Proximity to Santa Clara University and Health in Students During the COVID-19 Pandemic

By

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ABSTRACT. Our research project investigates the connection between living location (off or on-campus housing or living at home) and physical, emotional, and mental health. The guiding research question for this project was: How does living location impact the emotional, physical, and mental health of Santa Clara college students? To gather data for this research project, each researcher completed two interviews conducted over Zoom and did two hours of field observations. This research paper, which limited its scope to Santa Clara University students, contributes to early findings on the COVID-19 pandemic and its impacts on student health. We found that SCU students living at home experienced better physical health than students living near campus and those living near campus experienced better emotional and mental health than those living at home. This shows that students being near others who can relate to their academic and professional loads improves their mental and emotional health, thus emphasizing the positive effect of student housing near campus on college students' overall health. This also provides empirical support for the decreased physical health in students living near campus during the COVID-19 pandemic. Future studies should explore these themes on a larger scale at other institutions for more generalizability.

INTRODUCTION

For this study, our guiding research question was how does living situation affect the physical, emotional, and mental health of Santa Clara University college students during the COVID-19 pandemic? The onset of the pandemic has catalyzed the growth of a body of research focusing on the effects of the pandemic, including literature focused on health. There have been three main studies on the health of college students during the pandemic, one conducted in Canada, one conducted in Turkey, and one conducted in China (Hamza et al. 2020; Hergüner et al. 2020; Yang, Tu, and Dai 2020). These ask questions that are the most similar to the one we will be investigating in this study. Their findings are supported by the research of other scholars, who have focused predominantly on the impact of the pandemic on those of a specific ethnic background, the general public of Spain, and the mental and physical health implications of the pandemic on college students (Chaney 2020; Hervalejo, Carcedo, and Fernandez-Rouco 2020; Kecojevic, Basch, Sullivan, and Davi 2020; Keel et al. 2020). Based on the findings of our research, we assert that Santa Clara University (SCU) students living at home experience better physical health than their counterparts in Santa Clara, and students living at school experience better emotional and mental health than their at-home peers.

LITERATURE REVIEW

Physical Health

It has been found that students in higher education who are currently enrolled in online learning struggle with physical health. Students who were surveyed on their physical health reported concerns about their weight gain, diet, and lack of physical activity. Some of the most influential factors students reported were screen time and adjustment to COVID-19 living (Keel et al. 2020). The impact of mental and emotional health on physical health is direct; poor mental and emotional health can lead to poor physical health and vice versa (Chaney 2020). We will be collecting similar information to Keel and colleagues' (2020) study, but attempting to analyze the information from a framework based on living location as opposed to a general information collection.

Emotional Health

During our research study, we made a distinction between emotional and mental health. Traditionally in past research, mental health has been defined to include "emotional, psychological, and social well-being," which groups emotional health as a sub-category of mental health (Anon 2020). However, in this study we will be discussing mental and emotional health as separate entities, defining emotional health as "how one experiences and deals with their emotions" and mental health as focus, drive, and motivation level (Anon 2020). We chose to separate the two types of health because both are integral to the life of a college student and we did not feel that proper attention would be paid to either if we tried to group both under a single term for the purpose of the study.

Since we are defining emotional health as how one experiences and deals with their emotions, the following details the relevant aspects of prior studies concerning students in the pandemic. Students participating in online learning have reported high levels of distress, stress, and depression (Kecojevic et al. 2020). The COVID-19 pandemic has taken a strain on students who are more overwhelmed than before, worried about their future, and are in need of emotional support during online learning. Often, a lack of emotional support will translate into a decline in emotional health. One longitudinal study found that within postsecondary students in Canada, the only ones that experienced a marked decay in their emotional health were those who experienced increased social isolation instead of those who had pre-existing mental or emotional health conditions (Hamza et al. 2020). Another study found that family played a very important role in emotional health, and that role could be either protective or threatening to emotional health based on the levels of cohesion, communication, and flexibility present within the familial relationships. This hints towards family being a potential key influence in the social connectivity of college students. Psychological discomfort and feelings of loneliness and isolation were the issues that were discussed most with the healthcare professionals represented in the study, and of those anxiety was the most common diagnosis (Hervalejo et al. 2020). The lack of social connectivity was what

caused these individuals to seek professional help for their suffering emotional health. Another study, done within the African American community and focusing on family, states that physical affection and presence is very important within that community. Elder African-Americans especially are suffering from a lack of physical and emotional connection, and because of this emphasis on physical presence, Zoom and other types of virtual connection are not having the same mitigating effects on social distance in the African-American community as they are in other communities. Finally, anxiety, depression and hopelessness were present in high rates within the African American community as they suffered from a deprivation of physical contact and adequate social connectivity (Chaney 2020). The topic of social isolation and its impact on emotional health has been raised, but has not been fully developed in the existing literature past conceding that it's a factor in the emotional health of an individual. In our study, we hope to gather more information on social connectivity and the role that it plays in each unique individual's emotional health to analyze whether its effect is dependent on quality, quantity, type, or variation of social connection. We intend to do this based on the assumption that if one is living at home, one is with their family and if one moved back to live on or near campus, they are living either alone or with friends.

Mental Health

As for mental health, which we have defined as the focus, drive, and motivation level of students, what follows is accounts from past research studies concerning aspects of our operational definition of mental health in college students. Optimistic attitudes regarding the pandemic were correlated with professional stamina and ability to focus (Hergüner et al. 2020). One of the first studies on student mental health during the pandemic, conducted in Wuhan, found that positive thinking and resilience were important mediators on the effect that COVID-19 had on an individual's mental health (Yang et al. 2020). There has not been a lot of research on mental health in college students during the pandemic, but in the interest of adding a new dimension to existing research, our study tries to analyze mental health from a slightly different angle – living situation and everything it entails. This includes professional concentration levels, academic concentration levels, who the individual is living with, and any extra obligations they have to fulfill as a result of their living situation.

METHODS AND ANALYSIS

The majority of research done on students, health, and online learning has been done through surveys. This is because it is the safest option for collecting information in light of social distancing requirements, and it is relatively easy to contact both groups of subjects – those living at home and those living near campus – from the researchers' locations near campus. One downside to this is that the detailed accounts of students are lost in the generalizability of quantitative methods. Another limitation is that it can be very difficult to form a causal analysis of the data since it is more difficult to get detailed comparisons to and information about the past on a survey than it is in an interview. As a result of this, many scientists are struggling to causally relate the pandemic to health, unless they had a pre-existing set of data from before the pandemic that they could

follow up on (Hamza et al. 2020). Our data was gathered in a slightly different fashion than in other research, consisting mostly of qualitative interviews conducted over Zoom to ensure compliance with social distancing measures. Thus, this study will provide an interesting counterpoint to the quantitative studies previously conducted by being able to contribute more detailed information about individuals' unique experiences and feelings during the pandemic.

Data Collection

For this project, we engaged in three different research sites. One researcher conducted interviews and fieldnotes within her apartment where there were two subjects interviewed and three subjects observed. The second researcher conducted interviews through Zoom with two different friends doing online learning from home. The second researcher also conducted observations at a friend's house near the SCU campus. In that house there were seven subjects who were being observed.

To collect our data, we recruited four participants to engage in roughly half-hour to forty-five minute long interviews, which were conducted over Zoom, a virtual conference application that the researchers and interviewees all had free access to. We had previously agreed that one researcher would focus his interviews on students currently residing at home, while the other would focus her interviews on students currently residing on or near campus in Santa Clara. We chose to focus two interviews on students residing in each location so that we would have a similar body of data from students in both categories to base our analysis on. During these interviews, participants responded to a series of semi-structured questions that were written out and agreed upon prior to beginning interviewing. These questions largely focused on daily physical, mental, and emotional health practices, health quality, and comparisons between health practices and quality around campus versus at home (see Appendix A for interview protocol). Conducting the interviews over Zoom offered the advantage that after the interview was over, we did not have to transcribe it ourselves because Zoom transcribed it for us. After completing the interviews, both researchers engaged in two hours each of fieldnotes. These fieldnotes consisted of field observations conducted in a house or apartment near campus during a time of the day when students would be present in common areas. When conducting field observations both researchers had limited engagement with the subjects that they were observing: one was a completely silent observer and one participated at a level that would be considered "cordial" but tried to keep comments to a minimum. During these hours, researchers took detailed notes on all of the comings, goings, and interactions they observed in the common spaces they were in, then later returned to these notes in order to refine them. Due to both researchers having moved back to the Santa Clara area, one researcher did two hours of field notes during the daytime within an off-campus house near Santa Clara University campus, while the other researcher did two hours of field notes during the evening and nighttime hours within an apartment also near Santa Clara University campus.

Sampling

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Because of the online learning format and limited number of students available to the researchers there was a degree of convenience sampling done. For the convenience of being able to access subjects while still being COVID-19 safe, there was a pool of friends and roommates chosen for the study. This does come with some limitations: because the subjects were chosen from social circles of the researchers, there may be a level of bias for the researchers to be aware of as well as a degree of similar responses from the subjects. There was also a purposive sampling component used. This was done once the researchers identified the pool of possible participants available to choose from. There was a Typical Case purposive sampling used to try to obtain participation from individuals who were able to represent the typical cases of staying at home or living near the SCU campus. This also comes with limitations. Because the purposive sampling focused on finding a typical case there is a compromise of generalizability of the findings to the larger population of university students. However, in addition to the limitations imposed by the purposeful convenience sampling, there also exist many benefits. First, researchers were able to ensure that the participants recruited for the study were adequately representative of the two groups being studied. Within those groups, researchers were also able to select for some diversity in demographics, involvement, and experiences in order to incorporate different COVID health experiences while still staying true to a Typical Case.

Analysis of Methods

Since both physical sites were places that the researchers had access to before the project and since everyone observed and interviewed were friends, roommates, or acquaintances, both researchers approached this project with an "insider status" due to the college student role shared with subjects as well as the ease of access to research sites (Lofland et al. 2006: 41). As a result of this status, gaining access to the observation site was as simple as asking our subjects if they would not mind being interviewed or observed, bypassing the need for a "gatekeeper" (Lofland et al. 2006: 26). Since the individuals being observed and interviewed were already within our social circles, the "insider status" we occupied was a benefit to data collection because the participants being interviewed and observed already felt comfortable with the researchers. Furthermore, since we already knew the participants and were involved in their lives, we were able to have more confidence that the data we were collecting was accurate. It is important to highlight that the researchers were aware of the similarities shared between them and subjects such as social circles, being undergrad students at SCU, and living near campus. Because of this we kept these similarities in mind when collecting data. This allowed for the experiences of students living at home to be represented accurately (Peshkin 1988: 17). In the interviews, both researchers started with the typical pleasantries to try to make the subject comfortable. One researcher took notes during his Zoom interviews but provided verbal encouragement to his interviewees, while the other conducted in-person interviews and tried to maximize eye contact and encouragement through verbal remarks such as "uh-huh" and "go on" punctuated with vigorous nodding. In this way, both of us were able to establish interviewing relationships built on our previously existing friendships with our subjects

that made the interviewees comfortable talking and sharing. Though the researchers had two different styles of interviewing, there was little difference in the quality or quantity of data collected. One possible explanation for this is that since both of us were friends with those we interviewed, the participants were used to the style of interaction and listening that each respective researcher possessed.

One ethical issue, similar to the issue that Carolyn Ellis had, was that since both of us were friends with those that we studied, though we informed them that we were conducting research – especially during the fieldnotes – it is possible that they were so used to seeing us that they forgot about our identities as researchers during that time (Allen 1997). Another ethical issue similar to what was experienced in Allen's article, was that since the subjects were our friends, we hesitated to draw any sort of negative conclusions about them and their well-being. However, our biggest ethical concern was that asking in-depth questions about serious issues such as emotional and mental health, especially during this time when everyone is struggling in some way, would be harmful to the health of our subjects. We tried to mitigate this as much as possible by structuring our interview questions so that we discussed emotional and mental health last to try to prepare them with other questions. Both researchers also made it clear at the beginning of our interviews that if they chose not to answer a question or to stop the interview with us because our questions were getting at topics that were too sensitive, it would not impact their personal relationships with us at all.

After each interview, we wrote a theoretical memo describing our initial impressions from the interview as well as any inflection or body language details that we noticed and wanted to record (Lofland et al. 2006: 210). Throughout our data-gathering process, we wrote periodical coding memos focusing on specific codes and the patterns that were emerging from those codes, as well as any theoretical connections we were seeing (Lofland et al. 2006: 210). We uploaded the interview transcripts to a free coding website called Taguette, and proceeded to do an initial run through of open-coding the interviews line-by-line looking for "analytic dimensions and analytic categories" (Emerson, Fretz, and Shaw 2011: 8; Lofland et al. 2006: 200-201). These "open codes" referred to any sort of pattern that the researchers noticed when analyzing the transcripts and notes of the participants. When we were both finished coding our interviews, we met over Zoom to discuss possible focused codes and merge open codes into the broader focused code categories, yielding 12 focused codes. These "focused codes" were combinations of several similar open codes or new codes corresponding to broad categories and patterns in the data. We then re-coded the interviews with focused codes. These focused codes served as the foundation for our analysis (Lofland et al. 2006: 201). We also coded the fieldnotes using both focused and open codes. There was also another round of memos that took place after we coded our fieldnotes data. These memos allowed us to reflect on the data and begin conceptualizing and interpreting it (Emerson et al. 2011: 13).

RESULTS

Physical Health

We defined physical health as "diet, sleep, or exercise activities that affect one physically," which was coded for 45 times in our transcripts. Two open codes that represented patterns found within the data pertaining to physical health were Sleep Schedule and Diet Comparison. The primary focused code used in this data was Physical Care, which encompassed both positive and negative remarks concerning physical health practices and their qualities.

Results from near-campus residents. In one interview, Caroline remarked that "I go for a run two or three times a week – I would say three times a week, and I do yoga like three or four times a week depending on what I can do," stating further that "on the days that I don't make it outside … I feel gross," which was coded as Physical Care. Clearly, the runs and yoga that she discusses are for the purpose of keeping her in good physical shape and making her feel better. She also discusses the need to go outside and how when she isn't able to get outside for the day, she feels "gross". Her exercise schedule is for her physical well-being as well as her mental and emotional health so that she doesn't feel like she just sat inside the whole day. However, she goes on to contrast her exercise schedule at school with her exercise schedule when she was at home, stating "when I was in [state] ... I did yoga about every, like every night, it was probably like 6 times a week which was really, yeah it was really good for me.. but in terms of like elevating my heart rate and getting outside I really didn't do that." Supporting Caroline's point of view, another near-campus student, Daisy, discusses how "at home I probably would be going for more walks, because I'd walk my dog or go for hikes or do things like that. But here I always say I'll go for walks and then I end up not doing it." Later in Caroline's interview, she states that at home, "we definitely were eating a lot healthier than I am now," which fell under the Diet Comparison code as well as the Physical Care code. Pertaining to the Sleep Schedule code, Caroline mentioned that "I think I'm getting regular amounts of sleep but as the quarter has gone on I think I'm getting an inadequate amount of sleep."

All field notes were conducted within near-campus residences due to the researcher locations, so our data does not allow for a direct comparison between observation data in homes and in near-campus residences. However, the observations made near campus seem to line up with the implications of the interview data. One hour of fieldnotes mentions a regular runner, Amy, who "returns from a half hour long walk to recover from her class", choosing a walk because she was not able to find time for a run when it was light out. Another observation records a conversation between Caroline and Daisy discussing seasonings for their nutritious tofu and vegetable meal along with Daisy's comment that if her lab hadn't let out early, "she wouldn't have been able to eat until after 8 pm."

Results from students living at home. Luna, a student who is living at home during online learning was asked how her physical health practices are now compared to when she was living at SCU. She responded:

I think they're healthier now. Because even if I was on campus, like the gym isn't open and at least at home, I have like the space to like workout, because I have like a really big backyard. And again, like food wise I like knowing what I'm eating. So I've been able to do more of that at home instead of relying on like the options at Benson does have that are really limited...Yeah, so it's just more motivating at home because my parents are really good about like taking walks in the afternoon, and sometimes I go with them or if it's not that like we have a bike in the backyard and like my dad and I will take turns using it and just like do stupid competition with it sometimes, so I think the motivation is definitely better at home.

Here one can see the contrast Luna expresses between living at home and living at SCU. She mentions how at SCU her workout space and options would be more limited than at home and how her parents also motivate her to workout. This is also paired with a contrast of the choices of food she has at home compared to the ones at SCU. She claims to have more control in knowing what she is eating which she contrasted with a lack of knowing at SCU.

When asked about sleep schedule Emily said

I have commonly been a night owl. So I have almost always just been up at night, however, being home I've realized that I am exhausted. And I'd like to sleep early however I choose not to. Because it is at night that everybody is asleep so that I get the most peace and quiet to be able to focus and do my work, which is when my homework time begins.

Here Emily is explaining how her sleep schedule is similar to the one she had at SCU.

Emotional Health

In terms of this research project, we define emotional health as "the ability to accept and manage feelings through challenge and change."

Social Connectivity. When the transcripts of our interviews were initially open coded, two of the codes that were used to represent emotional health were "good emotional health" and "challenges with emotional health." However, through coding these interviews, we found a direct link between social connectivity and emotional health, suggested by findings such as: "a pretty stable emotional state is I think partially due to me just dealing with things.. but also to have people to support me and to rant to and just get it over with and move on." Thus, we connected emotional health to social connectivity, which we described as "substantial interactions with other human beings," and was coded for 63 times in our transcripts.

Results from near-campus residents. Caroline, living near-campus, says that her "pretty stable emotional state is I think partially due to me just dealing with things.. but also to have [roommates] to support me and to rant to and just get it over with and move

on." In contrast, when she comments on her social experience at home, she discusses how it was "very isolating to have to lock myself in a room essentially and work all the hours I needed to work" and that she felt like she was "piggybacking .. on other people's relationships.. for social interaction" when she was home, which made her uncomfortable and hindered her emotional health. Since Caroline did not have peers who understood the stress and volume of her workload and was interacting with family members in different stages of their lives and with different amounts and schedules of free time, Caroline did not feel like she was able to relate with those around her and her social interactions were void of the school, work, and friends-related themes that she was used to with her peers at school. Daisy, by contrast, remarks that while she is "a very introverted person so like quarantine like just being at home with my family was not disastrous for me like I was like really fine you know not seeing as many people," she does "generally feel better like seeing friends more even if I like would say that I feel fine, I would definitely say I feel better seeing people."

During the hours of fieldnotes observing Daisy, Caroline, and Amy, most instances of Social Connectivity simply refer to the time that the ladies spent together, such as "Daisy and Caroline sit in the kitchen" and "Daisy discusses how someone that works at her lab has asked her for a ride to their friend's house in Washington." At another observation site off campus near SCU, students were observed getting ready to go hang out and get some boba as well as getting brunch while socially distancing. Subjects were also observed discussing their "friendsgiving" plans, a dinner where they cook together and socialize with each other.

Results from students living at home. When asked about her social connectivity and emotional health, Emily said, "How am I feeling at the end of the day, drained and sad and upset. I miss my friends. I'd like to go out, but then I also try to think about it. Okay. How am I feeling at the end of the month? How am I feeling at the end of the quarter or the school quarter."

Here you can see that Emily discusses how a lack of social connection to her friends adds to her feelings of being drained, upset, and sad. She also touches on the inability to do things like go out which add to the frustration of online school at home. Emily explains that the way in which she dealt with the frustration of school before the pandemic was by treasuring brief interactions with friends and acquaintances between classes and around campus and by leaning on others going through the same thing to help her through her stress. The fact that all interactions must now be so intentional and planned over Zoom or FaceTime removes an essential part of the informal support system she had at school. She also stated that "Being back at Santa Clara. I was always around people. And so even when I was upset or feeling down or anxious I always had people around me if they were feeling the same way, or if they just helped me kind of get out of that little slump." Here Emily is talking about what her social connectivity was like at SCU and how her social circle validated her feelings by expressing their own similar feelings or were able to cheer her up and diminish her stress level. This is a contrast to what she reported in the first quote on her social connectivity at home.

When asked about her social connectivity and emotional health Luna said,

> So this whole thing has been really weird to like not be able to see my friends...And I know like… When, when I see like my friends are going through a hard time it's harder for me to like literally be there for them like physically. Um, and that takes a toll on me sometimes just because I know that if we were in person, there's probably more than I could do to like just support them however, they need it.

Here she is discussing how not being able to see her friends and therefore not being able to emotionally support them takes an emotional toll on her.

Quality of Emotional Health

Quality of Emotional Health is a focused code that analyzes accounts from students regarding their general emotional state.

Results from near-campus residents. When asked to discuss her general emotional health, Caroline remarks that "to be able to have deep important conversations about things … that are affecting my mental and emotional, like, state, for good or for bad, to be able to talk about that with people that understand and relate is really important." She discusses the importance of support systems who not only understand what she is going through, but are going through something similar. Although human support systems play a major role in social connectivity, subjects reported specific support systems as playing a more important role in their quality of emotional health than general social connectivity does.

Results from students living at home. When asked about her emotional health in her living situation Luna said:

> I'm like I'm already a very anxious person. I have been for a long time and I've learned to deal with it, but I think being back home. I also now worry about, like, is my brother doing his school. Is he getting his assignments done, you know like is my dad taking care of himself when he goes to work. And obviously like my mom was like, out of the country for a while. So I always wondered about her and how like she was dealing with everything. And obviously like these are all things I would worry about regardless of whether or not I was with them, but I think you know more about what's going on in a person's life and you're actually like living with them physically. So I have worried a lot more (laughs).

This is an example of how living at home can be emotionally taxing for students during online learning by adding more to their plate.

Mental Health

To measure mental health, which we defined as "focus and drive when it comes to academic and professional obligations, especially as compared to in-person academic quarters," we used the focused code Focus, which was coded for 59 times throughout our transcripts. Focus was a combination of Academic Focus and Professional Focus, which were two of our original open codes.

Results from near-campus residents. In her interview, Caroline discusses how with three part-time jobs and four very difficult classes

> it's .. hard… to separate activities. Like I feel like my attention is being called in so many different directions so that ..like I said earlier, like when I sit down to work on one thing .., like my brain is screaming at me about all the other things I should be thinking about.

However, regardless of her issues separating activities, when asked to compare her mental health here to her mental health at home, she explains that "in terms of being focused on work this is the best that it's been in my online experience and .. being in like a more academic setting, I know we're still in our apartment but being somewhere other people are doing school definitely helps." Daisy echoes Caroline's explanations, stating that due to the teachers making classes more structured, she has "been treating my work more like typical, typical school", identifying her levels of focus and drive as better this quarter than winter and spring quarter last year (the beginning of the COVID pandemic). She adds that professionally she feels "more focused than she had before" due to the novelty of being able to go into a workplace to complete her job.

Within the field observations done at an apartment near campus, the only observation that supported good focus is when "Amy has been studying all day and has a test at 5." The bulk of the other observations focus on feelings of burnout, such as Daisy stating "that she doesn't have the mental energy to be the driving force behind her group project for her statistics class," that she "needs to continue work on her statistics midterm, but since she still has 2 days she doesn't feel the need to work on it now," and "that she feels so mentally burnt out that she wants to just sit in a chair and do nothing until March." In another field site, subjects were observed discussing feelings of burnout and low energy together. One subject in particular discussed how she had 15 hours of reading to do and how it was going to affect her other classes.

Results from students living at home. When asked about her focus Emily said she was "not that focused. In all honesty I feel being online has definitely shifted. A lot of students focus where I feel even my closest friends will say 'I feel I haven't learned too much or as much as I would have being on campus or being in a classroom setting'" and in terms of professional focus she said,

> Professionally I have always been able to maintain a certain balance. And I think to this day that has not changed with the virus and with everything that's going on and being at home. I still think that I've been able to uphold that certain image of

acting working speaking as a professional so that I feel hasn't had much effect or change.

When Luna was asked the same questions she said, "Less so than when I was on campus. I don't know exactly how to explain it. Like, I guess, on a scale of one to 10 on campus, I would be like an eight all the time. But at home. I feel like a six...Or like a five on the week."

When asked about professional focus Luna said "I feel like I'm pretty focused like obviously it's a job like you. It's responsibility. So that means you gotta get stuff done." Both Emily and Luna's accounts point towards a pattern of reduction in academic focus among students who are living at home with family during the pandemic due to a decrease in academic engagement and a plateau in professional focus due to professional engagement remaining the same. These sentiments are echoed by Daisy and Caroline, who encountered similar struggles with academic focus when living at home during the pandemic that have now been lessened by their return to near-campus housing.

DISCUSSION

In this research study, we aimed to explore the physical, emotional, and mental health of Santa Clara University college students based on whether they were living near campus or at home. We found that students living near campus in Santa Clara, in general, experienced better emotional health and mental health levels and worse physical health levels. In contrast, students living at home, in general, experienced better physical health and worse emotional health and mental health.

Physical Health

The results of our study support the claim that physical health among Santa Clara University students during the COVID-19 pandemic is generally better within the population of students who are living at home as compared to the physical health of students living near school. Students living near school claimed to eat better while at home. This is due to having food prepared for them by a parent or sibling while at home, having more choices in what goes into their food, and having structured meal times. When asked to compare their workout regimes when living near campus to their workouts at home, students reported that they worked out more regularly and with more intensity at home than they did at school. This can be explained by living at home providing students with gym equipment and space, variety in exercise options, as well as family members to exercise with. Students living both near campus and at home discussed their irregular and inadequate sleep schedules during interviews. As a result of this, there were no reported differences found in sleep between both living contexts studied. This can be explained by the academic and professional work load students reported that caused students to often work late hours.

Emotional Health

The first finding of this study regarding emotional health was that levels of emotional health are very closely linked to levels of social connectivity. When asked for a comparison, both interviewed students currently living near campus remarked that moving back to Santa Clara in the fall and being around friends placed them in a much better emotional state than they were in when they were at home the previous spring. This is because returning to school made them feel more socially connected whereas at home they felt very socially isolated. As a result, our data suggests that students living around campus experienced much better emotional health than their counterparts living at home. Upon returning to campus in the fall, interviewees explained that being able to see and interact with friends and roommates at school aided in the inflation of their emotional health, and both reported that this was boosted even more because they were seeing individuals who could relate to their academic struggles with online learning and the often rigorous schedules they were keeping to finish their work. In contrast, when these individuals were at home, they reflected on feelings of isolation being stuck in their rooms completing their work while their family members were spending time together without them. These findings are also supported by accounts from students currently living at home during the COVID-19 pandemic. The student participants from the group living at home during the pandemic reported feelings of being drained, sad, upset, and lonely. They also reported feeling negatively impacted emotionally due to the social isolation that comes with being at home.

Mental Health

Defining mental health as the level of focus, drive, and motivation a student has (which are essential to collegiate success), our results claim that mental health among students living near campus is better than that among students living at home. While students living near campus mentioned being extremely overwhelmed with the work they had to do and the fact that everything was online, both mentioned feeling the most motivated and focused that they had since school was moved online. This was likely due to many factors, two of which were enumerated in the interviews as better preparation on the part of the teacher and the fact that they were living in a place that they had associated with academics and focus surrounded by people whose academic and professional priorities were the same as theirs. In fact, one interviewee living near campus reported that the ability to complete her job in-person enhanced her focus since it was such a novelty to be able to complete work that was not online. Students living at home reported the opposite of these trends. They discussed a decrease of academic focus due to feeling less engaged and more removed from the material they were working on. By contrast, when asked about professional focus there was a pattern of professional focus staying high and not decreasing among both groups. This was due to them feeling more engaged and socially connected in the workplace due to it being one of few avenues for social connection during the pandemic. The field observations that were made around campus seemed initially to contradict this claim since many observations focused on feelings of burnout and the immense amounts of work yet to be done. However, since all field notes were conducted around school, there is no point of comparison to concretely claim that the data gathered during observations refute the

data gathered in the interviews. Both academic and professional focus are key to keep in mind when studying the health of students due to the impacts it has on work-life balance and in turn the allocation of time for all other aspects of health.

Implications

This exploratory research study serves as an addition to early research on the COVID-19 pandemic and its effects on University students' health. Our findings imply that mental and emotional health is better for students who return to campus and physical health is better for students who do not, but future research would be necessary to generalize our findings in this way. This research gives an insight to the SCU community as well as some social processes its college students face. This includes the influence of social connectivity on emotional health and academic focus as well as family dynamics and their influence in the focus of students. Our findings about physical health hint at a possible contradiction to Keel and colleagues' (2020) research in a southeastern university that stated college students who have been moved online are struggling with weight gain and other aspects of physical health. This is a possible contradiction because our findings showed that students who were living at home did not display the physical health challenges that Keel and colleagues suggest are universal to college students affected by the pandemic. We cannot directly contradict Keel and colleagues' research since we approached physical health with the possibly confounding variable of living situation (which Keel and colleagues did not measure) and do not have a statistically significant sample size. Hamza and colleagues (2020) claim that those who experienced the greatest decline in their emotional health were those who were socially isolated, which was supported by our findings that those who were living at home and were isolated from peers who would be able to relate to their experiences had the worst emotional health. Our findings directly contradict Hervalejo and colleagues' (2020) research about low levels of emotional health. His findings claimed that people felt the most isolated when they were not able to connect with family members, but our findings suggested that the greatest isolation was experienced when students were not able to connect with their friends and peers. These findings may have been different in the studies because they investigated different populations. Since we did not pay specific attention to attitudes or levels of positivity in mindsets throughout our study, our findings do not directly confirm or deny the previous research on mental health.

Recommendations for Future Research

In order to advance this research topic we suggest more studies on various groups of college students. Because this research paper only analyzed a handful of college students, future research should also focus on studying a larger number of students sampled non-purposively in order to be more generalizable to and representative of the broader college student population. We recommend utilizing a random sampling technique to achieve this. We were also unable to make any significant claims using our field observations due to the fact that we were not able to observe any students who were learning from home. Future research should be sure that this population is

adequately represented in field observations to better gauge how students maneuver COVID-19 from home. One of the interesting findings of our study was that one interviewee spent a lot of time focusing on the importance of space in her life as associated with focus: space to study alone, space associated with an academic focus, and space associated with different types of work. We would recommend future research into this finding. Research on the COVID-19 pandemic and its effects shouldn't stop when in person learning resumes but should continue to research how this abrupt change has impacted the health of students.

AUTHOR'S CONTRIBUTIONS

Both co-authors were fully, equal, and collaboratively involved in every aspect of the research design, data analysis, and writing. By prior agreement, the listing of the co-authors is in alphabetical order.

APPENDICES

Appendix A

QUESTIONS
- Living Location
  - Where are you living this quarter? What factors influenced your decision for where to live? How have you enjoyed your living situation this quarter? Walk me through a typical day. What do you think your quarter would have looked like if you had made the opposite decision?
- Physical Health
  - Tell me about your physical health in your current living situation. (Follow-up: What's your diet like? What's your exercise schedule like? What's your sleep schedule like? How healthy do you physically feel on an average day?) How would you compare your diet, exercise, and sleep habits where you are living to your physical health (at home/off campus)?
- Emotional Health (ability to accept and manage feelings through challenge and change)
  - How do you feel about your current living situation? How do you feel social connectivity impacts your emotional health? How has your current living situation affected your social engagement? How has this directly affected your emotional health? Describe any support systems you may have in your current living situation. How do you think your support systems compare (at home/off campus)? How would you compare your emotional health where you are living to your emotional health (at home/off campus)?
- Mental Health (psychological well-being)
  - How do you think your current living situation has had an impact on your mental health? How focused do you feel academically? If you have a job, how focused do you feel professionally? How do you think this differs due to your living situation? Describe your academic concentration level over

the course of your online learning experience (per quarter). How do you think your mental health differs when you are (at home/off campus)?

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