

COVID-19 ON CAMPUS: PROTECTIVE MEASURES OF TEXAS STATE
STUDENTS ENROLLED IN FACE-TO-FACE INSTRUCTION

by

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Abstract

In fall 2020, Texas State University welcomed students back to campus for face-to-face instruction despite the ongoing COVID-19 pandemic. Students, faculty, and staff were expected to follow a number of protective measures while on campus to prevent the spread of COVID-19. This research sought to understand if and how these students followed these measures while attending face-to-face instruction on Texas State's main campus in San Marcos. Two hundred students over the age of 18, who were also enrolled in at least one face-to-face course, were recruited to complete an online survey to assess how they protected themselves on campus and how they saw others protect themselves on campus, including mask wearing, hand washing and social distancing. Data was also collected on students' living and employment situations. Analysis of the survey data revealed that most students followed at least some of the protocol outlined by Texas State's health and safety guidelines, particularly wearing masks, social distancing, and hand washing. Students were relatively evenly divided when it came to staying home from unnecessary activities and how comfortable they felt on campus. Finally, students expressed that there were issues with parties and enforcing the mask wearing rules on campus. This feedback showed that while students may have been following the rules on-campus, they were still likely to not follow the rules while off-campus.

COVID-19 on Campus: Protective Measures of Texas State Students Enrolled in Face-to-Face Instruction

Introduction

In January 2020, COVID-19, a variation of the SARS virus, was detected in Wuhan, People's Republic of China. It soon spread throughout the entire world (AJMC, 2020). The United States declared a public health emergency on February 3rd, and on March 11th the World Health Organization declared COVID-19 a pandemic (AJMC, 2020). Shortly thereafter, students at Texas State University were sent home to learn remotely for the duration of the spring semester. Online learning continued through the summer terms as well. Starting in fall 2020, however, students were welcomed back to campus for face-to-face instruction despite the ongoing outbreak.

To control the spread of the disease, university officials instituted precautionary guidelines that were to be observed by all students, faculty, staff while on campus. These included wearing masks, social distancing, washing hands regularly, and staying home when feeling sick. The purpose of this study was to assess how students enrolled in face-to-face instruction on Texas State's San Marcos campus believed they and others were following the university's guidelines and thereby protecting themselves and preventing the spread of COVID-19. This research provides important insights into how well students adhered to the guidelines, what additional measures they took—if any—and how this information can better prepare Texas State to address the COVID-19 pandemic in future semesters.

Previous research

Since universities across the country closed in March 2020, in response to the COVID-19 pandemic, many classes were taught remotely. Starting in Fall 2020, however, many universities reopened despite the high numbers of cases across the U.S. In August, leading up to the Fall 2020 semester when in-person classes would be resuming on college campuses nation-wide, the United States had 5.8M confirmed cases (WHO, 2020) and Texas had 601,700 confirmed cases (KVUE, 2020). In the counties immediately surrounding Texas State University, Hays County had 5,300 confirmed cases (KVUE, 2020), Travis County had 26,300 confirmed cases (KVUE, 2020), and Bexar County had 46,291 confirmed cases (KSAT, 2020). As of November 18th, 2020, a few weeks before the end of the Fall 2020 semester, Texas had 1.11 million cases, Hays county had 7,616 confirmed cases, Travis County had 35,020 confirmed cases, and Bexar County had 70,540 confirmed cases (Google, 2020). Numbers were seen to increase across all of these counties, though the largest increases were seen in Bexar county and Travis county.

It is important to consider the numbers of COVID-19 cases in the areas surrounding Texas State University because many Texas State students live and work in these areas and commute to campus, meaning they have the potential to bring the virus from those areas to campus and vice versa. In table 1, additional counties were measured to give context to the counties survey respondents recorded living in. At Texas State University specifically, there were 1,087 student cases and 75 faculty and staff cases of COVID-19 between March 1st, 2020 and December 4th, 2020 (Texas State University, 2020). It must be noted that due to the nature of the Texas State COVID-19 tracker it was

impossible to retroactively see what numbers were in August, so these numbers reflect cases since the end of the Spring 2020 semester.

Texas State University resumed face-to-face courses in the Fall 2020 semester with new safety guidelines and precautions in place to limit the spread of the COVID-19 virus among students, staff, and faculty. Precautions included requiring those on campus to wear a mask both indoors and outdoors, encouraging social distancing by limiting how many people can be in an indoor space at one time, and placing physical plexiglass barriers anywhere face-to-face interactions with staff take place, such as at the campus library or the Office of Financial Aid (Texas State University, 2020). These precautions were consistent with those outlined by the CDC, which also recommend washing hands often with soap and water, staying 6ft apart, wearing a mask when around others, covering coughs and sneezes in a tissue or inner-elbow, frequently disinfecting surfaces, and monitoring health for COVID-19 symptoms such as fever, coughing, and shortness of breath (CDC, 2020).

This study is concerned with how students adhered to these health and safety measures in their day to day lives, especially on campus. According to a national survey done by the CDC, the “use of face masks increased from 78% in April, to 83% in May, and reached 89% in June; however other reported mitigation behaviors (e.g., hand washing, social distancing, and avoiding public or crowded places) declined marginally or remained unchanged” (CDC, 2020). The prevalence of precautionary measures was lowest between adults age 18-29, the ages college students tend to be, and highest among adults 60 years of age and older, meaning young college-aged adults tend to exhibit riskier behavior when it comes to mitigating the spread of COVID-19 than older adults

(CDC, 2020). The April survey reported on a sample size of N=2,190, the May survey reported on a sample size of N=2,238, and the June survey reported on a sample size of N=2,047 (CDC, 2020).

Table 1

COVID-19 Cases by County between August, 2020 and November, 2020

County	August		<u>November</u>^j		Difference	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Hays	5,300 ^a	46 ^a	7,616	92	+2,316	+46
Travis	26,300 ^a	380 ^a	35,020	469	+8,720	+89
Bexar	46,291 ^b	793 ^b	70,540	1,453	+24,249	+660
Guadalupe	2,216 ^c	0 ^c	4,084	83	+1,868	+83
Comal	2,895 ^d	81 ^d	4,240	124	+1,345	+43
Caldwell	1,230 ^e	32 ^e	1,789	39	+559	+7
Harris	105,757 ^f	1,319 ^f	176K	2,919	+70,243	+1,600
Brazos	4,663 ^g	54 ^g	10,204	95	+5,541	+41
Williamson	7,800 ^a	119 ^a	12,225	160	+4,425	+41
Bastrop	1,571 ^h	25 ^h	2,142	34	+571	+9
Galveston	10,543 ⁱ	97 ⁱ	13,827	174	+3,284	+77

Note: ^a KVUE (2020), ^b King, C. (2020), ^c Guadalupe Regional Medical Center (2020), ^d Brooker, L. (2020), ^e Caldwell County Office of Emergency Management (2020), ^f Arrajj, S. (2020), ^g Montgomery, M. (2020), ^h Winkle, K. (2020), ⁱ ABC13. (2020), ^j (Google 2020).

In regard to general attitudes towards the mitigation measures such as mask wearing and social distancing, another recent study done by the CDC reported that 88% respondents agreed people should stay 6-feet apart, 82% agreed that groups of 10 or more should not be allowed, and 80% supported staying at home for nonessential employees (Stulpin 2020).

Methods

Participants

College students who were 18 years of age or older and who were enrolled in face-to-face instruction for the Fall 2020 term on Texas State's San Marcos campus were recruited via email to participate in an online survey. Recruitment continued until a sample size of 200 responses was met. The age range of students who participated in the survey was 18-57 ($M=21.45$), ($SD=4.84$). There were 41 males (20.9%) and 145 females (74%), as well as 7 non-binary students (3.6%) and 3 students who reported undefined gender identities. There were 46 freshman, 42 sophomores, 37 juniors, 58 seniors, and 14 graduate students, as well as 3 who did not define their year in school.

Recruitment

The researcher's faculty advisor retrieved an email distribution list of Texas State students via ITAC to serve as a pool of potential respondents to email the survey to. Emails were distributed until a sample of 200 responses was met. The recruitment email sent to respondents used the IRB approved template for email recruitment, explained briefly what the study was, and contained a link to the survey hosted on Qualtrics. This project was approved by the IRB on September 24th, 2020.

Data Collection Instrument

This research study used a 35-item survey to measure how students enrolled in face-to-face instruction on Texas State's San Marcos campus protected themselves from, and prevented the spread of, COVID-19 among fellow students, faculty, and staff. The survey included 6 demographic questions, 2 open-ended questions, and 27 multiple choice questions. The survey took respondents roughly 5-8 minutes to complete. The multiple-choice questions were measured on a 5-point Likert-scale and indicated how much the respondent agreed with a statement (i.e. 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree) or how they felt about a topic raised by the question (i.e. 1=very concerned, 2=somewhat concerned, 3=neutral, 4=not very concerned, 5=not at all concerned). The first two questions acted as screening questions by asking for informed consent, if they were above the age of 18, and whether or not the respondent was enrolled in face-to-face instruction. If the student was not enrolled in face-to-face instruction or did not consent, the survey was ended as they did not fit the sample criteria.

The survey covered topics such as feelings about being on campus based on their comfort or concern with being there, personal context including their living and employment situations, health concerns the respondent may have, practice of safety measures including mask wearing, hand washing, social distancing and any additional measures they take, and their ability to correctly identify the symptoms of COVID-19 and know where to go get tested. This survey was anonymously self-administered via Qualtrics.

Data Analysis

The data from the survey were analyzed in SPSS to determine the scope of responses. Descriptive statistics were the primary data outcome.

Results

Practice of Safety Measures

The results section will be organized by the important measures this survey studied, such as specific protective measures such as hand washing, mask wearing, social distancing and staying home, the feedback from the qualitative questions asking about compliance with the Texas State health and safety recommendations and any additional measures students take, followed by a measure of COVID-19 awareness and responses, feelings towards being on campus, personal context, and finally additional feedback left by students. Within each measure, there will be a discussion of how each topic was measured and what the results were.

Hand Washing. To measure how often students were washing their hands respondents were asked to rate how they agreed to various statements about hand washing on a 5-point Likert-scale. Over ninety percent (92.5%) of students either strongly agreed or agreed that they did wash their hands regularly throughout the day, and only 2.5% disagreed or strongly disagreed. When asked if they agreed with the statement “I have increased my hand washing in response to the COVID-19 pandemic,” 83.1% of students either strongly agreed or agreed, 8.5% disagreed or strongly disagreed, and 8% neither agreed nor disagreed. Sixty percent of students strongly agreed or agreed

that they wash their hands before touching their face to do things like scratch their face or eat food, whereas 18% of students disagreed or strongly disagreed, and 21% neither agreed nor disagreed. In general, most students reported washing their hands regularly, and increasing their hand washing since the start of the COVID-19 pandemic. More than half of the respondents reported washing their hands before touching their face, but the difference between those who do and do not is not as big as the difference was between people who agreed and disagreed that they wash their hands regularly throughout the day, or do so more since the start of the pandemic.

Mask Wearing. How often students wore masks was measured with an observational question and a statement question. The observational question asked how often respondents see those immediately around them on campus wearing masks, to which 56.6% responded “most of the time,” and 22.7% responded with “always.” The statement question asked students to rate how much they agreed with the statement “I always wear a mask in public spaces outside of my home” to which 92% of students strongly agreed or agreed and 5% of responses disagreed or strongly disagreed, with 2% neither agreeing or disagreeing. Overall, most students agreed that they wear masks whenever they are in public and reported that they see those around them wearing masks most of the time, if not all of the time, as well.

Social Distancing. To measure how much students were social distancing respondents were asked to rate how much they agreed or disagreed with some statements on a 5-point Likert-scale. When given the statement “I only leave my house for necessities,” 50.7% of students strongly agreed or agreed and 33.1% of students disagreed or strongly disagreed, whereas 16% neither agreed nor disagreed. When asked

to rate how much they agreed with the statement “I think that it is safe to gather without masks or social distancing in a group of ten or less people,” 20.6% of students strongly agreed or agreed, 62.3% of students disagreed or strongly disagreed, and 17.1% neither agreed nor disagreed. In contrast, when given the statement “I think that it is safe to gather with a group of ten or less people only when everyone is wearing masks and social distancing,” 61.3% of students strongly agreed or agreed, 13% disagreed or strongly disagreed, and 25.6% neither agreed nor disagreed. This data shows us that most students think that it is okay to meet with groups of friends so long as everyone is following certain precautions to protect one another. The number of students who disagreed that it is safe to gather without masks or social distancing and those who agreed that it is not safe to gather without masks or social distancing is consistent between the two questions.

Staying home. To measure how often students stayed home rather than going out for unnecessary things (necessary things being grocery shopping, going to the pharmacy, work and class, etc.) students were asked how much recreational time they spend on campus outside of class doing things such as studying, attending club activities or social gatherings, going to the gym, and so on. Over fifty percent (52.5%) of students responded they do not spend recreational time on campus. Of the 47.5% who reported that they do spend recreational time on campus, 51.6% reported doing so 1-3 days in the last two weeks, 25.8% reported spending 4-6 days in the past two weeks engaging in recreational activities on campus, 17.2% doing so 10 days or more within the last two weeks, and 5.4% spending 7-9 days of the last two weeks on campus for recreational purposes. In a separate question, students were asked to rate how much they agreed or disagreed on a 5-point Likert-scale with the statement “I only leave my house for necessities.” (i.e. going

to class, grocery shopping or other necessary errands), to which 50.7% reported they strongly agreed or agreed with that statement, 33.1% disagreed or strongly disagreed, and 16.1% neither agreed nor disagreed. Overall, the sample was split nearly in half on how much time they spent on campus, or out and about, for unnecessary errands or activities and how many of them only leave their house for necessities. Most students who did spend recreational time on campus reported doing so only 1-6 days in the last two weeks showing some moderation in how much recreational time was spent on campus.

Texas State University Health and Safety Guidelines. While the precautionary measures already discussed fall under the umbrella of health and safety guidelines recommended by Texas State University, students were still given a list of the entire recommended safety measures and asked to share in an open-ended question which of those they actually did. Of these qualitative responses, which were subsequently coded into categories based on the responses received, 24 students responded that they followed all of the recommended precautions, 174 responded that they followed some or more of the guidelines, with mask wearing, social distancing, and washing hands being the most commonly utilized, and 2 responded that they followed none of the recommended guidelines.

Other Safety Measures. Using the same open-ended format, respondents were also asked what additional precautionary measures they utilized that were not outlined by Texas State University's health and safety guidelines. The most frequently mentioned additional safety measure was carrying hand sanitizer with them throughout the day and using it regularly (n=15). Students reported using hand sanitizer on their hands but also on surfaces such as elevator buttons or railings. One student reported "I use hand

sanitizer after touching all doors on campus.” The next most frequently mentioned safety measure students reported taking upon themselves was limiting the people they spend time with to just roommates or trusted friends who “are also taking this seriously” (n=12). The third most frequently mentioned tactic was disinfecting personal belongings that have been used in public areas, such as backpacks or groceries, upon entering their living quarters (n=8). One respondent reported “I wipe down my belongings, like my phone, with rubbing alcohol after I come back to my dorm” while another reported they “wipe down any items I buy that are touched/consumed immediately after purchase.” Other notable precautionary measures included frequently wiping down home surfaces, avoiding touching public surfaces, staying home unless absolutely necessary, and taking vitamins like L-lysine, vitamin C, magnesium, vitamin D, and zinc.

COVID-19 Response

Health Management. Health management was measured by students’ responses to questions asking about COVID-19 symptoms and where to get tested. When asked if they felt confident that they are able to recognize the early symptoms of the COVID-19 virus such as shortness of breath, cough, fatigue, loss of taste or smell, etc., 83.9% of students reported that they are while 16.1% reported that they are not. When asked if they know where to get tested for the COVID-19 virus, 93% reported they do and 7% reported they do not. Finally, students were asked if they could, if necessary, financially afford to quarantine for two weeks in the event they contracted COVID-19. Nearly 60 percent (59.8%) responded they could do this, while 29.6% responded that they could not, and 10.6% did not provide a yes or no answer. The majority of students knew how to recognize the symptoms of COVID-19 and where to get tested for the virus in case they

begin to exhibit those symptoms, but only a little over half of students reported being able to financially take the time needed to quarantine and fight the virus. This shows that while most students were able to recognize if they have the virus, they may not be able to sacrifice work hours and a paycheck in order to stay in quarantine.

Feelings About Being on Campus.

Comfort. To gauge how comfortable students were with attending in-person classes on campus during the Fall 2020 semester, students rated how comfortable they were in a 5-point Likert-scale where 1=very uncomfortable, 2=somewhat uncomfortable, 3=neutral, 4=somewhat comfortable and 5=very comfortable. Just over 40 percent (41%) of students reported feeling very or somewhat comfortable, 44.5% reported feeling somewhat or very uncomfortable, and 14.5% felt neutrally. Respondents were also asked how much they agreed or disagreed with statements on a 5-point Likert-scale with 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, and 5=strongly agree. Of the responses to the statement “I believe that the precautions Texas State is taking to slow the spread of the COVID-19 virus are appropriate,” 20.6% reported that they strongly disagreed or disagreed, 59.8% reported that they agreed or strongly agreed, and 19.6% neither agreed nor disagreed. Similarly, for statement “I prefer to be in face-to-face classes for the Fall 2020 semester” 36.7% strongly disagreed or disagreed, 42.2% agreed or strongly agreed, and 21.1% neither agreed nor disagreed. Less than half of students felt comfortable being back on campus, though more than half reported that they felt the precautions Texas State is taking to slow the spread of COVID-19 on campus were appropriate. On whether or not students preferred to be in face-to-face instruction, it

was relatively split between preferring to be on-campus and preferring not to be on-campus, or not feeling strongly one way or the other.

Concern. Respondents' concerns with attending face-to-face classes was measured with three items. For the first two questions, students rated how concerned they felt on a 5-point Likert-scale with 1=not at all concerned, 2=not very concerned, 3=moderately concerned, 4=somewhat concerned and 5=very concerned. When asked how concerned they felt about becoming infected with the COVID-19 virus by attending in-person classes this semester, 29% of students were not at all or not very concerned, 38.5% were somewhat or very concerned, and 32.5% were only moderately concerned. In response to the question "how concerned are you about infecting others with the COVID-19 virus by attending in-person classes this semester," 39% of students were not at all or not very concerned, 38.5% were somewhat or very concerned, and 22.5% were only moderately concerned. Last, students were asked to rate how they agreed or disagreed on a 5-point Likert-scale with 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, and 5=strongly agree with the statement "I feel that, with taking proper precautions, I am safe from contracting and spreading the COVID-19 virus on campus this semester." 20.1% of students strongly disagreed or disagreed, 56.3% agreed or strongly agreed, and 23.6% neither agreed nor disagreed. Students were more concerned with getting COVID-19 than passing it along to others, and a little more than half of students felt that with proper precautions they were safe from contracting and spreading the COVID-19 virus on-campus, though the other half were split between feeling that it was not safe, even with proper precautions and that they did not feel strongly one way or another.

Personal Context

Health Concerns. Respondent's health concerns were measured with a multiple-choice question asking about whether or not they have a chronic condition that lowers their immune response, such as diabetes or asthma. Just over seventy percent (71%) of students reported not having a chronic condition that lowers their immune system, 21% of students reported they did, and 8% reported that they did not know if they did or did not.

Employment Situation. Students were asked if they currently work outside of school where they regularly interact with the public in a yes or no question, and 76.1% reported that they do not have that type of employment while 23.9% reported that they do.

Living Situation. Respondents were asked in a yes or no question whether they live with roommates, and if so, if their roommates follow proper precautions to prevent the spread of the COVID-19 virus (i.e. wearing a mask, social distancing, and so on). 22.1% of respondents reported not living with a roommate, but of the 77.9% of those who do, 69.7% reported that their roommates do follow proper precautions, 13.5% reported that their roommates do not, and 16.8% did not know. Additionally, students were given a multiple-choice question asking if they live with someone who has a chronic condition that lowers their immune response, such as diabetes or asthma. 62.5% reported that they do not live with someone with a chronic condition that lowers their immune response, 29% reported that they do, and 8.5% reported that they did not know.

Additional Feedback

In the open-ended question asking what additional precautionary measures students use to prevent the spread of COVID-19 that were not listed in Texas State's health and safety guidelines, some students took it upon themselves to offer additional feedback on the topic of COVID-19 on campus that they felt was interesting or valuable. Two students reported that there is a lot of partying going on off-campus that faculty aren't aware of, and that there has been no effort on behalf of Texas State to crack down on it. There has even been an issue with enforcement of mask wearing on campus. One student reported that "Texas State is doing nothing about parties that are happening in apartments and those who do not wear masks on campus." Another student complained that "parties still happen, people attend class while positive because they can't miss class. [There is] no online option for some classes, some of campus isn't clean." While there is not a lot that Texas State can do about off-campus activities, one person reported that "They [health guidelines] are outlined but people aren't following them. There are constantly visitors in people's dorm rooms and the RAs do nothing."

Discussion

The COVID-19 pandemic has required adjustments for everyone, both on college campuses and in the general population. The spread of the virus could be mitigated if everyone followed the guidelines recommended by the CDC, but the reality is that not everyone will follow the rules set in place. On college campuses, students were being allowed back to campus with the caveat that they were to follow the necessary precautions to limit the spread of COVID-19.

Based on findings from this research, most of the students at Texas State University who are currently attending at least one in-person class followed proper

precautions, including social distancing, mask wearing, and hand washing some or all of the time. Hand washing was the most practiced precautionary measure adhered to among respondents, followed by mask wearing. The sample seemed to be split on whether or not students practiced social distancing or stayed at home. Out of the sample, only 2 students reported not following any of Texas State's health and safety guidelines, where 174 reported following most or some of the guidelines, and 24 students reported following all of the guidelines.

Many students also reported utilize additional methods to prevent the spread of COVID-19 that were not outlined in Texas State's health and safety guidelines, including using hand sanitizer frequently, wiping down belongings that enter living areas from the outside, and staying away from other people by avoiding parties or limiting contact with friends. Most students were relatively split on how comfortable and uncomfortable they felt being back on campus, and more than half were not concerned with contracting COVID-19 or spreading it to others.

Additionally, students raised concern about adherence to protocols such as enforcing mask wearing on campus and cracking down on parties that occur off-campus. Some students also mentioned how RAs in dorms allowed students to bring guests to their dorm rooms which violates Texas State's rules. They even expressed how students come to class while positive with COVID-19 because they fear they cannot miss class.

Limitations

There were a few limitations to this research study. The first and foremost limitation being the need to conduct research via a survey to accommodate social distancing and quarantine requirements. Future researchers would be able to add a lot to

this topic by employing qualitative research methods such as interviews, observations, and focus groups to gain a deeper understanding of how students practice migration behaviors. The other limitation from survey research is that the sampling was not entirely representative. There were, for example, 145 females (74%) and only 41 males (20.9%) in the same, making it an uneven representation of student experiences.

Recommended Next Steps

Recommendations drawn from this research for how Texas State University can proceed in subsequent semesters where COVID-19 is a concern include more enforcement of the mask wearing rules on campus. While police involvement would be less than ideal since it could lead to unnecessary tensions on campus, some form of citation system might work. If a student was cited three times for not wearing a mask or social distancing, for example, a hold could be placed on the student's account preventing them from registering until they pay a small fine – similar to how the parking ticket system works.

Expanding online course options to give students more opportunities to stay home and learn remotely may also be an effective way to prevent the spread of COVID-19. Additionally, more lenient attendance policies so students do not feel pressure to attend class while they think they are sick, or worse, are confirmed to be positive for the COVID-19 virus, is essential. Faculty and the administration need to be aware of and seek to address this issue.

Finally, as misinformation and politicized ideas surrounding COVID-19 are widespread, Texas State should consider implementing a mandatory educational

presentation or video, as well as put up posters around campus, that address fact versus fiction in regards to COVID-19. Such information, more readily accessed than long emails from university officials, could contribute to students' adherence to existing university protocol.

Future research

Future research should employ qualitative methods such as interviews, focus groups, and observations to gain a deeper insight into how students are behaving on campus in relation to mitigation efforts. Additionally, a more representative sample should be used, and if possible, a larger sample. If future research involves more survey data collection, researchers should include a question asking about additional feedback students have to give to provide them with a greater voice in the data.

Conclusion

Despite the limitations of this study, which included conducting the research remotely and lacking a fully representative sample, these data provide useful insight on how students are mitigating, or not mitigating, the spread of COVID-19 on campus. Using a comprehensive survey, it provides insight on how students are behaving on and off campus. The information gained from this research can help inform universities like Texas State moving forward about how their health and safety guidelines are actually being carried out, what tweaks they could make to improve adherence, and how they should encourage/explain the guidelines in the future. This research also provides a foundation for future researchers who may wish to expand upon the topic later.

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Tables

Table 1

COVID-19 Cases by County between August, 2020 and November, 2020

County	August		November ^j		Difference	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Hays	5,300 ^a	46 ^a	7,616	92	+2,316	+46
Travis	26,300 ^a	380 ^a	35,020	469	+8,720	+89
Bexar	46,291 ^b	793 ^b	70,540	1,453	+24,249	+660
Guadalupe	2,216 ^c	0 ^c	4,084	83	+1,868	+83
Comal	2,895 ^d	81 ^d	4,240	124	+1,345	+43
Caldwell	1,230 ^e	32 ^e	1,789	39	+559	+7
Harris	105,757 ^f	1,319 ^f	176K	2,919	+70,243	+1,600
Brazos	4,663 ^g	54 ^g	10,204	95	+5,541	+41
Williamson	7,800 ^a	119 ^a	12,225	160	+4,425	+41
Bastrop	1,571 ^h	25 ^h	2,142	34	+571	+9
Galveston	10,543 ⁱ	97 ⁱ	13,827	174	+3,284	+77

Note: ^a KVUE (2020), ^b King, C. (2020), ^c Guadalupe Regional Medical Center (2020), ^d Brooker, L. (2020), ^e Caldwell County Office of Emergency Management (2020), ^f Arrajj, S. (2020), ^g Montgomery, M. (2020), ^h Winkle, K. (2020), ⁱ ABC13. (2020), ^j (Google 2020).

Appendix A

Survey

Informed Consent.

Malka Riell, an undergraduate student at Texas State University, is conducting a research study to learn how Texas State students who are enrolled in face-to-face courses are protecting themselves from, and preventing the spread of, the COVID-19 virus. You are being asked to complete this survey because you are currently enrolled in face-to-face courses this semester.

Participation is voluntary. The survey will take approximately 5-8 minutes or less to complete. You must be at least 18 years old to take this survey.

This study involves no foreseeable serious risks, though some may find it stressful to discuss COVID-19 and related topics. We ask that you try to answer all questions; however, if there are any items that make you uncomfortable or that you would prefer to skip, please leave the answer blank. Your responses are anonymous.

Possible benefits from this study include understanding how students react to and behave during this pandemic and can hopefully inform or validate good safety practices on campus.

The members of the research team and the Texas State University Office of Research Compliance (ORC) may access the data. The ORC monitors research studies to protect the rights and welfare of research participants.

Your name will not be used in any written reports or publications which result from this research. Data will be kept for three years (per federal regulations) after the study is completed and then destroyed.

If you have any questions or concerns feel free to contact Malka Riell or her faculty advisor:

Malka Riell, Undergraduate student
Anthropology
512-297-7135
Mlr225@txstate.edu

Emily Brunson, Professor
Anthropology
512-245-6753
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This project #7348 was approved by the Texas State IRB on [insert IRB approval date or date of Exemption]. Pertinent questions or concerns about the research, research participants' rights, and/or research-related injuries to participants should be directed to the IRB chair, Dr. Denise Gobert 512-716- 2652 – (dgobert@txstate.edu) or to Monica Gonzales, IRB Regulatory Manager 512-245-2334 - (meg201@txstate.edu).

If you would prefer not to participate, please select “No.”

If you consent to participate, please select “Yes.”

Yes No

Are you currently enrolled in face-to-face classes on campus?

Yes No

Section 1.

1. How comfortable do you feel attending in-person classes on campus in the Fall 2020 semester?
 - a. Very uncomfortable
 - b. Somewhat uncomfortable
 - c. Neutral
 - d. Somewhat comfortable
 - e. Very comfortable

2. How often do you see the people immediately around you on campus wearing a mask?
 - a. Never
 - b. Not often
 - c. Some of the time
 - d. Most of the time
 - e. Always
3. How concerned are you about becoming infected with the COVID-19 virus by attending in-person classes this semester?
 - a. Not at all concerned
 - b. Not very concerned
 - c. Moderately concerned
 - d. Somewhat concerned
 - e. Very concerned
4. How concerned are you about infecting others with the COVID-19 virus by attending in-person classes this semester?
 - a. Not at all concerned
 - b. Not very concerned
 - c. Moderately concerned
 - d. Somewhat concerned
 - e. Very concerned
5. Do you have a chronic condition that lowers your immune response? (i.e. diabetes, asthma, etc.)
 - a. Yes
 - b. No
 - c. I don't know
6. Do you live with someone who has a chronic condition that lowers their immune response? (i.e. diabetes, asthma, etc.)
 - a. Yes
 - b. No
 - c. I don't know

7. Did you quarantine for fourteen days prior to arriving to Texas State campus as requested by Texas State's health and safety measures?
 - a. Yes
 - b. No
8. Do you spend recreational time on campus outside of class? (i.e. club activities, social gatherings, studying, gym, etc.)
 - a. Yes
 - b. No
- 8a. How many days in the past two weeks have spent recreational time on campus outside of class (i.e. club activities, social gatherings, studying, gym, etc.)?
 - c. 1-3 days
 - d. 4-6 days
 - e. 7-9 days
 - f. 10 days or more

Section 2.

Using the options listed, please rate how much you agree or disagree with the following statements.

9. "I wash my hands regularly throughout the day."
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
10. "I have increased my hand washing in response to the COVID-19 pandemic."
 - a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree

11. "I always wear a mask in public spaces outside of my home."
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
12. "I wash my hands after being out in public."
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
13. "I wash my hands before touching my face." (i.e. scratching your face, before eating, etc.)
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
14. "I only leave my house for necessities." (i.e. going to class, grocery shopping or other necessary errands.)
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
15. "I believe that the precautions Texas State is taking to slow the spread of the COVID-19 virus are appropriate."
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree

- d. Agree
 - e. Strongly agree
16. "I prefer to be in face-to-face classes for the Fall 2020 semester."
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
17. "I feel that, with taking proper precautions, I am safe from contracting and spreading the COVID-19 virus on campus this semester."
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
18. "I think that it is safe to gather without masks or social distancing in a group of ten or less people."
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree
19. "I think that it is safe to gather with a group of ten or less people only when everyone is wearing masks and social distancing."
- a. Strongly disagree
 - b. Disagree
 - c. Neither agree nor disagree
 - d. Agree
 - e. Strongly agree

Section 3.

20. Do you feel confident that you are able to recognize the early symptoms of the COVID-19 virus? (i.e. shortness of breath, cough, fatigue, loss of taste or smell, etc.)
- a. Yes
 - b. No
21. Do you know how to get tested for the COVID-19 virus?
- a. Yes
 - b. No
22. If necessary, can you financially afford to quarantine for two weeks in the event that you contract the COVID-19 virus?
- a. Yes
 - b. No
 - c. N/A
23. Do you live with roommates?
- a. Yes
 - b. No
- 24a. Do they follow the proper precautions to prevent the spread of the COVID-19 virus? (i.e. wear a mask, social distance, etc.)
- c. Yes
 - d. No
 - e. I don't know

Section 4.

Texas State requires all students to follow the following health and safety measures: Social distancing, mask wearing, washing hands frequently, covering your mouth and nose when coughing or sneezing, staying home if showing any signs of sickness, and conducting a self-assessment for COVID-19 symptoms before arriving to campus. Please fill in the blank space with your answers to the following questions.

24. What precautions from the list above do you practice in order to protect yourself and others from the COVID-19 virus?

25. Are there any precautions that are not outlined by Texas State's health and safety measures that you do to protect yourself and others from the COVID-19 virus? Please describe.

Demographic Questions.

26. What is your age?

27. What is your gender identity?

28. What is your student classification?

- a. Freshman
- b. Sophomore
- c. Junior
- d. Senior
- e. Graduate student

29. Do you currently live on campus?

- a. Yes
- b. No

30. Are you currently working at a job outside of school where you regularly interact with the public?

- a. Yes
- b. No

31. In which county do you currently live?

- a. Travis
- b. Bexar
- c. Hays
- d. Guadalupe
- e. Comal
- f. Caldwell
- g. Other: