# The perception and attitude of nursing students towards online learning during the Covid-19 lockdown in South West Nigeria

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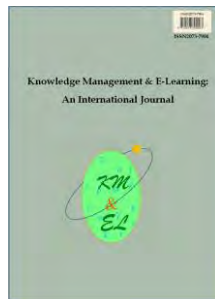**Jacob Kehinde Opele**
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**Abstract:** Online teaching and learning have received widespread acceptance in recent years due to the outbreak of the COVID-19 pandemic. The current study set out to determine nursing students' perception and attitude to the online learning model (OLM) in the schools of nursing within South-West Nigeria. The study employed a descriptive cross-sectional design to collect data among nursing students. A self-developed questionnaire was used in this study to collect data via online google.form.com. Data analysis involves application of Relative Importance Index (RII). Findings revealed a high level of perception about online classes. Main attitudinal traits demonstrated by students were getting easily distracted, engaging in multiple tasks and having family distractions. Family members also distracted the teachers. Poor electricity supply, unstable internet network, and financial constraint were the major barriers encountered. In conclusion, we found that nursing students in South-West Nigeria demonstrated a positive disposition to online learning and have a good attitude towards it.

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## 1.  Introduction

Learning is a natural phenomenon that occurs throughout a person's lifetime. It is the process of acquiring new knowledge, understanding, comportments, expertise, morals, assertiveness, and preferences (Sequeira, 2012; Gross, 2015; Sharma, 2019). Learning can take place either through the traditional face-to-face setting or through an online platform. The traditional setting brings the students and the teacher into a classroom where they can easily see one another. On the other hand, the online learning setting occurs over the network of computer and telecommunication devices (Abramson, 2020; Little-Wiles & Naimi, 2011; Stern, 2016). Glen (2005) described online learning as a method of education which involves bringing together e-learning materials (to boost regular face-to-face lecture-room teaching which makes use of writing, image representation, and audio-visual materials) to a comprehensive online interactive course using cybernetic instruction resources, evaluation and learner's assistance (Akimanimpaye & Fakude, 2015).

Online teaching and learning have received widespread acceptance in the recent years (Tucker & Neely, 2010). Online learning has the potential to increase learners' ability to acquire new knowledge and tutoring through an easy, harmonized method of teaching, which allows students to learn at their convenient time and speed (Blake, 2009). These remarkable improvements have helped teachers and learners overcome the hurdles of time and space (Eldeeb, 2014). Studies have shown that the online platform of

interaction with students is capable of facilitating learning in nursing education (Kenny, 2002).

Globally, online learning has become the present-day paradigm shift in higher institutions of learning (Kotoua, Ilkan, & Kilic, 2015). These swift developments in education technology have not only altered the contemporary way of life but have deeply affected the manner of teaching and learning (Blake, 2009). Studies have revealed that students learn faster and retain about 25-60% when learning online compared with 8-10% in classroom teaching. In addition, it has been documented those learners learn at their own pace, and they were able to do personal revision on what has been taught. Online teaching provides several opportunities to develop the learning atmosphere for different learners' populaces (Keengwe & Kidd, 2010) and has inspired students to be more accountable for their own acquisition of knowledge (Ituma, 2011).

## 1.1. The statement of the problem

The arrival of COVID-19, which was declared a global pandemic in March 2020 has led to a total lockdown of institutions of learning throughout the world and has resulted in a speedy shift in learning from traditional face-to-face setting to the online learning setting being the most recent educational innovation across the globe. Subsequently, online teaching and learning within the home setting suddenly became the new normal for Nigerian students and those in other countries across the world. In a bid to keep nursing students sustained in their career pursuit, the Nursing and Midwifery Council of Nigeria sent out a circular to training schools to swing into online teaching (McVicar Andrew, & Kemble, 2015). This paradigm shift, which was new to the learners, the teachers, and other stakeholders, was prompted by the response to the novel coronavirus. Besides, there is a dearth of study on students at schools of nursing on their perception of, and attitude to, online learning in this climate. Therefore, this study sets out to determine the perception and attitude to online learning mode (OLM) among nursing students in the schools of nursing within the South-West geopolitical zone of Nigeria. Thus, the following research questions were raised to guide the conduct of this study:

1. How do nursing students perceive online teaching and learning?
2. What are the prevailing attitudinal traits demonstrated by nursing students in the online mode?
3. What are the instructors' prevailing attitudinal traits demonstrated while delivering the lectures?
4. What are the supports available for online learning for nursing students in South-West Nigeria?
5. What are the barriers to online learning among nursing students?

Nursing education, like their counterparts in other disciplines are part of the global community affected by the COVID-19 pandemic. This study is particularly relevant to nursing education because it highlighted the issues involves in an online learning and training which must be accommodated in the curriculum of nursing for effective knowledge transfer between nursing scholars and students.

## 2. Review of related literature

The arrival of the COVID-19 pandemic and the consequent lockdown has put a stop to school activities across the globe. Physical schoolwork has grossly been replaced with online learning and distance educational programmes. Online learning also called e-learning is a general term for any learning that takes place outside the traditional classroom setting. According to Kwak et al. (2015), online learning occurs when the instructions and learning processes are significantly dependent on technology application. The arrival of the COVID-19 pandemic came with the different methods of teaching and learning modalities which gave rise to the online platforms such as the Zoom, Google Classroom, and Edgenuity (Hood, 2020). The online alternative also includes massive open online courses (MOOCs).

The COVID-19 pandemic has affected the lives of many individuals, negatively impacting the global economy and sources of livelihoods. As part of the measures to contain the pandemic, a report from the office of UNESCO indicated that about 1.2 billion learners are out of school and 73.8% of the world's school populations have been affected by school closures (UNESCO, 2020). This development has affected access to education and has propelled the reshaping of education delivery across the world. On March 19, 2020, the Federal Ministry of Education in Nigeria approved the closure of all learning institutions (Lawal, 2020). This abrupt closure led to significant disruptions in the education system in Nigeria; including learning modes, access to school related services, parenting routines, and crisis management capacities of the federal and state ministries of education. Until date, students and educators are still grappling to adjust to the new teaching and learning strategies and approaches occasioned by COVID-19, and further streamlined by the COVID-19 Protocol of the Nigeria Centre for Disease Control (NCDC), causing relevant stakeholders to adapt quickly and develop solutions to minimize the potential learning slide resulting from the pandemic.

The arrival of COVID-19 has made the educational program migrate to online mode. According to Yang and Durrington (2010), the quality of online learning has been perceived by the students to be the major component of online course quality. In a related study, Burns (2013) points out that the traditional students of higher learning may entertain certain misgivings about the social aspect of online courses. However, he submitted that the online students had a positive experience despite the limited expectations in online courses. Online education is giving more students access to higher-level learning, enabling them to enjoy the convenience and flexibility of time, place or location.

Online learning during a pandemic can open up access to education and training for all categories of students because its schedule lessens the effects of non-physical availability caused by personal responsibility and engagement (Masson, 2014). Online learning helps those who are weaker in traditional classroom settings to meet up since either they are in a remote location on the one hand or full-time worker/disabled (i.e., reduced mobility)/ incapacitated with illness/ independent learning type on the other hand. Access to a computer and the Internet is a major criterion for students to participate in an online class. The online environment is seen as a flexible and convenient means by students to strategically plan education into their busy schedules. It is a great incentive for today's learners to access a course from any internet-enabled device at any time the need arises.

Opeke and Opele (2014) investigated knowledge sharing behaviours of postgraduate students in selected Nigerian universities. They submitted that online

learning is a powerful tool for knowledge sharing and transfer between teachers and students regardless of level of study. In an online learning environment, students have no direct contact with the lecturer or the facilitator. In view of this, students are to work more independently. Hence, students must be ambitious, purposeful, creative, disciplined, determined, and focused on achieving their goals. According to Aixia and Wang (2011), Boling et al. (2012), and Eagleton (2015), one of the major factors in ensuring effective online learning is the student's readiness to use the e-learning environment. Until the COVID-19 pandemic, many of the institutional leaders in Nigeria did not believe in online learning (Boyles, 2011). However, the reality of COVID-19 pandemic has suggested new ways of learning such as the online learning mode.

## 2.1. Online learning during Covid-19

According to a study by Dhawa (2020) who examined online learning in the time of COVID-19 crisis, the arrival of the COVID-19 pandemic has challenged the entire human race and as such, there is a need for countries to adopt strategies that can be used to facilitate effective teaching and learning practices at all levels of education. These strategies include the total migration from the traditional close classroom setting to an online learning mode, which involves the ability to make use of the computers that are connected to a network that offers the possibilities to learn from remote locations. In sharp contrast, Adnan and Anwar (2020) in their study of online learning amid the COVID-19 pandemic with focus on students' perspectives indicated that online learning cannot produce the desired results in underdeveloped countries like Pakistan, where a vast majority of students are unable to access the internet due to technical as well as monetary issues. The lack of face-to-face interaction with the instructor, response time and absence of traditional classroom socialization were among other issues highlighted in their survey. Invariably, these authors reasoned out that online learning can only thrive in countries where there are stable electricity and internet connectivity.

Demuyakor (2020) conducted a survey on COVID-19 and online learning in higher institutions of education among Ghanaian international students in China. The study revealed that the implementation of online learning programs was a very great idea as the majority of the respondents supported the initiative. In Malaysia, Chung et al. (2020) assessed the online learning readiness among university students in Malaysia amidst COVID-19. Their findings revealed that more than half of the respondents indicated that if given a choice, they do not want to continue with online learning in the future. Majority of the respondents preferred online learning via pre-recorded lectures uploaded to Google Classroom and YouTube. Their study revealed that the respondents were not completely against Online Learning since they indicated readiness to embrace uploading of pre-recorded lectures so that they can refer to it as required in the course of their study. An examination of data from a number of independent studies on both blended and online studies reveal that though students produce a significant increase in performance in subjects, the online classroom option is not priced above the traditional face-to-face mode of learning (Bergstrand & Savage, 2013; Im, 2021).

Hussein et al. (2020) explored undergraduate students' attitudes towards emergency online learning during COVID-19 in the United Arab Emirate (UAE). Their findings revealed that cost-and time-effectiveness, safety, convenience and improved participation were the most frequently cited positive aspects of the emergency online learning experience, while distraction and reduced focus, heavy workload, problems with technology and the internet, and insufficient support from instructors and colleagues were the recurrent negative aspects.

Other studies have examined the perception of teachers and students to online learning during COVID-19 era (Xie, Wang, & Hooshyar, 2021).). In a related study, Rasmitadila et al. (2020) investigated the perceptions of primary school teachers about online learning during the COVID-19 pandemic period in Indonesia and found that schooling from home during the COVID-19 pandemic has significantly impacted the educational systems the world over and that this development has made countries to apply different rules and methods for dealing with changes in the learning system. In their study that focused on online learning during a global pandemic: perceived benefits and issues in higher education, Weldon, Ma, Ho, and Li (2021) remarked that higher educational institution needs to emphasize quality of digital contents of online learning. They also established that a major barrier to sustaining online learning is inability of some participant to access Wi-Fi or digital devices needed to sustain online learning during a global pandemic. In a related study, Kew and Tasir (2021) analysed students' cognitive engagement in e-learning discussion forums through content analysis and found that the student had a low level of cognitive engagement. Scholars have also investigated online knowledge construction mediated by mobile instants (Yasuda, 2021) and have established that mobile instant messaging may be effective supporting online collaborative learning, which is a major strength of online learning.

## 2.2. Factors militating against online learning

There are notable inhibiting factors that affect online education. Allen and Seaman (2013) reported a low retention rate. Similarly, Jaques and Salmon (2007) as well as Davidson (2015) point out the lacunae of online learning. One of the lacunae is that it reduces active participation in group assignments and group presentation. There could also be personal anxiety related to technology use (Jaques & Salmon, 2007; Thorsteinsson, 2013; Craft et al., 2013; Schmidt et al., 2016). In a related study, Williams et al. (2012) opined that assessment practices are often limited in the online environment. Cognitive complexity and intellectual stimulation are among the many barriers people face in an online class. Besides, many of our higher educational institutions in Nigeria are challenge by inadequate organizational capacities. This prevents them from accommodating online learning or at least makes the use of educational technologies daunting. In fact, our rigidly structured educational systems do not support innovative educational practices, thus restricting transformational leadership, creativity, and experimentation. Almost all institutions are still using rigidly designed curricula and instructional delivery methods (Opele et al., 2020). Lecturing seems to be the dominant form of course delivery in higher educational institutions. The students in these institutions are expected to manage their time effectively and develop communication and technological skills. They must exhibit commitment and accept flexibility that goes with online engagements.

## 3. Method

The study employed a descriptive cross-sectional design to collect data among students in the schools of nursing across South-West, Nigeria. The schools were selected from five states: Osun, Ekiti, Oyo, Ogun, and Lagos. Ondo State was excluded because there's currently no school of nursing in Ondo State.

## 3.1. Participants

Four hundred and thirty nursing students adequately filled our questionnaire via online google forms, and all the 430 were found useful for data analysis. The data retrieved was subsequently subjected to data analysis.

The study participants were nursing students in first, second and third-year levels of training who joined the online learning mode. Nursing students in post-basic schools, universities, or schools that were not taking part in the online learning during COVID-19 lockdown were excluded from the study.

### 3.1.1. How nursing students used online learning in the context of this study

The nursing students shared in this module of learning by directly connecting to their classes' right from the individuals' homes using such devices as the android phones, tablets and laptops. The mode of knowledge sharing involves the lecturers using direct screen sharing, voice messages and power point presentation. In this mode of learning, questions were entertained and answers were provided and the students also shared in group discussion and team work. All the participants were undergraduate nursing students who were on either the basic or post-basic nursing programme. In Nigeria during the COVID – 19 pandemic, online learning tools were used to prepare incoming nursing professionals as motivation from the management of the school for the students to work effectively and in a more cost-friendly manner.

## 3.2. Method of data collection

A self-developed questionnaire was used for data collection within four weeks via an online google form. The questionnaire consisted of five sections that addressed the formulated research questions. Section A included items on the socio-demographic characteristics of the respondents. Section B consisted of questions that addressed the perception of the online teaching/learning of the nursing students. Section C items were on the attitudinal traits of students while on online learning mode. The questions in the fourth section addressed probable factors that may enhance or support the online learning mode of students. The fifth and final section (E) was made up of items that elicited participants' responses regarding the inhibiting factors or challenges that may limit the online learning mode of the nursing students. The instrument was subjected to face and content validity by the researchers. The validity results were found to adequately address the different aspects of the study. The reliability of the instrument was achieved by subjecting the questionnaire to Cronbach's alpha test. Subsequently, an alpha coefficient of 0.7 was accepted to be good enough to fulfil the purpose of the study. The questionnaire was converted to a Google Form, which was sent to the students in the schools of nursing in the selected states, all in South-West, Nigeria. On the other hand, Cronbach's alpha below 0.70 indicated a low level of inter-item consistency among the items in the research instrument. However, Cronbach's alpha of 0.75 and above implies a high level of internal consistency among the items in the research instrument. Table 1 shows the results of the reliability test.

As shown in Table 1, the reliability was specified at Cronbach's alpha $\geq 0.7$. Table 1 shows that the Cronbach's alpha values were $\geq 0.7$. This implies a high level of inter-item consistencies and inter-item correlation between the parameters of measurement.

**Table 1**
Results of the construct validity and reliability test of the research instrument

| Instrument | No. of Items | Cronbach's Alpha |
|---|---|---|
| The perception of nursing students about online learning | 10 | 0.895 |
| Students' prevailing attitudinal traits while in the online learning mode | 5 | 0.769 |
| Instructors' prevailing attitudinal traits demonstrated while delivering the lecture | 7 | 0.772 |
| Support for online classes | 7 | 0.872 |

*3.3. Analysis*

The data gathered was analyzed using IBM Statistical Package for Social Sciences (SPSS) version 25. Based on the research questions raised at the onset of the study, the analysis was divided into two sections: socio-demographic characteristics (which were analyzed descriptively using frequency counts and percentage distribution) and the rest of the questionnaire (which was analyzed with relative importance index). Relative importance index (RII) helps to rank the criteria according to their relative importance. The following formula is used to determine the relative index.

$$\text{RII} = \text{Sum of weights} = \frac{W1+W2+W3\ldots\ldots..+Wn}{A*N}$$

*Where:* W is the weighting as assigned by each respondent on a scale of one to five, with one implying the least and five the highest. A is the highest weight, and N is the total number of the sample. Based on the ranking (R) of Relative Importance Index (RII), the weighted average of the two groups will be determined. According to Johnson and LeBreton (2004), Akadiri (2011) and Somiah et al. (2015) five important levels are transformed from RII values: High ($0.74 \leq \text{RII} \leq 1$), High-Medium ($0.69 \leq \text{RII} \leq 1$) and Low ($0.59 \leq \text{RII} \leq 1$).

## 4.  Results

Table 2 revealed that 95% of the respondents were single. The study cuts across the three levels of training in the schools of nursing in Nigeria. The table shows that more than 95% were undergoing basic nursing education, while less than 5% were students of the post-basic level. With regard to the preferred location for online learning, the table shows that 95% preferred their home to other locations. The table also shows that 85.1% were in nuclear family settings.

Fig. 1 indicated that the highest percentage of the respondents (100, representing 23%) were selected from Oyo State, closely followed by Osun State (89, representing 21%). Others include Ogun (76, representing 18%), Lagos (86, representing 20%) and Ekiti (79, representing 18%).

**Table 2**
Socio-Demographic characteristics

| Variable | Category | Frequency | Percent |
|---|---|---|---|
| Marital status | Married | 22 | 5.1 |
|  | Single | 408 | 94.9 |

| | | | |
|---|---|---|---|
| | Total | 430 | 100.0 |
| Level of training | 1st year | 151 | 35.1 |
| | 2nd year | 157 | 36.5 |
| | 3rd year | 122 | 28.4 |
| | Total | 430 | 100.0 |
| Type of training | Basic | 410 | 95.3 |
| | Post basic | 20 | 4.7 |
| | Total | 430 | 100.0 |
| The best description of your preferred residential online setting | Class | 1 | .2 |
| | Farm | 3 | .7 |
| | Home | 408 | 94.9 |
| | Library | 1 | .2 |
| | My uncles' place | 1 | .2 |
| | School | 1 | .2 |
| | Shop | 15 | 3.5 |
| | Total | 430 | 100.0 |
| Type of living apartment | A Bungalow | 109 | 25.3 |
| | A detached/mansion | 10 | 2.3 |
| | A flat | 187 | 43.5 |
| | A room | 25 | 5.8 |
| | A yet - to - be completed apartment with two rooms | 1 | .2 |
| | Duplex | 49 | 11.4 |
| | "Face me I face you" | 1 | .2 |
| | "Face to face" | 1 | .2 |
| | Self-contained | 47 | 10.9 |
| | Total | 430 | 100.0 |
| Family system | Communal | 3 | .7 |
| | Extended | 61 | 14.2 |
| | Nuclear | 366 | 85.1 |
| | Total | 430 | 100.0 |
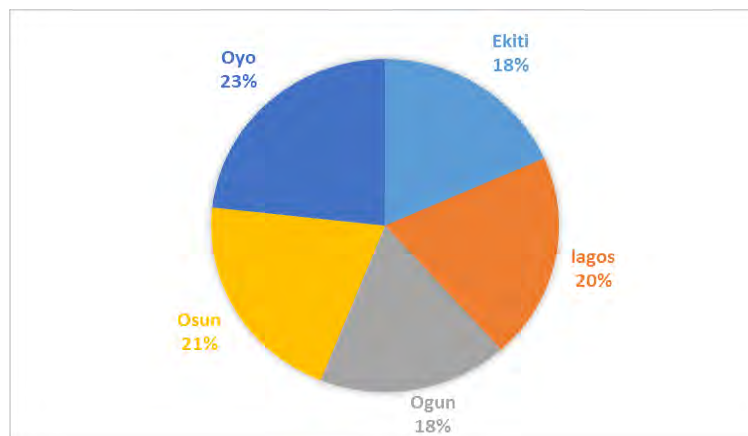


**Fig. 1.** Distribution of participants from each of the 5 States

## 4.1. Analysis of research questions

*Research question 1*: How do nursing students perceive online teaching/learning?

Table 3 revealed that the RII of each of nine items out of 10 exceeds the universally acceptable threshold of 0.5, indicating a high level of perception of online learning. However, personal punctuality in online classes (RII = 0.74) ranked first, followed by parental/guardian/spouse/family support (RII = 0.71). The opportunity to give feedback or ask questions during an online session (RII = 0.69) ranked third. Other parameters included respondents' participation and involvement (RII = 0.65), the respondents' overall experience (RII = 0.63), quality of teaching and delivery environment (RII = 0.61), teacher-students' interaction (RII = 0.60), short attention span during online classes (RII = 0.59) as well as students' use of internet which ranked last among the items (RII = 0.47).

**Table 3**
The perception of nursing students about online learning

| S/N | Variable | RII | Overall Ranking | Importance Level |
|---|---|---|---|---|
| 6 | Personal punctuality in online classes | 0.74 | 1st | H |
| 5 | Parental/Guardian/Spouse/Family support | 0.71 | 2nd | H |
| 10 | Opportunity to give feedback or ask questions during an online session | 0.69 | 3rd | H-M |
| 7 | Your participation and involvement | 0.65 | 4th | H-M |
| 9 | Your overall experience | 0.63 | 5th | H-M |
| 1 | Quality of teaching on online mode | 0.61 | 6th | H-M |
| 8 | Delivery environment | 0.61 | 6th | H-M |
| 2 | Teacher-Student interaction | 0.60 | 8th | H-M |
| 4 | Your attention span as a student during online classes | 0.59 | 9th | L |
| 3 | Internet availability | 0.47 | 10th | L |

*Note.* H = High, H–M = High-Medium, L = Low

*Research question 2*: What are the prevailing attitudinal traits demonstrated by nursing students in the online mode?

Table 4 revealed that overall, the RII of each of the items is higher than the threshold of 0.5. Top among the attitudinal traits was getting easily distracted (RII = 0.71), followed by students' engaging in multiple tasks (RII = 0.69), family distractions (RII = 0.65) and short attention span (RII = 0.63). Picking calls during classes was ranked last (RII = 0.56) among the identified students' attitudinal traits.

**Table 4**
Students' prevailing attitudinal traits while in the online learning mode

| S/N | Variable | RII | Overall Ranking | Importance Level |
|---|---|---|---|---|
| 2 | Getting easily distracted | 0.71 | 1st | H |
| 3 | Engaging in multiple tasks | 0.69 | 2nd | H-L |
| 5 | Family distractions | 0.65 | 3rd | H-L |
| 4 | Short attention span | 0.63 | 4th | H-L |
| 1 | Picking calls during classes | 0.56 | 5th | L |

*Note.* H = High, H–M = High-Medium, L = Low

*Research questions 3*: What are the instructors' prevailing attitudinal traits demonstrated while delivering the lecture?

Table 5 revealed that the RII of each of four out of the seven items does not measure up to the acceptable threshold of 0.5. It shows that a permissive, or at least relaxed, attitude to family distractions (RII = 0.52) ranked first among the attitudinal traits demonstrated by the teachers. Other traits included engaging in multiple tasks while teaching (RII = 0.50), getting easily distracted as a result of agitation and anxieties (RII = 0.49), picking calls during classes as well as short attention span (RII = 0.47).

**Table 5**
Instructors' prevailing attitudinal traits demonstrated while delivering the lecture

| S/N | Variable | RII | Overall Rank | Importance Level |
|---|---|---|---|---|
| 5 | Family distractions | 0.52 | 1st | H |
| 3 | Engaging in multiple tasks | 0.50 | 2nd | H |
| 7 | Multi-tasking while teaching | 0.50 | 2nd | H |
| 2 | Getting easily distracted | 0.49 | 4th | H-M |
| 6 | Agitation and anxieties | 0.49 | 4th | H-M |
| 1 | Picking calls during classes | 0.47 | 6th | H-M |
| 4 | Short attention span | 0.47 | 6th | H-M |

*Note.* H = High, H–M = High-Medium, L = Low

*Research question 4*: What are the supports available for online learning?

Table 6 revealed that the RII of all the items is greater than the threshold of 0.5, indicating a high level of support for online classes. However, top among the supports were parental/spousal assistance (RII = 0.70); general family support (RII = 0.69), personal room or apartment to use for the class (RII = 0.64), digital device (RII = 0.63); parental/spousal assistance in a financial supplement (RII = 0.58), internet network and data service were ranked last among the support for online classes (RII = 0.52).

**Table 6**
Support for online classes

| S/N | Variable | RII | Overall Ranking | Importance Level |
|---|---|---|---|---|
| 4 | Parental/Spousal assistance | 0.70 | 1st | H |
| 5 | General family effort | 0.69 | 2nd | H-M |
| 2 | Personal room to use or apartment | 0.64 | 3rd | H-M |
| 3 | Digital device | 0.63 | 4th | H-M |
| 6 | Financial resources | 0.58 | 5th | L |
| 1 | Internet network services | 0.52 | 6th | L |
| 7 | Data service | 0.52 | 6th | L |

*Note.* H = High, H–M = High- Medium, L = Low

*Research question 5*: What are the barriers to online learning?

Table 7 revealed that the overall RII of all the items surpassed the threshold of 0.5, indicating a high rate of the barriers to online classes. Nonetheless, top barriers included poor electricity supply (RII = 0.75), unstable internet network (RII = 0.72), financial constraint for data purchase (RII = 0.71), poor internet connection (RII = 0.69), house chores (RII = 0.63), noise (RII = 0.59), demand for time from family (RII = 0.58) and faulty condition of device (RII = 0.52). Non-availability of digital service ranked last among the barriers to online classes (RII = 0.48).

**Table 7**
The barriers to online learning

| S/N | Variable | RII | Overall Rank | Importance Level |
|---|---|---|---|---|
| 7 | Poor electricity supply | 0.75 | 1st | H |
| 3 | Unstable network | 0.72 | 2nd | H |
| 4 | A financial constraint for data purchase | 0.71 | 3rd | H |
| 6 | Poor internet connection | 0.69 | 4th | H-M |
| 8 | House chores | 0.63 | 5th | H-M |
| 1 | Noise | 0.59 | 6th | L |
| 2 | Demand for the time from family | 0.58 | 7th | L |
| 9 | Faulty condition of the device | 0.52 | 8th | L |
| 5 | Non-availability of digital device | 0.48 | 9th | L |

*Note.* H = High, H–M = High- Medium, L = Low

## 4.2. Discussion

When it comes to how nursing students perceived online teaching/learning, the results revealed the students' disposition to online learning. Top among the key indices of positive perception among students about online training included personal punctuality in online classes and parental, guardian, spousal, and /or family support. Their overall perception of online learning ranged between moderate to a high level of perception. This agrees with studies on students' perceptions of e-learning, which reveal that learners perceive online learning mode as stress-free, user-friendly and a useful source of desired information. With regard to the prevailing attitudinal traits demonstrated by nursing students in the online mode, we found that they demonstrated a good attitude to the online learning mode. A similar outcome has been documented in a study by Yang and Durrington (2010). As regards the instructors' prevailing attitudinal traits demonstrated while delivering the online lecture, it is recommended that they too demonstrate a demeanour that will encourage students willing to learn and participate effectively in the class. The role of a teacher in the success of an online mode has been documented by scholars (Thorsteinsson, 2013; Crane & Cox, 2013; Schmidt et al., 2016).

With regard to the support available for online learning, our study revealed that the students were supported by parents, family, and guardians. Previous scholars have emphasized the importance of support in an online mode of learning. Therefore, understanding what stimulates online learning is significant because it serves as a motivation for teachers as well (Kelly, 2012). This agrees with a study by Awogbami et al. (2020), who examined lecturers' use of multimedia resources for knowledge transfer at Adeleke University, Ede, Osun State, Nigeria. In a related study, Blackmon and Major (2012) identified other factors influencing learners' perception towards online learning mode including learners' inaccessibility to an internet connection in certain settings. As regards barriers to online learning, top among the identified barriers include poor electricity supply, unstable network, and financial constraint for data purchase. Some of the barriers were equally reported in a study by Opele et al. (2020), who investigated barriers to knowledge management practices, interprofessional collaboration and information technology application in federal tertiary hospitals in Nigeria. In all, the outcome of this study can be generalized in investigations into the online learning habits of other categories of undergraduates (that is, apart from nursing undergraduates) since students at the same level of study will be expected to share similar experiences as well as similar expectations if exposed to the same or similar online learning modes.

## 5.   Conclusion

Altogether, we found that online learning has become part of the new normal with the global experiences of learning recorded during the COVID-19 pandemic. We established in this study that the online platform is a strong supplement to the traditional face-to-face learning mode which takes place in the school classrooms. We found that nursing students in South-West, Nigeria demonstrated a positive disposition towards online learning and have a good attitude towards it. This implies that the findings of this study can be generalized because nearly all institutions of higher learning have embraced online learning since the outbreak of COVID-19 pandemic in 2019/2020. Based on the findings of this study, we suggested that nursing students in the various schools of nursing in Nigeria be thoroughly equipped with the knowledge and skills needed as well as provision of basic infrastructure, such as computers and the Internet for the students to effectively participate in the ongoing global online learning mode that has come to stay since the outbreak of the COVID-19 pandemic.

## Author Statement

The authors declare that there is no conflict of interest.

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