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Concerns of college students during the COVID-19 pandemic: Thematic perspectives from the United States, Asia, and Europe

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Abstract

The COVID-19 pandemic has altered the landscape of higher education, forcing institutes across the globe to lock down campuses and shift instructional methods. To determine the impact of these changes on students, 644 currently enrolled higher education students across seven countries (USA, the Netherlands, Ireland, South Korea, China, Malaysia, and Taiwan) were asked to report their pandemic-related concerns. Qualitative responses were translated and indexed by theme, with students reporting major concerns in the areas of education, safety, mental health, employment stability/finances, uncertainty about the future, and relationships. Minor themes were also reported. The results of this study provide broadly endorsed international information on student needs for support and continuity of learning. These findings can be used by institutes of higher education to inform policy and procedure, including but not limited to mental health and risk communication, during the present pandemic and future emergency or disaster situations.

Introduction and literature review

COVID-19, declared a global pandemic by the World Health Organization (WHO) in March 2020, has created upheaval around the world (Cucinotta & Vanelli, 2020). Countries enacted a variety of lockdown procedures in an attempt to reduce viral spread, resulting in disruptions for educational institutions globally (UNESCO, 2020). To ensure student health and abide by governmental recommendations, universities worldwide have mostly transitioned to online teaching (Crawford et al., 2020), and some were also able to migrate student support services online during the Winter and Spring of 2020 (Hanover Research, 2020a). Educational facilities also implemented safety measures such as alternating residence hall occupancy and/or shifting dining halls to take-out only (American College Health Association, 2020).

This abrupt shift from face-to-face learning to online instruction has led to negative mental health consequences for higher education students (AlAteeq et al., 2020; Baloran, 2020; Hasan & Bao, 2020; Ramos-Morcillo et al., 2020). The disruption of normality that students experienced through lockdowns and quarantines also exacerbated symptoms of mental disorders in the student population (Du et al., 2020; Patsali et al., 2020; Son et al., 2020). While not solely focused on university students, Dubey et al. (2020) found that COVID-19 has caused global social impacts such as job loss, financial and political uncertainty, and relationship challenges, as well as confusion due to the proliferation of information through social media.

Before the COVID-19 pandemic, the mental health of college/university students was already a significant area of study (Center for Collegiate Mental Health, 2020). In the United States of America (USA), college students' rates of mental health diagnoses and use of services rose significantly from 2007 to 2017 (Lipson et al., 2019). Internationally, higher education students have been found to have elevated levels of stress, depression, anxiety, and other common mental disorders (Auerbach et al., 2016; Auerbach et al., 2018; Evans et al., 2018). Colleges and universities commonly offer support services for student mental health, and when campuses were locked down, these support services had to transition online quickly (American College Health Association, 2020). Some universities struggled to adapt to the online world, especially when meeting the needs of at-risk students (Hanover Research, 2020b).

All of these issues have complicated and varied the response of educational institutions to emergencies like the COVID-19 pandemic. One frame for understanding lessons learned from previous disasters/emergency situations is boundary spanning theory, which studies barriers and links between organizations and their surrounding environment. Shittu et al. (2018) applied boundary spanning theory to case studies of natural disasters to identify successful resilience factors and response strategies, which included improving information flow between organizational boundaries, adoption of new technologies, and increased flexibility in use of external resources. These strategies require continuous efforts prior to a disaster (Shittu et al., 2018). In a higher education setting, this may be demonstrated through university management

outreach to students as well as other universities.

An additional relevant model was proposed by Kapucu and Khosa (2012), who discerned ways to improve the resiliency of institutions of higher education in order to build a more disaster-resistant university (DRU). They identified the most important elements of a disaster-resistant university to stem from a culture of preparedness, with specific aspects including all-hazards comprehensive emergency management plans (CEMPs), continuity planning to avoid disruption of services, greater leadership support (avoiding over-centralization), strong community partnerships, strategies and systems for the management of emergency information, and certification training among students and staff (Kapucu & Khosa, 2012).

Indeed, past research into universities' emergency preparedness has identified communication between campus stakeholders as a critical need (Brown et al., 2016). Segmentation of university departments and structures can inhibit communication between key academic, support, and faith-based student services during an emergency (Stein et al., 2007). In a study of university response to a natural disaster, inconsistent post-disaster communication resulted in student confusion about educational continuity (Watson et al., 2011). Though many students believe they are responsible for their own preparedness, they commonly hold universities responsible for informing them and guiding their emergency response (Davis et al., 2019). Perhaps not surprisingly, the most prepared universities are those with a dedicated emergency management function (Murphy et al., 2019). However, colleges and universities of different sizes and foci can experience risk and liability differently (Klinksiak, 2016).

Institutes of higher education and their students face significant and unprecedented challenges from COVID-19 (Du et al., 2020; Cao et al., 2020; Maddumapatabandi & Grange, 2020). Researchers have reviewed many aspects of the higher education experience in the time of COVID-19, both qualitatively and quantitatively (Butler-Henderson et al., 2020). Qualitative research is critical in defining newly studied variables or contexts that are not well understood, especially with emergency situations such as the novel COVID-19 pandemic. This could help confirm and expand initial perceptions and insights that are still being formulated in the research (Feroz et al., 2020; Vindrola-Padros et al., 2021). Previous qualitative studies on COVID-19 and university students have had rather narrow foci, such as evaluating targeted topics with a single country sample (Brondani & Donnelly, 2020; Collado-Boira et al., 2020; Fawaz et al., 2021; Mukhtar et al., 2020; Nguyen et al., 2020; Ramos-Morcillo et al., 2020) or targeted higher educational programs in the health professions (Brondani & Donnelly, 2020; Ramos-Morcillo et al., 2020; White et al., 2020). Further study was needed with a more open approach to broad concerns. Therefore, the present study was designed to solicit qualitative responses from students across seven countries and three continents to determine areas of greatest concern.

The current study was part of a larger cross-sectional study of currently enrolled undergraduate and graduate students

in seven countries: China, Ireland, Malaysia, South Korea, Taiwan, the Netherlands, and the United States (USA). For this study, qualitative concerns related to the COVID-19 pandemic were examined using this larger dataset. The data collected may be used in practice by institutes of higher education to inform policy and procedure during the COVID-19 pandemic as well as future emergency situations, especially as related to student needs for continuity of learning and mental health support.

Methods

Study design

The original study used an online survey deployed between April 29 and May 31, 2020, when four participating countries (USA, Ireland, Malaysia, and the Netherlands) were under shelter-in-place orders. The other three participating countries (China, Taiwan, and South Korea) had just lifted their shelter-in-place orders, with some staff and students returning to universities.

Students completed closed-ended questions to explore how the COVID-19 pandemic impacted aspects of their lives. This data was used for an earlier study not part of the present publication. At the end of the survey, they were asked an open-ended question, the focus of the current study: Do you have any concerns related to the COVID-19 pandemic that were not covered in the survey? Please write them in detail below.

Recruitment

The study team of investigators from seven different countries recruited students from their respective universities through various communication channels including campus media, course emails, and social networks. Incentives for recruitment varied, ranging from lottery-based gift cards to select participants (USA and Netherlands), gift cards for all participants (USA, South Korea, Malaysia) or no incentives (China and Ireland). To be eligible for the study, participants needed to be at least 18 years old and be currently enrolled for a university degree (undergraduate or graduate/professional; domestic or international).

Participants

Participant age ranged from 18–63 years, though most were under 25 years (76%, $n=490$). Of the 644 students who expressed concerns, the majority ($n=426$, 66%) came from the USA. A further 69 students were from the Netherlands, 68 from Ireland, 30 from South Korea, 27 from China, 21 from Malaysia, and 3 from Taiwan. The majority of the respondents were female (73%, $n=468$), while 25% ($n=160$) were males and 2% ($n=16$) reported another gender.

Ethics

The study was approved by the Michigan State University Human Research Protection Program (East Lansing, MI, USA); the International Medical University Joint Committee on Research and Ethics (Kuala Lumpur, Malaysia); the Leiden University Faculty of Governance and Global Affairs Ethics Committee (The Hague, South Holland, Netherlands); the Indiana University Institutional Review Board for the Protection of Human Subjects (Indiana, PA, USA); the Institute of Technology Sligo Research Ethics Committee (Sligo, Ireland); the University of Taipei Institutional Review Board (Taipei, Taiwan); and the Bowling Green State University Office of Research Compliance (Bowling Green, OH, USA).

Of the total participants (2,252), 1,761 responded to the qualitative question. 63% of these students ($n=1,117$) indicated that they “did not have other concerns” beyond the questionnaire. The remaining 37% of the students ($n=644$) provided open-ended responses of their concerns related to COVID-19. These responses were the focus of this analysis.

Data analysis

All data were translated into English and inductively coded by two separate coders. After coding, all data were reviewed and discussed by the coders for consistency in content categories. Coding was done manually with the assistance of data analysis software. The coders reported over 95% consistency in identifying the same content across each case. All coded category terms were clarified and agreed upon between the coders before, during, and after the analysis. Themes that were reported by more than 10% of students (more than 64) were considered major, while those mentioned by less than 10% of students (64 or fewer) were considered minor. Qualitative themes were then compared across country, gender, age, year in school, and international student status to identify any differences.

Results and discussion

Content analysis revealed 893 concerns across 6 major and 4 minor themes. Students could report more than one concern, but individual students’ concerns were counted no more than once per theme. Convergent themes were ordered by frequency count. Major themes included Education (reported by 188 students), Safety (reported by 183 students), Mental Health (reported by 113 students), Employment Stability/Finances (reported by 105 students), Uncertainty about the Future (reported by 96 students), and Relationships (reported by 80 students). Further analysis identified subcategories within these themes (Table 1).

Education

Students’ biggest concern related to their education centered on whether the upcoming academic year would be online or in-person. Students were concerned about the quality of online learning, progress with their education, and maintaining interaction with peers and professors. Previous

Table 1. Major themes in qualitative concerns reported by students.

EDUCATION	SAFETY	MENTAL HEALTH	EMPLOYMENT STABILITY/ FINANCES	UNCERTAINTY ABOUT THE FUTURE	RELATIONSHIPS
<ul style="list-style-type: none"> • Online / Reopening / Future • Internships • Performance • Workload • Quality • Support • Financing • Study abroad • International student status 	<ul style="list-style-type: none"> • Relationships/ Concern for safety of others • Work • School • Shared housing • Behaviors of others that were not safe • High risk groups including older adults • Restrictions • Treatment (vaccine, testing, or PPE) • Health (non-COVID-19) 	<ul style="list-style-type: none"> • Psychological symptoms from uncertainty about the future • Isolation • Loss/Grief • Relationship conflict or worry • General symptoms • Existing symptoms increasing 	<ul style="list-style-type: none"> • Being able to maintain or find employment • Being able to find employment in their career field after graduation • Finances depleting • Lack of safety net (health insurance, unemployment, or childcare) 	<ul style="list-style-type: none"> • Uncertainty of the length of the pandemic • When life would return to normal • General uncertainty about their future 	<ul style="list-style-type: none"> • Having limited contact with family and friends locally and internationally • Contact with groups and communities

research found students consistently reporting similar concerns before the pandemic (Protopsaltis & Baum, 2019). A female student from the Netherlands described “the stress of moving to online learning despite having neither adequate skills nor equipment for it, and the insecurity due to professors conveying information only last minute or changing things suddenly with no or late notice.” Some students felt the transition to online learning negatively impacted their performance and were unclear how this would affect their grades. A female student from the USA said, “I have difficulty concentrating in my classes because they were never meant to take place online and I'm just not getting as much out of them in the virtual format.”

Educational concerns also related to internships and study-abroad opportunities. For some students, a large component of their degree program involved practical work associated with internships or travel. When these opportunities became unavailable, progress in the degree was uncertain. A female student from the USA expressed concern about “the ability to get education on practical skills if school is still online in the fall,” while a male student from the USA was concerned about “the possible setback of graduation due to internships not hiring.”

Safety

Safety was divided into several subcategories, with the largest being concerns about the safety of other groups from COVID-19: parents, partners, children, other family members, and the general community. Students studying away from their parents’ homes were unsure if they should return home, fearful of bringing the virus to high-risk individuals. A female student from the Netherlands said, “I personally am in a situation where I can’t go home because my mother is immuno-compromised and I don’t want to get her sick by traveling.” Concerns about unknowingly bringing home the virus to others were commonly reported by those with grandparents; concern about safety of the elderly was a specific focus within the “safety of others” subcategory. One female student from the USA also mentioned increasing rates of domestic violence during the lockdown and a concern for the safety of others that was not directly related to the virus.

Another safety-related concern centered on others’ COVID-19 preventive behaviors: whether others wore masks, kept appropriate distancing, and practiced good hand hygiene. While there was a desire to reopen, students generally recognized that reopening required others to maintain behaviors to minimize community transmission of the virus. Participants wondered whether others would follow these protocols; a female student from the USA noticed “not everyone taking [the] same measure[s] to prevent the spread of the disease.” Concern with how other people’s behaviors would impact their health was expressed by students seeking shared housing, as indicated by a female student from South Korea who was “anxious to have to share a room with others.”

Additional safety areas of concern included seeking non-COVID-19 health care, attending school, returning to work, and general travel. Participant concerns revealed tension between wanting schools and communities to reopen and worry about the virus re-emerging. Safety concerns also included treatments for COVID-19; specifically, if a potential vaccine would be safe, how it would be distributed, and when it would be available.

Mental health

Several students who reported that they had pre-existing anxiety or depression indicated an increase in symptoms due to the pandemic. Students also developed new concerns related to mental health. The majority of these psychological symptoms arose from uncertainty about the future and fears of being infected and/or contagious. A female student from the USA expressed “general anxiety at not knowing [if] I have it and constant fear of dying from it.”

Isolation and loneliness due to stay-at-home orders also created anxiety. Negative emotions stemmed from not seeing loved ones (parents, boyfriends/girlfriends, friends, and/or grandparents). An additional concern impacting students’ mental health centered on “stressors related to contracting corona and giving it to an at-risk person in my home” (female student from the USA) and the associated responsibility or guilt.

Female participants (19%) in this study provided proportionally more responses regarding mental health than male participants (13%), consistent with previous findings that women report higher rates of common mental health disorders than men do (Ritchie & Roser, 2018). This reported higher rate may not reflect actual prevalence, since males are less likely to seek health care or take preventive measures (Lefkowich et al., 2017).

Students from the USA expressed proportionally more concerns about mental health. This is consistent with the USA’s high rates of depression overall (World Population Review, 2020). While higher global rates of depression have been reported in China, there are also reports of high levels of stigmatizing beliefs about it (Yang et al., 2020). These beliefs may have influenced some student responses in the present study and resulted in the under-reporting of mental health concerns.

Employment stability/finances

The pandemic created instability related to students' present employment prospects and finances. Many students reported that they worked to pay for their tuition, and the pandemic made maintaining or seeking employment challenging. Students faced job losses or a reduction in working hours. "I have concerns with finding a job since I was laid off. I do not qualify for any stimulus package and cannot file for unemployment because I am a full-time student," said a male student from the USA.

Another concern centered on future job prospects. A female student from Ireland said, "I am graduating and going on to a postgraduate program. I am worried about jobs, moving out, how the new course will work, etc." Students were uncertain if they would be able to find employment in their selected field, worrying about "financial insecurity in the future; e.g., not finding a job" (female student from the Netherlands) or "getting a job after graduating, especially in academia, due to budget cuts" (female student from the USA). Linked to concerns about employment stability were concerns about instability in safety net protections. Students were concerned about health insurance coverage, unemployment insurance, and childcare.

While students may be more available to complete online education from home during the COVID-19 pandemic, financial pressures may compromise their ability to maintain their student status. Female students (17%) reported proportionally more concerns about employment stability than male students (13%) did. In fact, COVID-19 has exacerbated the troubling gender gap in childcare and housework at the expense of women's ability to perform paid work (Collins et al., 2020). By contrast, fathers have experienced more employment stability and significantly fewer layoffs than mothers, non-fathers, and non-mothers (Dias et al., 2020).

Uncertainty about the future

For many students, there was a general uncertainty about the future. "When would things return to normal?" was a commonly written concern. This was coupled with questions about the length of the pandemic and a desire for normalcy, but a recognition that post-pandemic normalcy might not look like pre-pandemic times. Comments included "When will they find the cure and how long will we live like this" (male student from Taiwan) or "I am just concerned about what the future will hold, what the 'new normal' will look like, and all the uncertainties that come with that" (male student from the USA).

Relationships

For students, maintaining relationships with family and friends, while critical, was a challenge. A female student from South Korea reported concern about "family members getting sick and dying while I am living abroad." In trying to shelter in place, students felt distanced from romantic or other types of relationships: "I miss my friends and my

boyfriend" (female student from the USA). Contact with neighbors and other members of their community was limited. A female student from the Netherlands said:

The things I have been looking forward to have been cancelled and my life feels emptier. I was planning a very big event for already [sic] 8 months before the COVID-19 situation abruptly put an end to it. I have lost the sense of belonging that I got out of being part of the [college] community. I miss my everyday interactions with the professors and the other students. Moreover, I have felt extremely powerless in multiple situations and this made me quite angry. I have become more aware of social differences and how unfair the world can be.

In the absence of in-person contact, students wondered how these relationships could continue to grow and be built upon.

Minor themes

Minor themes included Travel/Getting Out (45 items), Politics (36 items), Economy (28 items), and Misinformation (19 items). Further analysis identified subcategories within these themes (Table 2).

Table 2. Minor themes in qualitative concerns reported by students.

TRAVEL/ GETTING OUT	POLITICS	ECONOMY	MISINFORMATION
<ul style="list-style-type: none"> • Travel restrictions • Future travel • International travel • Getting out • Missing events • Travel plans 	<ul style="list-style-type: none"> • Responsibility and response by the government/ leadership • Election • Lack of trust 	<ul style="list-style-type: none"> • General concern for the country's economy currently and in the future 	<ul style="list-style-type: none"> • Misleading or incorrect information to the public about COVID-19 and appropriate response

Travel/getting out

This category included concerns about general travel to visit family, friends, or for summer holidays. Related to travel was a desire to "get out"—"Not in the 'open the stores, I need a haircut!' way, but in the 'I need to at least go window shopping every now and then to at least get my mind off of stuff and get out of my damn house' [way]" (female student from the USA). "Getting out" encompassed being able to move around freely regardless of location. Linked to this was concern about missing out on planned events: "family vacation because we have all been planning it for 3 years" (female student from the USA); "I have stress related to wedding planning and COVID-19 has just made it even harder to plan for anything" (male student from Taiwan); "I can't see my favorite singer's stage directly because COVID-19 made all concerts online or prohibited" (female student from South Korea).

International students (including students from the Netherlands, who were drawn from an international program) mentioned more concerns about contact with loved ones and travel compared to domestic students. This is

not unexpected in that international students generally have greater barriers to contact with loved ones in their home countries, such as travel bans, travel safety, and the need for visas. Recent research has recommended that international students themselves be surveyed about their priorities, as these may not be the same as those of educational institutions (Page & Chahboun, 2019). Identifying these concerns is a necessary step for developing emergency/crisis response for this population.

Politics

Students expressed a lack of trust in elected leaders, noting how politics was impacting decisions to control the pandemic. Concerns were related to “insecurity in my home country and to the deterioration of democracy” (female student from Peru studying in the Netherlands) or “worry that the President is handling the situation horribly and that our country will be worse off because of it” (female student from the USA). Concerns were also expressed about “civil liberties being ignored and little to no compromises being made” (male student from the USA).

Economy

This theme encompassed broad general concerns for the economy, including potential economic collapse, future economic health, and potential for a recession. Some of the comments on this topic included: “My concerns about COVID are less about getting the disease itself and more about how our nation’s economy as a whole will be able to recover” (male student from the USA), “I am concerned that businesses I used to frequent may go out of business” (male student from the Netherlands), and “Economic recession in the aftermath” (male student from Ireland).

Students from the USA had proportionally more concerns about the economy and politics than students from Asian countries. In fact, one female student from South Korea said, “I’m not really afraid about COVID-19 and I believe in the Korean government.” This is consistent with the international attention South Korea has received about strong national responses to early cases and reduction of COVID-19 positive rates (Comfort et al., 2020). This difference in concern across countries emphasizes the importance of transparent communication based on reliable data and scientific evidence, which should be reflected in university guidance for emergencies even if local community policy varies in its approach. For example, academic institutions may consistently require safety measures (e.g., masks, social distancing, sanitation protocols) whether or not the surrounding community does so.

Misinformation about COVID-19

Student concerns about COVID-19 misinformation centered on conspiracy theories, media reporting, and worries about “how COVID-19 formed” (male student from China). Due to mistrust in information about treatments, several students expressed hesitancy about a future vaccine: “I would not

be interested in the planned vaccines for the virus because everything seems like a scam” (male student from Nigeria studying in the USA). Students were also concerned about opposing messages regarding the virus. They feared these opposing messages would lead to people not believing the virus was a real threat or not believing in the effectiveness of safety behaviors (e.g., masks and social distancing), therefore impacting spread of the virus.

Implications for practice

While response to COVID-19 might theoretically be managed in university preparedness planning, the pandemic is unique in the global scale and length of the response it has required. Institutes of higher education had to rethink and redesign rapidly how to educate students, with varying success. Going forward, universities should develop and/or update emergency preparedness plans with consideration of short-term and longer-term educational needs. Students should be involved in the development of such plans, as their welfare should be central to any preparedness plans. Consideration needs to be given to vulnerable students, especially in the event that dormitories are closed for extended periods of time. Given that students’ home realities differ, tailored approaches for certain segments of the population such as those with unstable internet connectivity and/or dangerous home living situations are warranted.

In the present study, students’ major concerns included their educational future and the uncertainty of their future in general, which impacted mental health. Problems with communication between university management and students concerning lockdowns, resumption of classes and feeling connected with fellow classmates and faculty were commonly reported, sometimes compounded by students being dispersed globally. Open communication about university plans for pandemic and post-pandemic education may help to lessen student uncertainty and concerns about the future. Risk communication principles such as consistency of message content, explanation of processes, empathy and caring, and truthful communication can provide predictability in times of uncertainty (Centers for Disease Control and Prevention, 2018). Strong systems for managing communications and the flow of information are essential elements of both boundary-spanning theory (Shittu et al., 2018) and the disaster-resistant university model (Kapucu & Khosa, 2012).

Additionally, university preparedness strategies to ensure connections between students and faculty should not be limited to academics. Universities with an active pre-pandemic campus life should consider opportunities for building community virtually. This may include the extension of services commonly offered by campus support offices (e.g., instructional design, information technology, library) through virtual tours and non-academic workshops. Universities may also want to expand the definition of student life from socializing with peers to include connecting and caring for loved ones. Support for students’ families could also be beneficial. For example, campus-supported student groups could have private or open Facebook Groups, which have been found to meet students’ information-seeking

and decision-making needs (Ahern et al., 2016). These steps could help lessen student concerns about their loved ones. As students return to in-person learning, educational institutions must be prepared to offer helping in dealing with the mental health impacts of loss and grief due to COVID-19. Mental health efforts must normalize treatment and combat stigma in order to reach populations who feel unable to seek necessary care. In the USA, organized efforts exist for fighting mental health stigma on college campuses (National Alliance on Mental Illness, 2020), while national organizations combat stigma in Canada, Europe, and Oceania (World Psychiatric Association, n.d.). The World Health Organization has developed a Special Initiative for Mental Health to meet needs, including combating stigma, in twelve priority countries (World Health Organization, 2019). Still, opportunities exist for growth in further anti-stigma initiatives, particularly in South America, Asia, and Africa (World Psychiatric Association, n.d.).

Limitations

The responses in the current study may not have provided a comprehensive accounting of COVID-19 concerns, because participants also completed quantitative items about diet, exercise, coping, stressors, finance, and resiliency as related to COVID-19. However, no other question was asked specifically about "concerns" in the larger study. Another possible limitation was that the majority of participants came from the USA, while only 21% came from Europe and 13% came from Asia. Still, most themes were consistent across countries and languages. Finally, the high rate of responses by females may be due to a response bias. While female students enroll in higher education at higher rates than male students (World Economic Forum, 2020), the disparity is not as great as that observed in responses to the present study. As the data for this paper was collected in the early months of the pandemic, some countries were still in their first phase of lockdown. The policy recommendations focus on pre-emergency and short-term efforts that could be taken by universities. Addressing all of the concerns highlighted by participating students may not be within the power of universities, such as the wider political or economic climate. Regardless, universities should be aware of how these factors impact student educational attainment.

Conclusion

The present study collected qualitative information about the pandemic-related concerns of higher education students across multiple countries and continents. Major areas of concern included education, safety of others and self, mental health, financial and employment instability, uncertainty about the future, and the pandemic's impact on relationships. Additional concerns were related to travel, politics, the economy, and misinformation. These concerns could be well addressed by increased or improved communication, participatory research, and the expansion of student services to include full virtual/online access. Key services include mental health response, career planning and placement, social support, and technical support. Overall, student feedback about concerns can guide institutes of

higher education in better supporting students during the COVID-19 pandemic, as well as other emergencies that require a modification of usual learning methods.

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