TRUST IN THE OREGON HEALTHCARE SYSTEM DURING COVID-19



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ABSTRACT

The purpose of this project was to discern trust in the Oregon healthcare system during the COVID-19 pandemic. Our hypothesis states, if a person trusted the health care system, they would agree with the statements and follow the Oregon Health Authority (OHA) COVID-19 policies. This research could be used to discern public opinion in order to improve public health policy.

To assess this, we conducted a survey asking people about their behavior during the timeframe of April-November 2020. Then we asked if an OHA policy would help prevent the spread of COVID-19 using a Likert scale. Our survey was distributed electronically in April 2021. After closing the survey, we had a sample size of 124 responses from 12 different Oregon counties aged 18 years and older.

In order to analyze the data, we assigned a numerical value to each question response. The higher values were awarded to the responses that agreed with the OHA policies and followed COVID-19 safe behavior recommendations. The lower values were awarded to the responses that disagreed with the OHA policies and did not follow COVID-19 recommendations. We found our respondents demonstrated a spectrum of trust in OHA with the total lowest score being 13 and our highest score being 38 with an average score of 31.4. This average score shows that most respondents followed and agreed with OHA policies on COVID-19.

In conclusion, this data aligns with our hypothesis because it illustrates an agreement with OHA policies and behaviors that acts in accordance with that policy. Further research should include a larger sample size to better represent the population of Oregon and repeat surveying as pandemics and health policies are in constant flux.

OBJECTIVE

The purpose of this project was to discern trust in the healthcare system during the COVID-19 pandemic in Oregon communities. Our hypothesis was that if a person trusted the health care system, then they would agree with the statements and follow OHA's COVID-19 policies.

INTRODUCTION

Trust in the healthcare system has been a frequent topic of conversation; perhaps most noticeably with people's distrust in vaccines. With the global COVID-19 pandemic, the issue of trust demonstrates nuances into how people perceive public health and how much they trust the healthcare system. Trust can have large implications ranging from people's adherence to public health guidance to how much they are receiving preventive care screenings. Without trust, public health agencies cannot perform their necessary healthcare functions (Peterson, et al, 2019). Trust also factors into population risk of exposure and the general perception of that response (Lazarus et al, 2020). One study showed that higher trust was tied to more compliance with hygienic practices and COVID-19-induced recommendations to cancel travel plans (Lazarus et al, 2020). Distrust in the healthcare system may be increasing during COVID, but this could be due to

long-standing patient concerns already present or may be caused by new concerns made apparent by the pandemic. Whether this pandemic is present for an extended period or another pandemic subsequently occurs, these unfortunate circumstances will most likely occur again and understanding patient's perceptions of their healthcare system will be necessary in understanding how to effectively provide information related to healthcare. This research provided some insight into the Oregon public's opinion of health recommendations. The results from this survey could then be used to direct how agencies communicate regulations and encourage compliance during the remainder of the COVID-19 pandemic and future health crises.

STUDY DESIGN

We examined trust in the Oregon Health Authority, a state level entity, given there were frequent differences between state and national level policies throughout the pandemic. We designed a survey asking if people exhibited COVID-19 safe behavior that the Oregon Health Authority (OHA) recommended and agreed with OHA policies. We wanted to separate the people who performed COVID-19 safe behavior because of the state mandates versus those who agreed that the policies would prevent the spread of COVID-19.

First, we gathered demographic data asking the survey participant's county of residence, occupation, income, education level, age, gender, ethnicity, and primary news source(s). Next, we assessed behavior by asking if COVID-19 safe behaviors were performed with yes or no questions. We then asked if the survey taker agreed that the OHA statement/policy would prevent COVID-19 infections on a Likert Scale from strongly disagree to strongly agree. Last, we left room for comments regarding the survey and pandemic.

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RESULTS

We had a total of 124 responses with 83.60% being 18-34 years old, 27% of them being Medical Students, and representing 12 Oregon Counties. The small sample size and highly specific demographic means we did not fully capture the population of Oregon, this can be seen in Figures 1, 2 and 3.





59% of respondents self-identified as a student and respondents were between 18-34 years of age. medical student

Figure 1: Location of respondents showing the majority of respondents were living in the Willamette valley. The pin denotes where COMP-NW is physically located.





Figure 5: Soearman's Correlation between Agreement with OHA Policy and Behavior

We aggregated the data to be one trust score, then plotted this on a histogram to find a trend. Our data is negatively skewed showing that most respondents agreed with some OHA policy and performed COVID-19 safe behavior (Figure 4). We also plotted the Agreements vs Behaviors in a Spearman's Correlation to see an association between the two sections as used in our definition of trust. The Rho value shows a moderately strong correlation between the two scores illustrating that the answers to each section were related to one another (Figure 5).

We did not release the survey until April of 2021 but our survey was written prior to the availability of the COVID-19 vaccinations. We distributed the survey electronically through Google Forms beginning with a school-wide email. We also spread our survey through personal social media accounts. Our criteria for respondents was to be over the age of 18 and be currently living in Oregon. The survey was released on April 4th, 2021. We wanted to keep the survey open as long as possible, but when we pulled the data to review, we found data that appeared to be computer generated. The answers contained random combinations of letters, a single word answer for every fill in the blank or comment section, and characters from other languages. We retrospectively ended data collection on April 7th since that was when the responses had the most fidelity and we did not want to introduce bias by randomly selecting data points that appeared legitimate. We should use encrypted technology in future surveys to enhance the integrity of the data.

To determine trust from our data, we assigned numerical values to the responses. All behaviors that were more COVID-conscious were given a higher value. For example, if a yes was answered to "I wore a mask at all times in an indoor public space" it was assigned a 2. Answering no was assigned a 1. For the opinion portion, if the respondent strongly agreed that the OHA policy would prevent the spread of COVD-19 infection the answer was given a value of 4, strongly disagree was given a value of 1. If the respondent was neutral, they were given a 0. We determined this value to be zero because it represented indifference rather than trust or mistrust and did not help us answer our research question

After assigning values and totaling the behavior and agreement scores, the highest possible value was 38. This number represents a respondent who practiced COVID-19 safe behaviors and strongly agreed that OHA policies were protective. The lowest value was 14 which represents a respondent who did not practice any COVID-19 safe behaviors and strongly disagreed with OHA policies. Our results show a negatively skewed distribution with the mode being 37 and the average score being 31.39.

We then ran a Spearman's Correlation between the behaviors and agreements of each respondent. This produced Rho=0.6743 showing a moderately strong correlation between the behaviors and agreements which supports our hypothesis for trust being an association between respondents' behaviors and agreement with OHA policy.

We did have limitations in our data. The small sample size and highly specific demographic means we did not fully capture the population of Oregon. We may have missed data points where a respondent scored high in one section but low in another. If their behavior didn't match their opinion but they still had a high enough score, they may appear to have higher trust.

In conclusion, a majority of our respondents showed a high level of trust in OHA through their agreement and their behavior in relation to policies set forth. This was seen in the negative skew relationship of our histogram of total scores. In a Spearman's Correlation, our coefficient was Rho=0.6743 showing a moderately strong correlation between behaviors of our respondents and their agreement with OHA policy. This demonstrates our respondent's showed moderate trust according to our hypothesis.

This study is the first of its kind that we could find for Oregon, although there have been other studies examining trust and public health policy on a global scale. Research such as this is valuable in understanding a population to help implement better policies or procedures to most effectively earn public trust and help improve community health.

The data that was analyzed for this research project only looked at specifically Oregon's trust in OHA. To further expand on this topic for future studies, we could look at relationships of different demographics such as age groups, gender, and ethnicity in regard to trust in healthcare and to determine the strongest components affecting someone's trust. Additionally, further investigation could be done to cast a wider net on the state of Oregon in order to obtain data from a more diverse population.

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1. Jackson, D. N., Peterson, E. B., Blake, K. D., Coa, K., & Chou, W. S. (2019). Americans' Trust in Health Information Sources: Trends and Sociodemographic Predictors. American Journal of Health Promotion, 33(8), 1187-1193. doi:10.1177/08901 2. Lazarus, J. V., Ratzan, S., Palayew, A., Billari, F. C., Binagwaho, A., Kimball, S., Larson, H. J., Melegaro, A., Rabin, K., White, T. M., & El-Mohandes, A. (2020). Covid-score: A global survey to assess public perceptions of government responses to covid-19 (COVID-score-10). PLOS ONE, 15(10). 3. Peterson, E. B., Chou, W. S., Kelley, D. E., & Hesse, B. (2019). Trust in national health information sources in the United States: Comparing predictors and levels of trust across three health domains. Translational Behavioral Medicine, 10(4), 978-988. doi:10.1093/ 4. Roubille, C., Ribstein, J., Hurpin, G., Fesler, P., Fiat, E., & Roubille, F. (2020). Confidence vanished or impaired until distrust in the doctor-patient relationship because of COVID-19. La Revue De Médecine Interne. doi:10.1016/j.revmed.2020.10.007

DISCUSSION

CONCLUSION

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REFERENCES