

COVID-19 Communications: Understanding the College Student Experience and Response to On-campus COVID-19 Public Health Messaging

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Abstract

The coronavirus disease 2019 (COVID-19) pandemic has infected over 600 million people worldwide. Certain environments (e.g., college campuses) increase the likelihood of COVID-19 transmission. Through focus groups and semi-structured interviews, researchers examined students personal experience related to the pandemic, and their responses to communication efforts, including, recommendations for improvements regarding the dissemination and framing of the university's public health messaging at a large Midwestern University. Eight (n = 7 female; n = 1 male) undergraduate students participated in semi-structured, focus-group interviews. Two major themes emerged: COVID-19 Messaging and University Feedback and Recommendations. Recommendations for future public health messaging targeting college students include utilizing lived experience, perceptions, and beliefs to craft messages that resonate with students, limiting campus wide broadcasting of messaging to prevent pandemic fatigue, and sharing information in a creative and positive way utilizing media platforms preferred by students (e.g., social media).

Keywords: COVID-19; Public Health and Safety; Health Communication; College Health

Introduction

Coronavirus disease 2019 (COVID-19), an infectious illness caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), was first detected in December 2019 in Wuhan, China. The COVID-19 pandemic has infected more than 600 million people worldwide resulting in nearly 6.5 million deaths [1]. Prevention of respiratory infections like COVID-19 is more likely when people wear personal protective equipment (PPE), maintain good hand hygiene, and avoid close contact [1, 2]. Because people can spread the virus before they know they are sick and/or when they are asymptomatic, individuals should avoid large gatherings and maintain a physical distance from others of at least 6 feet in public spaces to avoid infection through droplet contact [3, 4].

Environments where people regularly congregate and interact, such as college campuses, increase the likelihood of the spread of COVID-19 [1]. Students may carry and spread the COVID-19 infection among themselves and to the faculty and staff on campuses, as well as to the larger local communities [5, 6, 7]. In the U.S., young adults represent a large proportion of reported COVID-19 cases [8]. These factors make it important to target young adults in mitigation efforts to reduce COVID-19 transmission among their contacts and communities [5]. The perceptions among the young adult population about the seriousness of contracting COVID-19 and its health outcomes, along with the resultant behaviors related to those perceptions, impact those communities in which they reside [9]. The results of a recent survey revealed that persons aged 18–24 years were in lower agreement with and adherence to public health guidance (e.g., proper use of PPE) compared with those aged ≥ 25 years [10, 11]. Further, college campuses nationally struggled to find a uniform approach to addressing the pandemic. Some universities transitioned to a fully online-only class format, while others had periodic breaks in closures, or proceeded with in-person formats with the addition of advanced COVID protocols in place [12]. These factors demonstrate the crucial need to frame persuasive public health messaging to successfully target young adults promoting subsequent engagement in behaviors that are effective in preventing the spread of COVID-19 [8, 10].

To the investigators' knowledge, only one research study has thus far examined where college students self-report that they obtain COVID-19 public health messaging. In March 2020, early in the pandemic, Chesser and colleagues (2020) investigated the knowledge and beliefs of university students about COVID-19, and where they typically obtained their information about the disease. The researchers found that few (18%) of the respondents surveyed correctly identified symptoms of COVID-19 shared by the Centers for Disease Control and Prevention (CDC), and the most accessed sources for COVID-19 information were the Internet (39%) and social media (39%) [13]. To date, there has been very little research reporting effective public health communication strategies regarding COVID-19 targeting on-campus college students. As the pandemic wears on with students back on campuses, it is important to understand the impact of public health messaging targeting college students and to identify gaps in COVID-19 communication aimed at this unique population [8, 10, 12, 14].

Purpose

Through focus groups and semi-structured interviews, researchers examined students personal experience related to the pandemic, and their responses to communication efforts, including recommendations for improvements regarding the dissemination and framing of the university's public health messaging.

Method

The study was approved by the Institutional Review Board at a large Midwest university (STUDY00146402). The research was conducted using a qualitative approach with focus groups and semi-structured interviews. All data were collected via a virtual platform utilizing Zoom.

University Context

At a large Midwestern university, classes were taught using a variety of platforms including online, in person, and hybrid classes. Students who felt they were in high-risk health categories or resided with family members/friends who were high-risk, could opt to take classes fully online. While some universities opted to be all online or shut down after a few weeks of classes due to spikes in positive cases [12], this particular university remained open for the fall 2020 semester. As part of the university's COVID-19 plan, students were encouraged to leave the university and go home at Thanksgiving break, as courses transitioned online for the final two weeks of the semester and remain home until the spring semester. Campus safety measures included indoor and outdoor mask wearing, desks and furniture spaced 6 feet apart, reduced classroom capacities, social distancing markers, hand sanitizing stations, nightly janitorial cleaning, and CV Key symptom checkers to allow building access. The CV Key symptom tracker is a mobile app that prompts student response to a series of COVID-19 symptom related questions. Once completed, if no symptoms are flagged, students receive a QR code that they then scan using the standalone iPad upon entering the building. This process is based solely on an honors system and assumes students are both accurately responding to COVID symptom questions and scanning QR codes upon entering the building. Students can still access buildings without scanning QR codes and there is no monitoring in place from the university to guarantee students are utilizing the CV Key app. Additionally, communication related to COVID-19 protocols, updates, and procedures is relayed to university students, staff, and faculty via the campus-wide university listserv and through the campus specific COVID-19 webpage [14].

Sample

This study used a mixture of convenience and snowball sampling to recruit undergraduate college students at a large Midwest University. No identifiable information was collected. All participants were recruited electronically via email or through direct word-of-mouth recruitment. Inclusion criteria consisted of undergraduate student status attending in-person classes within the age range of 18-65 and the ability to speak, read, and write English.

Data Collection

Data was collected through focus groups and semi-structured interviews using an investigator-designed interview guide. The guide included questions informed by a combination of the existing literature and the research questions that guided the study. This included questions pertaining to 1) how COVID-19 has impacted the lives of participants; 2) feelings about attending class in-person on campus; 3) sources of COVID-19 health messaging both on- and off-campus; and 4) future university recommendations to better reach university students with COVID-19 health messaging. Demographic information was collected via an electronic survey link using Qualtrics and distributed in participant confirmation emails.

Oral consent was obtained from all participants before data collection occurred. All focus groups and interviews were semi-structured and audio-recorded. Both an assistant moderator and moderator were present to conduct the interviews and take field notes. All participants were instructed to have cameras on during the session to allow for the assistant moderator to take notes on both verbal and visual participant interactions. Member checks and debriefings occurred during and after the interviews to ensure the accuracy of participant statements [15].

Data Analysis

All interviews were audio recorded and transcribed verbatim by members of the research team. Once transcribed, an open coding process occurred. A priori categories were based on categories within the semi-structured interview guide and exploratory categories were established during the open coding process. Researchers conducted a simple thematic analysis with immersion and crystallization to finalize the themes [16]. All data was reviewed or analyzed separately and then brought back together to find convergent themes across all sources.

Results

Demographic Information

There were eight undergraduate student participants that met inclusion criteria and completed the study protocol. Majority of participants were female (n = 7) with only one male participant. Participant's ages ranged between 18 and 22, with most participants identifying as Non-Hispanic white or Euro American (n = 7). Half (n = 4) of the participants identified as first-year students, while the remaining students (n=4) identified as third year or beyond undergraduate students. Half of the participants (n = 4) reported living on-campus either in the residence halls or in campus apartments, while the other half (n = 4) reported living off-campus, either with roommates or alone.

Major Themes and Subthemes

All focus groups and semi-structured interviews were audio- recorded with sessions lasting between 30 to 60 minutes. Findings included two major themes and two or three corresponding subthemes. Major themes were reflective of a priori categories consistent with interview guide categories including COVID-19 Messaging and University Feedback and Recommendations.

Theme #1: COVID-19 Messaging

The first major theme consisted of how students were receiving information and messaging related to the pandemic and safety protocols. The two subthemes include Internal COVID-19 Information Messaging (University) and External COVID-19 Information Messaging (General Public).

Internal messaging reflected COVID-19 information communicated to students by the university. Students highlighted physical signage such as posters and the email communications published through the campus-wide network.

"I get the emails about the well... the COVID rates on campus. I remember getting those like, every other Friday or something. So, I remember seeing those. I'm trying to think if there's other emails that I've gotten, obviously, like on campus, there's, like, signs everywhere, just cleanliness, and wear your mask and washing your hands."

"Yeah, and I see a ton of those [Campus physical signage] especially like in the dorms, we have like four or five posters on each floor.

It's like sanitized after you sit down, remain six feet apart."

External Messaging reflects the information students are receiving about the pandemic from outside sources available for the public. This includes students reporting using social media, Google searches, and other forms of media like the news. Students reported being skeptical of some media sources and placing more trust in public health organizations such as, "The CDC, World Health Organization, and State Department of Health. And that's it."

Theme #2: University Feedback and Recommendations

The second major theme reflects students' experience with the campus opening to in-person classes and recommendations for the university, both for COVID-19 related messaging targeting students and other general recommendations. In the first subtheme, On-campus Experience, students were split between feeling comfortable with the precautions the university put in place stating, "I feel pretty safe about it because we are in all wearing masks and there's not very many of us in each class" and feeling uncomfortable with in-person classes stating, "I know that like spending an extended period of time in a room with a certain amount of people heightens your exposure and I know what that could do. So, I just thought to myself, like, how is this allowed, and I just take a seat." Some students also commented on how the university handled the hybrid classes option was a disappointment to them by commenting:

“I was disappointed because I originally came thinking I might have like three hybrid classes, and I would have to go in-person but then two automatically were put online and my third one went in-person for two or three weeks and then it went online. I’m, like, Cool, so I’m paying all this money from out of state tuition. Just sit in my room and teach myself.”

In the second subtheme, students provide recommendations for internal messaging pushed out by the university targeting students. This included strategies such as having a stronger social media presence, revamping the website and email communications to make information more accessible, and trying forms of more creative messaging that “remind people that they play a huge role in keeping everybody else safe.” Within this subtheme, students also reported signs of pandemic fatigue, particularly from email messaging, and relayed the need for alternative messaging stating:

“This might sound counterproductive. But sending less emails might be better, because then when we would see the email we would go, “Hey, this is important” because now we’re getting to a point where we’re getting three to five emails a week and we’re just like, it’s probably not important.”

“I think people are just tired of it, and tired of hearing the words COVID-19 coronavirus I mean honestly when I hear that a conversation I just, I tend to zone out because I don’t want to talk about it, I don’t want it to be my topic of daily life and I’m just so tired of talking about it and living it. And I want to go past it. So, um, I don’t necessarily think that more emails, is the way to go about it. I think that again for me the most impactful is just making sure that we’re taking care of ourselves as human beings.”

There was also sense coming from the students that the university can make their messaging more effective through creative and positive messaging rather than confusing content relaying repetitive messages (e.g., confusing statistics, masks mandates).

“The format of the email, love. The content of the email, unclear... Um Some of those, some of those line graphs have like six different graphs on the same plane. That’s not accessible to people. Clarify the data, make it more... like there shouldn’t be anything to hide... Redesign the Dashboard, that website is not good. Um, in my opinion, it’s not intuitive and it’s not easy to navigate and find what you’re looking for.”

Discussion

College students are an important target population for preventing the spread of COVID-19 [5, 8-10]. Not only are young adults ages 18-22 representing an increasingly large proportion of reported COVID-19 cases [8] this same age group reports lower agreement with and adherence to public health guidelines (e.g. hand washing, mask wearing, social distancing) [10, 17]. Young adults in general are reporting far less severe COVID-19 related symptoms, and therefore, underestimating the severity of the virus [17-18]. This perception of the seriousness related to the virus is consistent with findings in the current study. Many participants reported contracting the virus, and accounts of the illness were followed with statements that supported mild symptoms and feelings of immunity after contracting the virus. These findings may point to a need to emphasize the importance of the quarantine phase, messaging surrounding the importance of testing, and the importance of adhering to public health guidelines following a positive COVID-19 diagnosis. Furthermore, this perception could impact vaccination rates among this population. As reported by Tam & colleagues (2021), in a sample of South Carolina college students, acceptance of vaccination was lower than both the global and national averages. [19] While the reasons for the refusal are complex, this further indicates the role universities can play in educating students who are hesitant or resistant, and how this information could be communicated to this population.

Pandemic fatigue, exhaustion, demotivation, and impatience have come with the ever-changing narrative and protocols of the virus [20]. COVID-19 created mental, physical, emotional, environmental, and financial exhaustion [21]. For example, long or excessive amounts of emails, redundant signage, and news channels giving inaccurate and confusing information (e.g., statistics) were noted by participants as mentally exhausting factors. One study demonstrated that those who experienced an average amount of pandemic fatigue, compared to high fatigue, were more likely to believe that COVID-19 would eventually be controlled, were satisfied with protocols suggested by authorities, and adhered better to wearing PPE and following guidelines (e.g., stay-at-home orders) [21]. Furthermore, the participants in the current study reported that they, or others, stopped caring about getting infected or spreading the virus due to confusing or conflicting messaging, lack of guidance from public health officials, and the feeling of

being immune once recovered from a previous infection [21]. Additionally, the pandemic may not feel real, or serious, to some individuals as they may not know anyone seriously affected, while others get a thrill from breaking rules, or escaping consequences [18, 21-22].

Overall, a combination of message interpretation, personal morals, and environment seem to have informed most individuals' actions and reactions to the virus. These indicators of pandemic fatigue were also related to barriers in the use of face mask coverings based on promotional messaging among the college student population. Barriers include misinformation, low perceived susceptibility, and perception of autonomy [23]. Pandemic fatigue and associated behaviors were reflected in the current study as students reported becoming desensitized to messaging due to high rates of emails, excessive on-campus-physical signs, and a sense of resistance after a confirmed COVID-19 case, thus leaving them less inclined to follow protective protocol procedures. Language that addresses the beliefs such as the seriousness of the illness, risk factors for transmission to high-risk populations, and decreasing frequency of emails to limit pandemic fatigue.

The impact of pandemic fatigue can create barriers to the process of crafting and disseminating health communication information [18, 21-22]. In a prior study, college students reported the Internet and social media as the most accessed sources for COVID-19 information [13]. These findings are consistent with the current study as students recommended strategies such as having a stronger social media presence, restructuring the website and email communications to make information more accessible, and crafting more creative messaging that is relevant for this age-group. Media strategies relevant to the college student demographic in health messaging such as making use of university branding, developing messaging that resonates with the beliefs of the target population, messaging acknowledging personal responsibility in health, and establishing positive brand equity could be implemented contributing to greater chance of campaign success [24, 25]. These findings support results in the current study by acknowledging both ideal media strategies to address the college student population and streamlined messaging that relates to the college student lived experience, perceptions, and beliefs. Universities should work to create messaging that integrates preferred media platforms with targeted student messaging.

Students reported pandemic fatigue impacting adherence to health messaging on-campus. Universities should consider cycling in messaging that addresses the pandemic using creative, positive, and supportive language. Researchers found that messaging that contributes to motivation for the use of masks includes messaging surrounding the support for others in your community and high-risk populations, assuming individual responsibility, and communicating advice from experts [23]. Students supported these findings and had a desire for supportive messaging that communicated a sense of community and respect, as well as clarifying data from reputable sources and experts to make it more easily understood by the general population. Further, if such information was communicated via social media platforms with relatable content, such as including mascots or familiar icons (e.g. state flowers), university coaches and athletes, or important people in the university community, it could enhance brand recognition and influence health behavior outcomes [24, 25]. Of all protocols, it seems remaining flexible as new information surfaces and protocols are updated is most important [18].

Limitations

There are limitations to this study. First, students had to retrospectively describe their experiences, giving them time to reflect and rationalize their thoughts and behaviors. Second, the study was conducted at only one university and made use of a qualitative method meant to be exploratory in nature. Therefore, findings cannot be generalized to other college campuses or make direct inferences from the data. Last, the study had a small sample size with limitations in student reach and diversity.

Implications for Policy and Practice

College campuses and the college student demographic are an important priority population to consider in mitigating the spread of COVID-19. Students in the current study reported on their lived experience with the pandemic by highlighting health and well-being impacts mentally, academically, and occupationally. Students also highlighted a lack of seriousness given to contracting the virus due to high numbers of positive cases with low-severity symptoms among their peers. These lived experiences are important contextual considerations as universities and administrators shape on-campus health messaging about the pandemic. Campus

professionals can use lived experience, perceptions, beliefs, and health and wellbeing impacts to craft messaging that better resonate with students. Recommendations for future public health messaging targeted at college students include broadcasting consistent, actionable, and transparent information; portraying community impact; and using social media, pop culture, and known icons (e.g., mascots) to engage students with proactive, positively framed content. Messaging should be relayed through preferred platforms among the college student population, such as through social media sources, and make use of strategies that alleviate pandemic fatigue and promote self-care (e.g. single weekly email, use of alternative and creative messages). Lastly, given the concerns raised by students related to mental health and pessimism associated with current messaging, measures should be taken by the university to disseminate more positive, optimistic, and informational messaging, that includes holistic well-being information and healthful resources for students.

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References

1. World Health Organization (2022) Coronavirus disease (COVID-19) pandemic Updated September. <https://covid19.who.int>
2. Dhama K, Khan S, Tiwari R, et al. (2020) Coronavirus Disease 2019-COVID-19. *Clinical Microbiology Reviews*. 33: e00028-20. <https://doi.org/10.1128/CMR.00028-20>
3. Center for Disease Control and Prevention. Coronavirus disease 2019 (COVID-19). . <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/social-distancing.html>
4. Chu DK, Akl EA, Duda S, et al. (2020) Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: A systematic review and meta-analysis. *Lancet (London, England)* 395: 1973-87.
5. Centers for Disease Control and Prevention. Coronavirus disease 2019 (COVID-19): considerations for institutions of higher education. <https://www.cdc.gov/coronavirus/2019-ncov/community/colleges-universities/considerations.html>
6. Fry F, Passel, J.S., and Cohn, D (2020) A majority of young adults in the U.S. live with their parents for the first time since the Great Depression. <https://www.pewresearch.org/fact-tank/2020/09/04/a-majority-of-young-adults-in-the-u-s-live-with-their-parents-for-the-first-time-since-the-great-depression/>
7. Flood S, King M, Rodgers R, Ruggles S, Warren JR (2020) Integrated Public Use Microdata Series, Current Population Survey: version 7.0 [dataset]. . Minneapolis, MN: Integrated Public Use Microdata.
8. Salvatore PP, Sula E, Coyle JP, et al. (2020) Recent increase in COVID-19 cases reported among adults aged 18–22 years—United States, May 31–September 5, 2020. *Morbidity and Mortality Weekly Report* 69: 1419-24.
9. Wilson RF, Sharma AJ, Schluechtermann S, et al. (2020) Factors influencing risk for COVID-19 exposure among young adults aged 18–23 years—Winnebago County, Wisconsin, March–July 2020. *Morbidity and Mortality Weekly Report* 69: 1497-502.
10. Czeisler MÉ, Tynan MA, Howard ME, et al. (2020) Public attitudes, behaviors, and beliefs related to COVID-19, stay-at-home orders, nonessential business closures, and public health guidance—United States, New York City, and Los Angeles, May 5–12, 2020. *Morbidity and Mortality Weekly Report* 69: 751-8.
11. Machhi J, Herskovitz J, Senan AM, et al. (2020) The natural history, pathobiology, and clinical manifestations of SARS-CoV-2 infections. *Journal of Neuroimmune Pharmacology*. 15: 359-86.
12. Smalley A (2020) Higher Education Responses to Coronavirus (COVID-19). <https://www.ncsl.org/research/education/higher-education-responses-to-coronavirus-covid-19.aspx>
13. Chesser A, Ham AD, Woods NK (2020) Assessment of COVID-19 knowledge among university students: Implications for future risk communication strategies. *Health Education and Behavior* 247: 540-3.
14. University of Kansas. Protect KU. <https://protect.ku.edu/>
15. Lincoln Y, Guba E (1985) *Naturalistic Inquiry*. Sage Publications.

16. Cohen D., Crabtree B (2008) Qualitative Research Guidelines Project. <http://www.qualres.org/HomeImme-3829.html>
17. Thompson D (2020) What young, healthy people have to fear from COVID-19. <https://www.theatlantic.com/ideas/archive/2020/09/what-young-healthy-people-have-fear-covid-19/616087/>
18. Parrish C (2022) How to Deal with Coronavirus Burnout and Pandemic Fatigue. <https://www.hopkinsmedicine.org/health/conditions-and-diseases/coronavirus/how-to-deal-with-coronavirus-burnout-and-pandemic-fatigue>
19. Tam CC, Qiao S, Li X (2022) Factors associated with decision making on COVID-19 vaccine acceptance among college students in South Carolina. *Psychology, Health & Medicine*. 27: 150-61.
20. World Health Organization. Europe discusses how to deal with Pandemic Fatigue. <https://www.who.int/news-room/feature-stories/detail/who-europe-discusses-how-to-deal-with-pandemic-fatigue>
21. Morgul E, Bener A, Atak M, et al. (2020) COVID-19 pandemic and psychological fatigue in Turkey. *The International Journal of Social Psychiatry*.
22. Zerbe KJ (2020) Pandemic Fatigue: Facing the Body's Inexorable Demands in the Time of COVID-19. *Journal of the American Psychoanalytic Association*. 68: 475-8.
23. Shelus VS, Frank SC, Lazard AJ, et al. (2020) Motivations and Barriers for the Use of Face Coverings during the COVID-19 Pandemic: Messaging Insights from Focus Groups. *International Journal of Environmental Research and Public Health*. 17: 9298.
24. Vallone D, Greenberg M, Xiao H, et al. (2017) The Effect of Branding to Promote Healthy Behavior: Reducing Tobacco Use among Youth and Young Adults. *Int J Environ Res Public Health*. *International journal of environmental research and public health*.
25. Board on Population Health and Public Health Practice; Institute of Medicine. *Communicating to Advance the Public's Health: Workshop Summary*. <https://www.ncbi.nlm.nih.gov/books/NBK338333/>.