”Ignorance has Reached New Heights with COVID-19” – Infected People and Bars as Hotspots

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INTRODUCTION

Mounting anger and frustration in the midst of the pandemic has led to a spectrum of stances on the Coronavirus response. Stay-at-home orders and tight lockdowns have been put in place to mitigate the virus. There has been a wide variety of responses to the restrictions of the virus. A large number of individuals disagree with the ideology of restrictions, especially restrictions on social interaction. People may reason that social interaction is essential for your health (Brody, 2017). Some may argue against this for the sake of those who are vulnerable to the novel Coronavirus and could eventually die from it. Americans for the most part have listened to the government on restrictions, however, there is a small fraction that are ignorant. Some have rejected the facts and experts to slow down the spread. This has led to a state of ignorance against the people who are vulnerable (Krugman, 2020)

As a group, we wanted to examine the data on bar closure and people who stay at home when feeling unwell. We also wanted to understand the correlation if individuals are affected by the closure of bars and if so, do these people actually stay at home if they are unwell. American culture has a slight rebelliousness to the restrictions (Krugman, 2020). If some choose to stay walking infected if they feel unwell, then are those the same people going to bars and risking their lives and others.

There is an unknown if these two data points go hand in hand with each other. In fact, there may not be a correlation at all. Moreover, there could be more of a deep-rooted issue. The issue could be the American culture and how some religion or political views that are causing this sort of ignorance. In our search for answers, we found that people in fact still go out if unwell. However, a majority is not affected by the closure of bars. By testing to see the correlation between these two data points, we could further examine why people are choosing to still go out to the bars or simply walk around infected. There is some truth that lies between both data.

ECON8J	[Closure of bars] In the past 7 days, have your personal plans been changed or affected by the following types of restrictions, or not?	1	(1) Yes
		2	(2) No
		77	(77) Not sure
		98	(98) SKIPPED ON WEB
		99	(99) REFUSED

PHYS2_18	[Stayed home because I felt unwell] Which of the following measures, if any, are you taking in response to the coronavirus?	0	(0) No
		1	(1) Yes

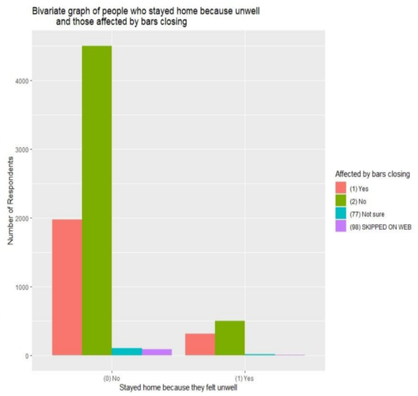
METHODS

We collected our data from the COVID impact survey. Developed with support by public health, economic, and social science experts, the COVID Impact Survey is an effort to provide national and regional statistics about physical health, mental health, economic security, and social dynamics in the United States. The results provide reliable estimates at the national level as well as for 10 states and 8 metropolitan areas, including for California, Colorado, Florida, Louisiana, Minnesota, Missouri, Montana, New York, Oregon, Texas, Atlanta, Baltimore, Birmingham, Chicago, Cleveland, Columbus, Phoenix, and Pittsburgh.

Our variables of interest included ECON8J (People affected by bar closure from COVID-19) and variable PHYS2_18 (people that stayed home because they felt unwell) which represented the question “Is there a relationship between people who were affected by bar closures and people who stayed home because they felt unwell?“. The COVID impact survey presented many variables that are categorical with their data, including ECON8J and PHYS2_18.

```
> freq(COVID_data_1_$ECON8J)
COVID_data_1_$ECON8J
                    Frequency Percent
(1) Yes                  2287  30.473
(2) No                   4999  66.609
(77) Not sure             123   1.639
(98) SKIPPED ON WEB        96   1.279
Total                    7505 100.000
```

```
> freq(COVID_data_1_$PHYS2_18)
COVID_data_1_$PHYS2_18
          Frequency Percent
(0) No         6666   88.82
(1) Yes         839   11.18
Total          7505  100.00
```



METHODS (CONT.)

For statistical tests, we used the Pearson’s Chi-sqaured test of independence. We started by establishing univariate graphs with each of our variables, conducted data management, then set up our bivariate graphs. After we had our bivariate graphs we did the Pearson’s Chi-sqaured test of independence for statistical data.

RESULTS

ECON8J represents people affected by bar closure from COVID-19. 30.47% Responded “Yes” and 66.69% responded “No”. 1.64% responded “Not sure” and 1.28% skipped the question.

PHYS2_18 represents people that stayed home because they felt unwell. Majority of the people voted “No” with 88.82%. The remaining 11.18% responded “Yes”. Our Chi-sqaure test found a relationship between people who were affected by bar closures and people who stayed home because they felt unwell. (x^2 = 25.171, df = 3, p-value = 1.422e-05)

```
> variables <-table(COVID$PHYS2_18, COVID$ECON8J)
> chisq.test(variables)

        Pearson's Chi-squared test

data:  variables
X-squared = 25.171, df = 3, p-value = 1.422e-05
```

CONCLUSIONS

Our chi-square test examining the data from our two variables suggests a dependent association between people who were affected by bar closures and people who stayed home because they felt unwell. Because most people who felt unwell did not stay home, we would expect that they would also be impacted by bars closing as they went out for social gatherings. This data is important because it can show the lack of concern that people have for others when going out and socializing even when they may have felt unwell, especially during the COVID-19 pandemic. Because the data suggests some dependence in the association between those who went out even when they felt unwell and those who were affected by the closure of bars, it could lead to further research in transmission rates of the virus in communities, especially in areas with a large amount of bars and restaurants. Our research was limited to only the two variables, and because it was based on data from relatively early in the pandemic, it may have skewed the results of seeing how people reacted to feeling unwell and being impacted by the closure of bars, over a longer period of time. More data taken from more populations over a longer period of time is needed to reach a greater conclusion about the association between closures of bars and those who went out despite feeling unwell.

REFERENCES

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