

## Original Article

## New Normal in Nursing Education: Sophomore Students' Expectations of and Readiness for Online Learning in the Era of COVID-19 Pandemic

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### Abstract

**Background:** The global disruption of the COVID-19 outbreak in education has resulted in a new normal in how education is delivered. Traditional face-to-face nursing education has suddenly transitioned into a remote and online learning environment to help mitigate virus transmission. Students' anticipations and how set they are in this new learning platform should be investigated.

**Objective:** This study determined the expectations of and readiness for online learning of sophomore nursing students in one nursing school in a developing country.

**Methods:** This study employed a cross-sectional research design. The Student Expectations of Online Learning Survey (SEOLS) and Online Learning Readiness Scale (OLRS) were the instruments used to gather data administered online. Descriptive statistics and non-parametric statistical tests were used in the data analysis.

**Results:** Nursing students had high proficiency with technology but more than one-fourth had an unstable Internet connection. Nursing students generally had high expectations of and readiness for online learning. Although high, expectations about social interactions in the online learning environment obtained the lowest mean score among the five subscales of the SEOLS. Readiness for online learning significantly differed based on family income status and Internet stability. Bivariate analysis indicated a significant positive correlation between students' expectations and readiness for online learning.

**Conclusions:** Students' expectations may play a role in students' readiness for online learning. This study suggests that while students appear ready to take on online learning, the different students' circumstances along with the challenges associated with online learning such as limited internet connectivity must be properly addressed. It may be necessary for nursing schools to meet students' expectations in the new learning environment to fully maximize learning and facilitate success and learner readiness in the new normal in nursing education.

**Keywords:** COVID-19, education, e-learning, nursing, students, online learning

### Introduction

The global COVID-19 outbreak has created the biggest disruption of education systems in history, affecting billion of learners worldwide across all continents (United Nations, 2020). The COVID-19 pandemic has transposed the economy, societies, homes, and services including schools into a new reality. The pandemic has resulted in a new normal in how education is delivered (Ramos-Morcillo et al., 2020). The new normal "is a state of which economy, society, school, and other concerns settle following a crisis like the COVID-19 pandemic" (Cacayan et al., 2020). The COVID-

19 pandemic catapulted to the rapid rise of e-learning, online learning, technology-enhanced learning or distance learning (Guillasper et al., 2020; Ramos-Morcillo et al., 2020; Oducado & Soriano, 2021). Despite the steep learning curves and a lack of time for preparation and detailed planning, the traditional face-to-face theoretical instruction and clinical placements (Oducado et al., 2019) of nursing students have swiftly switched in a more flexible, distant, and online learning environment on an untested and unprecedented scale (Burgess & Sievertsen, 2020) to reduce close contact and help suppress virus transmission (Brooks & Grajek, 2020).

In the Philippines, online learning is not the default delivery of instruction in schools (Moralista & Oducado, 2020). However, the transition to the virtual environment brought about a paradigm shift in nursing education (Oducado & Soriano, 2021). Teaching and learning thru the Internet is a new experience for many students and teachers (Diab & Elgahsh, 2020). It can be anticipated that the shift into the new modality of teaching and learning may result in transition difficulties. Transitions, particularly rapid and unplanned, can be challenging and stressful (Al-Yateem & Docherty, 2015; Ubas-Sumagasyay & Oducado, 2020). This period may result in undesirable consequences and may have a negative impact on students. Nursing students may probably need additional guidance (Oducado et al., 2017) during this time of crisis. It is therefore necessary to carefully plan students' experiences in the new learning environment. Preventing a learning crisis and problems in the new delivery of instruction requires exploration and urgent attention to ensure students' retention in the program and to prevent negative impact on the availability of future nurses. Learning about students' anticipations and understanding how set they are in this new learning platform is therefore vital and imperative.

Students' readiness for online learning has been well-documented in the literature before the pandemic. There are several studies conducted internationally (e.g. Bubou & Job, 2020; Ngampornchai & Adams, 2016; Ali, 2016) and even locally (e.g. Bana et al., 2015; Formoso, 2017) that examined students' readiness toward online learning. However, published research particularly among Filipino nursing students' readiness in online learning is sparse and online learning readiness in the context of the pandemic is not yet known. This is imperative because student's readiness serves as a foundation for student's success in an online course (Ali, 2016).

In addition, while students' success factors and satisfaction with online learning are already known, previous scholars have not given much attention to students' expectations in online learning (Wieser et al., 2017). Every student has certain expectations and needs, and teachers must be sensitive to address these to maximize the learning experiences of students (Mupinga et al., 2006). Anchored on expectancy violations theory (Bourdeaux & Schoenack, 2016), when students'

expectations are not met, students may not fully engage with their course (Money et al., 2017). Also, if not managed effectively, the dissonance between students' expectations and reality can cause significant distress, poor academic performance, and increased drop-out rates among students (Hassel & Ridout, 2018; Kastroll, 2017). Understanding the expectations of the students is necessary to help school administrators and authorities to re-orient nursing education in this time of global crisis (Ramos-Morcillo et al., 2020).

At this backdrop, this study looked into the nursing students' expectations of and readiness for online or e-learning during the COVID-19 pandemic in a resource-limited setting.

## Research Design and Methods

### *Research Design, Participants and Data Collection:*

This employed a cross-sectional research design. The participants were the 149 sophomore nursing students enrolled in a nursing course in one nursing school in a developing country. The response rate was 93%. The nursing course was delivered in a blended format having both synchronous and asynchronous sessions. The online survey was administered in the first week of September 2020 before the start of the semester. To satisfy ethical obligations for academic research, full disclosure about the purpose of the study was given at the start of the survey. Participants were also informed that upon proceeding and completing the survey, they grant consent to voluntarily partake in the study. It was also made known to the students that their participation or non-participation in the survey will not affect their class standing.

*Research Instrument:* The Online Learning Readiness Scale (OLRS) by Hung et al. (2010) was adopted to measure nursing students' readiness for online learning. The OLRS had five dimensions: self-directed learning, learner control, motivation for learning, computer/Internet self-efficacy, and online communication self-efficacy. The students responded to a 5-point Likert-type scale ranging from "1-strongly disagree" to "5-strongly agree". For this study, the OLRS had an overall reliability of  $\alpha = .90$ . The Student Expectations of Online Learning Survey (SEOLS) by Harris et al., (2011) was adapted to assess students' expectations of the online learning environment. The SEOLS for this study has five domains with

the following reliability indices: expectations for the online instructor ( $\alpha = .95$ ), expectations about course content ( $\alpha = .85$ ), expectations about social interaction ( $\alpha = .80$ ), expectations about course navigation ( $\alpha = .94$ ), expectations about time management, convenience, and support ( $\alpha = .84$ ). The entire SEOLS has a reliability of  $\alpha = .94$ . The students answered to a 5-point Likert-type scale, with anchors ranging from “1-strongly disagree” to “5-strongly agree”. Higher scores in the OLRs and SEOLS indicate higher readiness and expectations. The following scale of means was used to interpret the findings: Very low = 1.00-1.50, Low = 1.51-2.50, Moderate = 2.51-3.50, High = 3.51-4.50, and Very high = 4.51-5.00. To assess participants’ proficiency with technology, items were adopted from the SEOLS and had a Cronbach’s  $\alpha = .94$ . Demographic variables were also collected and students were asked about their Internet usage and stability of Internet connection.

**Data Analysis:** The analyses were done through the use of univariate statistics, Mann-Whitney U test, Kruskal-Wallis H test, and Spearman rho correlation via SPSS program (version 23). Test of data normality suggested that data deviate from normal distribution. Alpha level of significance was set at .05.

## Results

As shown in Table 1, the participants had a mean age of 19.52 years ( $SD=.51$ ). The majority were females (70.5%), with their residence located in town or rural areas (53.7%) and had middle family income status (85.9%). Participants had an average daily Internet use of 6.96 hours (3.54), commonly use smart or mobile phone to connect to the Internet (91.3%), and had a somewhat stable Internet connection (70.5%).

They had high proficiency with technology ( $M=4.49$ ;  $SD=.61$ ).

Table 2 shows that in general, nursing students had a high expectation of online learning. They had very high expectations for online instructor ( $M=4.71$ ,  $SD=.51$ , Rank 1) and about course navigation ( $M=4.60$ ,  $SD=.67$ , Rank 2). Among the five subscales, although high, they had the least expectations about social interaction in the online learning environment ( $M=4.03$ ,  $SD=.77$ , Rank 5).

Table 3 shows that nursing students had high overall readiness for online learning. Among the five subscales, they had the highest readiness in terms of motivation for learning ( $M=4.34$ ,  $SD=.56$ , Rank 1). Although at a moderate level, the learner control subscale ( $M=3.38$ ,  $SD=.66$ , Rank 5) obtained the lowest mean score among the five subscales of the OLRs.

Table 4 shows that there were significant differences in the readiness for online learning based on family income status ( $p=.010$ ) and Internet stability ( $p=.013$ ). Nursing students with high family income status (Mean Rank = 139.63) and very stable internet connection (Mean Rank = 105.13) were significantly more ready for online learning. On the other hand, there were no significant differences in the readiness for online learning according to sex ( $p=.824$ ) and location of residence ( $p=.160$ ). Table 4 also shows that there were no significant differences in the expectations of students in online learning in terms of sex ( $p=.227$ ), location of residence ( $p=.403$ ), family income status ( $p=.053$ ), and stability of Internet connection ( $p=.441$ ).

There was a significant positive ( $r=.399$ ;  $p=.000$ ) correlation between expectations and readiness for online learning (Table 5).

**Table 1. Participants’ profile, Internet usage, and stability of connection**

Variables	M	SD	f	%
Age (years)	19.52	.51		
Daily Internet usage (hours)	6.96	3.24		
Proficiency with technology	4.49	.61		
Sex				
Male			44	29.5
Female			105	70.5
Location of residence				
City			69	46.3

Town	80	53.7
Family income status		
High	4	4.7
Middle	128	85.9
Low	17	11.4
Internet stability		
Very stable	15	10.1
Somewhat	90	70.5
Unstable	44	29.5
Device commonly used to connect to the Internet		
Smart or mobile phone	136	91.3
Laptop	10	6.7
Tablet/Ipad	3	2.0

**Table 2. Expectations of online learning**

Subscales and overall score	M	SD	Interpretation	Rank
Expectations for the online instructor	4.71	.51	Very high	1
Expectations about course navigation	4.60	.67	Very high	2
Expectations about course content	4.25	.67	High	3
Expectations about time management, convenience and support from family and friends	4.17	.74	High	4
Expectations about social interactions	4.03	.77	High	5
Overall	4.39	.51	High	

**Table 3. Readiness for online learning**

Subscales and overall score	M	SD	Interpretation	Rank
Motivation for learning	4.34	.56	High	1
Computer/Internet self-efficacy	4.12	.75	High	2
Self-directed learning	3.83	.69	High	3
Online communication self-efficacy	3.52	.82	High	4
Learner control	3.38	.66	Moderate	5
Overall	3.87	.52	High	

**Table 4. Differences in expectations of and readiness for online learning**

Variables	Expectations			Readiness		
	Mean Rank	T statistics	p-value	Mean Rank	T statistics	p-value
Sex		2019.500	.227		2256.500	.824
Male	68.40			73.78		
Female	77.77			75.51		
Location of residence		2540.500	.403		2391.500	.160
City	71.82			80.34		
Town	77.74			70.39		
Family income status		5.891	.053		9.295	.010
High	96.13			139.63		
Middle	77.31			73.54		
Low	52.65			70.76		
Internet stability		1.638	.441		8.635	.013
Very stable	87.40			105.13		
Somewhat stable	74.94			73.45		
Not stable	70.90			67.90		

**Table 5. Correlation between expectations of and readiness for online learning**

Variables	r	p-value
Expectations and Readiness	.399	.000

## Discussion

The study looked into the expectations of and readiness for online learning among nursing students in a low resource setting. This study indicated that generally, nursing students were highly ready for online learning and had high proficiency with technology. Similarly, a high level of online or e-learning readiness was noted among nursing students in Saudi Arabia (Ali, 2016) and South Africa (Coopasami et al., 2017). Also, more than half of nursing students in a study conducted in Turkey expressed readiness for mobile learning (Zayim & Ozel, 2015). The findings suggest that nursing students seem ready for online learning in terms of the domains assessed in the OLRs.

Despite students being technically and psychologically ready for online learning, the issue with Internet access and connectivity remains to be a problem among nursing students in this study. In this study, we also found that the readiness of students significantly differed according to the stability of Internet connection. Nursing students with very stable Internet

connection were significantly more ready for online learning. The problem with the quality of Internet access and connectivity has also been noted in prior research conducted in the local setting (Marcial et al., 2015; Oducado, 2019; Moralista & Oducado, 2020). Quality of Internet access was also a reported barrier by medical and nursing students in Uganda and affected their attitudes towards e-learning (Olum et al., 2020). Internet access was also a noticeable issue of online learning during the pandemic among nursing students in Spain (Ramos-Morcillo et al., 2020), Egypt (Diab & Elgahsh, 2020), and Nepal (Koirala et al., 2020). Despite the high readiness of students, issues related to connectivity should be taken into consideration. To derive full benefit and successfully implement online learning, this problem should be addressed especially in a low-resource setting ensuring that students have quality and reliable Internet connection. This is specifically an issue among students in the Philippines given the slow and problematic Internet connection in the country (Salac & Kim, 2016).

Moreover, it was demonstrated in this study that nursing students had high expectations of online learning. This is an encouraging result. It is necessary to know students' expectations because it drives motivation and studies have shown the positive role of expectations on student learning and achievement (Hanover Research, 2012; Kastroll, 2017). A study noted that a lack of clear expectations was considered a barrier in online learning (Marcial et al., 2015).

Furthermore, it is noteworthy that although students had high expectations on the social interaction subscale, this was rated to be the least subscale among the five domains of the SEOLS. Correspondingly, a study found that nursing students perceived e-learning to be impersonal and result in less student-teacher interaction (Oducado & Soriano, 2021). Another study similarly disclosed that users of the online learning system may feel somewhat isolated (Marcial et al., 2015). Poor communication between educators and learners was also noted as frequently encountered difficulty in online learning (Baticulon et al., 2020). A systematic review as well found isolation as one of the most frequent barriers to online learning (Regmi & Jones, 2020). This finding necessitates that the faculty must demonstrate a dependable and timely presence to their online classes (Bailie, 2014) and should try to maximize every opportunity to interact, communicate, and connect with students in the virtual platform given the limitations of face-to-face contact.

In this study, we also found that the readiness of students significantly varied according to students' family income status. Nursing students with high family income status were significantly more ready for online learning. Students from the high-income bracket may have more resources to support their learning online. A research review paper found that low-income and underprepared students struggle more with online coursework (Jaggars, 2011). Likewise, Internet cost was reportedly an important barrier to e-learning and monthly income significantly affected nursing and medical students' attitudes towards e-learning in Uganda (Olum et al., 2020). A significant difference in the mean score of the computer/Internet self-efficacy subscale of the OLRs based on income level among students in a vocation college was also revealed in another study (Cigdam & Yildirim, 2014). Undeniably, distance learning in the country reveals the

digital and socio-economic divide among students (Oducado & Soriano, 2021; Santos, 2020). The different circumstances of students may not be conducive and ideal for online learning (Joaquin et al., 2020). Up to this day, having Internet access continues to be a privilege (Joaquin et al., 2020). The result of this study calls for more attention and consideration among students in the low-income bracket. Thus, addressing financial, operational, and Internet connectivity issues of students belonging to the low-income sector must be addressed if the likely move to fully online learning is considered (Alipio, 2020).

Finally, this research found a significant correlation between students' expectations and readiness for online learning. This finding suggests that students' expectations significantly influence their readiness for online learning. Similarly, a study conducted among nursing students in Thailand found that performance and effort expectancy were positively correlated with technology acceptance (Ngampornchai & Adams, 2016).

This study bears certain limitations and further research is required to confirm the findings of the current study. The findings of this study cannot be generalized to all nursing students in the locally and internationally. The study also lends itself to self-report bias. Additionally, the research design (cross-sectional) of the study cannot infer causality between variables. Nevertheless, this study adds to the existing literature and provides meaningful information regarding online learning in the context of the pandemic.

**Conclusion:** Students' expectations for online learning significantly influence their readiness for online learning. This study highlights that students' expectations may play role in their readiness for online learning. Also, this study underscores that nursing students have high e-learning expectations and are ready for e-learning. While this technology-enhanced modality may be implemented in the undergraduate nursing program in response to the limitations of face-to-face contact imposed by the current pandemic, the different circumstances of students along with the challenges associated with online learning such as limited internet connectivity must be properly addressed. Moreover, despite the promising

readiness of students, the satisfaction, effectiveness, and instructional accuracy of e-learning in developing the clinical skills of students is not known, thus further research is needed. Nursing schools must try to meet students' expectations in the new learning environment likewise should also be prepared to make accommodations for students with limited Internet connection and with low-income status to fully maximize learning, facilitate students' success, and ensure students' readiness in the new normal in nursing education.

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