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# Modeling the Relationship between Trust in Science and Reliance on Formal News Sources

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Communication of scientific information to the population presents challenges because of the need to balance being transparent with avoidance of complex scientific terminology. The spread of information and news through social media and other informal sources rose during this past decade. The focus of this study is to understand what relates to reliance on formal news media. Formal news sources influence businesses and people, making them more apt to believe in science as measured by their beliefs in scientific concepts such as vaccinations, climate change, and compliance with COVID protocols. While this study looked at science because of the timeliness of COVID-related communication, this is a major issue related to all areas of business. For example, consider that in the case of COVID vaccines which has a consumer product manufactured by pharmaceutical firms, manufacture of the physical products related to vaccines, the distribution, and administration of vaccines. Trust in the predictive modeling that suggests vaccinations and PPE protocols impact pandemic and health concerns help influence actions. This empirical research shows that belief in science is correlated with the formality of the news source. Having a population that uses scientific information leads to behaviors like controlling the spread of something like COVID which is good for business, and not doing so results in the potential to have shutdowns or restrictions that are bad for business. If one fully understands the process, the public trusts in scientific modeling information, the impacts of non-compliance, and the negative business impact of non-compliance can be minimized.

Keywords: COVID; predictive modeling; information source

## Introduction

There is a conjecture that some individuals do not trust science and are hesitant to take proper actions to respond to what the science suggests (e.g., COVID-19 complications if people do not follow preventative measures or fail to take the vaccine) (Plohl & Musil, 2020). This proposed study uses research concepts and approaches from studies evaluating the trust (or lack of trust) in science and examines the correlation of this trust with the source of information.

The subject of trust in science is a multilayered area to try to investigate. For example, one might trust in the science that leaping from a considerable height is incongruent with a long healthy life but trusting in climate change predictions to cause lifestyle changes are more complicated. While both the effect of gravity and climate science are predictive aspects of science, the former is considered obvious, while the latter would depend more on one's trust in science.

The rise of rapid information dissemination through social media channels has increased awareness amongst people. However, some people also tend to believe the misinformation or disinformation that is coming through those informal channels. This source of information – formal news versus informal news – influences whose science people believe in (Brewer & Ley, 2013).

It is accepted that existing literature does not reach a consensus on defining trust (Rousseau et al., 1998). There is an agreement in the peer-reviewed literature on the positive impact trust has on collaborative behavior (Badcock & Gambetta, 1990), fostering the rapid formation of informal working groups, decreasing harmful conflicts, and reducing transaction costs (Meyerson et al., 1996). Mayer et al. (1995) described trust as a "willingness to be vulnerable," as cited in Meyerson et al. (1996, p. 152). In contrast, other researchers describe it as a "willingness to rely on" or "confident, positive expectations" (Rousseau et al., 1998, p. 394). This study accepts the definition that encapsulates all the above information in this definition of trust. "Trust is one party's willingness to be vulnerable to another party based on the belief that the latter party is (a) competent, (b) open, (c) concerned, and (d) reliable" (Meyerson et al., 1996, p. 152).

This empirical research analyzes various beliefs people have that influence decision they make in their lives. The beliefs in science items included vaccinations, climate change, nuclear energy safety, the safety of genetically modified food, and obesity and health. The correlation of these beliefs to the news source was then analyzed. The study justifies that belief in science is strongly correlated with the type of source from which a person gets their news. Here, that would be formal news sources. Formal news is defined as news gained from mass media such as major Television and print sources and not social media, friends, family, scientific experts, or search engines. The remainder of this paper presents a review of prior literature, research methodology, analysis of results, conclusion and future research, and reference list.

## Literature Review

The science-society relationship has been turbulent over the years (National Academies of Sciences, Engineering, and Medicine, 2017). This turbulence is often valid when the scientific findings conflict with religious beliefs or long-held views. Added to that are the concerns about manipulating information on popular social media channels like Facebook, Twitter, and WhatsApp (Michael & Breaux, 2021). Digital technology has fundamentally altered the sources from which people seek their news and information. Readily accessible user-generated information content and numerous niche news channels now vie with formal news sources. The growing use of unconventional sources of information correlates with a propensity to question (Fletcher & Park, 2017) and increases skepticism of formal sources (Tsfati & Cappella, 2003) while not questioning informal news sources. Other the other hand, trust in information can also be linked to expectations (Vanacker & Belmas, 2009). An individual expecting gossip news is likely to trust a source that fulfills that expectation, while still believing that a reputed formal news source, like New York Times, better informs the audience. In

certain geopolitical regions and cultures, information from governments is deemed to carry more trust than the news from social media, interpersonal communication, or religious clerics (Melki et al., 2021).

This changing consumption pattern has similarly resulted in people relying more increasingly on informal news sources such as search engines and social media for their information needs (Gil de Zuniga et al., 2017). While the use of television appears to be declining, print news is sharply declining, and social media as a source of news is on the rise (Nielsen et al., 2016). Often these informal news sources are not vetted and can carry deliberate misinformation or disinformation. People consume content from numerous sources with unverified credibility and when not contextualized the source's intentions could negatively impact the public's trust in all news sources' accuracy, quality, and objectivity (Flanagin & Metzger, 2017). This presents an even more significant challenge to the business and scholarly community when trying to communicate accurate scientific information. People do not realize that they still need to vet the information they receive no matter the news source (Ognyanova, 2019). This unquestioning belief represents a severe dichotomous relationship between information gained from formal and not questioning informal news sources. People are drawn to and do not question news sources that reinforce their current beliefs, while they avoid and do not trust news sources that are incongruent with their current beliefs (Michael & Breaux, 2021).

The National Academies of Sciences, Engineering, and Medicine in a study (NASEM, 2017) on communicating science effectively suggested that people who understand science or have the willingness to understand scientific information often seek to understand the relative merits of the evidence presented or how well the facts and underlying information support the particular issue being described. Believers in the beliefs in science list are willing to have evidence-based scientific findings presented to them and, therefore, would be considered to have some degree of trust in science.

People's views towards scientific information and science are impacted when emerging technologies and scientific information threaten deeply held values and challenge beliefs (Blank & Shaw, 2015; NASEM, 2017). The following paragraphs will consider a few topics of science-related public controversy or contentious societal issues.

The topic of vaccines has risen to a broader public conversation lately, primarily because of the current COVID-19 pandemic. This controversy has created a divide among people based on sub-political affiliations, religious beliefs, or just a long-held belief that vaccines lead to adverse events, like autism, later in life (van der Linden et al., 2015). People must decide whether to follow medically reasonable vaccination recommendations (Downs et al., 2013). Refusal to vaccinate poses a severe public health risk. Those with a higher level of trust in scientific evidence are expected to accept the idea of the importance of vaccinations. This trust can be the topic of childhood vaccinations (Stratton et al., 1994; McKeever et al., 2016) or vaccination deemed necessary while traveling for protection against communicable diseases such as Ebola (NASEM, 2017), malaria, and now COVID-19.

Those who use the informal social channels for science-related information are disproportionately people whose views counter the scientific consensus (McKeever et al., 2016). This phenomenon certainly appears to be the case in the climate change debate, gaining extensive traction in information sources like social media. Social media in the context of this study consists of social internet sites that do not include mass media (major Television and print sources), friends and family, scientific experts, or search engines. People who believe that climate change is indeed real are likely founding their belief on scientific evidence (Dunlap & McCright, 2010; McCright et al., 2016; McCuin et al., 2014; Ranney et al., 2012).

Knowledge is not needed for having an opinion on a subject, which helps to explain why knowledge and attitudes do not seem to be linked (NASEM, 2017). In the case of genetically modified organisms (GMOs) in food, people think about whether that is a good thing or not, but most people do not know about them (McFadden & Lusk, 2016). In such cases, the news source can easily frame the topic to influence how individuals think about the issue. Similarly, people are faced with

complicated and inconsistent claims, for example, about the hazards and benefits of consuming added sugar, salt, and fats, while making their food choices to avoid obesity. The primary topic in front of them is whether they believe the food industry contributes to obesity and whether obesity is linked to health (Bleich et al., 2007; Dunlap & McCright, 2010).

People believe the risk is more minor or the potential benefits as more significant when the information they receive is from an institution they trust (Chryssochoidis et al., 2009). Trust in institutions strongly influences support for nuclear power (Besley & McComas, 2015; Visschers & Siegrist, 2012; Whitfield et al., 2009).

In each area discussed above, vaccinations, climate change, the safety of GMOs in food, obesity, health, and nuclear energy safety, individuals cling to their common-sense mental models or long-held views about how the world works (Vosniadou & Brewer, 1992). Nevertheless, there is also evidence that with scientific reasoning and evidence from formal sources, such thinking can be influenced and revised (Ranney et al., 2012) toward greater trust in science. News from formal and scientific sources can therefore increase awareness of how people perceive and act on a range of controversial scientific issues.

## Method

This study employed a deductive quantitative research approach in a survey form(Creswell & Creswell, 2018). The data collection was done with an online survey instrument created from the scholarly articles described in the literature review, which provide the framework for studying the relationship between trust in science and the formal news source as the primary source for scientific information. All the statistical analyses presented in this paper are done with IBM SPSS Statistics version 27.

### Data Collection

The online survey instrument was created in Qualtrics (https://www.qualtrics.com/), approved by the institutional review board, and given to students at a Midwestern university. This quantitative survey used Likert scale responses to measure the strength/intensity of responses for each question created by contextualizing the questions related to science-related public controversies and complexities of communicating science from NASEM (2017). The survey captured responses to a series of questions that would help understand their degree of belief in topics of science-related controversies from formal news sources.

### Sampling Frame

The study used a sample drawn from undergraduate and graduate students at a large metropolitan midwestern university in the United States. This student population was chosen as a target group owing to their availability throughout the study's length, and a higher chance of consenting to participate. Additionally, the chosen university has a mature student body, with many students surveyed also working full-time in the industry outside the university. Table 1 shows the demographics of the survey respondents. The study obtained 207 valid survey responses. Using G*Power t-tests for multiple linear regressions, the a priori required sample size for testing the parameters of a two-tailed test with an effect size of 0.07, Alpha 0.05, Power 0.9, and 10 predictors required a minimum sample size of 153. The study sample size was 207 which was adequate to support the planned analysis.

### Data Analysis

This research measures the trust in formal news sources as the source for obtaining facts and information. Eleven independent variables are employed in the model. These are described in Table 2. The survey also asked respondents to rate their level of confidence in the news coming from formal news sources and scientists. This confidence formed the dependent variable FormalNewsSource in the study. The survey was conducted between October 2020 and February 2021. Ordinary least

squares (OLS) regression analysis was conducted to analyze the trust in formal news sources based on the respondents' trust in science. The stepwise regression method was used to iteratively construct the regression model by adding and removing independent variables in succession and testing for statistical significance after each iteration. This method allowed us to retain the most influential and statistically significant independent variables in the regression model.

**Table 1** – Sample Demographics

| Gender | N | % | | Income | N | % | | Age | N | % |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 Female | 146 | 70.5% | | 1 (Less than $31,000) | 44 | 21.3% | | 1 (18y - 21y) | 113 | 54.6% |
| 1 Male | 59 | 28.5% | | 2 ($31,001 to $42,000) | 33 | 15.9% | | 2 (22y - 25y) | 33 | 15.9% |
| 2 Other | 2 | 1.0% | | 3 ($42,001 to $126,000) | 97 | 46.9% | | 3 (26y - 29y) | 22 | 10.6% |
| | | | | 4 ($126,001 to $188,000) | 18 | 8.7% | | 4 (30y or Over) | 39 | 18.8% |
| | | | | 5 ($188,001+) | 15 | 7.2% | | | | |

| Education Level | N | % | | College attending | N | % |
|---|---|---|---|---|---|---|
| 1 First-year undergrad student | 79 | 38.2% | | 1 College of Education | 12 | 5.8% |
| 2 Sophomore | 25 | 12.1% | | 2 College of Engineering | 16 | 7.7% |
| 3 Junior | 13 | 6.3% | | 3 College of Health and Public Service | 92 | 44.4% |
| 4 Senior | 7 | 3.4% | | 4 College of Information | 3 | 1.4% |
| 5 Graduate Student | 83 | 40.1% | | 5 College of Liberal Arts and Social Sciences | 22 | 10.6% |
| | | | | 6 College of Merchandising, Hospitality, and Tourism | 1 | 0.5% |
| | | | | 8 College of Science | 22 | 10.6% |
| | | | | 9 College of Visual Arts and Design | 1 | 0.5% |
| | | | | 10 School of Journalism | 5 | 2.4% |
| | | | | 11 College of Business | 33 | 15.9% |

**Table 2** – Independent Variables

| Independent Variables | |
|---|---|
| 1 ChildhoodVaccine | Trust in childhood vaccines |
| 2 TravelVaccine | Trust in vaccines for travel |
| 3 ClimateChange | Trust in climate change predictions |
| 4 GMOSafety | Trust in the safety of genetically modified organisms |
| 5 NuclearEnergySafety | Trust in the safety of nuclear energy |
| 6 OverweightAndHealth | Trust in the link between obesity and health |
| 8 Gender | Gender of the respondent |

| | |
|---|---|
| 9 Age | Age of the respondent |
| 10 Income | Income of the respondent |
| 10 CollegeMajor | Major college of the respondent |
| 11 EducationLevel | Graduate or undergraduate level of the respondent |

## Results

The survey questionnaire asked the respondents to rank their level of agreement with each statement about the selected science-related public controversy or long-held personal belief. The OLS regression was conducted in multiple passes to determine the best approach. Each result table presented herein identifies the variables, coefficients, t-statistic, p-values, and adjusted R-square for each regression run.

Table 3 presents the results of this regression analysis. The first regression was conducted with all independent variables included in the regression model, and the adjusted R-square for this regression was 0.332. However, several independent variables, such as ChildhoodVaccine, GeneticModified, NuclearEnergy, Gender, Income, College, Age, EduLevel, were statistically significant in this regression. Therefore, a stepwise regression was subsequently run to iteratively construct the regression model by adding and removing independent variables in succession and testing for statistical significance after each iteration. Stepwise regression retains the most influential and statistically significant independent variables in the regression model.

Table 4 presents the results of the stepwise regression analysis. This analysis identified three models, each with a different combination of independent variables. Model #3 emerged as the model with the highest adjusted R-square value and lowest standard error of the estimate. The adjusted R-square for model #3 was 0.335. This R-square is slightly better than the 0.332 adjusted R-square from the regression run with all variables included. However, each independent variable selected in model #3 – TravelVaccine, OverweightAndHealth, ClimateChange – was statistically significant with p-values <0.001.

**Table 3** – OLS Regression With All Variables Included

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| | .607[a] | 0.368 | 0.332 | 0.68906 |

*a. Predictors: (Constant), EduLevel, ClimateChange, Income, Gender, OverwtHealth, NuclearEnergy, College, ChildhoodVaccine, GeneticModified, Age, TravelVaccine*

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square Error | F | Sig. |
|---|---|---|---|---|---|---|
| | Regression | 53.895 | 11 | 4.900 | 10.319 | .000[b] |
| | Residual | 92.585 | 195 | 0.475 | | |
| | Total | 146.481 | 206 | | | |

*a. Dependent Variable: FormalNewsSource*

*b. Predictors: (Constant), EduLevel, ClimateChange, Income, Gender, OverwtHealth, NuclearEnergy, College, ChildhoodVaccine, GeneticModified, Age, TravelVaccine*

**Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| | (Constant) | 1.061 | 0.306 | | 3.472 | 0.001 | 0.458 | 1.663 |
| | ChildhoodVaccine | 0.000 | 0.077 | 0.000 | -0.001 | 1.000 | -0.152 | 0.152 |
| | TravelVaccine | 0.212 | 0.076 | 0.293 | 2.768 | 0.006 | 0.061 | 0.362 |
| | ClimateChange | 0.156 | 0.055 | 0.202 | 2.822 | 0.005 | 0.047 | 0.265 |
| | GeneticModified | 0.039 | 0.059 | 0.057 | 0.666 | 0.506 | -0.077 | 0.155 |
| | NuclearEnergy | -0.007 | 0.053 | -0.010 | -0.123 | 0.902 | -0.112 | 0.099 |
| | OverwtHealth | 0.282 | 0.053 | 0.332 | 5.272 | 0.000 | 0.177 | 0.388 |
| | Gender | 0.048 | 0.108 | 0.027 | 0.444 | 0.657 | -0.165 | 0.261 |
| | Income | 0.047 | 0.044 | 0.062 | 1.063 | 0.289 | -0.040 | 0.133 |
| | College | -0.020 | 0.017 | -0.077 | -1.171 | 0.243 | -0.053 | 0.014 |
| | Age | 0.018 | 0.072 | 0.025 | 0.253 | 0.801 | -0.123 | 0.159 |
| | EduLevel | -0.078 | 0.049 | -0.169 | -1.602 | 0.111 | -0.175 | 0.018 |

*a. Dependent Variable: FormalNewsSource*

**Table 4** – Stepwise Regression Summary

**Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .439[a] | 0.193 | 0.189 | 0.75938 |
| 2 | .552[b] | 0.304 | 0.298 | 0.70669 |
| 3 | .587[c] | 0.345 | 0.335 | 0.68748 |

*a. Predictors: (Constant), TravelVaccine*

*b. Predictors: (Constant), TravelVaccine, OverweightAndHealth*

*c. Predictors: (Constant), TravelVaccine, OverweightAndHealth, ClimateChange*

**ANOVA[a]**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 28.266 | 1 | 28.266 | 49.016 | .000[b] |
| | Residual | 118.215 | 205 | 0.577 | | |
| | Total | 146.481 | 206 | | | |
| 2 | Regression | 44.600 | 2 | 22.300 | 44.653 | .000[c] |
| | Residual | 101.880 | 204 | 0.499 | | |
| | Total | 146.481 | 206 | | | |
| 3 | Regression | 50.536 | 3 | 16.845 | 35.642 | .000[d] |
| | Residual | 95.944 | 203 | 0.473 | | |
| | Total | 146.481 | 206 | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *a. Dependent Variable: FormalNewsSource* | | | | | | | | |
| *b. Predictors: (Constant), TravelVaccine* | | | | | | | | |
| *c. Predictors: (Constant), TravelVaccine, OverweightAndHealth* | | | | | | | | |
| *d. Predictors: (Constant), TravelVaccine, OverweightAndHealth, ClimateChange* | | | | | | | | |
| **Coefficients[a]** | | | | | | | | |
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for B | |
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | 2.354 | 0.189 | | 12.485 | 0.000 | 1.982 | 2.725 |
| | TravelVaccine | 0.317 | 0.045 | 0.439 | 7.001 | 0.000 | 0.228 | 0.406 |
| 2 | (Constant) | 1.245 | 0.262 | | 4.759 | 0.000 | 0.729 | 1.760 |
| | TravelVaccine | 0.298 | 0.042 | 0.412 | 7.039 | 0.000 | 0.214 | 0.381 |
| | OverweightAndHealth | 0.285 | 0.050 | 0.335 | 5.719 | 0.000 | 0.187 | 0.383 |
| 3 | (Constant) | 0.988 | 0.265 | | 3.735 | 0.000 | 0.466 | 1.509 |
| | TravelVaccine | 0.217 | 0.047 | 0.300 | 4.602 | 0.000 | 0.124 | 0.309 |
| | OverweightAndHealth | 0.258 | 0.049 | 0.303 | 5.259 | 0.000 | 0.161 | 0.355 |
| | ClimateChange | 0.181 | 0.051 | 0.234 | 3.544 | 0.000 | 0.080 | 0.281 |
| *a. Dependent Variable: Formal NewsSource* | | | | | | | | |

The results shown in Table 4 were sufficient to determine the variables that were most influenced by formal news sources. However, the variables that were excluded from model #3 during stepwise regression, shown in Table 5, were further examined to evaluate if retaining any of these in the regression model would uplift the model fit. It is of note that the variable EduLevel was excluded with a p-value rounded to 0.050. Forced retention of this variable into the model did not yield any significant improvement in the R-squared value. Therefore, it was decided to stay with the regression model as determined by the stepwise method.

**Table 5** – Best model (Excluded Variables)

| **Excluded Variables[a]** | | | | | |
|---|---|---|---|---|---|
| Variable | Beta In | t | Sig. | Partial Correlation | Collinearity Statistics |
| | | | | | Tolerance |
| Gender | .055[d] | 0.957 | 0.340 | 0.067 | 0.980 |
| Income | .040[d] | 0.694 | 0.488 | 0.049 | 0.996 |
| CollegeMajor | -.007[d] | -0.118 | 0.907 | -0.008 | 0.992 |
| Age | -.084[d] | -1.430 | 0.154 | -0.100 | 0.926 |
| EducationLevel | -.114[d] | -1.970 | 0.050 | -0.137 | 0.946 |
| ChildhoodVaccine | .003[d] | 0.033 | 0.973 | 0.002 | 0.314 |
| GMOSafety | .064[d] | 0.932 | 0.352 | 0.065 | 0.683 |
| NuclearEnergySafety | .034[d] | 0.537 | 0.592 | 0.038 | 0.812 |

| |
|---|
| *a. Dependent Variable: FormalNewsSource* |
| *d. Predictors in the Model: (Constant), TravelVaccine, OverweightAndHealth, ClimateChange* |

A puzzling factor was why TravelVaccine was included during stepwise regression and ChildhoodVaccine was excluded. The authors believe that those who do not believe in vaccines would not believe in any vaccine, or conversely, those who believe in the vaccines would unconditionally trust them regardless of whether they are trying to protect their children during their younger years or their family and themselves while traveling to regions where pre-travel vaccinations are highly recommended. To test our hypothesis, a correlation analysis was run comparing the variables TravelVaccine and ChildhoodVaccine. The results of the correlation analysis are shown in Table 6. As anticipated, a high correlation between these two variables with a Pearson correlation factor of 0.83 was found. Including both these variables in the model would have presented a problem with collinearity, and therefore it now made sense to include the one that resulted in a higher adjusted R-square value.

**Table 6** – Correlation Results

| **Correlations** | | | |
|---|---|---|---|
| | | ChildhoodVaccine | TravelVaccine |
| ChildhoodVaccine | Pearson Correlation | 1 | .813** |
| | Sig. (2-tailed) | | 0.000 |
| | Sum of Squares and Cross-products | 260.734 | 220.126 |
| | Covariance | 1.266 | 1.069 |
| | N | 207 | 207 |
| TravelVaccine | Pearson Correlation | .813** | 1 |
| | Sig. (2-tailed) | 0.000 | |
| | Sum of Squares and Cross-products | 220.126 | 280.995 |
| | Covariance | 1.069 | 1.364 |
| | N | 207 | 207 |
| ***. Correlation is significant at the 0.01 level (2-tailed).* | | | |

From these results, one can conclude that people who believe in science, as evidenced by their beliefs in topics of science-related controversies, trust formal news sources for obtaining scientific facts and information. Among the science-related controversies or long-held beliefs are belief in vaccinations (these are people who want to ensure their families and loved ones are safe and well-protected while at home or away), belief in scientific predictions (understand the climate change, its impact, and the future predictions), recognize the importance of being healthy (understand the relationship between obesity and health), and degree of maturity achieved through a level of academic education. Listening to or following formal news sources or mainstream news correlates to a belief in scientific concepts. Therefore, belief in science is highly correlated to where people get their news.

## Discussion and Future Research

Communicating scientific impact on business is difficult. This research confirmed that news coming from formal sources such as mainstream media and scientists is the most impactful. Among the areas of belief that were found to be significantly correlated to getting news from formal sources were belief in vaccinations (these are people who want to ensure their families and loved ones are safe and well-protected while at home or away), belief in predictive sciences (understand the climate change, its impact, and the future predictions), and recognize the importance of being healthy (understand the relationship between obesity and health). The areas that did not influence were individuals' gender, income, age, college major, education level, and their beliefs in the safety of nuclear energy and the safety of genetically modified organisms.

Mainstream news and formal news sources influence people, making them more likely a believer in science as measured by their beliefs in scientific concepts measured and analyzed in this study. This information is useful to anyone interested in communicating science effectively. At the time of this writing, there is a reluctance on the part of many to take COVID-related actions based on the scientific information available. This research furthers the knowledge base in support of this and other communicating science issues.

A similar future study relating to those who primarily consume news from information sources such as social media and through friends and family would help put an alternate perspective on trust in science.

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