

*Review Article*

**COVID-19 and Online Learning: A Scoping Review of the Challenges faced by Students in Higher Institutions during Lockdown**

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Received: 15 May 2023

Accepted: 20 October 2023

**Abstract:** The COVID-19 pandemic has undeniably disrupted the education system, prompting many universities and schools to suspend in-person classes in favour of online learning. This transition has been linked to increased levels of academic stress and mental health issues among university students. This study aimed to (i) assess the coverage of articles addressing the challenges faced by students in higher education institutions during lockdown and (ii) identify the coping mechanisms employed by these students. Employing a scoping review methodology, researchers selectively reviewed articles published from 2019 to 2023. Databases such as PubMed, ScienceDirect, Google Scholar, and Sabinet Africa Journals served as sources for data collection, which was subsequently analysed thematically. Findings indicate that psychology students faced multiple challenges during online learning, including elevated stress and anxiety levels, data limitations, and poor network connectivity. To cope with these challenges, students relied on support from family and friends, self-motivation, and effective time management. Consequently, the study highlights the need for pedagogical adaptations, recommending that educators modify their teaching approaches to better engage students in discussions and mitigate the noted challenges.

**Keywords:** Academic stress; challenges; coping mechanism; online learning; social support

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## Introduction

The COVID-19 pandemic has caused disruptions in the education system, leading to changes in the delivery mode of learning and teaching. The first case of COVID-19 was detected in China, in December 2019, and ever since, the virus has spread worldwide (Trout, 2020). To curb the spread of the virus and to minimise its impact, universities across the globe had to reduce contact classes and adopt remote online strategies for learning and teaching as well as for assessments (Daniels et al., 2021). Students had to leave their respective campuses and continue their studies at home. The transition to online learning affected students differently based on their varying socio-economic backgrounds, courses, environments, and personalities (Abou-Khalil et al., 2021; Bantjes et al., 2023; Mpungose, 2020; Naidoo & Cartwright, 2020). Ultimately, many research studies have reported an increase in depression, anxiety, burnout, and stress during online learning (Lee et al., 2021; Saha et al., 2021; Tambawal & Solomon, 2019; Tuffah & Al-Jubouri, 2021; Visser & Law-van Wyk, 2021).

The transition from contact classes to online learning was challenging for some students, whereas others were able to positively adapt. Rosdialena et al. (2021) highlighted that some students struggled to adapt to online learning as it required determination, self-discipline, positive thinking, and problem-solving skills.

In a study conducted by Trout (2020) students reported that they struggled with time management, as they could not manage their time between their learning activities and home responsibilities. This, in turn, resulted in an increased workload associated with overwhelming emotions. Similarly, Gumede and Badriparsad (2022) stated that some students' motivation dropped during online learning. Therefore, some students lacked the necessary personal skills to cope with online learning.

Transitioning from contact classes to online learning presented students with a number of challenges which affected their well-being (Babicka-Wirkus et al., 2021; Cranfield et al., 2021; Lee et al., 2021; Mpungose, 2020; Wang et al., 2020) and students from South African universities were not immune (Naidoo & Cartwright, 2020; Visser & Law-van Wyk, 2021). According to Naidoo and Cartwright (2020) changes brought by COVID-19 in the South African education system were accompanied by psychological and socio-economic challenges. Their findings were further corroborated by another national study conducted by Bantjes et al. (2023). Furthermore, a global study reported that over 60 countries endorsed a significant increase in stress, anxiety, and depression among university students during COVID-19 (Varma et al., 2021). In a cross-sectional survey of college students conducted at the University of China on the prevalence of mental health problems, the results indicated that students experienced acute stress (34.9%), depression (21.9%), and (11.0%) anxiety symptoms (Ma et al., 2020). Similar findings were discovered by Wang et al. (2020) at the largest university in the United States, Texas A&M University. The study reported that the majority of the students (71.26%) stated that their stress levels had increased during COVID-19, while 18.04% of students reported experiencing suicidal thoughts at one point or another. Interestingly, according to Wang et al. (2020), only less than half of the participants reported that they were able to cope with academic stress during COVID-19. This implies that the majority of participants in the study mentioned above suffered from academic stress and were unable to effectively deal with the stress.

Chandra (2020) argues that the increase in academic stress encountered by university students was associated with a fear of failure, an uncondusive home environment for studying, and a lack of time management. On the same wavelength, a study conducted at two rural universities in South Africa reported that 74% of students indicated that they experienced unbearable workload during online learning, and 56% highlighted that they had undefined work schedules, which somehow made them unproductive and less motivated (Olawale et al., 2021). These results indicate that during online learning, students encountered challenges that contributed significantly to the rise of academic stress and other mental health issues. As such, students had to employ effective coping mechanisms to be able to adjust and progress academically. However, most of the studies (Chandra, 2020; Gumede & Badriparsad, 2022; Laher et al., 2021; Mpungose, 2020; Naidoo & Cartwright, 2020; PHEME, 2019; Visser & Law-van Wyk, 2021), conducted particularly in South Africa focused more on the challenges encountered by students during online learning. Only a few studies have explored coping mechanisms that were implemented by university students during online learning (Henderson et al., 2021; Morales-Rodríguez et al., 2021). The objectives of this study were:

- i. to synthesize the existing literature on psychological and socio-economic challenges faced by students in higher institutions during online learning; and
- ii. to evaluate the existing coverage of literature on coping mechanisms used by students during online learning.

## Literature Review

Engaging in online learning requires access to necessary technological resources which tend to be expensive for students to afford (Cranfield et al., 2021). According to Naidoo and Cartwright (2020), most students in developing countries, especially in South Africa, were negatively affected by online learning, given that the majority of South African students are Black and come from disadvantaged backgrounds. As a response to these shortcomings, most universities in South Africa implemented strategies to support online learning, such as the distribution of laptops to students, provision of data as well as negotiating with network providers for access to zero-rated learning websites (Mpungose, 2020). Zero-rated websites can be understood as a technique that allows individuals access to online platforms without being charged personal data (Jeitschko et al., 2021). However, regardless of these initiatives, students in rural areas experienced poor network

connections and electricity issues (Daniels et al., 2021). As a result, many students became frustrated, stressed, and worried about their academic performance.

Additionally, online learning disturbed communication between students and lecturers. Students made use of digital platforms to communicate with their lecturers, such as sending an Email or WhatsApp text, which did not provide immediate feedback (Ilias et al., 2020). In a study conducted by Adnan and Anwar (2020), students reported miscommunications and late responses from lecturers during online learning. This negatively affected students' productivity as they had to wait for clarity before proceeding with their academic activities. As such, students perceived less support from lecturers, which also contributed to their experience of stress and frustrations during online learning.

### 1. Academic Stress during Online Learning

Academic stress (MacGeorge et al., 2005) has been identified as one of the negative experiences associated with online learning (Adom et al., 2020; Bataineh, 2013; Karaman et al., 2019; Rosdialena et al., 2021). Rosdialena et al. (2021) explain academic stress as an emotional response experienced when students perceive learning activities to exceed their resources or their ability to successfully complete their learning activities. In other words, students may experience academic stress when they have lots of assignments to complete within a short period of time or when they need to partake in an online assessment while struggling with an internet connection. According to Adom et al. (2020) academic stress basically exists in relation to the students' educational experiences which are perceived as stressful and overwhelming. Ultimately, these negative experiences may instil doubt, worry, loss of interest, and discouragement.

According to Babicka-Wirkus et al. (2021), stress is part of everyday life and requires the implementation of effective coping mechanisms to reduce the negative impact of stress on individuals. Lazarus and Folkman (1984) define coping mechanisms as "Constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). Brannon et al. (2013) explain that coping mechanisms may be categorised into problem-solving and emotion-focused coping styles, while other authors distinguish between active and avoidant coping mechanisms (Makarowski et al., 2020). Problem-solving coping styles involve actions or strategies taken by an individual to deal with the problem that is perceived as a threat, whereas, emotion-focused involves attempts to manage feelings that accompany the stressful situation (Brannon et al., 2013). It is important to take note that both problem-solving and emotion-focused coping styles are necessary to reduce the effects of stress.

### 2. Psychological and Socio-Economic Challenges

As mentioned in the above argument, university students experienced psychological and socio-economic challenges, which posed a dire need to employ different coping mechanisms. Henderson et al. (2021) found that the students at the University of KwaZulu-Natal used problem-focused coping mechanisms such as asking for assistance from their fellow classmates, joining study groups, and managing their time. At the same time, these students also used emotion-focused coping mechanisms such as keeping a positive mind-set as well as attitude and engaging in tension-relieving activities such as exercising, spending quality time with family or friends, and getting enough sleep (Henderson et al., 2021). Moreover, a study conducted by Prowse et al. (2021) reported that female students used social media frequently while male students engaged more in substances to cope, which ultimately affected their academic performance and contributed to high levels of academic stress. This shows that students adopted different coping mechanisms during online learning, some of which were more effective than others.

### 3. Support System during Online Session

Research further suggests that social support plays a critical role in minimising the negative effects of stress on mental well-being (Green et al., 2021; Szkody et al., 2021; Yao et al., 2020). Basically, social support refers to helping behaviours or resources that an individual has access to through interpersonal connections (Lloyd-Jones, 2021). According to Szkody et al. (2021), the availability of social support during a stressful situation can help an individual feel more in control and able to handle the situation. In the sense that, when

individuals perceive or receive social support, they are more likely to appraise the situation more positively and as less threatening. Therefore, enabling individuals to incorporate effective coping mechanisms to manage the situation. In a study conducted by Green et al. (2021), high levels of emotional support among university students were associated with fewer negative effects of academic stress. Similarly, Yao et al. (2020) found that received and perceived peer support improved students’ emotional well-being and negatively correlated with symptoms of depression. In this light, social support can affect how individuals react to life-threatening situations as well as act as a barrier against negative outcomes (Ko et al., 2013).

**Methodology**

This scoping review followed the Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Review (PRISMA-ScR) guidelines (Liberati et al., 2009). According to Arksey and O’Malley (2005), scoping reviews are useful in rapidly mapping the existing literature.

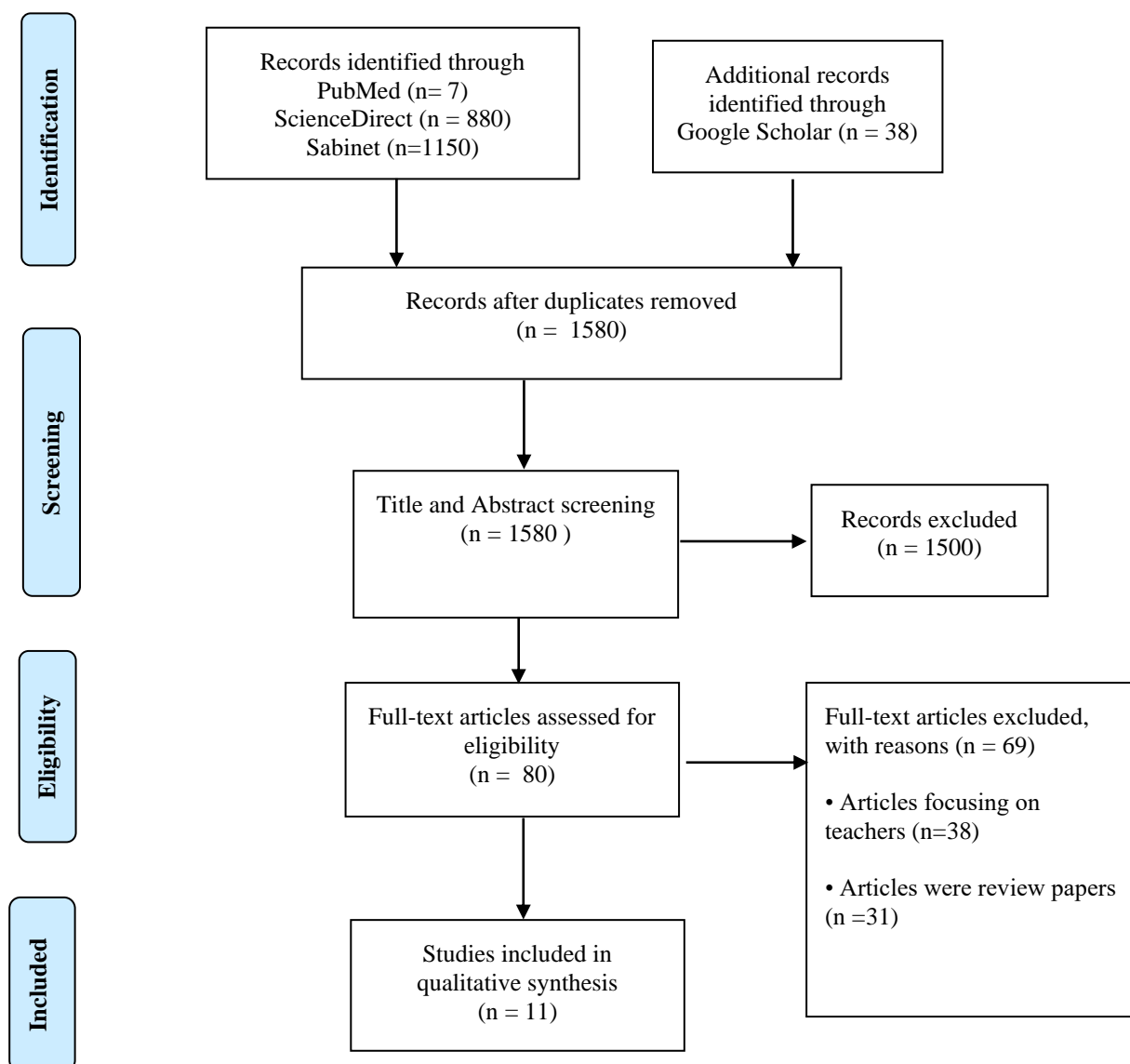


Figure 1. Flow chart of study selection  
Source: Liberati et al. (2009)

In this paper, we mapped the existing literature on online learning challenges faced by students in higher learning institutions during COVID-19. To gain access to existing literature, we conducted a systematic

search using international databases (PubMed, ScienceDirect, and Google Scholar) and local databases (Sabinet African Journals) with the period demarcation of 2019 to 2023 and we did not have language and research approach restrictions when searching databases. The keywords that were developed for searching literature were: (COVID-19 OR "Corona Virus") AND ("Online learning" OR E-learning) AND (Challenges OR Experiences) AND (Students OR Learners) AND ("Higher Institution" OR Universities OR Academia) AND Lockdown. We used EndNote 21, to export the identified articles for recording and screening purposes. We developed the inclusion criteria, which were: studies focusing on students, studies using primary data (qualitative, quantitative, and mixed methods studies), and excluded review studies and published protocols. All the screening to assess the eligibility of the articles were done by A and K with the consensus discussion with co-authors (C and W). Articles that satisfied the predetermined inclusion criteria were systematically organised into a data chart, as outlined in Table 1. These selected articles then underwent a narrative analysis to further explore and synthesize their findings.

### Findings

The below chart indicates that the majority of the included studies were quantitative (n=6), followed by mixed-methods (n=4) and qualitative approaches (n=1). From the sampled articles, students indicated that they preferred contact sessions as online sessions limit their participation (Adnan & Anwar, 2020; Alawamleh et al., 2020; Cranfield et al., 2021; Prowse et al., 2021) and concentration (Alawamleh et al., 2020; Cranfield et al., 2021). However, as online learning was imposed on students, students ended up developing psychological challenges in the form of developing feelings of loneliness (Olawale et al., 2021; Padmanabhanunni & Pretorius, 2023), anxiety (Bozkurt et al., 2020), and stress and depression (Bozkurt et al., 2020; Padmanabhanunni & Pretorius, 2023; Hawke et al., 2021; Prowse et al., 2021; Olawale et al., 2021).

In the midst of their psychological challenges, students received a lack of support from their families (Bozkurt et al., 2020; Hawke et al., 2021; Olawale et al., 2021), and the issue was worsened by the fact that their movements were restricted (Mncube et al., 2021). Even though students experienced those social challenges, they were expected to come to class and participate in online learning. However, accessing online sessions was not for everyone as some students indicated that they could not attend online classes as data was expensive (Adnan & Anwar, 2020; Bozkurt et al., 2020; Mpungose, 2020), whereas others indicated that they did not have necessary resources (Abou-Khalil et al., 2021; Adnan & Anwar, 2020). In order to address the identified challenges, some institutions provided students with assistance by means of computers and data for online sessions (Mncube et al., 2021), which students were able to use for communicating online with their peers and exercising (Prowse et al., 2021).

Table 1. Data charting

Authors and year	Title	Setting	Design/approach	Findings
Abou-Khalil et al. (2021)	Emergency online learning in low-resource settings: Effective student engagement strategies	Lebanon, India, Ivory Coast, Algeria, Democratic Republic of Congo and Canada	Mixed methods	<ul style="list-style-type: none"> <li>▪ Students suggested that the best mode of deliverance is having time allocated for question and answer session during online sessions</li> <li>▪ Online sessions are expensive and were not affordable for students in low-resources</li> <li>▪ Students preferred student-teacher engagement than having to use a computer</li> </ul>
Bozkurt et al. (2020)	A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis	Bangladesh	Mixed-method approach	<ul style="list-style-type: none"> <li>▪ Students expressed that they were fearful about academic year loss which caused psychological distress</li> <li>▪ There was high anxiety due to e-Learning</li> <li>▪ There was lack of interpersonal communication which resulted in anxiety disorders</li> <li>▪ Due to lack of resources, other students were unable to attend online sessions</li> </ul>
Alawamleh et al. (2020)	The effect of online learning on communication between instructors and students during COVID-19 pandemic	American University of Madaba	Quantitative survey	<ul style="list-style-type: none"> <li>▪ Majority of the participants preferred contact sessions as compared to online</li> <li>▪ Majority of the students indicated that online session has made them to not understand the content.</li> <li>▪ Students indicated that online classes do not encourage students' participation</li> </ul>
Padmanabhanunni & Pretorius (2023)	Promoting well-being in the face of a pandemic: the role of sense of coherence and ego-resilience in the relationship between psychological distress and life satisfaction	South Africa	Quantitative approach (A cross-sectional survey design)	<ul style="list-style-type: none"> <li>▪ Majority of students experience loneliness and depression</li> <li>▪ Students reported having psychological distress</li> </ul>
Cranfield et al. (2021)	Higher Education Students' Perceptions of Online Learning during COVID-19—A Comparative Study	South Africa, Hungary and Wales	Quantitative study	<ul style="list-style-type: none"> <li>▪ Some students indicated that they struggled to concentrate during online session</li> <li>▪ Majority of the students indicated that they missed contact sessions</li> </ul>
Adnan & Anwar (2020)	Online learning amid the COVID-19 pandemic: Students' perspectives	Pakistan	Quantitative study (survey)	<ul style="list-style-type: none"> <li>▪ Majority of the student indicated that they had connectivity issues during online sessions</li> <li>▪ Minority of the students indicated that data was expensive whereas others indicated that they had limited access to internet</li> <li>▪ Majority of the students did not believe that online learning is motivating enough</li> <li>▪ Students felt that contact sessions are more effective as compared to online sessions</li> </ul>

Mpungose (2020)	Emergent transition from face-to-face to online learning in a South African University in the context of the Coronavirus pandemic	South Africa	Qualitative interpretive case study	<ul style="list-style-type: none"> <li>▪ E-learning limits the majority of student's participation</li> <li>▪ Some students experienced having insufficient data for online sessions</li> <li>▪ Students indicated having limited data for submission</li> <li>▪ Students indicated that there is a need to be taught about the utilisation of digital</li> <li>▪ There are lack of resources to make e-learning user friendly</li> </ul>
Hawke et al. (2021)	Mental health among transgender and gender diverse youth: An exploration of effects during the COVID-19 pandemic.	Canada	Quantitative (A cross sectional survey)	<ul style="list-style-type: none"> <li>▪ Participants indicated that they received less support from their families and got support from significant others and friends</li> <li>▪ The pandemic cause mental health challenges for young people</li> </ul>
Mncube et al. (2021)	Managing higher education institutions in the context of COVID-19 stringency: Experiences of stakeholders at a rural South African university.	South Africa	A mixed method approach	<ul style="list-style-type: none"> <li>▪ Students and staff were provided with free laptops, data and modem to be able to offer and attend lectures</li> <li>▪ Online classes affected students from areas wherein there were sufficient resources</li> <li>▪ Students mobility in the campus was restricted</li> </ul>
Prowse et al. (2021)	Coping with the COVID-19 pandemic: examining gender differences in stress and mental health among university students.	Carleton University, Ottawa, Ontario, Canada,	Quantitative	<ul style="list-style-type: none"> <li>▪ Adjusting from contact sessions to online was not easy for some students</li> <li>▪ Females were harshly affected by the transaction as compared to males</li> <li>▪ COVID-19 caused students to experience stress and other mental health issues</li> <li>▪ To deal with stress, some of the participants used digital means to connect with friends and family members</li> <li>▪ females mainly used online platform to deal with stress as compared to males</li> <li>▪ Other participants indicated that exercising helped to deal with stress</li> <li>▪ Majority of the students indicated that food helped them to cope with stress</li> </ul>
Olawale et al. (2021)	COVID-19 Induced Psychosocial Challenges in South African Higher Education: Experiences of Staff and Students at Two Rural Universities.	South Africa	Mixed method approach	<ul style="list-style-type: none"> <li>▪ Due to COVID-19 and e-learning, students had to do a lot of catch up meaning more workload.</li> <li>▪ There was an increase in work-related stress and academic pressure</li> <li>▪ There was inadequate psychological and emotional support for students.</li> <li>▪ Some students ended up developing feelings of loneliness</li> </ul>

## Discussion

### 1. Psychological Challenges of Online Learning

COVID-19 took everyone by surprise and the students were not immune. Research studies highlight psychological challenges as one of the negative experiences that university students encounter during online learning (Abou-Khalil et al., 2021; Adom et al., 2020; Alawamleh et al., 2020). For instance, Visser and Lawvan Wyk (2021) reported an increase in anxiety, stress, fear, and depression among university students during online learning. These psychological challenges had a detrimental effect on the mental health and emotional well-being of students (Bantjes et al., 2023). On the same wavelength, Olawale et al. (2021) noted some students were uncertain about their future due to the fear, anxiety, and stress associated with online learning and COVID-19. During online learning, students were unable to have peer support or discussion. Hence, Yao et al. (2020) averred that online learning compromised peer support and social activities, which affected students' well-being. The abrupt change in daily routine and social interaction restrictions contributed to feelings of boredom and loneliness.

### 2. Socio-Economic Challenges of Online Learning

The shift from contact lectures to fully online without proper training proved to be difficult for students. To that end, several authors documented those students had difficulties in adjusting from contact lessons to online learning (Naidoo & Cartwright, 2020; Cranfield et al. 2021). The main cause highlighted by the aforesaid authors was due to the economic aspect that comes with online learning. For instance, Naidoo and Cartwright (2020) noted that most university students in South Africa struggled to fully participate in online learning due to their inability to avoid costs associated with data usage. Whereas Cranfield et al. (2021) underscored that online learning required access to expensive technological resources which most of the students could not afford. Due to the inability to afford data, students found themselves unable to engage or even consult with their lecturers, as they were trying to save costs. This resonated well with the earlier views of Olawale et al. (2019), who reported that most of the population in South Africa lives below the poverty line. This contributes to the housing conditions and lack of access to resources that affected the learning experience of most students in South Africa during online learning. In support, during the COVID-19 strict lockdown, Agyekum (2020) argued that students from low-income households were confronted with poor housing conditions and more competing responsibilities related to their family and learning. As a result, Naidoo and Cartwright (2020) underscored those socio-economic challenges experienced by students in South Africa as the leading predictor of stress and depression among students during online learning.

In the work of Adnan and Anwar (2020) and Mpungose (2020), it was established that online learning limited students' ability to actively engage with their lecturers and participate in class activities or assessments. In contrast, Naidoo and Cartwright (2020) found that other institutions attempted to provide data to their students to participate in online learning activities. However, the institutions did not take into account the issue of the environment, especially in South Africa, wherein students in rural areas are having challenges with network coverage. From the reviewed papers, it was evident that the environment plays a critical role in teaching and learning at higher education institutions.

### 3. Coping Mechanisms used during Online Learning

The fact that there is a clear link between post-disaster and mental health cannot be disputed (Cobham et al., 2016). It is during this stage wherein students attempt to adopt various coping mechanisms to issue that they safeguard their mental health. Cooper and Quick (2017) averred that the way individuals cope with situations is influenced by their available coping resources. Coping resources may include positive beliefs (such as believing in oneself to be capable of dealing with a situation or religious beliefs, having faith in a God or ancestors), social support from friends or family, social skills, health as well as energy, and material resources. From the reviewed articles, it became evident that most researchers found that support from significant others mitigated the effects of stress and anxiety during online learning (Adnan & Anwar, 2020; Adom et al., 2020; Dhawan, 2020; Henderson et al., 2021; Prowse et al., 2021). However, the support could have been limited, especially when some countries experienced hard lockdowns and/or restrictions in movement. As a result,



Singh et al. (2020) underscored that virtual workshops were very important in promoting mental health among students. During the lockdown, learners (Zano & Charamba, 2021) and students were using various communication methods in order to discuss their challenges and also their assessments. Equally, in a quantitative study conducted by Wang et al. (2020), the majority of the participants indicated that they relied on their families and peers to mitigate stress or academic anxiety. Moreover, other participants indicated that lifestyle activities such as exercising were a very effective way of dealing with stress (Wang et al., 2020). It could be further deduced that during the COVID-19 lockdown, students found virtual workshops, peer and family support, and exercising effective ways to cope with academic-related stress. This adaptability underscores a key aspect of academic resilience (Cassidy, 2016; Mapaling, 2023), defined as the ability to recover from setbacks, adapt positively to adversity, and maintain a positive academic outlook (Martin & Marsh, 2006; Morales, 2008). These traits mirror the diverse coping strategies identified in this study, including communication methods and lifestyle activities such as exercise (Wang et al., 2020).

Cooper and Quick (2017) emphasise the importance of coping resources such as positive beliefs and social support, underlining that resilience involves effectively utilising these resources. This notion aligns with the findings of Padmanabhanunni and Pretorius (2023), who highlighted the roles of a sense of coherence and ego-resilience in promoting well-being, especially during psychological distress. Ego-resilience, fuelled by positive beliefs, complements academic resilience by offering a broader coping repertoire.

The observed reliance on social support and diverse coping strategies not only attests to the students' adaptability but also connects directly to the broader concept of academic resilience. Both the coping mechanisms and their underlying positive beliefs contribute to mental well-being, which is an integral component of academic resilience (Mapaling et al., 2021; Mapaling et al., 2022). Thus, students' coping mechanisms during online learning challenges can be seen as manifestations of their academic resilience (Kuldas et al., 2015), showcasing their ability to adapt and maintain a positive outlook in the face of external stressors.

## Conclusion

Online learning became an essential alternative during the COVID-19 pandemic to salvage the academic year. However, this study reveals that many students were ill-prepared and under-resourced for this shift to digital education. A majority of the articles reviewed indicated that students faced numerous challenges, including a lack of essential resources for online learning. These challenges disrupted learning activities and led to heightened levels of frustration, stress, fear, and anxiety among participants. On a positive note, some authors observed a degree of resilience among students, reporting various coping skills employed to manage these difficulties.

Based on these findings, several avenues for future research are recommended. First, there is a need for further studies investigating the academic resilience of students both during and after the COVID-19 pandemic. Second, future research should explore how higher education institutions can facilitate smoother transitions from in-person to online learning for students. Third, an empirical study should be conducted to understand how service providers, particularly lecturers, have adapted their teaching methods from in-person to online formats. Lastly, the development of interventions to assist students in adjusting to new learning methods should be explored, especially in preparation for future pandemics.

This study has several limitations to consider, including the methodological variability across reviewed articles, and a focus limited to the COVID-19 era. Additionally, the reliance on including only articles published in English amongst the reviewed studies may further constrain the generalisability and comprehensiveness of our findings. Ultimately, this study employed a scoping literature review approach to map out key themes related to coping mechanisms used during online learning amid the COVID-19 pandemic. Consequently, the results should be viewed as initial insights and are not universally applicable.

**Acknowledgement:** We would like to acknowledge the North-West University librarian who provided us with support in conducting this review study. This work was abstracted from the first author's honours work and fully funded by the National Research Foundation.

**Ethical Approval:** This was a low-risk review study; therefore, no ethical clearance was needed.

**Conflicts of Interest:** The authors declare no conflict of interest.

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