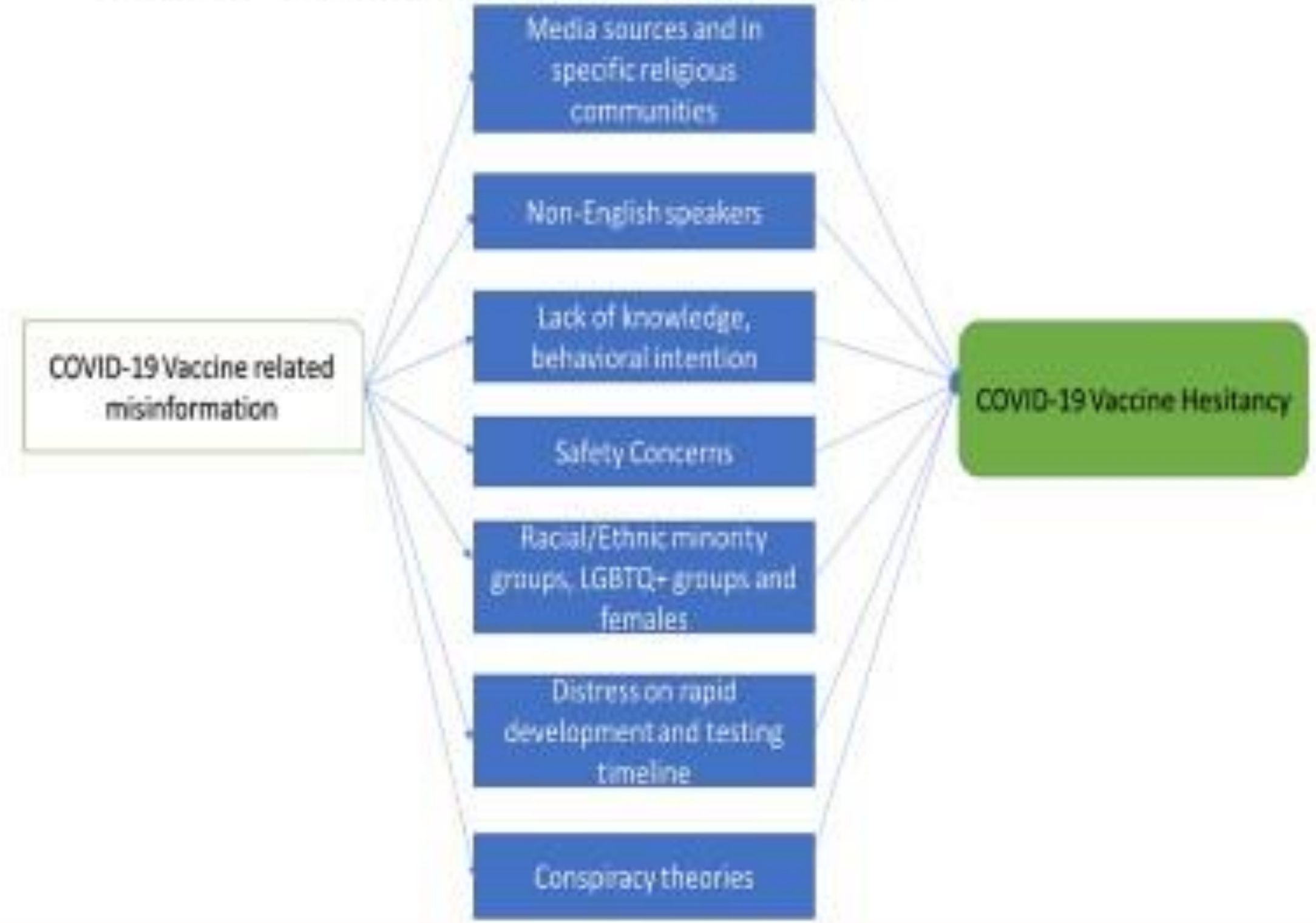
Influence of Social Media

- People obtaining health information from unregulated social media sources (i.e.: Facebook, YouTube) exhibit higher levels of conspiracy beliefs and vaccine hesitancy.
- Misleading information related to COVID-19 spread through non-English social media platforms is often unnoticed or ignored by social media companies.



Misinformation and COVID-19 Vaccine Hesitancy

- A survey analysis on vaccine hesitancy and exposure to misinformation found nearly three quarters of participants being exposed to COVID-19 vaccine related misinformation to some extent.
- Most frequently recognized misinformation themes included allegations that COVID-19 vaccines comprise a "live strain" of the virus, that 5G microchips are present in COVID-19 vaccines, that COVID-19 vaccines modify people's genes.



Discussion

- Mistrust toward healthcare services, insufficient understanding and awareness regarding the safety of vaccines, false information, complicated and inconsistent guidance, difficult-to-reach communication methods and inconsistent information from multiple sources, all these contribute to vaccine hesitancy.

Recommendations

- Incorporate fact checking software into social media platforms to allow viewers to quickly identify false/misleading information.
- Provide educational vaccine information campaigns
- Develop communication strategies and partnerships between multilevel healthcare organizations to provide communities with evidence-based health recommendations.
- Implement systems that address racism and assist communities with rebuilding trust among healthcare organizations and providers.

Limitations

- Availability of more structured information sources
- Small sample size of some selected articles-couldn't explore variation by meaningful subgroups
- Focus of this study only specific to COVID-19 vaccine related misinformation and mistrust

Conclusion

- Racial and ethnic minority groups and those who have limited access to healthcare and resources have high levels of medical mistrust.
- Conspiracy theories and vaccine rumors spreading through social media lead to mistrust.
- An urgent need to build a communication strategy through partnerships of multilevel organizations to incorporate accurate information on vaccines through public health campaigns.
- To achieve herd immunity and decrease COVID-19 related cases, hospitalizations and death rates, it is important to build trust toward healthcare organizations and decrease COVID-19 vaccine hesitancy.

References

