

The Influence of the COVID-19 “Infodemic” on Vaccine Hesitancy

A Prospective Survey-Based Study

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The COVID-19 pandemic was an “infodemic” of accurate and inaccurate information as termed by the World Health Organization.¹ Conflicting information corresponded with a drop in masking and social distancing, and a rise in vaccine hesitancy.²

Introduction

Social media engagement has been correlated with greater belief in misinformation and lower vaccination rates.³ Media online and on television can employ tactics like simplified explanations, emotional appeal, and selective expert opinion to manipulate knowledge.⁴ Opposing political parties have sent divergent messages with more conservative populations exhibiting lower vaccination rates.⁵

Objectives

The aim of this study was to investigate how individuals make decisions regarding the COVID-19 vaccine with a particular focus on specific media outlet consumption. We also examined other factors including political orientation, personal networks, the physician-patient relationship, and demographic data like age, gender, and employment status.

Design

An online survey shared via the Western Michigan Homer Stryker M.D. School of Medicine Facebook account open from August 1, 2021 to August 30, 2021.

Methodology

The study's primary outcome was the choice to take the COVID-19 vaccine. Respondents were assigned a media score based on the companies they used to receive their COVID-19 information. The score was calculated based on a Pew Research Center study on the political leaning of various news outlets.⁶

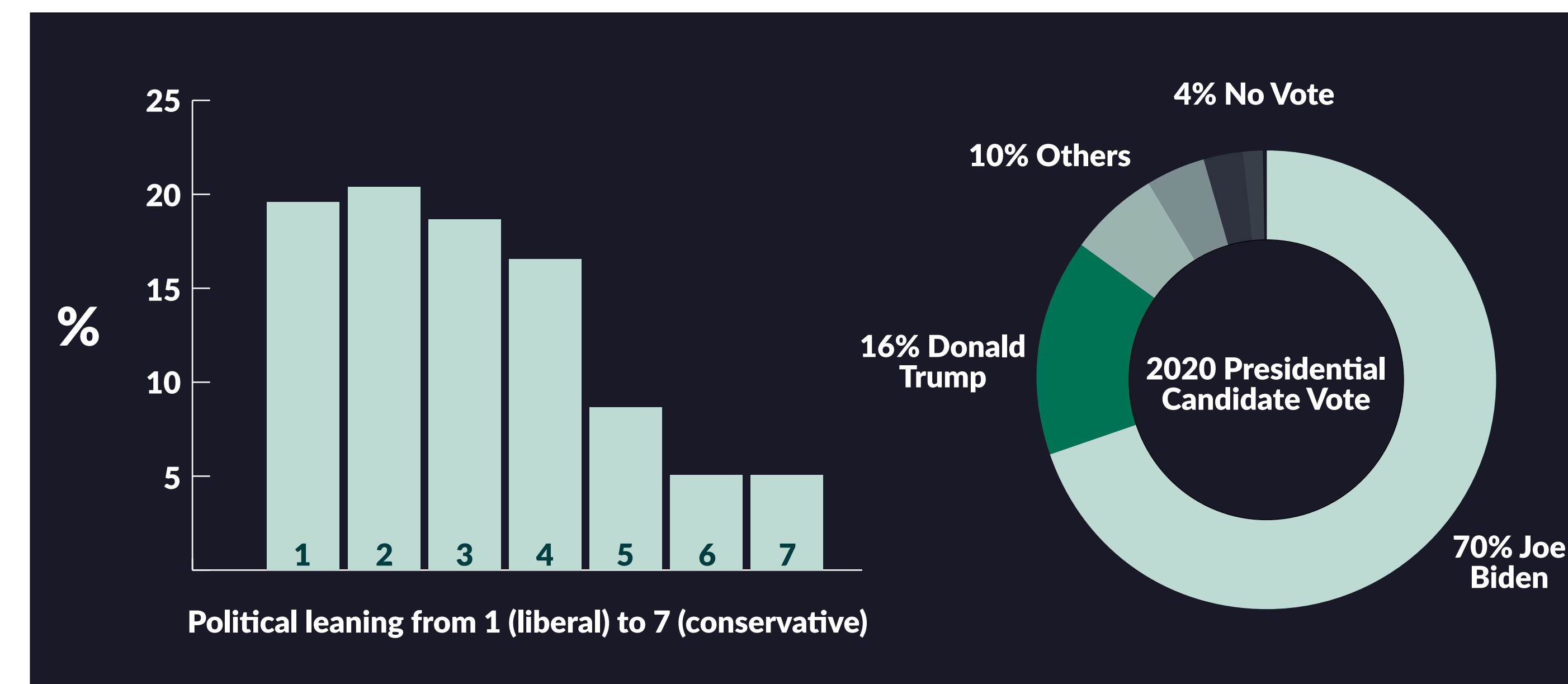
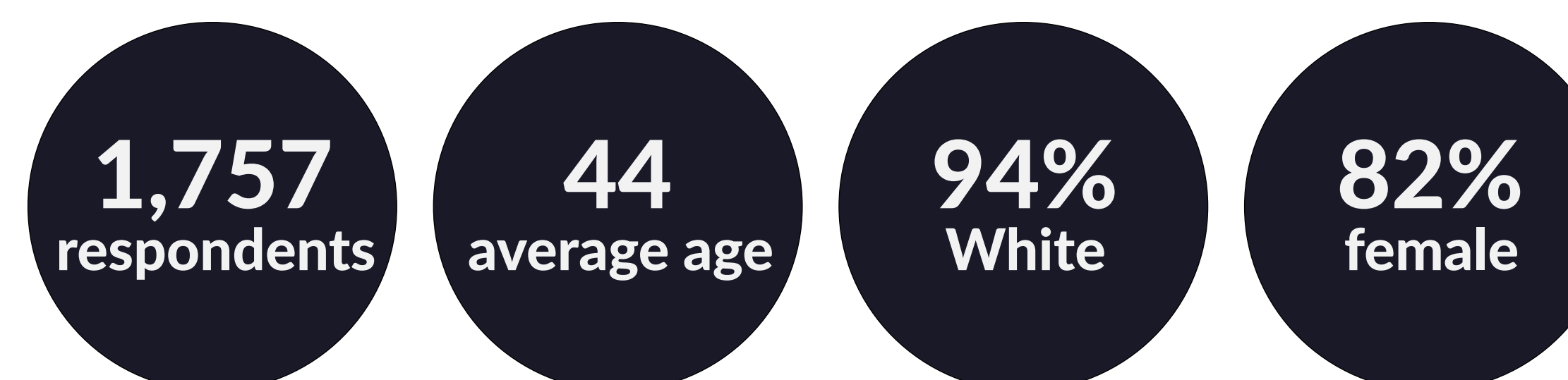
Other covariates included political affiliation, presidential candidate choice, demographic data, statements assessing their conceptions of COVID-19, vaccination, public health behavior, and the influence of their personal physician and social circle.



Some of the major media outlets assessed in our survey with the left being more liberal and right being more conservative.

Results

Demographics



While this study is limited by a respondent demographic that does not necessarily reflect that of the country, it is at least reflective of those who engage with our medical school's outreach. Performing a study of this nature within local communities can be advantageous, as it can provide insights from the population's standpoint, enabling physicians to customize their communication strategies accordingly.

Conclusion

This study demonstrates that those who prefer liberal media sources are more likely to choose vaccination. Consistent with other literature, other significant predictors are political leaning, age, employment status, and education level. Despite our respondents having good relationships with their doctors, this did not affect their vaccination decision. The physician's voice must compete with that of the media.

Future studies should explore ways physicians can use media to enhance their voice and counter misinformation. While the study's respondents were not representative of the country, performing such studies in local communities can provide valuable insights for physicians to customize their communication strategies. Access to reliable information about the COVID-19 vaccine is critical in helping individuals make informed decisions about vaccination.

Likelihood of choosing the vaccine

Media Use Score

1.06
95% CI 1.04, 1.07

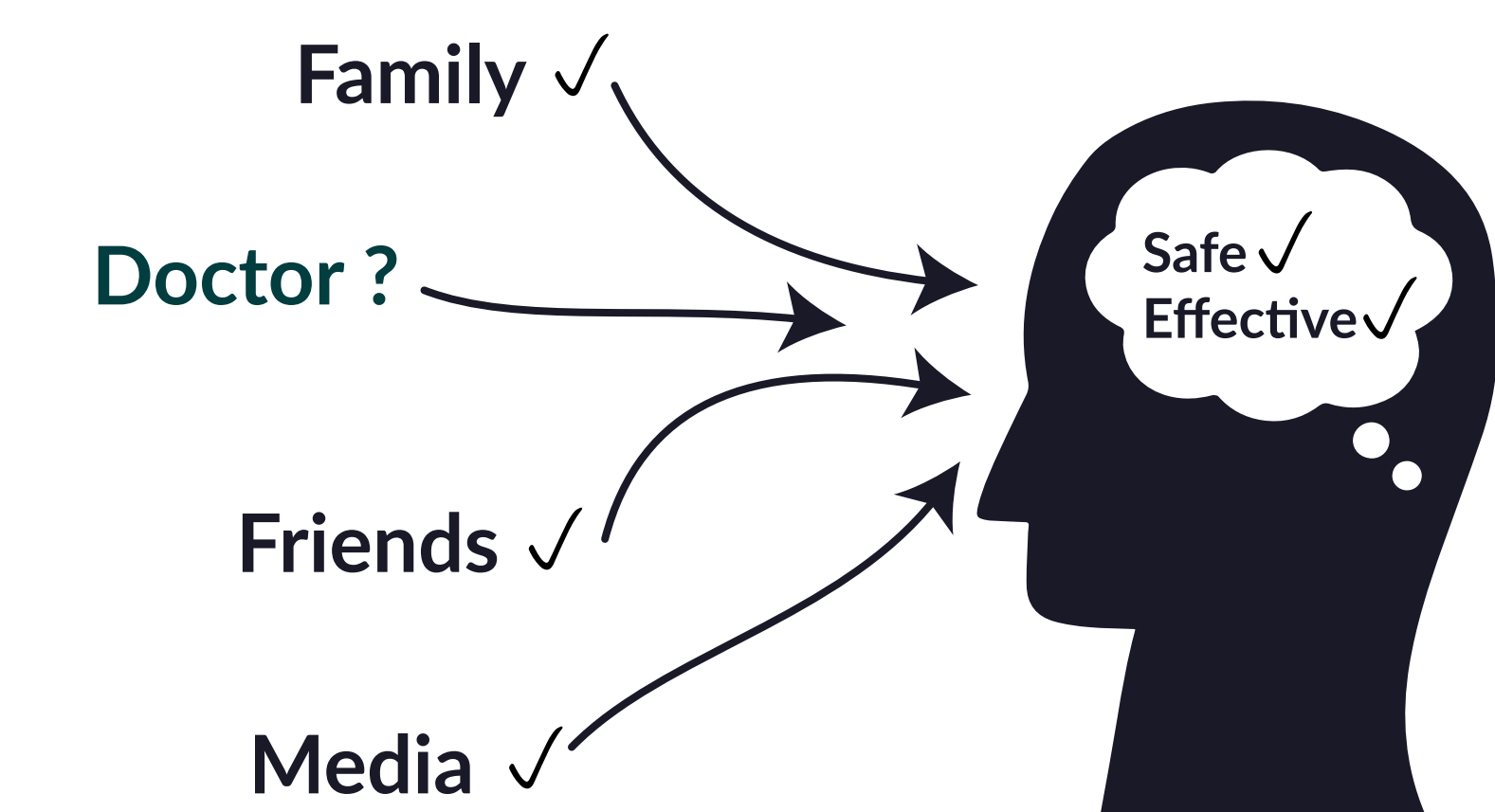
Multiplicative increase in odds of choosing the vaccine for every point towards more liberal media consumption.

89.6%
vaccine acceptors

$c=0.77$
 $c=0.81$

Both the media use score ($c=0.77$) and political leaning scale ($c=0.81$) had a strong positive correlation with vaccination choice.

Vaccine Attitudes



Most respondents indicated they had a good relationship with their doctor, but there were no significant differences in vaccine choice.

The physician's voice is one of many that competes with the influence of media. However, these do not have to be mutually exclusive and further studies should elucidate ways physicians can utilize the media to enhance their voice and counter false information.

References

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