# Indonesian Student

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## Indonesian Student Nurses' E-Health Literacy Skills

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Abstract. Background: Nurses should have a good level of e-health literacy to help patients utilize e-health information. **Objective:** To measure e-health literacy skills and contribute factors. **Methods:** A cross-sectional study of 2209 nursing student in Indonesia (October- November 2019) using eHeals. Result: The overall eHealth literacy was 4 (Scale 1- 5). There were statistically significant differences between e-Heals score with contribute factors (<0.001). **Conclusion:** Indonesian nursing students already have basic necessary skills of e-health.

Keywords. e-health, Indonesia, literacy, student nurse

#### 1. Introduction

Indonesia is the world's 4th most populous country, with more than 260 million people, and half of the country's population (57%) consists of internet users [1]. The use of electronic resources in health care is increasing. Nurses should have the skills to help their patients utilize e-health information and correct any misunderstood information resulting from misinterpretation of information gathered from the internet [2].

Presently, there is no sufficient information about the e-health literacy skills of student nurses. This makes it challenging to map the e-health literacy skills among student nurses to predict their readiness to use e-health as part of their nursing service. Therefore, there is an urgent need to identify the Indonesian student nurses e-health literacy skills and the factors that contribute to the e-health literacy of nursing students all around Indonesia.

### 2. Methods

A cross-sectional study was conducted among 2209 student nurses from 73 schools of nursing in Indonesia (response rate 34%). Surveys were administered online from October to November 2019. Eight-items eHealth Literacy Scale (e-Heals) [3] was used to assess combined knowledge and perceived skills to examine, evaluate, and apply health information from the internet.

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#### 3. Result

The overall median score for eHealth literacy was 4, ranging from 1-5 which indicated that nursing students in this study had a good perceived level of eHealth literacy (Table 1). While 67.63% of students perceived that they had good internet skills, 51.96% found the internet useful in helping them make decisions about their health. The findings also indicated that there were statistically significant differences between e-Heals score with self-perception of internet skills (p<0.001), the importance of internet (p<0.001), the usefulness of the internet (p<0.001) and the frequency of internet use for other purposes (p<0.001) (Table 2).

Table 1. Self-reported eHealth Literacy Scale (eHEALS).

e Heals statement	Responden, n(%)					
	Strongly agree	Agree	Unsure	Disagree	Strongly disagree	Median
I know what health resources are available on the internet	213 (9.64)	1591 (72.02)	361 (16.34)	40 (1.81)	4 (0.18)	4
I know where to find helpful health resources on the internet	377 (17.07)	1619 (73.29)	196 (8.87)	13 (0.59)	4 (0.18)	4
I know how to find helpful health resources on the internet	354 (16.03)	1669 (75.55)	171 (7.74)	10 (0.45)	5 (0.23)	4
I know how to use the health information I find on the internet to help me	465 (21.05)	1632 (73.88)	102 (4.62)	7 (0.32)	3 (0.14)	4
I know how to use the internet to answer my questions about health	471 (21.32)	1593 (72.11)	132 (5.98)	11 (0.50)	2 (0.09)	4
I have the skills I need to evaluate the health resources I find on the internet	203 (9.19)	1458 (66.00)	507 (22.95)	35 (1.58)	6 (0.27)	4
I can tell high-quality health resources from low-quality resources on the internet	326 (14.76)	1562 (70.71)	283 (12.81)	35 (1.58)	3 (0.14)	4
I fee I confident in using information from the internet to make health decisions	230 (10.41)	1567 (70.94)	363 (16.43)	43 (1.95)	6 (0.27)	4

Table 2. Factors associated with eHealth Literacy Scale (eHEALS).

Characteristics	Number, n	%	Statistics (Kruskal-Wallis H)	EHEALS significance	Meanrank
Frequency of using internet for health-related	purpose				
More than 3 times a day	601	27,21	0.000	0.000	1237,06
Alternated days	1014	45,9			1081,21
Once a week	237	10,73			1083,23
Some time s in a month	357	16,16			964,7
Perceived importance of internet					
Very important	1157	52,38	0.000	0.000	1300,61
Important	978	44,27			900,35
Unsure	40	1,811			356,49
Not important	4	0,181			953,25
Not important at all	30	1,358			1251
Perceived usefulness of internet					
Very useful	1148	51,97	0.000	0.000	1283,17
Useful	1024	46,36			925,01
Unsure	27	1,222			379,35
Not use ful	8	0,362			1027,81
Not use ful at all	2	0,091			1097,5
Perceived level of Internet skills					
Very good	552	24,99	0.000	0.000	1414,87
Good	1494	67,63			1013,11
Average	157	7,107			885,21
Poor	6	0,272			1228,92

#### 4. Conclusions

This study demonstrates a baseline reference for e-health literacy among nursing students in Indonesia. Indonesian nursing students already have the necessary basic skills of ehealth. This finding is consistent with a study among nursing students in Jordan (2016), Iran (2017) and Nepal (2019) [2]. However, additional skills are needed by introducing and scaffold health sciences students' learning experience on health information and communication technology to prepare them for their future workplace [4].

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