

BACKGROUND

- The Black Belt Region (BBR) is a string of counties in 11 states in the south of United States, i.e., Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia, which has a high percentage of African Americans [1].
- As of March 19, 2022, these states (except North Carolina & Virginia) in the BBR had higher cumulative deaths (per 100K) caused by COVID-19 than the national level [2].
- COVID-19 fully vaccination rates among adults in these states (except Florida & Virginia) were below the national rate [3].
- Structural and attitudinal barriers to COVID-19 vaccination were identified, but the relative importance of those barriers to African Americans living in the BBR were unknown [4-6].

OBJECTIVE

To pilot test a best-worst scaling (BWS) survey designed to determine the relative importance of barriers to COVID-19 vaccination among African Americans living in the BBR.

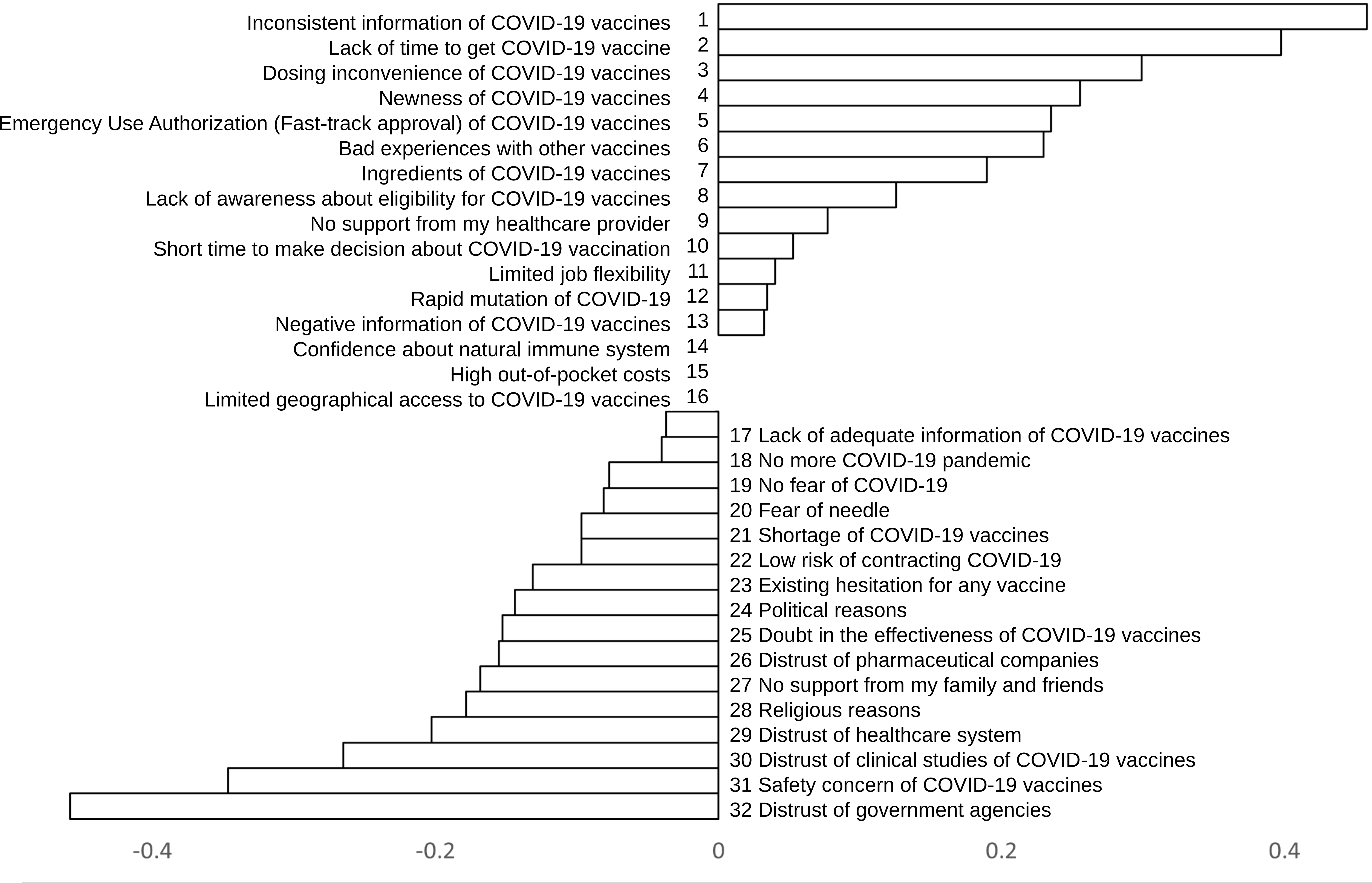
METHOD

- **Study design:** Cross-sectional, web-based, best-worst scaling (BWS) questionnaire survey in January 2022.
- **Instrument:**
 - BWS Case 1 (the object case) [7].
 - Thirty-two potential barriers to COVID-19 vaccination were identified from the literature and confirmed with an expert [4-6].
 - A nested balanced incomplete block design was used to generate 62 blocks of 16 choice tasks. Each choice task included six barriers.
 - Participants were asked to choose the most and least important barriers to their COVID-19 vaccination in each choice task.
 - Demographic information, COVID-19 experiences, and an open-ended question for the participants' opinions on the survey were included.
- **Data collection:** Qualtrics^{XM} collected data from 30 African American adults residing in the counties of the BBR.
- **Data analysis:** The completion time and responses were examined. A simple best-minus-worst count and the natural logarithm of the square root of best counts divided by worst counts of each barrier were calculated and used to rank the importance of barriers.

- Most participants were female (50%) and full-time employed (50%) with an average age of 34 years.
- The average survey completion time was approximately 12 minutes.
- The responses to the survey questions tended to be complete, and no important comment about the survey was found.

RESULTS

Figure 1. Ranking of Barriers to COVID-19 Vaccination Among African Americans in Black Belt Region (from the most to the least important)



CONCLUSION

The study findings affirmed BWS Case 1 could be used to identify important barriers to COVID-19 vaccination among African Americans living in the BBR. No major problem was observed.

Limitations: The ranking of barriers in this study cannot represent the importance of barriers among African Americans in BBR. This cross-sectional study cannot capture the change of people's opinion about barriers to COVID-19 vaccination across times [8].

REFERENCES



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