



## Uso de Internet y la alfabetización en eSalud con temor al COVID-19 entre estudiantes de enfermería en Filipinas

### Internet use, eHealth literacy and fear of COVID-19 among nursing students in the Philippines

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### RESUMEN.

El brote de COVID-19 puso de relieve no solo la seguridad sino también el bienestar mental de los estudiantes de enfermería. En la actualidad, no se comprende bien el nivel de miedo al COVID-19 y los factores asociados entre los estudiantes de enfermería en Filipinas. Esta encuesta transversal en línea determinó la relación entre el uso de Internet y la alfabetización en eSalud con el miedo al COVID-19. Mil trescientos sesenta y siete ( $n = 1.367$ ) respondieron una encuesta en línea utilizando la Escala de alfabetización en salud electrónica (eHEALS) y la Escala de miedo a COVID-19 (FCV-19S) administradas del 1 al 15 de mayo de 2020. Estadísticas descriptivas, se realizaron pruebas de diferencias y análisis correlacional. Los resultados indicaron que la puntuación compuesta del FCV-19S fue de 3,65, lo que indica niveles de miedo de moderados a altos. El miedo al COVID-19 difirió significativamente según el sexo, el año y la ubicación. Se encontró una relación inversa significativa entre el uso diario promedio de Internet y el miedo al COVID-19. Por otro lado, no se observó una asociación significativa entre la alfabetización en eSalud y el miedo al COVID-19. La primera ola del brote de COVID-19 ha tenido un impacto de gran alcance en el bienestar psicológico de los estudiantes de enfermería. Este estudio destaca el valor de Internet y su uso durante el brote no siempre puede generar un mayor temor relacionado con el COVID-19. Las escuelas de enfermería pueden necesitar crear estrategias para promover el uso de Internet regulado y responsable, abordar las preocupaciones de salud mental de los estudiantes y desarrollar intervenciones para responder de manera proactiva para mitigar o reducir el miedo entre los estudiantes de enfermería durante la pandemia.

### PALABRAS CLAVES.

COVID-19, alfabetización en eSalud, miedo, Internet, estudiantes.



Fecha de recepción: 15-12-2020 Fecha de aceptación: 06-01-2021

Oducado, R. M. F., Tuppal, C. P., Estoque, H. V., Sadang, J. M., Superio, D. L., Real, D. V.C., Roa, M. N. Y., Malaga, X. G., Quiros, J. D., Fajardo, M. T. R. & Dela Rosa, R.D. (2021). Uso de Internet y la alfabetización en eSalud con temor al COVID-19 entre estudiantes de enfermería en Filipinas *International Journal of Educational Research and Innovation (IJERI)*, 15, 487-502  
ISSN: 2386-4303 DOI <https://doi.org/10.46661/ijeri.5520>





## ABSTRACT.

The COVID-19 outbreak brought into focus not only the safety but also the mental well-being of nursing students. At present, the level of fear of COVID-19 and associated factors among nursing students in the Philippines are not well understood. This cross-sectional online survey determined the relationship between Internet use and eHealth literacy with fear of COVID-19. One thousand three hundred and sixty-seven ( $n=1,367$ ) answered an online survey using the adopted eHealth Literacy Scale (eHEALS), and Fear of COVID-19 Scale (FCV-19S) administered from May 1 to 15, 2020. Descriptive statistics, tests for differences, and correlational analysis were performed. Results indicated that the composite score of the FCV-19S was 3.65, indicating moderate to high levels of fear. Fear of COVID-19 significantly differed based on sex, year level, and location. A significant inverse relationship was found between the average daily use of the Internet and fear of COVID-19. On the other hand, no significant association was noted between eHealth literacy and fear of COVID-19. The first wave of the COVID-19 outbreak has resulted in a far-reaching impact on nursing students' psychological well-being. This study highlights the value of the Internet and its use during the outbreak may not always lead to higher fear related to COVID-19. Nursing schools may need to create strategies to promote regulated and responsible Internet use, address students' mental health concerns, and develop interventions to respond proactively to mitigate or reduce fear among nursing students during the pandemic.

## KEY WORDS.

COVID-19, eHealth literacy, fear, Internet, students.

## 1. Introduction.

The coronavirus disease 2019 (COVID-19) pandemic has contributed to unprecedented challenges in all social sectors, including education (Nguyen et al., 2020; Oducado et al., 2021a; Rabacal et al., 2020). As of December 13, 2020, the global statistics reported that 70,461,926 were infected, and 1,599,704 died of COVID-19 (World Health Organization [WHO], 2020a). Among these, the Philippines reported 449,400 confirmed cases (Philippine Department of Health, 2020).

The rapid development of COVID-19 provokes a need to consider the disease's epidemiological facets and the impact of the pandemic on mental health and psychological well-being. Due to the novelty of the virus and several challenges of the pandemic (Yang et al., 2020), one of the immediate consequences among individuals worldwide is fear related to contracting the virus (Ahorsu et al., 2020; Nguyen et al., 2020; Satici et al., 2020) or coronaphobia (Arora et al., 2020). Unfortunately, a very high level of fear is disabling and maladaptive contributing to mass anxiety, depression, and psychological distress (Hossain et al., 2020; Mertens et al., 2020; Rahman et al., 2020; Saravanan et al., 2020; Satici et al., 2020). In extreme instances, fear may result in undesirable severe outcomes, such as suicide (Mamun & Griffiths, 2020). On the other hand, fear can also be an adaptive reaction in response to the presence of danger (Mertens et al., 2020). Functional fear can trigger virus-mitigating behaviors including the practice of hand hygiene and social distancing (Harper et



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*International Journal of Educational Research and Innovation (IJERI)*, 15, 487-502

ISSN: 2386-4303 DOI <https://doi.org/10.46661/ijeri.5520>





al., 2020). Some governments even resorted to fear appeals to motivate people to take preventive measures (Biana & Joaquin, 2020).

Meanwhile, students were not spared from the pandemic's adverse effects (Aristovnik et al., 2020; Oducado et al., 2021b). The COVID-19 crisis has brought into a renewed focus students' mental health in higher education (Son et al., 2020). Nursing students were no exemption. The sudden migration of courses to the online platform (Moralista & Oducado, 2020) and the interruption of clinical placement have been unexpected for nursing students (Aslan & Pekince, 2020). Even before the pandemic, there has already been a demonstrated concern regarding nursing students' mental health. Nursing students are at higher risk of stress and depression given the course's substantial academic workload and clinical demands (Mussi et al., 2020; Njim et al., 2020).

Since the beginning of 2020, a great deal of information about COVID-19 has been published on the Internet. The COVID-19 outbreak has given rise to an epidemic of information or infodemic. Infodemic refers to the tidal wave of information, whether accurate or not, that spreads alongside an epidemic (WHO, 2020b). During the COVID-19 outbreak, misinformation and disinformation surrounding the pandemic are unprecedented (WHO, 2020b). This has given fake news or false information a fertile opportunity to spread, feeding off the unawareness, helplessness, and restlessness of people (Moscadelli et al., 2020).

What is more disturbing is that many Internet users may not be getting or interpreting the information correctly and may alarmingly be amplifying the spread of incorrect information (Brørs et al., 2020; Harnett, 2020). In effect, exposure to Internet channels can positively expose one to fear (Oh et al., 2020) and cause panic surrounding COVID-19. A study revealed that social media and problematic smartphone-application use predicted psychological distress during the COVID-19 pandemic (Chen et al., 2020). This raises questions about the use of the Internet and social media during the pandemic. The Internet turns to be a double-edged sword for the people facing this virus (Xu et al., 2020). While the Internet and social media have become essential channels to disseminate facts about the outbreak (Király et al., 2020; Yang et al., 2020) and even help predict preventive behaviors for COVID-19 transmission (Li & Liu, 2020), it also carries a risk of rapidly spreading false information that may result to heightened fear. Undoubtedly, the COVID-19 infodemic has generated a complex online environment for people to effectively acquire valuable and reliable health information (Chong et al., 2020). To add, the considerable volume of information on the Internet has placed high demands on individual's ability to search, obtain, understand, and screen information to address or solve a health problem (Yang et al., 2020). Therefore, it is essential to study the possible association of Internet use and eHealth literacy on the development of fear of COVID-19 among nursing students.





Although there is a rapidly growing research regarding emotional responses and the psychological impact of COVID-19, much of the current published studies were conducted internationally, particularly in China (e.g., Cao et al., 2020; Huang et al., 2020; Yang et al., 2020). Additionally, most of the studies regarding fear of COVID-19 focused on the psychometric evaluation of the scale to assess fear of COVID-19 in different populations (e.g., Caycho-Rodríguez et al., 2020; Pang et al., 2020; Perz et al., 2020; Reznik et al., 2020; Soraci et al., 2020). Some local studies (e.g., Tee et al., 2020; Oducado et al., 2021b, Rabacal et al., 2020) on the psychological impact of the pandemic are also available. However, to date, the level of fear of COVID-19 and associated factors among Filipino nursing students are not well understood. Understanding fear among students is a focal point for action to generate baseline information and serve as an input in developing strategies to help address the pandemic's psychological impact. This web-based study examined the association of Internet use and eHealth literacy with fear of COVID-19 among nursing students in the Philippines.

## 2. Materials and Methods.

### 2.1. Research design and participants.

This study adopted a cross-sectional research design using web-based survey questionnaires. The Raosoft software was used to calculate the sample size. Based on a 20,000 random sample, 50% response distribution, 95% confidence level, and 5% margin of error, the required sample size was 377. In this study, one thousand three hundred and sixty-seven (n=1,367) nursing students responded to the online survey. A large convenience sample of students was chosen from the electronic survey administered for two weeks to compensate for the low anticipated response rate. The sample was more than adequate to detect any effects that occurred between the variables.

### 2.2. Instruments.

Adopted scales of the public domain were utilized to measure the fear of COVID-19 and e-Health literacy. The Fear of COVID-19 Scale (FCV-19S) was the primary measure used in this study. The FCV-19S is a seven-item uni-dimensional scale by Ahorsu et al. (2020). The tool has acceptable reliability values (internal consistency  $\alpha = 0.82$ ) and test-retest reliability (ICC = 0.72). Despite being a relatively new scale, the tool was validated in some Asian countries like in a sample in Malaysia ( $\alpha = 0.89$ ) (Pang et al., 2020), among medical students in Vietnam ( $\alpha = 0.90$ ) (Nguyen et al., 2020) and graduate students in the Philippines ( $\alpha = 0.91$ ) (Oducado et al., 2021b). The computed Cronbach's alpha for this study was 0.89. The participants indicated their level of agreement with the statements using a five-item Likert-type scale. Answers included 1 - "strongly disagree" to 5 - "strongly agree." The higher the score, the greater the fear of COVID-19. The eHealth Literacy Scale (eHEALS) developed by Norman and Skinner (2006a) is an 8-item tool to assess combined knowledge, confidence, and skills in locating, appraising, and using electronic health information to health problems.





The eHEALS has an acceptable internal consistency of  $\alpha = 0.88$  and a modest test-retest reliability ( $r = 0.68$  to  $0.40$ ). A study among Filipino nursing students reported a Cronbach's  $\alpha = 0.93$  (Oducado & Moralista, 2020). For this study, the Cronbach's alpha of the eHEALS was 0.89. The participants responded in a five-item Likert-type scale. Answers included 1 - "strongly disagree" to 5 - "strongly agree." A higher score indicates a better level of eHealth literacy. Students were also asked about their age (years), sex, type of school, year level, current location, devices used to access the Internet, and average daily use of the Internet (hours).

### **2.3. Data collection procedure and ethical considerations.**

This study's data were collected using Google forms during the community quarantine period in the country from May 1 to 15, 2020. Collecting the data online was the only feasible way of gathering data at the time of the survey. The link to the survey was sent through emails, Facebook group pages, and Messenger of nursing faculty members and deans of the different nursing colleges in the Philippines. Nursing faculty members forwarded the online survey link to their respective students. Students were also encouraged to pass on the link to other nursing students. The study's purpose was provided at the preliminary part of the survey, and the students were informed that completing the online survey will be taken as proof of consent to willingly participate in the study. Any identifiable data of the participants were coded to maintain anonymity and confidentiality. Data were stored in password-protected computers for access and retrieval. It took less than 10 minutes to complete the survey. There were no missing data in our study since all questions were made mandatory before completing the survey.

### **2.4. Statistical análisis.**

The IBM SPSS Statistics version 23 was used for the data analysis. Descriptive statistics for continuous variables were expressed as mean (M), standard deviation (SD), while categorical variables were expressed as frequency (f) and percentage (%). Tests of normality indicated that data do not significantly deviate from the normal distribution. The t-test for the independent group and ANOVA with Scheffe post hoc test were used to test for differences. Pearson's product-moment correlation coefficient was utilized to test for the relationship between variables. The statistical significance level ( $\alpha$ ) was taken as 5%.





### 3. Results.

Table 1 shows that the mean age was 20.37 years (SD=2.85). The majority were females (80.5%) and from private nursing schools (81%). Mostly were first-year (46.8%) and second-year (44.2%) students and were from Luzon (40.15) area. The average daily use of the Internet was 6.63 hours, and smartphone or mobile phone (93.2%) was the device commonly used by students to access the Internet. The composite score of the eHealth literacy and fear of COVID-19 scales were 3.88 and 3.65, respectively.

Table 1. Demographics, Internet use, eHealth literacy and fear of COVID-19 scores

Variables	M	SD	n	%
Sex				
Male			267	19.5
Female			1100	80.5
Type of School				
Public			260	19.0
Private			1107	81.0
Academic Year Level				
Third and Fourth			123	9.0
Second			604	44.2
First			640	46.8
Location				
Luzon			548	40.1
Visayas			423	30.9
Mindanao			396	29.0
Device Used to Access the Internet				
Smart or mobile phone			1274	93.2
Tablet/Ipad			22	1.6
Laptop			56	4.1
Desktop/PC			15	1.6
Age (years)	20.37	2.85		
Daily Average Use of the Internet (hours)	6.63	4.15		
eHealth Literacy	3.88	0.61		
Fear of COVID-19	3.65	0.94		

Table 2 shows that there were significant differences in the fear of COVID-19 based on sex ( $t=-4.674$ ,  $p=0.000$ ), year level ( $F=-0.946$ ,  $p=.0017$ ), and location ( $F=4.541$ ,  $p=0.011$ ). On the other hand, no significant difference was noted based on the type of school ( $t=-0.946$ ;  $p=0.344$ ). Meanwhile, a significant inverse correlation ( $r=-0.100$ ,  $p=0.000$ ) was found between average daily use of the Internet and fear of COVID-19, while no significant correlation ( $r=0.035$ ,  $p=0.201$ ) was noted between eHealth literacy and fear of COVID-19.





Table 2. Differences and correlation of variables with fear of COVID-19

Variables	M	SD	Test Statistics	p-value
Sex <sup>†</sup>			-4.674*	0.000
Male	3.01	1.02		
Female	3.41	0.91		
Type of School <sup>†</sup>			-0.946	0.344
Public	3.30	0.93		
Private	3.36	0.95		
Academic Year Level <sup>‡</sup>			4.060*	0.017
Third and Fourth	3.31	1.00		
Second	3.27	0.94		
First	3.42	0.93		
Location <sup>‡</sup>			4.541*	0.011
Luzon	3.41	0.93		
Visayas	3.23	0.97		
Mindanao	3.39	0.93		
Daily Average Use of the Internet <sup>§</sup>			-0.100*	0.000
eHealth Literacy <sup>§</sup>			0.035	0.201

<sup>†</sup>t-test for independent group, <sup>‡</sup>ANOVA with Scheffe post hoc test, <sup>§</sup> Pearson's r, \*p < 0.05

#### 4. Discussion.

The present study investigated the factors associated with fear of COVID-19 among nursing students in public and private colleges and universities in the Philippines. Our study demonstrated that the nursing students' level of fear of COVID-19 appears to be moderate to high levels, as indicated by the above midpoint mean score in the FCV-19S. Similarly, a study disclosed moderate to high fear levels during the rapid rise of COVID-19 in Bangladesh (Hossain et al., 2020). Likewise, some university students in Kazakhstan (Konstantinov et al., 2020) also posted high fear levels and an online survey reported increased fear and worries because of the COVID-19 outbreak (Mertens et al., 2020). A high level of anxiety related to COVID-19 was also noted among University and college students in Ecuador (Rodríguez-Hidalgo et al., 2020) and the United States of America (Son et al., 2020). Among nursing students samples, studies in Turkey (Aslan & Pekince 2020) and Israel (Savitsky et al., 2020) showed that most students were worried and anxious. On the contrary, a low level of fear was reported by the majority of samples of studies conducted in Saudi Arabia (Elsharkawy & Abdelaziz, 2020), Australia (Rahman et al., 2020), and India (Doshi et al., 2020). The reported variation in the levels of fear may be attributed to the different times the survey was administered. The findings of the present study and other studies conducted abroad show that fear and other related mental health concerns exist among nursing students and university students in the context of the COVID-19 pandemic. Nursing students may require more guidance (Oducado et al., 2017) during trying times and nursing schools may need to constantly monitor nursing students' mental health during the pandemic.

This current study also revealed that female students reported significantly higher fear than male students. Our result is relatively consistent with other studies conducted among the Indian population (Doshi et al., 2020), samples in Eastern Europe (Reznik et al., 2020) and





Bangladesh (Hossain et al., 2020), medical students in Vietnam (Nguyen et al., 2020), university students in Saudi Arabia (Elsharkawy & Abdelaziz, 2020), Ecuador (Rodríguez-Hidalgo et al., 2020), and Kazakhstan (Konstantinov et al., 2020), and nurses and nursing students in China (Huang et al., 2020). A global survey in higher education also noted that females tend to be more affected by the pandemic in terms of their personal and emotional lives (Aristovnik et al., 2020). Scholars explained that females usually give more importance to their self-perception and inner experiences, are more emotional, as well as suffer more burden and stressful life events (Aslan & Pekince 2020; Elsharkawy & Abdelaziz, 2020; Huang et al., 2020; Nguyen et al., 2020; Oducado et al., 2021a). Nonetheless, this study's findings suggest that female nursing students may require more support to allay their fear of COVID-19.

Moreover, this study found that first-year nursing students had higher fear compared to other year levels. Similarly, the youngest and lower academic year students in Saudi Arabia also had higher fear levels (Elsharkawy & Abdelaziz, 2020). A study among medical students in Vietnam also revealed that older students in the later academic year had lower fear scores (Nguyen et al., 2020) and university students in the United Arab Emirates had lesser psychological distress (Saravanan et al., 2020). It is thought that younger college students may not have adjusted well yet to the demands of college life. It may also be that older students may be more experienced and knowledgeable about COVID-19 and its preventive measures (Nguyen et al., 2020; Elsharkawy & Abdelaziz, 2020).

Further, study results indicated that those nursing students situated in Luzon, Philippines had higher fears than those located in Visayas and Mindanao. This is probably because the Philippines' COVID-19 outbreak started in Luzon, and that the country's National Capital Region has the most COVID-19 positive cases (Biana & Joaquin, 2020). Fear is directly related to transmission, infection, and death rates of the disease (Ahorsu et al., 2020). Correspondingly, a study noted that the closer to a COVID-19 zone with a high number of cases, the higher is the level of anxiety (Huang et al., 2020). Another study reporting variation of fear by country factors (Reznik et al., 2020) suggests that location contributes to fear.

Due to nationwide lockdowns and social distancing norms, the COVID-19 outbreak has steered an inevitable rise in the utilization of digital technologies (De et al., 2020). Interestingly, one notable finding of our research is the inverse correlation between average daily use of the Internet and the fear of COVID-19. This finding is relatively incongruent with those in the literature. Frequent social media use or exposure during the COVID-19 pandemic was implicated in spreading anxiety and higher levels of fear and mental health problems (Ahmad & Murad, 2020; Bendau et al., 2020; Gao et al., 2020; Lin et al., 2020a; Mertens et al., 2020; Saravanan et al., 2020). In our study, however, the more the students use the Internet, the lower is their fear. Unfortunately, we cannot precisely determine why frequent use of the Internet was associated with lower levels of COVID-19 fear. Although this result was not anticipated, one potential explanation for this is that among nursing students, the Internet may have been their source of information about the pandemic developments during the community quarantine and lockdown period. This could have resulted in greater awareness, a sense of control, and lesser fear about the novel disease. This finds support in a study wherein knowledge about COVID-19 was inversely correlated with fear (Hossain et al., 2020).







Another study among nursing students in Turkey similarly reported that limited news about COVID-19 was associated with increased stress (Aslan & Pekince 2020). For the first time in history, the COVID-19 is the first pandemic where technology and social media are used to a large extent to keep the public safe, aware, and connected (WHO, 2020c; González-Padilla & Tortolero-Blanco, 2020). Concomitantly, this suggests that facts can help minimize fears (WHO, 2020d). It was also observed that the current generation of nursing students pay close attention to the integrity of information posted on social media, indicating their cautious nature compared to the past generations (Oducado, 2019).

It may also be safe to assume that the Internet, in general, provided nursing students not only information about COVID-19 but also enabled them to go on with their lives, afforded them with means to continue their education, a form of distraction, entertainment, and a tool for communication to stay connected and maintain social proximity given the restrictions imposed by physical distancing (Bendau et al., 2020; Király et al., 2020). Perhaps, the social benefit of using these Internet technologies cancels out negative affect and other additional costs (Gabbiadini et al., 2020; Hampton et al., 2015). Some reports likewise indicated that nursing students positively respond to social media use (Ross & Myers 2017). Our present study's findings suggest that higher COVID-19 fear may not always be attributable to higher Internet usage but instead to the problematic Internet use and irresponsible use of social media. When used appropriately and prudently, Internet platforms offer the potential to promote individual and public health (Ventola, 2014). Despite this surprising result, nursing students should be continuously reminded not to add to the infodemic, use the Internet and social media responsibly, and be critical about social media contents that bear predominantly negative news or unfiltered information (González-Padilla & Tortolero-Blanco, 2020; Oducado et al., 2019). Moreover, students should be vigilant against fake news or incorrect information, search for information only from reliable or trusted sources, and minimize negative news about COVID-19 that causes anxiety (WHO 2020d).

Finally, no correlation between eHealth literacy and fear was illustrated in our study. Students' eHealth literacy is independent of COVID-19 fear. While some other recent studies have shown that higher health literacy was associated with lower COVID-19 fear (Nguyen et al., 2020) and eHealth literacy was negatively associated with psychological status during pandemic (Yang et al., 2020) and had a protective effect against insomnia, depression, and anxiety (Lin et al., 2020b), the same is not true among nursing student samples. Perhaps, regardless of students' eHealth literacy scores, students experienced almost similar high levels of fear related to COVID-19 during the first wave of infection and community quarantine wherein the uncertainty of the situation was high, and information about the disease was limited and fast-changing. Whether or not nursing students may perceive themselves as skillful or knowledgeable in obtaining and understanding health information online, they may still experience fear and worries about the infectious outbreak. It may also be possible that unfounded fear or fear without a scientific basis is the likely cause of higher COVID-19 fear. Furthermore, the eHEALS is a general estimate of perceived eHealth literacy skills and comfort (Norman & Skinner, 2006a). The scale may not have been specific in assessing search, retrieval, and evaluation of online information related to COVID-19. This could have influenced the result of our study. Some researchers have also cautioned not to use eHEALS





as the sole index for eHealth literacy (Monkmana et al., 2017). Moreover, while eHealth literacy may arguably be associated with Internet use, eHealth literacy, on the other hand, is a combination of the different facets of literacy skills (Norman & Skinner, 2006b). Notably, a systematic review of the literature reported low to insufficient evidence on the relationship between health literacy and emotional states of anxiety and depression (Neter & Brainin, 2019). Notwithstanding the surge in the number of publications about COVID-19, the information and research on COVID-19 are still developing. Some features of the disease and pandemic are not yet fully known and are still to be discovered. It is suggested that further research is required to validate this finding of the current study.

This study has its shortcomings. Caution is warranted when interpreting and generalizing the findings of this study in light of the limitations identified. Although this study involved a large sample of nursing students from several nursing schools located in the country's different islands, this study was conducted using an online survey within one country, and complete randomization cannot be guaranteed. The exclusion of other nursing students in some other schools and other countries may affect the results' generalizability. Nursing students with a limited Internet connection may also be underrepresented. The study design (cross-sectional) cannot infer a causal link and track changes between variables under investigation. Fear is a subjective conscious experience that involves fluctuations over time (Mertens et al., 2020). Also, the study lends itself to self-reported bias. There is a tendency for participants to rate themselves in a more socially desirable manner. Moreover, the FCV-19S cannot confirm a diagnosis of psychological problems experienced by students (Nguyen et al., 2020). There may also be other factors that may induce or intensify nursing students' fear of COVID-19. We do not intend to provide a complete assessment of all possible factors associated with fear. It is suggested that other scholars explore other factors associated with fear of COVID-19 or other infectious viruses either local or global in scope, especially the recent COVID-19 variant surge. Further research is required to overcome the limitations of the study. Nonetheless, our study has contributed to the rapidly emerging research regarding the psychological impact of the COVID-19 pandemic among nursing students.

## 5. Conclusion.

The occurrence of COVID-19 had posed an unimaginable disaster and fear to human lives in a global scale. Among nursing students, the early stage of the outbreak has resulted in moderate to high levels of fear suggesting a far-reaching impact on their mental and psychological well-being. Factors associated with fear of COVID-19 such as sex, year level, and current location are also highlighted in this research. The mental health of female and younger students and those living in places with higher COVID-19 cases should be given particular attention. Furthermore, this study underscores some positive impact of Internet usage during the pandemic. Contrary to prior studies, our result indicates that higher use of the Internet during the outbreak may not always bring about higher fear related to COVID-19. After all, the Internet has been a source of information both in good times and in bad times. For as long as the students are aware of the drawbacks of problematic use of the Internet and social media, the Internet may be a valuable resource to keep students updated with the disease's progress, source of entertainment and distraction, and means of maintaining lines





of communication during an outbreak of infectious disease and community quarantine. Additionally, being skillful or knowledgeable in obtaining and understanding general health information online will not apparently result in lesser or greater fear associated with COVID-19.

This study recommends that nursing schools need to develop strategic interventions or approaches to lessen fear and address other potential negative psychological consequences of the pandemic among nursing students. Nursing students may also be reminded to regulate their use of the Internet and use social media sensibly and meaningfully. This research provides baseline data about nursing students' fear. Future research may be conducted in different locations and across time to fully know the feature and extent of fear caused by COVID 19 at the same time determine if fear progresses during the pandemic. Furthermore, awareness of this aspect of the pandemic may provide a strategic public health approach to reduce and even prevent psychological issues among the nursing student population.

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