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Short Communication

The influence of civic associations and exposure to ideological heterogeneity on public views on mask wearing and social distancing

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ABSTRACT

Mask wearing and social distancing have been essential public health guidelines throughout the COVID-19 pandemic, but faced resistance from skeptical subgroups in the United States, including Republicans and evangelicals. We examined the effects of participation in ideologically heterogeneous civic associations on attitudes toward public health measures during the COVID-19 pandemic, particularly among partisan and religious subgroups most resistant to public health guidelines. We analyzed panel survey data from a nationally representative cohort of 1222 U.S. adults collected in April, July, and November 2020, and July/August 2021. Data on the importance of social distancing and mask wearing were collected in November 2020. Evangelicals and Republicans who participated in ideologically diverse civic associations were more likely to support mask wearing compared to those participating in ideologically homogenous associations (difference in predicted policy support on a 0–1 scale: 0.084, $p \leq .05$ and 0.020, $p \leq .05$, respectively). Evangelicals in ideologically diverse associations were also more likely to support social distancing compared to those in ideologically homogenous associations (0.089, $p \leq .05$). Participation in civic associations with ideologically heterogeneous members was associated with greater support for public health measures among skeptical subgroups. Encouraging exposure to diverse ideologies may bolster support for public health measures to mitigate COVID-19.

1. Introduction

Mask wearing and social distancing emerged as essential mitigation strategies during the COVID-19 pandemic but quickly became polarized in the United States, prompting questions about how to encourage greater acceptance of public health measures (Deane et al., 2021). Although large majorities of the public supported such measures, support varied significantly among subgroups (Barry et al., 2021). Partisanship and religious affiliation emerged as predictors of people's willingness to adhere to these guidelines, with individuals identifying as Republican and Christian evangelical among the most resistant (Barry et al., 2021; Burge, 2020).

Throughout the pandemic, public health leaders have struggled to engage skeptical communities. In response, researchers highlighted civic engagement and related elements like social capital as factors that might encourage community adherence to public health guidelines (Pitas and Ehmer, 2020). Civic engagement refers to activities that enhance a community's civic life, including volunteering or participating in community based organizations, or engaging with entities like religious institutions and recreational leagues (Prewitt et al., 2014). Democratic theorists have long argued that a purported benefit of involvement with such civic associations is the potential of these associations to expose people to heterogenous views and perspectives (Skocpol, 2004; Fung, 2003). Indeed, empirical research shows that groups with diverse viewpoints can mitigate the effects of information echo chambers (Mutz, 2006), and lead to higher quality discussion and group decision making (Schulz-Hardt et al., 2006; Shi et al., 2019). However, to our knowledge no research has examined the impact of ideological heterogeneity in civic associations on attitudes toward pandemic public health guidelines. In this paper we examine whether exposure to ideologically heterogeneous associations is associated with stronger support for public health measures among Republicans and evangelicals, skeptical subgroups throughout the pandemic.

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2. Methods

We fielded the Johns Hopkins *COVID-19 Civic Life and Public Health Survey,* a nationally representative longitudinal panel survey, in four waves: April 7–13, 2020 (wave 1), July 7–22, 2020 (wave 2), November 11–30, 2020 (wave 3), and July 26–August 29, 2021 (wave 4). The survey was fielded online using the NORC AmeriSpeak® panel, a nationally representative probability-based panel covering 97% of U.S. households (Dennis, 2021). There were 1468 Wave 1 respondents (70.4% completion rate), 1337 Wave 2 respondents (91% completion rate), 1222 Wave 3 respondents (92% completion rate), and 1086 Wave 4 respondents (89% completion rate). Appendix A shows comparisons of the study population to national demographics. Weighted comparisons of our study population were similar to national estimates. This study was approved by the Johns Hopkins Bloomberg School of Public Health Institutional Review Board.

2.1. Measures

In Wave 3, we measured perceived importance of indoor mask wearing and social distancing to slow disease transmission in two separate questions using a five-point Likert scale ranging from not at all important to extremely important. Appendix B includes exact wording for all survey questions. We rescaled both outcomes on a 0 (no support) -1 (strong support) scale to increase the interpretability of our results. Coefficients can be interpreted as differences in support for mask wearing or social distancing on a 0–1 scale.

In Wave 1, we asked participants to describe how many civic associations they affiliate with (Verba et al., 1995), and to name their most important association. We also asked participants to describe the number of hours they devoted to the activities of their most important association each week using a five-category response (none, 1–2 h per week, 2–5 h per week, 5–10 h per week, more than 10 h per week) and how often they interacted with people in the association (never, occasionally, regularly). We repeated these questions in Wave 2 for participants who failed to provide clear answers in Wave 1. Together, these questions allowed us to examine the extent to which respondents interacted sufficiently with the association they had named as most important to have potential exposure to ideological diversity.

In Wave 1, we also asked participants to describe the ideological views of members of the association they named as being most important, using a seven-point scale ranging from extremely liberal to extremely conservative; in a separate question, respondents used the same scale to rate their own views. We created a three-category variable (liberal, moderate, conservative) reflecting the respondent's views, and a similar variable reflecting their estimates of other members' views. We then developed a dichotomous variable to determine whether respondents were in associations that matched their views or not. We categorized the respondent and association members as having similar views if their responses were exact matches in the three-category variable, and different if not. In Wave 4, we asked participants an additional question to determine whether they were aware of the ideological views of members of the civic association before joining (knew views before joining, had a guess before joining, wondered but did not know before joining, never thought about it).

Partisanship was measured using a seven-point scale (strong Democrat, moderate Democrat, lean Democrat, don't lean/Independent/none, lean Republican, moderate Republican, strong Republican). Consistent with the literature on measuring evangelicalism, evangelical status was measured using a self-reported dichotomous response to the question "Would you describe yourself as a 'born again' or evangelical Christian, or not?" (Burge and Lewis, 2018)

Covariates included trust in science (four-point scale ranging from a lot to not at all); self-reported health status (five-point scale ranging from excellent to poor); self-reported essential worker status, and health insurance status. Other covariates included: gender, race (White, Black, Hispanic, Asian/Other), age, household income, education level), marital/partnered status, political party, urbanicity (metropolitan, micropolitan, rural), frequency of religious service attendance, and self-identification as a "born-again" or evangelical Christian.

2.2. Statistical analysis

We used three linear regression models to examine predictors of support for mask wearing and social distancing. Model 1 examined our primary exposures of interest: partisanship, evangelicalism, and engagement with an ideologically heterogeneous association. Models 2 and 3 examined the interactions of ideological heterogeneity with evangelicalism and partisanship, respectively. We examined partisanship and evangelicalism separately based on our questions of interest and the low correlation between being Republican and being evangelical (0.27). In each model, we adjusted for the individual characteristics noted above. We excluded respondents who did not identify a civic association most important to them ($n = 205$) and those for whom we were missing covariate data. We conducted sensitivity analyses using dichotomized support variables (Appendix C).

Analysis was conducted with survey weights to calculate nationally representative estimates using Stata Version 16 (*StataCorp LLC,* 2019). We conducted one-tailed significance tests when examining interactions between ideological heterogeneity and evangelicalism and partisanship, based on our hypothesis that exposure to diverse ideologies would be associated with increased support for public health guidelines (Schulz-Hardt et al., 2006; Shi et al., 2019).

3. Results

Mask wearing and social distancing had stronger support among Democrats (83.7% and 81.1% strong support) and non-evangelical respondents (69.1%, 68.5%) relative to Republicans (43.5%, 42.2%) and evangelicals (52.7%, 47.3%). 83.2% of individuals who completed all three survey waves named a civic association. 52.5% of these respondents belonged to associations whose members' ideological views were perceived to match theirs, and 47.5% belonged to associations whose members' views were perceived to be different. 31.8% of respondents reported that they knew or had a guess about the ideological views of members of the civic association before joining. 84.9% of respondents who named a civic association that was most important to them reported that, on average, they spent at least 1–2 h per week engaging with the association. And 83.4% of respondents indicated that they occasionally or regularly interacted with people in their most important civic association. These levels of engagement are likely enough to expose people to the viewpoints of people within the association.

In our multivariate analyses, we found lower support for mask wearing among evangelicals (-0.092, $p \leq .05$) overall, and higher support among evangelicals in ideologically diverse associations compared to evangelicals in ideologically homogenous associations (0.084, $p \leq .05$). Table 1 shows the full regression results. We found a similar pattern for respondents identifying as Republican, with those affiliated with ideologically heterogeneous associations more likely to support mask wearing (0.020, $p \leq .05$) relative to Republicans in ideologically homogenous associations. We found higher support for social distancing among evangelicals belonging to ideologically diverse associations (0.089, $p \leq .05$), compared to evangelicals in ideologically homogenous associations.

4. Discussion

Our findings revealed important relationships between participation in ideologically diverse civic associations and attitudes about public health measures among partisan and religious subgroups skeptical about public health guidelines. As reported elsewhere, we found that

Table 1
Effects of civic engagement on public support for social distancing and indoor mask wearing.

	Mask wearing			Social distancing		
	Model 1[1]	Model 2[2]	Model 3[3]	Model 1[1]	Model 2[2]	Model 3[3]
	$n = 788$			$n = 785$		
	Linear regression coefficients (standard error)			Linear regression coefficients (standard error)		
Partisanship						
Political party (strong democrat to strong republican)[†]	−0.031*** (0.006)	−0.031*** (0.006)	−0.040*** (0.007)	−0.041*** (0.007)	−0.040*** (0.007)	−0.045*** (0.007)
Political party[†] × ideological heterogeneity[††]			0.020*[a] (0.011)			0.010 (0.011)
Religious identity						
Religious service attendance[†]	−0.002 (0.004)	−0.001 (0.004)	−0.001 (0.004)	0.003 (0.005)	0.004 (0.004)	0.004 (0.004)
Evangelical[†]	−0.051 (0.027)	−0.092* (0.039)	−0.048 (0.027)	0.002 (0.028)	−0.042 (0.036)	0.003 (0.027)
Evangelical[†] x ideological heterogeneity[††]		0.084*[a] (0.048)			0.089*[a] (0.044)	
Controls						
Ideologically heterogeneous association[††]	0.020 (0.018)	−0.001 (0.020)	−0.055 (0.036)	−0.007 (0.021)	−0.029 (0.024)	−0.046 (0.035)
Trust in science (not much at all to a lot)[†††]	0.191*** (0.019)	0.189*** (0.019)	0.189*** (0.019)	0.179*** (0.021)	0.177*** (0.020)	0.178*** (0.020)
Female[†]	0.031 (0.019)	0.031 (0.019)	0.033 (0.019)	0.011 (0.022)	0.011 (0.022)	0.012 (0.023)
Black, non-Hispanic[†]	0.057 (0.031)	0.060 (0.032)	0.052 (0.030)	0.053 (0.028)	0.056* (0.028)	0.050 (0.027)
Hispanic[†]	−0.020 (0.028)	−0.016 (0.028)	−0.020 (0.028)	0.010 (0.039)	0.014 (0.039)	0.010 (0.039)
Asian, other[†]	0.053 (0.053)	0.053 (0.044)	0.058 (0.045)	0.080* (0.036)	0.080* (0.035)	0.083* (0.036)
Age[†]	0.002*** (0.002)	0.002** (0.002)	0.002*** (0.001)	0.002** (0.001)	0.002* (0.001)	0.002** (0.001)
Household income[†]	0.003 (0.003)	0.003 (0.003)	0.004 (0.003)	0.005 (0.004)	0.004 (0.004)	0.005 (0.004)
Education[†]	−0.004 (0.006)	−0.003 (0.006)	−0.005 (0.006)	−0.014* (0.007)	−0.013* (0.006)	−0.014* (0.007)
Health status (excellent to poor)[†††]	0.016 (0.011)	0.016 (0.011)	0.016 (0.011)	0.004 (0.012)	0.004 (0.012)	0.004 (0.012)
Essential worker[†††]	−0.006 (0.019)	−0.007 (0.019)	−0.005 (0.019)	−0.023 (0.022)	−0.023 (0.022)	−0.022 (0.022)
Metropolitan urbanicity[†]	−0.017 (0.040)	−0.019 (0.039)	−0.018 (0.039)	−0.023 (0.036)	−0.024 (0.036)	−0.023 (0.036)
Uninsured[†††]	−0.018 (0.046)	−0.016 (0.048)	−0.017 (0.046)	−0.022 (0.051)	−0.019 (0.052)	−0.021 (0.052)
Constant	0.163 (0.113)	0.168 (0.114)	0.205^ (0.109)	0.361** (0.131)	0.366** (0.128)	0.383** (0.132)

Notes: *p ≤ .05, **p ≤ .01, ***p ≤ .001 statistically significant from reference category. Standard errors are included in parentheses. Support for mask wearing and social distancing was evaluated in Wave 3, using a 5 point Likert scale. Both outcomes were rescaled 0–1, with 0 reflecting lack of support, and 1 reflecting strong support. Associational ideological heterogeneity was measured in Wave 1. Evangelicalism, religious service attendance, political party, gender, race/ethnicity, age, household income, education, and urbanicity were collected as part of the baseline NORC Amerispeak panel. Trust in science, health status, essential worker status, and insurance status were evaluated in Wave 3. We excluded respondents who did not identify a civic association most important to them ($n = 205$) and those for whom we were missing covariate data.

[a] Indicates use of a one-tailed significance test, based on our hypothesis that exposure to ideologically heterogenous organizations would be associated with greater support for mask wearing and social distancing compared to exposure to ideologically homogenous organizations.

[†] Indicates the variable was measured as part of the NORC baseline panel.

[††] Indicates the variable was measured in April 2020 (wave 1).

[†††] Indicates the variable was measured in November 2020 (wave 3).

[1] Model 1 examines political party, evangelicalism, and participation in ideologically heterogeneous civic associations.

[2] Model 2 examines the interaction between between affiliations with ideologically heterogeneous associations and evangelicalism.

[3] Model 3 examines the interaction between affiliations with ideologically heterogeneous associations and political party.

evangelicals and Republicans were less supportive of pandemic public health measures (Barry et al., 2021; Burge, 2020). However, evangelicals and Republicans in ideologically heterogeneous associations were more likely to support mask wearing compared to those in ideologically homogenous associations. We observed similar trends for social distancing among evangelicals, further illustrating the potential of exposure to diverse viewpoints in bolstering public health attitudes.

Winning over skeptical subgroups will remain essential as officials strive to convey nuanced public health guidelines that evolve in real time, especially as Republicans and evangelicals have expressed ongoing resistance to COVID-19 mitigation measures including vaccines (Hamel et al., 2021). Civic engagement that increases exposure to diverse viewpoints may help to bridge partisan and religious divides in public health attitudes. Our finding that only one third of respondents knew or had a guess about the ideological views of members of the association suggests that most respondents did not intentionally seek out associations with ideological heterogeneity. This indicates that most respondents did not self-select into exposure to ideological diverse views, and is consistent with the broader literature on civic association engagement, which shows that engagement with a community often precedes commitment to the political beliefs of that community; individuals, even those who become most active, are often agnostic to the association's ideological views when they first join (Munson, 2009). Historically, many more civic associations in America used to expose people to ideological diversity; nowadays fewer such associations exist (Skocpol, 2004). Future research should explore avenues for developing more such associations and encouraging people to engage with ideologically heterogenous associations. More work is needed to examine the effects of ideological diversity on public health attitudes beyond social distancing and mask wearing.

Our study limitations include vulnerability to sampling biases, although the AmeriSpeak® panel uses probability-based recruitment aligning with best-practice survey research standards. Our sample size is relatively small among some subgroups. We cannot determine the extent to which participants may have selected civic associations because of their membership's ideological heterogeneity, or conversely, chosen not to affiliate with ideologically diverse associations. While nearly 70% of participants report being unaware of the ideological views of their association's membership before joining, this measure is subject to recall bias and does not fully mitigate selection bias. Respondents' assessments of an association's ideological heterogeneity are subjective and may differ from members' actual views. We were also unable to obtain precise measures of exposure to ideological diversity within a civic association. However, when we asked about characteristics of the civic association

most important to respondents, we found that 85% of respondents spent at least 1–2 h per week engaging with their civic association and 83% occasionally or regularly interacted with people at the association. We believe this indicates that respondents had enough interactions with their associations to be exposed to members' ideological views, thus allowing for a pathway through which the diverse viewpoints could shape their thinking.

5. Conclusion

Civic engagement that brings together people holding heterogeneous views can have important public health implications, and should be an area of focus as we continue to grapple with managing the pandemic and other critical public health issues.

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CRediT authorship contribution statement

Rachel J. Topazian: Data curation, Formal analysis, Methodology, Software, Formal analysis, Writing – original draft. **Adam S. Levine:** Conceptualization, Writing – review & editing, Funding acquisition. **Emma E. McGinty:** Conceptualization, Writing – review & editing, Funding acquisition. **Colleen L. Barry:** Conceptualization, Writing – review & editing, Funding acquisition. **Hahrie Han:** Conceptualization, Methodology, Writing – review & editing, Supervision, Funding acquisition.

Declaration of Competing Interest

The authors have no conflicts of interest to disclose.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ypmed.2022.107098.

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