



## Short term impact of COVID-19 pandemic in mental and social determinants of health in Ambulatory Care population in South Bronx, a pilot study.

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### BACKGROUND

The first case of COVID 19 in New York State was confirmed on March 1st, 2020. The virus spread rapidly and grew exponentially to approximately 20,000 cases in New York City by March 25th, which led to implementing specific measures including shutdown, social distancing, and working from home. This action had a significant impact, increasing the rates of unemployment, poverty, and displaying that social inequality plays a vital role in morbidity and mortality, including mental health and substance abuse (1,2,3).

### OBJECTIVE

To describe demographic characteristics and evaluate the impact of the COVID -19 outbreak on social needs, well-being, mental health, and alcohol use in the South Bronx population.

### METHODS

This is a pilot cross-sectional study to assess the impact of COVID 19 in the community. Included 173 participants who attended the ambulatory clinic and agreed to complete a standardized survey that included the PHQ- 9 scales, PTSD scale, and GAD-7 scale. Surveys were conducted between May-September. Data were analyzed by frequency in IBM SPSS v22 for Windows.

### RESULTS

Out of 173 participants, 60.7% were females, 73.4% ethnically identified as LatinX, 21.4%, and African American. 25% do not speak English very well, and 27% did not speak English at all. 29% did not go to high school, and 4% had obtained a graduate degree. 1% admitted they increased their alcohol consumption, and 7% drink less than before. 16.2% experienced symptoms of depression, 9.2% anxiety, and 4.6% PTSD symptoms. 20.2% lost someone close due to COVID 19. Regarding social needs, 16.2% need help with health insurance, medical bills, or medication costs; 19.7% were worried about running out of food, 10.4% required public assistance; 12.1% needed help with school or job training; 0.6% stated needed daycare for the child, 16.2% were worried about losing their house, 5.8% paying utilities and 6.9% reported needing assistance with immigration or legal problems. 24.3% reported a loss in their income, and among them, 35% received financial help.

### RESULTS

| General Characteristics          |        |             |
|----------------------------------|--------|-------------|
|                                  | N= 173 | Frequency % |
| <b>Preference Language</b>       |        |             |
| Spanish                          | 83     | 48          |
| English                          | 90     | 52          |
| <b>English proficiency</b>       |        |             |
| Very well                        | 56     | 32.4        |
| Well                             | 27     | 15.6        |
| Not well                         | 43     | 24.9        |
| Not at all                       | 47     | 27.2        |
| <b>Degree or level of school</b> |        |             |
| Less than high school            | 50     | 29          |
| Some high school                 | 34     | 19.8        |
| High school graduate             | 42     | 24.3        |
| Some college                     | 17     | 9.8         |
| Associate degree                 | 11     | 6.4         |
| <b>Age</b>                       |        |             |
| <35                              | 26     | 15.0        |
| 36-55                            | 61     | 35.3        |
| 56-65                            | 76     | 43.9        |
| >65                              | 10     | 5.8         |

| Impact of the outbreak on Mental Health               |     |      |
|---|-----|------|
| <b>PHQ-9 scale</b>                                    |     |      |
| Minimal   | 145 | 83.8 |
| Mild  | 17  | 9.8  |
| Moderate  | 10  | 5.8  |
| Moderately severe                                     | 1   | 0.6  |
| <b>GAD scale</b>                                      |     |      |
| Minimal anxiety                                       | 157 | 90.8 |
| Mild anxiety  | 12  | 6.9  |
| Moderate anxiety                                      | 4   | 2.3  |
| <b>PTSD score</b>                                     |     |      |
| < 3 symptoms  | 165 | 95.4 |
| ≥ 3 symptoms  | 8   | 4.6  |
| <b>Has anyone close to you died from coronavirus?</b> |     |      |
| Yes   | 35  | 20.2 |
| <b>Impact of the outbreak in alcohol use</b>          |     |      |
| More use  | 2   | 1.2  |
| Less use  | 12  | 6.9  |
| The same  | 23  | 13.3 |
| Don't drink alcohol                                   | 136 | 78.6 |

| Impact of the outbreak on social needs  |    |      |
|---|----|------|
| Help with medical bills                 | 28 | 16.2 |
| Help with food insecurity               | 34 | 19.7 |
| Help with Public assistance, SSI or SSD | 18 | 10.4 |
| School or job training                  | 21 | 12.1 |
| Daycare                                 | 1  | 0.6  |
| Housing                                 | 28 | 16.2 |
| Utilities                               | 10 | 5.8  |
| Immigration or legal problems           | 12 | 6.9  |
| Loss of income                          | 42 | 24.3 |
| Financial aid                           | 11 | 35   |
| <b>Total number of needs</b>            |    |      |
| 1                                       | 46 | 26.6 |
| 2                                       | 17 | 9.8  |
| 3                                       | 9  | 5.2  |
| 4                                       | 6  | 3.5  |
| 5                                       | 3  | 1.7  |
| 6                                       | 1  | 0.6  |

### DISCUSSION

LatinX ethnicity is predominant among the study population, similar to other cohorts in NYC. Prevalence of depression (17%) and anxiety (10%) in other cross-sectional studies are consistent with our data. Illicit drug use was increased during the outbreak; however, there was no notable difference in alcohol use (4,5,6). Our study demonstrates how our participants were affected individually by losing people who were close to them and the increasing need for economic, legal, social, and emotional support. It also exposes the aggregate social needs of a community whose demographic represents a majority who has not achieved a higher education (7,8).

There are five major resource needs that emergent once the pandemic started; food, mental health, and substance abuse support, childcare, supporting programs for vulnerable populations, and direct health care service (9). Language barriers should be included as an essential factor in this study. Most participants have low English proficiency skills making it difficult to seek help in moments of crisis. All this external factor impacts mental health and could be contributors to substance abuse as well. Therefore, after this study, our goal is to promote social projects and educate the community about the resources available at the moment

### CONCLUSION

The impact of the coronavirus pandemic was strongly associated with the disparities portrayed amongst South Bronx community characterized statistically by low level of education and a significant language barrier.

It is important to identify population in risk in order to prevent mental health and substance abuse problems, as well as to provide resources available to those whose social needs have increased.

The Bronx was considered an epicenter for COVID-19 outbreak.

Those needing immigration help, as well as those with a family member who tested positive for COVID-19, and those with anxiety were more likely to exhibit symptoms.

We also identified that fear was an impediment to the community, since the majority of those who did not seek for medical attention for acute conditions other than COVID -19 (eg stroke, heart attack), were scared of getting infected by leaving their house, or by visiting the medical provider.

### REFERENCES

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