

IMPACT OF COVID-9 AND RECOMMENDATIONS FOR NAVIGATING THE UNCERTAINTIES OF THE NEW NORMAL

Sharon Alston, PhD, COI

Assistant Professor of Social Work, Norfolk State University, 700 Park Ave Norfolk, VA 23504

stalston@nsu.edu

ABSTRACT

In March 2020, the world came to a halt. What began as a two-week stay-at-home order resulted in 52 weeks of social distancing, quarantining and social isolation. Universities worldwide closed their doors to re-examine higher education in the wake of the Covid-19 pandemic. This article describes how the COVID-19 pandemic impacted student learning. The article further describes how students' mental health was exacerbated because of COVID-19. The authors contribute to the recent research on the impact of the pandemic by providing recommendations for how institutions of higher education can support students during the uncertain times we can expect as the pandemic continues to pose threats to the health and safety of the students across the world.

OVERVIEW

In March 2020, the world came to a halt. What began as a two-week stay-at-home order resulted in 52 weeks of social distancing, quarantining, and social isolation. Universities worldwide closed their doors to re-examine higher education in the wake of the Covid-19 pandemic. For the first time ever, universities had to make immediate decisions about how to administer educational courses in ways that protected the health and safety of its students, staff, and Faculty. Schools became creative in how they would keep their doors open and keep everyone safe (Gleason, 2021). Some schools allowed students to stay on campus but prohibited them from interacting outside (Zhou & Zhang, 2021). Other schools allowed students to remain on campus but attend classes remotely; others closed completely.

While many States were prepared for online learning (Zhou & Zhang, 2021), most schools struggled to support students, Faculty, and staff. Among the three groups, students experience the most personal, social, emotional, and financial hardship (Deng & Sun, 2022). With the universities closing, nearly 80% of college students worldwide were somehow impacted (Zhou & Zhang, 2021). Some students were forced to return to their homes, and others began their first semester of college remotely.

Universities had now been forced to make immediate and more permanent decisions about how they would provide educational content during the pandemic. The resolution to teaching during the pandemic resulted in alternative learning modalities—remote synchronous, remote asynchronous, and hybrid while some courses remained in face-to-face formats (Bullock et al., 2022; Rudenko et al., 2020; Zhou & Zhang, 2021). While these modalities accomplished the goal of providing alternative teaching modes, they also significantly impacted students and their learning (Ensmann et al., 2021).

There is an abundance of valuable research on Covid-19. This paper seeks to contribute to the literature by further discussing the pandemic's impact on students' mental health and learning and making recommendations for how universities can support faculty and students in these uncertain times.

IMPACT ON STUDENTS

Emotional Distress (Fear, Stress, or Anxiety)

The pandemic exacerbated the stress already associated with college attendance (Livingston, Bost, & Copeland, 2022; Mannah-Blankson & Asiseh, 2021; Wang et al., 2020). The most immediate impact was the fear of contracting the COVID-19 virus. Most college students were unvaccinated when the pandemic first appeared in the United States (Zhou & Zhang, 2021). For obvious reasons, students feared for their health as many people died from the virus. When schools closed, many students were forced to leave university and college campuses and return to their places of residence. Students who relocated (i.e., left school to either return home or another domicile) experienced mental health problems. For example, Conrad et al. (2021) reported students who were forced to relocate off campus were more likely to report feelings of grief, loneliness, and anxiety than students who did not relocate.

Research confirms an increase in depression, stress, and anxiety related to the pandemic (Hickey et al., 2021). Hickey and colleagues studied 743 students' experiences with Covid-19, including their expressed concerns and fears. They reported that 25% of students expressed personal fear of contracting the virus, 60% of students feared family or close friends would contract the virus, and 87% feared a resurgence of the virus (2021). Moye et al. (2021) reported that 63% of their sample (N=397) were concerned about contracting the virus. Finally, Odriozola-



González (2020), in their study on the psychological impact of COVID, reported within their sample of university workers and students, "34.19% of participants reported moderate to extremely severe depression symptoms; 21.34% of participants reported moderate to extremely severe anxiety symptoms; and 28.14% reported moderate to extremely severe stress symptoms" (p. 5). However, students reported higher scores on all measures of the psychological impacts than workers did.

Students also reported feeling anxious, worried, and fearful about failing classes and daily life stressors because of the COVID-19 virus (Conrad et al., 2021; Prowse et al., 2021; Singh & Quraishi, 2021; Cao et al., 2020; Nakhostin-Ansari et al., 2020). For example, (Allah et al., 2021) reported that 59% of their students had anxiety, and 19.2 had moderate to severe anxiety. Hickey et al. (2021) reported that 54% of students expressed anxiety or stress related to failing classes. Kan et al. (2021) reported that students reported success was impacted by the psychological trauma they experienced during the pandemic. They also concluded that students' motivation for distance learning decreased.

Transitioning to Alternative Modalities

When universities replaced traditional face-to-face learning with alternative learning modes, students were forced to learn in spaces and places where they had limited experience and confidence (Tuğutlu & Kavaz, 2022). Students with different learning styles struggled to connect to course material, especially for visual and kinesthetic learners (Stamm et al., 2021). One student quoted in a mixed-method study of undergraduates reporting students' feelings of anxiety and stress stated, "E-learning didn't meet what I needed in the sense of hands-on learning" (Stamm et al., 2021, p. 22).

With the absence of visual aids such as writings on blackboards and whiteboards and hands-on exercises, visual and kinesthetic learners struggled to understand course content. Further, students found online materials were difficult to understand, and assignments became more of a burden (Keržič et al., 2021).

The opportunity for students to have peer interaction was also limited, and students faced challenges with engaging in group work and group assessments (Rudenko et al., 2020). Some of the cited barriers were also related to fear and anxiety about contracting the virus (Hickey et al., 2021). Elmer et al. (2020) reported that students in their study reported having fewer positive interactions and study partners during the pandemic than before. They further concluded that students had fewer face-to-face interactions during the pandemic and felt more socially isolated.

For non-traditional students, the learning curve for transitioning to remote learning was more challenging than for traditional students (Livingston, Nevels, Chung, et al., 2022). Millennials were more familiar with using technology but were least pleased with transitioning to remote learning environments (Crawford, 2021). A study of more than ten thousand students assessed students' perception of their learning during the pandemic. Forty percent of students agreed that online was a suitable alternative to face-to-face learning. However, 82% of the students reported online learning was more difficult than traditional face-to-face learning. Students also reported that the quality of the online course and online interaction with peers and teachers impacted their overall performance in their respective courses (Keržič et al., 2021).

Students' motivation for learning also was impacted. In a study of 282 university students, Tan (2020) concluded a significant difference in students' motivation for learning before and after the onset of the pandemic. They reported decreases in learning motivation, social presence, cognitive presence, teaching presence, and learning performance from pre- to post-pandemic.

Students were also impacted by the Faculty's inability to teach in online modalities (Bullock et al., 2022; Patra et al., 2021). Keržič et al. (2021) reported that 60% of students felt that faculty lectures in online spaces were not "optimal." On the other hand, (Gibson & Shelton, 2021) reported that 80% of their sample were slightly to extremely satisfied with teacher access and availability. Students reported that the flexibility of the Faculty was supportive; however, some desired more emotional support (Gibson & Shelton, 2021).

Engagement and Loss of Learning

Engaging students in the new learning modalities has had varying impacts on engagement and learning. For example, a study by Ensmann et al. (2021) examined community cohesion and affective association among 405 students. The authors reported a lack of human interaction, stating students felt alone and were not learning the required content. They further reported that students felt online classes were inauthentic and awkward, missed their peers, and felt disconnected from the class (Ensmann et al., 2021). Similarly, Rudenko et al. (2020) reported student engagement decreased in online courses. Further, in a study of 844 college students by Singh et al. (2021), 71% of the students expressed a lack of enthusiasm for online classes. Razzak et al.(2022) reported students did feel connected to their instructor. Conversely, Razzak et al. ((Gibson & Shelton, 2021) 2022) also concluded that



there were no significant differences between pre-COVID and post-COVID exams in a sample of medical students; however, students preferred face-to-face learning.

Loss of learning was also a challenge for students and Faculty (Colclasure et al., 2021). Mannah-Blankson and Asiseh (2021) describe this as COVID-induced disabilities (p.110). The authors report that 87.5% of undergraduate students experienced disruption in enrollments, 9.5% withdrew from school, 3.8% took a leave of absence, and 12% of 1,564 students in one institution impacted their choice of major. The authors further report for students who persisted in their studies, their academic performance was adversely impacted.

Students of Color

Further, students of color were the most impacted (Deng & Sun, 2022; Huang et al., 2022). Of the 95.5% of students who withdrew from school, Black students had the highest rate (Mannah-Blankson & Asiseh, 2021). Research already confirms that students of color and from underserved populations have historically been less prepared for post-secondary education (Darden-Woody & Bryant-Shanklin, 2018). In addition to the challenges underserved and minority low-income students already face, Covid-19 exacerbated those conditions and created additional risk (Mannah-Blankson & Asiseh, 2021). Black and economically disadvantaged students face a range of barriers, including work demands, the digital divide, limited online education, and access to broadband (Gleason, 2021; Patra et al., 2021). These risks presented additional barriers to learning (Deng & Sun, 2022) (Davis et al., 2020).

Disparities in employment, wages earned, and access to social capital already exist between White and Blacks (Couch et al., 2020; Hassan & Daniel, 2020). However, the effects of the disparities were further evidenced during the pandemic. For example, in April 2020, the unemployment rate for Blacks was 17% compared to 13% for Whites (Couch et al., 2020). White economically advantaged students could access resources and support from their parents, peers, and significant others to support the transition and acclamation to the new normal presented by the pandemic (Quach & Chen, 2021). At the same time, Black economically disadvantaged students had limited financial and social capital (Couch et al., 2020).

The lack of financial resources also presented barriers for many students to secure stable internet connections and access reliable technology (Martinez & Nguyen, 2020). The pandemic required the world to interact in online spaces. Some students who had to return home did not have access to reliable technology with which they could complete coursework or log onto their learning management systems (Mannah-Blankson & Asiseh, 2021).

Limited access to technology also increased social isolation (Mannah-Blankson & Asiseh, 2021). Without dependable technology, students could not engage in online social activities (Hickey et al., 2021). For example, colleges and universities held graduation ceremonies and social events via platforms such as Zoom, Teams, and Blackboard Collaborate (Ensmann et al., 2021). Access to such activities was rare for Black and minority students with limited finances. When they could access the platform, limited bandwidth for connection prevented them from fully engaging in the activity. Gleason (2021) reported that "Black students still struggle with the 'digital divide' 25 years after the term was coined. Only 66% of Black households have access to broadband (p. 1).

Further increasing social isolation was the lack of access to or hesitancy to take the Covid 19 vaccination. Even when the vaccination became available Black students were less likely to receive the vaccine than their white counterparts (Kecojevic et al., 2021; Moye et al., 2021). Further, Moye et al. (2021) reported that 37% of their sample indicated that they would not get vaccinated when it became available.

RECOMMENDATIONS

Student Support

Higher education worldwide is experiencing significant changes in how we teach in traditional spaces (Hamann et al., 2021). As the current year brings a glimpse of hope that we will return to a place of normalcy, the fact remains there is still considerable risk for the transmission and spread of COVID-19 (Leal Filho, 2021). If we are to support our students, Faculty must anticipate the needs of our students. We must also consider how we can best support students through the uncertainties of the years to come (Baker, 2020). We can expect that students will continue to need assistance in the identified areas of challenges.

As the most reported challenges were transitioning to remote learning spaces, either hybrid, synchronous, or asynchronous, institutions should make sure that all students have access to reliable technology (Alston et al., 2017). Universities may want to invest in extra equipment such as laptops, web cameras, and headsets that students can borrow and use to access the course materials. In addition, additional technological support for remote learners will be essential. Consistent with García and Weiss (2020), as students continue to learn in online spaces and as



the need for new technology arises, students will need to have access to technical support for downloading learning resources, accessing video recordings, and uploading their own digital work.

Another challenge identified was the mental health of students. Mental health treatment is available on most college campuses, and many students are either unaware, refuse treatment, or hesitate to seek services out of fear of stigma (Livingston, Chung, Davis-Wagner, et al., 2022). Providing alternative treatment modalities may be an effective strategy for addressing students' mental health. For example, providing mental health treatment services in cohorts of interdisciplinary students (psychology, social work, sociology, nursing) can help students understand how prevalent mental health is among the helping professions. Also, virtual counseling sessions can be of value as students do not wish to be seen entering the counseling centers.

Also, using social media as a tool to create awareness, promote mental health, and socialize the academic community on the signs and symptoms of mental illness is recommended. Universities can send announcements about the availability of mental health counseling over their social media platforms. This strategy is consistent with Livingston, Bost, et al. (2022) (2022), who suggest counseling centers develop media campaigns to mediate the stigma associated with the mental illness of students on college campuses.

Faculty can also support students experiencing mental health challenges. Faculty can include a wellness check at the beginning of the classes to gauge where students are emotionally. Livingston, Bost, Kerr et al. (2022)report that wellness checks have provided social work students with opportunities to adjust to virtual learning. An interesting approach to emotionally engaging students is reported by Koob et al. (2021). They recommend universities offer "social support system[s]" that would include formal and informal approaches for informational, emotional, and instrumental support through digital and hybrid modalities.

Student engagement will also be of significance. Martin et al. (2018) suggest student engagement increases motivation and student satisfaction with course material. Draves (2013) asserts, "when students are socially engaged in the course, it will enhance their learning and your teaching" (p.22). Ensmann et al. (2021) reported that students felt disconnected from the class, and creating opportunities for social cohesion is recommended. As many students use social media or have social media accounts, social media is also recommended to increase student engagement. For example, using social media such as Twitter, Instagram, and Facebook in courses remote and face-to-face is said to increase student engagement (Kunka, 2020). As an assignment, Faculty can instruct students to follow one or more Twitter accounts in their discipline and report back to the class. Another social media strategy is to ask students to share their assignments vis social media and seek feedback. A final use of social media is using Twitter to create awareness or advocate for a cause they feel strongly about.

Such group activities and crossed-referenced partnerships are recommended for learner-to-learner engagement. Learner-to-learner engagement leads to increased student engagement Martin et al. .. Faculty must develop innovative ways to increase engagement among and between learners. Darden-Woody (2018) and Martin et al. (2018) recommend collaborative learning activities to increase student engagement. In the absence of face-to-face courses, breakout rooms are invaluable resources to enhance student engagement. One approach is using breakout rooms in zoom or other learner management systems for students to engage in intellectual conversations with each other about their course content (Rudenko et al., 2020). Darden-Woody (2018) asserts that learner-to-learner engagement, such as group activities during which students can share and compare information, helps students retain course information (p.110).

Increased learner-to-learner engagement presents greater opportunities for student-to-instructor engagement (Martin & Bolliger, 2018). Students are eager to confirm the opinions they discuss with their peers with their instructors. Interaction between students and teachers is paramount (Alston et al., 2017). Instructors can build on students' discussion, which allows students to engage further with the course content and think more critically. In doing so, we develop more critical thinkers and engage students with the course content.

Finally, as Faculty, we can simply show compassion and empathy for our students regardless of the social context of the world. Darden-Woody (2018) recommends showing students you care. She further asserts Faculty should be encouraging students through positive motivation can be beneficial to all students, specifically underprepared students (p. 111)

Faculty Support

In addition to student support, Universities must be equally committed to addressing the faculty and staff's needs with technology training, assistance with redesigning face-to-face courses, and training in innovative advising. These needs and strategies are not necessarily new; however, they are essential if we are to support our students in this new normal.



Training in Technology

Faculty, regardless of teaching modality, should receive extensive training in the use of technology in online teaching. This is consistent with Rudenko et al. (2020) and Patra et al. (2021), who suggest faculty training in the use of technology is essential to student learning. Universities should provide extensive professional development to all teaching faculty (Alston et al., 2017). If Faculty are better prepared and knowledgeable on navigating online spaces, this could improve students' experience as the pandemic forces universities to teach online. Darden-Woody (2018) recommends training faculty on how to record their lectures and activities. She asserts that this strategy effectively increases student learning and should be continued in future teaching environments.

In addition to supporting Faculty through professional training, supporting Faculty socially and psychologically can prevent burnout and Zoom fatigue. The health and mental health of university faculty and staff will inevitably impact their work performance in the classroom. Universities should begin adopting the culture of care concepts and promote health and wellness among their faculty. Some examples are beginning meetings with mindful meditation, instituting a wellness program for all Faculty, reducing the time and frequency of virtual meetings, and offering mental health days throughout the academic year.

Redesigning Face-To-Face Course

Effective course design requires careful instructional planning and responding to students' individual needs (Chierichetti & Backer, 2021). Corse design and delivery are essential to online teaching (Alston et al., 2017). As we return to face-to-face instruction and the threat of COVID transmission remains, redesigning face-to-face courses so that the courses are easily transformed into online courses is an excellent strategy for the continuity of course instruction and preventing student learning loss. For example, using digital learning resources such as MindTap. MindTap, and Webex in your face-to-face courses. DLR can be easily incorporated into your learning management systems such as Blackboard, Moodle, or Canvas. Students can easily transition to remote learning if there is a COVID outbreak or any other health concern.

Building opportunities for authentic dialogue between Faculty and students are also recommended. These opportunities allow students to receive clear and timely information regarding the expectations about course assignments, attendance, and other course-related announcements. As cited by Alston et al. (2017), building time and space when designing courses can be accomplished through scheduled synchronous meetings.

Training in Innovative Advising

Advising is key to students' success. Research confirms that students who are supported by their advisors will likely succeed in the course. In our current social environment (i.e., the pandemic), Faculty must be more innovative in how we advise students and in what capacity. Pre-pandemic advisement consists of academic advisements; in some instances, professional or career advisement would be required. Given our reality, Faculty would be remiss if they did not consider students' health and mental health as they advise students on course selection and career trajectories. They may consider how to assess students for students their propensity to experience future mental health problems or how the course content can exacerbate current mental health conditions of students and help students to develop a plan for how they can navigate the course with minimal to no adverse impact on their academic performance.

Research on student learning suggests we begin to use student data to make decisions on how to advise students. As reported in the Chronicle for Higher Education (2022), colleges and universities are collecting data beyond attendance, grades, and demographics. They are now including questions about basic needs, health, and holistic needs such as access to childcare.

Along this line of thinking, Faculty should use available data when advising students. In doing so, we may be able to provide more useful and practical advice to our students as they navigate the social and political world in which we now live.

CONCLUSION

The information presented in this paper, along with the recent research on COVID-19, suggests that institutions must be vigilant in our efforts to support our students in these uncertain times. In doing so, we can expect that our students and Faculty will be able to successfully navigate the uncertainties of the next few years.



REFERENCES

- Abdul Razzak, R., Al-Shaibani, T., & Naguib, Y. (2022). Do students effectively learn physiology through distance online instruction? Medical students' perceptions and academic performance. *Advances in Physiology Education*, 46(1), 65–70. https://doi.org/10.1152/advan.00098.2021
- Allah, A., Algethami, N., Algethami, R., ALAyyubi, R., Altalhi, W., & Ahmed Atalla, A. (2021). Impact of COVID-19 on psychological and academic performance of medical students in Saudi Arabia. *Journal of Family Medicine and Primary Care*, 10(10), 3857. https://doi.org/10.4103/jfmpc.jfmpc_1004_21
- Alston, S. T., Moore, C. S., & Thomas, M. (2017). Strategies for enhancing online teaching in social work education. Journal of Human Behavior in the Social Environment, 1–10. https://doi.org/10.1080/10911359.2017.1311817
- Baker, R. (2020). What students need most as they join the register. *Nursing Children and Young People*, 32(3), 13–13. https://doi.org/10.7748/ncyp.32.3.13.s11
- Bullock, A., Colvin, A. D., & Jackson, M. S. (2022). Zoom fatigue in the age of COVID-19. Journal of Social Work in the Global Community, 6(1). https://doi.org/10.5590/JSWGC.2022.07.1.01
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287, 112934. https://doi.org/10.1016/j.psychres.2020.112934
- Chierichetti, M., & Backer, P. (2021). Exploring faculty perspectives during emergency remote teaching in engineering at a large public university. *Education Sciences*, 11(8), 419. https://doi.org/10.3390/educsci11080419
- Chronicle of Higher Education. (2022). Why Student Data is More Valuable Than Ever [Inforgraphic].
- Conrad, R. C., Hahm, H. "Chris," Koire, A., Pinder-Amaker, S., & Liu, C. H. (2021). College student mental health risks during the COVID-19 pandemic: Implications of campus relocation. *Journal of Psychiatric Research*, 136, 117–126. https://doi.org/10.1016/j.jpsychires.2021.01.054
- Couch, K. A., Fairlie, R. W., & Xu, H. (2020). Early evidence of the impacts of COVID-19 on minority unemployment. *Journal of Public Economics*, 192, 104287. https://doi.org/10.1016/j.jpubeco.2020.104287
- Crawford, J. (2021). During and beyond a pandemic: Publishing learning and teaching research through COVID-19. *Journal of University Teaching and Learning Practice*, *18*(3), 6–13. https://doi.org/10.53761/1.18.3.2
- Darden-Woody, B., & Bryant-Shanklin, M. (2018). Ten simple tips for teaching underprepared students in college classrooms. *The Online Journal of New Horizons in Education*, 8(2), 108–112.
- Deng, X. "Nancy," & Sun, R. (2022). Barriers to e-learning during crisis: A capital theory perspective on academic adversity. *Journal of Information Systems Education*, 33(1), 75–86.
- Draves, W. (2013). Advanced teaching online. Lern Books.
- Elmer, T., Mepham, K., & Stadtfeld, C. (2020). Students under lockdown: Comparisons of students' social networks and mental health before and during the COVID-19 crisis in Switzerland. *PLOS ONE*, 15(7), e0236337. https://doi.org/10.1371/journal.pone.0236337
- Ensmann, S., Whiteside, A., Gomez-Vasquez, L., & Sturgill, R. (2021). Connections before curriculum: The role of social presence during COVID-19 emergency remote learning for students. *Online Learning*, 25(3). https://doi.org/10.24059/olj.v25i3.2868
- García, E., & Weiss. (2020). COVID-19 and student performance, equity, and U.S. education policy: Lessons from pre-pandemic research to inform relief, recovery, and rebuilding. Economic Policy Institute. https://epi.org/205622
- Gibson, J. P., & Shelton, K. (2021). Introductory biology students' opinions on the pivot to crisis distance education in response to the COVID-19 pandemic. *Journal of College Science Teachin*, 51(1). https://www.nsta.org/journal-college-science-teaching/journal-college-science-teachingseptemberoctober-2021-0
- Gleason, B. (2021). Expanding interaction in online courses: Integrating critical humanizing pedagogy for learner success. *Educational Technology Research and Development*, 69(1), 51–54. https://doi.org/10.1007/s11423-020-09888-w
- Hamann, K., Glazier, R. A., Wilson, B. M., & Pollock, P. H. (2021). Online teaching, student success, and retention in political science courses. *European Political Science*, 20(3), 427–439. https://doi.org/10.1057/s41304-020-00282-x
- Hassan, S., & Daniel, B.-J. (2020). During a pandemic, the digital divide, racism and social class collide: The implications of COVID-19 for black students in high schools. *Child & Youth Services*, 41(3), 253–255. https://doi.org/10.1080/0145935X.2020.1834956
- Hickey, S. E., Hebert, E. P., & Webb, N. (2021). College student experiences of the COVID-19 pandemic: Concerns, preventive behaviors, and impact on academics and career choice. *American Journal of Health Studies*, 36(2), 76–87. https://doi.org/10.47779/ajhs.2021.647



- Huang, H. Y., Li, H., & Hsu, Y. (2022). Coping, COVID knowledge, communication, and HBCU student's emotional well-being: Mediating role of perceived control and social connectedness. *Journal of Community Psychology*, 50(6), 2703–2725. https://doi.org/10.1002/jcop.22824
- Kan, Ş. G., Çaltıkuşu, Ç., & Şensoy, Ş. (2021). The views of university students about the achievements and motivations of the distance education process during the pandemic period. *Propósitos y Representaciones*, 9(SPE3). https://doi.org/10.20511/pyr2021.v9nSPE3.1165
- Kecojevic, A., Basch, C. H., Sullivan, M., Chen, Y.-T., & Davi, N. K. (2021). COVID-19 Vaccination and Intention to Vaccinate Among a Sample of College Students in New Jersey. *Journal of Community Health*, 46(6), 1059–1068. https://doi.org/10.1007/s10900-021-00992-3
- Keržič, D., Alex, J. K., Pamela Balbontín Alvarado, R., Bezerra, D. da S., Cheraghi, M., Dobrowolska, B., Fagbamigbe, A. F., Faris, M. E., França, T., González-Fernández, B., Gonzalez-Robledo, L. M., Inasius, F., Kar, S. K., Lazányi, K., Lazăr, F., Machin-Mastromatteo, J. D., Marôco, J., Marques, B. P., Mejía-Rodríguez, O., ... Aristovnik, A. (2021). Academic student satisfaction and perceived performance in the e-learning environment during the COVID-19 pandemic: Evidence across ten countries. *PLOS ONE*, *16*(10), e0258807. https://doi.org/10.1371/journal.pone.0258807
- Koob, C., Schröpfer, K., Coenen, M., Kus, S., & Schmidt, N. (2021). Factors influencing study engagement during the COVID-19 pandemic: A cross-sectional study among health and social professions students. *PLOS ONE*, 16(7), e0255191. https://doi.org/10.1371/journal.pone.0255191
- Kunka, B. A. (2020). Twitter in higher education: Increasing student engagement. *Educational Media International*, 57(4), 316–331. https://doi.org/10.1080/09523987.2020.1848508
- Leal Filho, W. (2021). COVID-19, sustainable development and higher education: Towards a recovery path. *International Journal of Sustainability in Higher Education*, 22(1), 138–141. https://doi.org/10.1108/IJSHE-10-2020-0364
- Livingston, V., Bost, A., & Copeland, A. (2022). Exploring Black students' mental health characteristics by field of academic study utilizing a critical race lens. *Journal of Human Behavior in the Social Environment*, 32(6), 738–753. https://doi.org/10.1080/10911359.2021.1956394
- Livingston, V., Bost, A., Kerr, B., & Wilson, K. (2022). Teaching and learning in the midst of COVID-19: The impact of locus of control on emotional and professional survival during a global pandemic. *Reflections: Narratives of Professional Helping*, 28(1), 21–34.
- Livingston, V., Chung, I., Davis-Wagner, D., Ericksen, K. S., Jenkins, V., Nevels, B., & Neely-Goodwin, S. (2022). An examination of the help-seeking behaviors of HBCU students by gender, classification, referral source, and mental health concerns. *Social Work in Mental Health*, 20(3), 334–349. https://doi.org/10.1080/15332985.2021.2011823
- Livingston, V., Nevels, B. J., Chung, I., Ericksen, K. S., Duncan, E., Manley, C. K., Merriwether, H., & McCullar, J. (2022). The enigma of resilience at an HBCU during a global pandemic. *Journal of Human Behavior in the Social Environment*, 1–21. https://doi.org/10.1080/10911359.2022.2100028
- Mannah-Blankson, T., & Asiseh, F. (2021). Insights into learning disabilities. *Insights into Learning Disabilities*, 18(2), 109–119.
- Martin, F., & Bolliger, D. U. (2018). Engagement matters: Student perceptions on the importance of engagement strategies in the online learning environment. *Online Learning*, 22(1). https://doi.org/10.24059/olj.v22i1.1092
- Martinez, A., & Nguyen, S. (2020). *The impact of COVID-19 on college student well-being*. The Healthy Minds Network.
- Moye, R., Skipper, A., Towns, T., Rose, D., Department of Behavioral Sciences, Winston Salem State University, Winston Salem, NC, USA, & Gerontology Institute, Georgia State University, Atlanta, GA, USA. (2021). Attitudes toward vaccines during the COVID-19 pandemic: Results from HBCU students. *AIMS Public Health*, 9(1), 155–172. https://doi.org/10.3934/publichealth.2022012
- Nakhostin-Ansari, A., Sherafati, A., Aghajani, F., Khonji, M., Aghajani, R., & Shahmansouri, N. (2020). Depression and Anxiety among Iranian Medical Students during COVID-19 Pandemic. *Iranian Journal of Psychiatry*, 15(3), Article 3.
- Odriozola-González, P., Planchuelo-Gómez, Á., Irurtia, M. J., & de Luis-García, R. (2020). Psychological effects of the COVID-19 outbreak and lockdown among students and workers of a Spanish university. *Psychiatry Research*, 290, 113108. https://doi.org/10.1016/j.psychres.2020.113108
- Patra, S. K., Sundaray, B. K., & Mahapatra, D. M. (2021). Are university teachers ready to use and adopt e-learning system? An empirical substantiation during COVID-19 pandemic. *Quality Assurance in Education*, 29(4), 509–522. https://doi.org/10.1108/QAE-12-2020-0146
- Prowse, R., Sherratt, F., Abizaid, A., Gabrys, R. L., Hellemans, K. G. C., Patterson, Z. R., & McQuaid, R. J. (2021). Coping with the COVID-19 pandemic: Examining gender differences in stress and mental health among university students. *Frontiers in Psychiatry*, 12, 650759. https://doi.org/10.3389/fpsyt.2021.650759



Quach, A., & Chen, V. T. (2021). Inequalities on the digital campus. *Dissent*. https://www.dissentmagazine.org/article/inequalities-on-the-digital-campus

Rudenko, E., Bachieva, R., Aligadzhieva, A., Temirhanova, Z., & Archilaeva, A. (2020). Distance learning during the pandemic: Managing the challenges. *E3S Web of Conferences*, 210, 18038. https://doi.org/10.1051/e3sconf/202021018038

Singh, G., & Quraishi, S. (2021). COVID-19 lockdown: Challenges faced by Indian students. *Psychological Studies*, 66(3), 303–307. https://doi.org/10.1007/s12646-021-00608-9

Stamm, M., Francetic, K., Reilly, R., Tharp, A., Thompson, N., & Weidenhamer, R. (2021). Kinesthetic learners during the COVID-19 pandemic: Occupational therapy students' perspective on e-learning. *Journal of Occupational Therapy Education*, 5(2). https://doi.org/10.26681/jote.2021.050203

Tuğutlu, Ü., & Kavaz, O. (2022). The impact of the distance education on students during pandemic process and the opinions of the parents. *The Online Journal of New Horizons in Education*, 12(1).

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International Journal of Environmental Research and Public Health*, 17(5), 1729. https://doi.org/10.3390/ijerph17051729

Zhou, J., & Zhang, Q. (2021). A survey study on U.S. college students' learning experience in COVID-19. *Education Sciences*, 11(5), 248. https://doi.org/10.3390/educsci11050248