COVID-19 and Higher Education: A Qualitative Study on Academic Experiences of African International Students in the Midwest

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Abstract

COVID-19 pandemic has harshly impacted university students since the outbreak was declared in March 2020. A population impacted the most was international college students due to limited social networks, restrictive employment opportunities, and travel limitations. Despite the increased vulnerability, there has been limited research on the experiences of African-born international students during the pandemic. Using an exploratory qualitative design, this study interviewed 15 African-born international students to understand their experiences during the pandemic. Thematic analysis revealed that the COVID-19 pandemic influenced participants' academic life directly via an abrupt shift to online learning and indirectly through disruptions in an academic work routine, opportunities for networking, and career advancement, resulting in lower academic performance and productivity. These experiences were worsened by other social and regulatory barriers associated with their non-immigrant status. The study findings suggest an increased need for institutional and community support for international students as vulnerable populations during a crisis to promote sustained academic success.

Keywords Academic impact · African international students · COVID-19 pandemic · Experiences · Qualitative

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On March 11, 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a global pandemic (Dumas et al., 2020). As of February 2022, there have been about 430 million cases of COVID-19 worldwide, including about 6 million deaths (Worldometer, 2022). Of this number, over 78 million cases have contracted the virus in the USA, with over 926 thousand deaths (CDC, 2021). Preventative behaviors such as regular hand washing, mask-wearing, social distancing, partial or total lockdowns, and stay-at-home orders were implemented worldwide (Caponnetto et al., 2020; Dumas et al., 2020; Vanderbruggen et al., 2020). These preventative and seclusive measures have been linked with irritability, anxiety, fear, sadness, anger, and boredom, especially among college students (Ornell et al., 2020; Sokolovsky et al., 2021).

In 2020 when the COVID-19 pandemic started, the USA was home to 1,075,496 international students (Schwartz, 2020). College students have been impacted by the pandemic in different areas, including mental health issues such as anxiety, depression, loneliness, anger, fear (Dumas et al., 2020; Yehudai et al., 2020), and a negative impact on their education as well (Yehudai et al., 2020). The COVID-19 pandemic changed the educational system, as schools worldwide were forced to cancel in-person classes to help prevent the spread of the virus to students, teachers, and staff (Dumas et al., 2020) and the community at large. In the USA, academic institutions transition to online learning from mid-March 2020 until the Fall semester of 2021 (Gutterer, 2020). While there has been a slow return to face-to-face learning, many universities and colleges have expanded their online courses to provide virtual learning (Fox et al., 2021). In addition, traveling due to the pandemic continues to be a challenge for international students (Bielecki et al., 2021; CDC, 2022) due to COVID-19 testing requirements and quarantine mandates and the potential for their study visas to be suspended if they return to their home countries for lengthy periods.

Among the student population, international students have been harshly impacted by the COVID-19 pandemic academically, socially, and economically due to their immigration status (Alaklabi et al., 2021). Americans received financial support in the form of emergency funds, COVID-reliefs, stimulus checks, and financial relief programs to relieve the economic burden on Americans during the pandemic (Alpert, 2022). However, because international students are not considered permanent residents or American citizens, they were exempted from receiving financial support (Sprintax, 2021), yet they faced increased vulnerability because they did not have familial and emotional support. As a result, most international students relied on their host institutions for emotional and financial support. Several studies show that, before the pandemic, international students, especially those from low-income countries (e.g., African countries), had been experiencing stressors due to geographical locations and dealing with financial burdens from living abroad (Choudaha, 2017; McGill, 2013). Given these existing vulnerabilities, school and business shutdowns during the pandemic exacerbated international students' social and psychological stress and affected their academic performance and sense of self-worth (Dumas et al., 2020; Yehudai et al., 2020). Studies found that American college students delayed their graduation dates, withdrew from classes, lost their internship opportunities, and changed academic plans during the pandemic (Aucejo et al., 2020).

Approximately 24% of undergraduates at a medium-size university either delayed graduation or withdrew from classes (Aucejo et al., 2020).

These outcomes align with Tinto (1987)'s theory on student departure, which argues that students are at risk of dropping out when they experience three major determinants: academic difficulties, the inability of individuals to meet their educational and occupational goals, and their failure to become or remain incorporated in the intellectual and social life of the institution (Tinto, 1987). According to Tinto, for students to thrive and remain in school, they need a balance of academic performance, faculty/staff interactions, extra-curricular activities, and peer-group interactions (Tinto, 1993). In the study, we will use the theory of student departure to explore how the COVID-19 pandemic disrupted international students' livelihood resulting in academic difficulties, loss of scholarships or assistantships, internship placements (Aucejo et al., 2020), loss of personal interaction(faculty, staff, or peers), and incorporation with their host academic institutions (recreational facilities) – all of which negatively affected their socio-economic well-being and academic performance. The study's overarching goal is to explore the academic experiences of African international students during the COVID-19 pandemic and highlight relevant lessons for future crisis response. Given the number of international students attending American universities and colleges, insights from the study can enhance our understanding of international students' needs during crises at three levels: the individual, institutional, and community. At the individual (i.e., student) level, findings could suggest potential opportunities for support during the public health crisis. At the institutional and community levels, findings may inform practitioners on how universities and communities can partner to reduce the vulnerabilities of international students. Findings can also inform the design of international-student friendly national policies.

Methods

Research Design and Setting

This paper uses a qualitative research design to explore the academic experiences of African international students during the COVID-19 pandemic. In-depth interviews were conducted by four research team members using a semi-structured interview guide. The study design was chosen to understand the lived experiences of international college students; a population rarely studied during a disaster. The chosen population represented graduate students enrolled in a research institution at the onset of the COVID-19 pandemic (Creswell & Poth, 2019). We uncovered many unspoken realities of international students' academic life during the pandemic by applying qualitative inquiry. The study took place at a large research institution in the Midwest. There were 1,931 and 1,455 international students registered at the university during the 2019–2020 and 2020–2021 academic years, respectively. The enrollment rate continued to drop, mainly because of the COVID-19 pandemic and reached 1,436 during the 2021–2022 academic year (University of Missouri, 2021). During the study period, international students representing African countries during the

pandemic were Nigeria (*N*=41) and Ghana (*N*=28) (University of Missouri, 2021). Interviews were conducted by Zoom during the pandemic between March and June 2021.

Research Team

Members of the research team were international students from African countries, racially similar but diverse in their gender identifications and student classification. These individuals approached this study with scholarly and personal interests in identity and the meaning and significance of international students. In terms of their roles in this study, the first author, a Ph.D. level behavioral scientist conducted most of the individual interviews, while the second, third, and fourth authors; advanced doctoral & master's level students at the time worked directly with the first author in conducting interviews, analyzing transcripts, and generating themes. The last two authors hold doctoral degrees in public health; one of the authors guided the research design, data collection, and analysis. Both senior authors served as independent auditors. The independent auditors' role was to 1) guarantee that multiple perspectives of the data were honored and discussed and 2) help ensure that analysts' assumptions, expectations, and biases did not unduly influence the findings (Hill et al., 1997, 2005).

Participant Recruitment

Using a mix of purposive and snowball sampling (Edmonds & Kennedy, 2016), twenty-four African international students expressed interest in participating in the study. The research team contacted their international student networks and student groups to recruit participants, such as the African Graduate Student Professional Group and the university student's international office. The inclusion criteria included being an African international student, currently enrolled in a graduate program, 18 years and older, and willing to be audio recorded.

Procedures

The Institutional Review Board approved the study and related activities at the corresponding author's institution. A semi-structured interview guide was used to obtain detailed descriptions of academic life during the pandemic. The interview questions were developed in three stages. First, the research team explored existing literature on international students' well-being to familiarize themselves with international students' academic experiences. Second, data on the impacts of the pandemic on college students were examined, and finally, a consensus was reached on the interview questions. The interview questions included: "How has the COVID-19 pandemic affected you academically?" and "How has COVID-19 affected your career goals, plans, or timelines?".

Before the start of each interview, participants were oriented about the aim of the study, confidentiality, and data management practices. All participants gave their consent to participate in the study. The interviews were audio-recorded via Zoom.

The interviews lasted approximately 45 min (range 40 –70 min). All interviews were transcribed verbatim by four members of the research team.

Twenty-four African international students were recruited; however, 15 African international students participated in the study (i.e., five females and ten males). Most of the participants were Ph.D. students ($N=11$), and the remaining were masters-level graduate students ($N=4$) (see Table 1). Nine students expressed interest in the study but did not participate due to scheduling conflicts.

Analysis

Thematic analysis was used to identify themes and patterns and classify segments of the data under each category (Frost, 2021). The research team reviewed the first three transcripts and developed a coding scheme. During the process, members of the research team examined relationships among the initial codes, laid out the potential parent, child, and grand-child codes (Creswell & Poth, 2019), discussed and resolved all coding conflicts. Following the development of the coding scheme, four of the authors shared and independently coded the rest of the transcripts using NVivo12 qualitative analysis software. The research team held continuous meetings and virtual engagements to review, define and code the themes, and to finalize the analysis and interpretation. To avoid the risk of overgeneralization in the thematic analysis, attention was focused on producing thorough descriptions and detailed information on each theme. More thorough immersion in the data also helped the research team to develop a good understanding of participants' experiences and make meaning of the themes (Polit & Beck, 2010). Reflexivity and positionality were adopted throughout the research process to minimize the risk of personal beliefs, experiences, and positions that could affect the research findings and conclusions (Palaganas et al., 2017). As a research team identified as international students with African origins, they were aware of the potential bias in data interpretation. Hence, the research team remained careful to reduce the impact of their experience, preconceptions, and interests by applying greater sensitivity to the participant's opinions by presenting thick descriptions and direct quotes (Darawsheh, 2014). For example, using multiple researchers during the data collection and analysis (i.e., investigator triangulation) provided various perspectives that were discussed and agreed upon before final coding. Throughout this process, the research team members were able to critically self-reflect on the lived experiences of African international graduate students living in the Midwest USA and how that may have influenced the interpretation of findings (Cooper, 2012; Singh, 2013).

Findings

There were 15 participants, five females (33.3%) and ten males (66.7%), who participated in the study. Almost half of the participants (46.7%) represented early adulthood (23 – 32 years). All participants self-identified as Black, and most of

Table 1 Participant Demographic information

Gender	N	%
Female	5	33.3
Male	10	66.7
Age Range		
23–37 years	5	33.3
28–32 years	2	13.3
33–37 years	7	46.7
37 + years	1	6.7
Country of Origin		
Nigeria	10	66.7
Ghana	2	13.3
Zimbabwe	1	6.7
Cameroon	1	6.7
Ivory Coast	1	6.7
Years in the US		
2–3 years	7	46.7
4–5 years	7	46.7
More than 5 years	1	6.7
Program Level		
Master's Level	3	20
Doctorate Level	12	80
Primary Source of Income		
GTA/GRA*	13	86.7
Fellowship	1	6.7
Other**	1	6.7
Student Visa		
F-1	12	80
J-1	3	20
Housing		
Off-campus	13	86.7
On-campus	2	13.3
Marital Status		
Single, never married	10	66.7
Married	5	33.3

*Graduate teaching assistant/Graduate research assistant

** Part-time employment

the students were Nigerians (66.7%, $n = 10$). Most participants (93.3%, $n = 14$) lived in America for two to five years as Ph.D. students (73.3%, $n = 11$) and relied on graduate assistantship as their primary source of income (86.7%, $n = 13$). Most of the participants (80%, $n = 12$) were on F-1 visas, living off-campus in

non-university rental properties (66.7%, $n = 10$), and single, never married (66.7%, $n = 10$; See Table 1.)

The four major themes from the thematic analysis were challenges with pivoting to online learning, diminished academic performance, disruption of academic timelines, and stolen and missed opportunities.

Theme 1: Pivoting to Online Learning

To limit exposure and the spread of COVID-19 on campus, US colleges and universities moved from in-person classes to online. While the rationale and benefits of this decision were obvious, there were many unintended consequences on the part of African international students ranging from unmet individual preferences to difficult or unsupportive learning contexts.

Learning Format, Context, and Productivity- a Gift and a Curse

Students select learning formats (in-person/online, asynchronous/synchronous) based on their abilities and preferences, with some preferring more interactive formats than seclusive. As a result of campus closure, students had to do academic work from home, which represented a considerable change in their day-to-day living. Most students found the pandemic to be a *curse* as they experienced difficulties in getting academic work done at home. One participant expressed how her life was impacted by the sudden pivoting to online when she preferred in-person lectures:

> So, it has been quite difficult for me personally. On a personal level, I prefer to be in class because of my attention span. Virtual classes are also a problem for me because it is quite difficult for me to sit down in front of the computer for long hours. (Nigerian, female Ph.D. student)

Similarly, another male doctoral student discussed how pivoting to online learning was disruptive – creating enormous challenges for him to complete his research due to the mandatory "stay-at-home" orders.

> I guess it [*COVID-19*] also kind of affected my research because I was trying to get some articles out. Usually, I like going to the office as a routine just to write and come back home because staying home writing can be a problem. (Nigerian male Ph.D. student)

Working from home presents challenges related to workspace, technology, internet availability (i.e., connectivity), and familial responsibilities. For international students, working from home create challenges as they may be tempted to engage in family discussions during study hours. This challenge is common because of time zone differences with their home countries. Similarly, another Ghanaian doctoral student stated that phone calls from family members were a significant source of distraction, "*I have been turning in work late. Sometimes about only one hour or 30 min before the deadline because I have to talk on the phone (*with family members*), and it is mostly helping other people with situations.*"

A Nigerian student, referring to the boredom that resulted from the shelter-in-place mandate, remarked, *"sometimes I just get tired of being at home" (Nigerian male master-level)*, while a Ghanaian female doctoral student experienced difficulties because of her childcare roles interfering with her coursework. She expressed her challenges working on her dissertation while balancing childcare duties,

> I just completed my comprehensive exams during the lockdown. I was done with all my classes, and I was doing my dissertation. I did all my defense, and I did my comprehensive exam defense on zoom. I could not do much during the day because my son was also homeschooling online, and I have to monitor him. Every now and then, he needed help with things, so I could not work during the day. At night when everyone else sleeps, I get to work. It kind of slowed me down.

Switching from campus to a home-learning environment impacted student productivity. Most graduate students described how their inability to access workspaces on campus made it difficult to complete their assignments or research. For example, a master-level Nigerian female student stated that *"my productivity was low" and "my productivity dropped significantly at some point."* Similarly, a female Cameroonian doctoral student described her experiences with online learning and how it reduced her productivity:

> The fact that I had to stay online zooming for about two and a half hours and more every day was a huge stress for me. So, sometimes, apart from the online class, I still have to read articles online, looking at the computer and all, and that brought with it a lot of mental stress for me. And at a point, I felt like I was not very productive.

A female Nigerian doctoral student expressed similar concerns and detailed her challenges with productivity during 'stay-at-home' orders:

> My area of study, which was library, was kind of closed, and I had my routine already before the pandemic. Eventually, I was not really motivated to work from home, even though I really wanted to be productive, but it has been a little bit more difficult for me to produce anything academically, that is for sure.

However, some other students found the pandemic to be a *gift*. For such students, the transition to virtual learning provided added familial benefits such as the flexibility to learn from home while fulfilling other familial duties (i.e., cooking and childcare). A master-level female student from Nigeria who is the primary caregiver of her two school-aged children stated.

> Initially, it was good. Somehow, I think it has been good. I can always attend classes online. I appreciate the fact that as a mom, I can easily join classes even when I am late. It has really helped my 8 am classes. I can listen and participate more. The fact that I do not have to skip classes or overly stress myself to go to class in person. I prefer the online option.

Asynchronous courses allowed students to set their schedules to engage in course content and provided the opportunity for them to take care of their familial responsibilities during the pandemic. Further, students who were supported with the resources they needed to sustain productivity tended to be more productive. A master-level male Nigerian student studying computer science was able to use his work laptop at home. He stated how pleased he was with his productivity during the pandemic.

> It has been very good for me. I have been more productive than ever. I mean, I wake up in the morning, I can do some work any time. I do not have to worry about the time being too early.

Lack of Social Interactions

Social interaction is a powerful vehicle in learning and can aid individuals with organizing thoughts and filling gaps in their reasoning. The participants missed the social interaction aspect of learning and thus shaping the participants' academic experience during the pandemic. A male Ivorian doctoral student described difficulties in reaching out for assistance *(from peers/professors)* during the pandemic, unlike pre-pandemic era when it was easy to walk into offices:

> I have had to do a lot of that recently *(referring to sending emails),* which I just do not like. So many times, some things I am supposed to do stall. Because I have to psych myself to write that email or write several emails to several people, some of them could be very long. I hate that part of the pandemic because you cannot walk into the office.

Another Nigerian male doctoral student reported difficulties in collaborating with other students online and cited an instance when he had a terrible experience with a group project:

> My academics was affected with respect to collaborations. I had difficulties with projects because you are in a virtual class and you don't know your classmates and you are asked to form groups to work on projects……For research, I've had to adapt to communicating with people online as compared to moving around to meet someone in the lab when I'm stuck. Now I have to send emails or send messages on the chat and wait till whenever they respond. So sometimes, getting feedback during research has been slowed down.

Other participants expressed disappointment in having to go through academic work alone. For them, the human interaction with professors and other students was an integral part of the learning process, without which the learning experience was not as fulfilling as they had hoped.

> I missed that in-person interaction with people. Also, I feel the professors are not able to gauge when you are not really doing well. It takes people away and you may not really know how well they are doing. (Female Nigerian Master's student)

I just miss being in class. I guess I have been missing a lot, I miss class and I miss interacting with other students. (Male Zimbabwean Ph.D. student)

Theme 2: Diminished Academic Performance

The study participants reported diminished academic performance and outcomes. Much of this experience was linked with struggles to keep up with schoolwork as the pandemic progressed, mainly because the pivot to online learning, which was thought to be short-term, turned out to be prolonged. The extended period under the pandemic exacerbated the challenges international students were dealing with and these struggles manifested in students' academic performance. A female Nigerian doctoral student explained,

> I must say that there has been a change in terms of my preparedness since COVD; I have been studying less and having difficulties getting assignments done on time. Overall, I have not been learning; rather, I have just been trying to keep up with schoolwork.

Another female Ghanian doctoral student who had similar experiences and needed extension for some of her papers narrated,

> I have called for an extension. When my son's school called me to pick him up due to another child being infected with the virus. I also had to deal with the death of a loved one during that time. Though COVID-19 may not have been a direct cause, they all piece together or played a role.

She believed that the pandemic indirectly affected her academics due to the added commitments and emotions associated with events during the outbreak, such as childcare, bereavement, and emotions.

Lack of motivation was also cited as a common challenge associated with schoolwork during the pandemic. Most students reported significantly limited academic productivity due to diminishing motivation and procrastination. "*When the COVID-19 first started, you tend to postpone procrastinate a lot, so you lose sight of being in an academic environment*." (Male Nigerian, Ph.D. student) because "*Being at home like all day long, makes you feel like, well I have time, you know so I was less motivated and less organized.*" (Male Nigerian, Masters student*). Another male Ghanian doctoral student elaborated,

> I have been procrastinating a lot. And I am in a tight corner. My final project is going to be due soon, and I am still with another paper that I need to write. It is hard to just sit down, manage my time, and get as much done. Just doing 30 minutes of my work sometimes is a big accomplishment. Procrastination has been a big issue for me.

Theme 3: Disruption of Academic Timelines

Disruptions from the COVID-19 pandemic response influenced some aspects of progression and timelines for some participants, especially those pursuing doctoral

programs. While academic milestones such as presentations, publications, internships, and comprehensive exams were difficult to achieve given diminished productivity, research activities requiring human/laboratory interactions also stalled. A male Nigerian doctoral student detailed his frustration with disrupted research activities and how that affected his academic progression:

> Before the pandemic, my plan was to graduate last year, but the data analysis, publication, and writing got pushed back. We could not have access to the lab, and months were lost. So, I lost about eight months, and I could not graduate at the expected time

Another male Ivorian doctoral student explains how his research activities had slowed down due to communication challenges created by COVID-19-related shutdowns,

> You know, when you are stuck on something, you just move to the person sitting down in the lab, but now you have to send emails or send messages on the chat and wait till whenever they respond. So sometimes, you are not getting any feedback which slowed my research.

Echoing the same feelings, another male Nigerian Ph.D. student lamented over lost time, ***"So instead of four years, it's looking like it's going to four and a half now or five years."*** For international students, staying on track with their studies is critical as their stay in the USA is determined by various external factors such as the type of visa, sponsor requirements, and their ability to secure employment post-graduation.

Theme 4: Stolen and Missed Opportunities

While participants found the courage to adapt to the changes in academic routine, they were discouraged by the pandemic's influence on networking and career advancement opportunities, an essential aspect of the international student experience in the USA. Due to social distancing regulations, conferences and college events were canceled or pivoted to virtual. In-person conference participation provides opportunities for students to connect with other students and faculty from various institutions and serves as a platform for sharing and receiving feedback on research projects. A female Nigerian doctoral student described her disappointment as follows, *"I had submitted an abstract to a university in China and so we were waiting to go for the conference you know. So, I was going to travel to China for the presentation. But the conference was canceled"* Another participant with similar regrets for settling for a virtual event said, *"It does affect my conference travel plans, most of my conferences, I had to do virtually"* (Female Cameroonian Ph.D. student).

During the pandemic, internship opportunities were limited as many organizations had to shut down or make modifications to offer virtual internships. Unsurprisingly, participants lamented missing internship opportunities, and for some, this

had far-reaching implications on their academic timelines and student visa status. A male Nigerian Ph.D. student noted,

> I did not have many options for internships because many companies canceled their internship programs. There were one or two companies I was hopeful for: I did not just hear anything from them anymore. So, I had to postpone my internship plans to this year. I have actually secured an internship, and after discussing with my advisor, it is more like, okay it might lead to like one extra year you know.

Because the COVID-19 pandemic created shortages of internship opportunities, screening for the few available internships became extremely competitive as employers preferred USA citizens or green card holders over international students on other visas, as stated by one participant: *"you know because most jobs are now asking for either a citizenship or a green card holder. So, it makes it really tough."* (Female Cameroonian doctoral student).

Discussion

This exploratory study examined the academic experiences of international students during the COVID-19 pandemic. The main findings highlight the range of academic vulnerability among African international students during the pandemic. Pivoting to online learning and its associated disruptions exposed an already vulnerable population to more challenges – amendments to academic timelines, reduced academic productivity, and the inability to participate in practical training opportunities such as internships and conference presentations.

While higher education was no exception to the disruptive effects of the COVID-19 pandemic, international students in USA universities may have been hit the hardest mainly because of a lack of institutional support for a population that has many other disaster risk factors associated with being immigrant students, such as lack of native social network, inability to travel (due to visa regulations and bans imposed to control the spread of the virus), employment restrictive visas/inability to work off-campus, lack of access to recreational resources outside campus, and poor home access to Wi-fi. Because campus closures and the transition to exclusive online learning were abrupt, many college students struggled to adapt to the new way of learning. The study participants mentioned struggles in keeping up with academic work due to a lack of motivation and limited access to help from tutors and fellow students in the absence of human interaction. This finding supports the emerging literature on COVID-19 experiences of college students. In a study conducted among 257 college students in a mid-sized university in the northeast USA, interpersonal disengagement and struggles with motivation were significant issues reported by the participants during the COVID-19 pandemic (Tasso et al., 2021). In the same vein, participants reported difficulties participating in and completing online group projects due to virtual communication challenges associated with using email, GroupMe, Zoom, and other online communication channels that lack interpersonal engagement. This supports findings from an Indonesian study where 301

dentistry students asked to evaluate their experiences with online versus in-person classes reported a preference for in-person over online learning (Amir et al., 2020). Amir et al. (2020) found that most students disliked online classes, and 60% thought communication was more difficult with online learning and resulted in less learning satisfaction (Amir et al., 2020). Another study among Ghanaian students revealed similar attitudes towards online learning (Aboagye et al., 2020). Our findings also resonate with Tinto's (1987) hypothesis that perceived academic difficulties could endanger student retention in higher education. In addition to communication challenges, participants in our study further identified the inability to separate schoolwork from their "at home" activities as a recipe for exhaustion and fatigue that contributed to decreased academic productivity. Learning from home meant that student homes became classes and study rooms.

This study supports Meeter et al. (2020) findings that students had challenges with academic structure and planning because it was hard to separate work and leisure time (Meeter et al., 2020). Further, students who relied on on-campus spaces like offices and libraries were more significantly affected because they had to quickly make drastic changes to their home routines. The lack of change in the environment created a monotonous routine of long screen and computer time, resulting in a lack of motivation for intellectual creativity and productivity.

On a peculiar note, participants highlighted how existing vulnerabilities associated with limited social networks within their communities and with family members in their own countries shaped their academic experiences during the pandemic. Similar research found that female students experienced more vulnerabilities (Hagedorn et al., 2021; Ipe et al., 2021; Staniscuaski et al., 2021) due to African gender roles that place the responsibilities of cooking, cleaning, and childcare on women, insights gleaned from our study suggest that female students were burdened with these extra responsibilities. Thus, international female students with research projects or teaching assistant positions had to extensively stretch their capabilities to meet home demands. Although some participants were able to turn this change into opportunities, and a few reported minimal challenges with the transition based on the support from their school departments, the lifestyle change still took some time to adapt to, especially in the absence of familial support.

The study participants also reported delays in academic timelines and milestones. This was primarily due to the inability to conduct research work during the pandemic or challenges in coping with the drastic changes in academic demands. Studies among college students in the US found that delayed graduation dates, withdrawal from classes, and changes in academic plans occurred during the COVID-19 pandemic (Aucejo et al., 2020). Approximately 24% of undergraduates at the Arizona State University had either delayed graduation or withdrawn from classes by the end of the spring 2020 semester. Another study among college graduate and undergraduate students in the Appalachia Region reported reduced productivity and missed academic milestones, affecting graduation timelines (Hagedorn et al., 2021). The distribution of this experience was also markedly disproportionate, with lower-income students being affected the most (Aucejo et al., 2020). International students have minimal financial opportunities, given visa employment restrictions and exclusion from federal COVID-19 financial support. While COVID-19 prevention

policies during the pandemic may have intensified the distribution of these academic experiences, researchers fear that the implications of these events could impact international student retention, as predicted by Tinto (1987).

As with many college students in the USA, the participants expressed disappointment regarding missed opportunities for internships and networking during the pandemic. While more research is needed to quantify the density of this problem among international students, literature among USA undergraduates indicates that 13% of the population reporting loss of internship positions or job offers rescinded during this time (Aucejo et al., 2020). With networking being a significant part of the international student academic and cultural experience in the USA, canceling conferences and other academic networking platforms represents tremendous lost opportunities. Some of our study participants had difficulties securing internship positions due to the pandemic, and because this was a major milestone in some academic programs, the resulting delayed graduation timeline is palpable. Hagedorn et al. (2021) had similar findings when students from their study reportedly missed internship positions required for graduation due to the pandemic. Although the experience is like that of other students in the USA, participants from this study specifically expressed concerns about being less likely to secure an internship position during the pandemic due to the competition for limited internship spots and the fact that some positions specifically exclude international student applicants in their eligibility criteria.

The COVID-19 pandemic influenced the participants' academic life directly via the shift to online learning and indirectly through disruptions in career advancement and networking opportunities. As international students, their experiences were worsened by other social and regulatory barriers associated with studying in a foreign country. Therefore, more attention needs to be focused on international students as vulnerable populations in higher education.

Implications for Practice

Insights from this study revealed a need for institutional support for international students during pandemics. The onset of the COVID-19 pandemic, the resultant campus closures, and the transition to online learning highlighted pandemic-related vulnerabilities among African international students. These vulnerabilities call for institutional support for international students during crises to ensure their academic success and for the USA to continue to enjoy the economic, social, and cultural benefits international students bring to the economy. In line with Tinto's (1975) theory, there is a need to minimize academic challenges international students experience, support social integration, and provide adequate institutional support (i.e., financial, technical, and emotional) during the pandemic to create diverse and inclusive learning environments in which all students feel supported to do their best. Universities can establish student-serving disaster preparedness committees that could relate to and ensure that the needs of international students are met. The federal government can also formulate immigrant visa policies that allow flexibility for international students to secure employment outside their universities during crises such as

COVID-19. The study findings also suggest a need for quantitative research focused on the experiences of international students during the pandemic to figure out the density and possible mitigation opportunities for the challenges faced by these vulnerable groups of students.

Limitations

Due to the qualitative nature of our study and the limited sample size, our findings may not be generalizable to other international students. Additionally, the study participants constituted students who have been living in the USA for more than two years; thus, their experiences could differ from newly enrolled international students who are likely to have even weaker support systems while struggling with cultural adaptation. Findings should be interpreted with caution because of the lack of gender diversity among the participants. The sample consisted of cisgender participants, and the ratio included more male students than female students (i.e., a 2:1 male to female ratio). Future studies should include the experiences of more African international female students and students who self-identify as transgender or non-binary gender. Including multiple sexual identities would have enriched the study findings as these populations remain understudied. We strongly believe that this study contributes to the emerging knowledge on the academic challenges faced by African international students during the ongoing COVID-19 pandemic. The research team made every effort to maintain rigor and trustworthiness by applying principles of immersion, thoroughness, and reflexivity (Creswell & Poth, 2019). Future studies should include a more diverse and representative sample of African international students by educational levels (undergraduates), gender (i.e., female, transgender, and non-binary gender), and sponsorship type (scholarship, assistantship, and out-of-pocket funded students). Future studies should also explore the role of demographics and culture in shaping the experiences of international students.

Declarations

Conflict of Interest The authors declare no conflict of interest.

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