

A Study To Assess The Attitude Towards E-Learning Among Nursing Students Studying At A Selected College

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ABSTRACT

Background: E-learning has been widely adopted in nursing education as an alternative mode of teaching and learning, particularly during the COVID-19 pandemic. Assessing nursing students' attitudes toward e-learning is essential to understand acceptance, identify potential barriers, and guide future improvements in e-learning strategies. Keeping this in view the investigator aimed to assess the attitude toward e-learning among BSc Nursing students.

Method: A descriptive cross-sectional study was conducted among 270 BSc Nursing students at Sri Ramachandra Faculty of Nursing, SRIHER (DU), Chennai. Ethical approvals were obtained. Data were collected via a Google Form using a two-part instrument: demographic variables and the General Attitude Scale Towards E-learning (GASTE), a 20-item Likert scale measuring tendency towards and avoidance of e-learning. Descriptive and inferential statistics were used for analysis.

Results: The study revealed that 267 students (98.9%) had a favourable attitude toward e-learning, while only 3 students (1.1%) had an unfavourable attitude. The mean attitude score was 176.141 with a standard deviation of 11.8027. No statistically significant association was found between attitude toward e-learning and selected background variables.

Conclusion: The study concludes that most nursing students demonstrated a favorable attitude toward e-learning, suggesting its potential as an effective alternative teaching method. However, challenges such as internet connectivity and technical issues were noted. Enhancing user-friendliness and integrating practical learning components may further strengthen the adoption and effectiveness of e-learning in nursing education.

Keywords: Coping intervention, Psychological distress, intellectually disabled children

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Key messages

- ◆ E learning may enhance student's knowledge and provides flexibility in learning
- ◆ E-learning platforms provide nursing students with diverse multimedia resources that significantly enhance their theoretical knowledge and clinical understanding.
- ◆ Digital platforms offer nursing students an efficient opportunity to access updated medical literature and global healthcare protocols more easily than traditional methods.
- ◆ Students possess the necessary technological readiness and positive inclination to utilize these digital tools for their professional development.

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- ◆ Integration of e-learning into the nursing curriculum fosters a more self-directed and resourceful learning environment for the students.

Source of support: Nil.

Conflict of interest: None

Background

E-learning in healthcare and higher education offers a transformed experience characterized by significant accessibility and flexibility, as Information Communication Technology (ICT) allows for programs to be tailored to individual student needs while offering freedom of pace and geographical independence^{4,5}. Furthermore, the use of modern applications facilitates enhanced engagement through one-on-one interactions and cross-disciplinary collaborations, which enrich the learning journey with peer feedback and a wide array of diverse resources⁶. However, there remain critical barriers to success; despite these clear benefits, challenges such as "digital poverty"—including limited internet or hardware access—social isolation, and information overload can frequently obstruct the path to effective learning⁷.

There is a strong correlation between a favourable attitude and the successful adoption of technology. Factors like self-discipline and technical proficiency determine whether a student views e-learning as a supportive tool or an insurmountable obstacle^{8,9}. The sudden shift from teacher-centered traditional classrooms to student-centered online environments requires a deep understanding of the learner's perspective. While e-learning offers unmatched cost efficiency and convenience¹⁰, it also demands higher levels of self-motivation to avoid procrastination and the negative impacts of social isolation.

While learning outcomes between face-to-face and online courses are often comparable, the experience of reaching those outcomes varies wildly based on technical comfort and environmental factors. Many students report technical hurdles and a sense of isolation. Investigating these difficulties is essential to improving the quality of virtual lecturing and ensuring student well-being¹¹. E-learning empowers students to manage their own education. However, for institutions to successfully integrate these tools, they must first understand the extent to which students utilize and accept them¹².

E-learning has emerged as a very important tool to assist and facilitate teaching and learning process. It provides the tools for learners to be in contact with peers and teachers inside and outside the classroom^{13,14}. It also empowers the learners to manage their own learning and in the most appropriate way for each learner. Integrating e-learning into traditional modes of learning has become one of the priorities for higher educational institution¹⁵. These technologies not only strengthen the communication between instructors and learners, but also let the learners get an easy access to their course materials at any time and from anywhere. Thus, understanding students' attitudes towards e-learning can help to determine the extent to which students utilize the e-learning system (Mukhamethi, 2021)¹⁶. This study is vital to bridge the gap between technological provision and student satisfaction. By assessing attitudes and identifying specific stressors, educational providers can refine their strategies to create a more supportive and effective learning environment for students. Despite the rapid adoption of technology, significant gaps remain in understanding how students particularly those in high-stakes fields like Nursing—perceive and adapt to this shift.

METHODS

A descriptive research design was adopted to quantify and analyse student attitude. The study was conducted at the Sri Ramachandra Faculty of Nursing, a premier facility within SRIHER (DU), Chennai, which provides comprehensive nursing education across undergraduate and postgraduate levels. A non-probability purposive sampling technique was utilized to select participants based on specific criteria. The sample for the study was 300 students who are studying in IInd, IIIrd & IVth Year B.Sc Nursing (Basic) programme at Sri Ramachandra Faculty of Nursing, SRIHER who fulfilled the inclusion criteria. Totally 270 students were included for the study who responded for the questionnaire.

Instruments

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Part I (Background Variables): Age, gender, education medium, family income, residence, year of study, device availability, and computer proficiency.

Part II (GASTE Scale): General Attitude Scale towards E-learning (GASTE), 2012 Developed by Haznedar and Baran^{17,18}, this standardized scale measures attitudes through 20 items divided into two subscales: *Tendency to E-learning* (10 items) and *Avoidance of E-learning* (10 items). The responses were rated on a 5-point Likert scale. Scores range from 20 to 100. 51–100 indicates a Favourable attitude; 20–50 indicates an Unfavourable attitude. The tool demonstrated a reliability r-value of 0.71, validated by psychiatric nursing experts.

Data Collection

The researchers obtained formal permission from the Institutional Ethics Committee SRIHER (DU) to conduct the study. Survey links (including consent forms and scales) were sent via email to 300 students. Each response took approximately 20 minutes. Researchers sent email reminders to ensure participation and maintained strict confidentiality. 270 completed responses were received and processed. Email reminders were sent to ensure participation. Confidentiality was strictly maintained. Upon completion, participants received a personalized thank-you email.

Statistical analysis

Descriptive Statistics such as Frequency, percentage, mean, and standard deviation were used to categorize and describe student attitudes. Inferential Statistics such as The Chi-square test was applied to determine association between student attitudes and their demographic/background variables.

Results

Table 1: Frequency and percentage distribution of attitude towards e-learning among nursing students (N=270)

Attitude	Frequency (n)	Percentage (%)
Unfavourable attitude	3	1.1
Favourable attitude	267	98.9

Table 1 reveals that, majority 267(98.9%) of them had favorable attitude towards e-learning and only 3 (1.1%) of them had un favorable attitude towards e-learning

Table 2. Mean value and Standard Deviation of attitude on e-learning among nursing students (N=270)

Variable	Mean	Standard Deviation
e-learning among nursingstudents	176.141	11.8027

Table 2 describes that the mean value and standard deviation of attitude towards e-learning among nursing students. The mean score was 176.141 with standard deviation of 11.8027.

Table 3. Association between attitude with selected Background variables among nursing students. (N=270)

Background variables	Attitude type				Chi-square test (χ^2) p value
	Unfavourable		Favourable		
	n	%	n	%	
Age in Years					
18	0	0.0	03	1.1	$\chi^2=1.60$ $p=0.90$ (NS)
19	0	0.0	69	25.8	
20	2	66.7	100	37.5	
21	1	33.3	84	31.5	
22	0	0.0	08	3.0	
23	0	0.0	03	1.1	
Gender					$\chi^2=0.87$ $p=0.66$ (NS)
Male	2	66.7	107	40.1	
Female	1	33.3	160	59.9	
Residence					$\chi^2=2.57$ $p=0.27$ (NS)
Urban	3	100.0	143	53.6	
Semi urban	0	0.0	57	21.3	
Rural	0	0.0	67	25.1	

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Family monthly income					
Rs. < 10,000	0	0.0	54	20.2	$\chi^2=2.42$ $p=0.48$ (NS)
Rs. 10,001 – 20,000	2	66.7	81	30.3	
Rs. 20,001 – 30,000	1	33.3	84	31.5	
RS. > 30,001	0	0.0	48	18.0	
Medium of basic education					
English	3	100.0	231	86.5	$\chi^2=0.46$ $p=0.79$ (NS)
Tamil	0	0.0	31	11.6	
Others	0	0.0	05	1.9	
Year of study					
BSc Nursing (Basic) II year	1	33.3	97	36.3	$\chi^2=1.27$ $p=0.52$ (NS)
BSc Nursing (Basic) III year	2	66.7	98	36.7	
BSc Nursing (Basic) IV year	0	0.0	72	26	
Personal devices available for learning					
Mobile phone	3	100.0	242	90.6	$\chi^2=0.31$ $p=0.95$ (NS)
Laptop	0	0.0	18	6.7	
Tablet pc	0	0.0	03	1.1	
Desktop	0	0.0	04	1.5	
Computer proficiency					
Less than 1 year	1	33.3	147	55.1	$\chi^2=3.26$ $p=0.35$ (NS)
1 year - 2 years	2	66.7	62	23.2	
2 years - 3 years	0	0.0	18	6.7	
More than 3 years	0	0.0	40	15.0	
Frequency of computer use					
Daily	1	33.3	47	17.6	$\chi^2=4.55$
Weekly	2	66.7	62	23.2	

monthly	0	0.0	158	59.2	$p=0.10$ (NS)
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(NS: Non-significant)

Table 3 reveals that, there was no statistically significant association found between attitude towards e-learning with selected background variables among nursing students.

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Discussion

The study findings are supported by a descriptive study conducted^{19,20} on Attitude of University Students towards E-learning in West Bengal, India. The result revealed that students have high attitude towards e-learning. Their attitude scores did not differ significantly with their personal variables such as, gender, stream of study and residence. As the attitude towards e-learning has been found to be very high for all groups, It is expected that university student will use e-learning strategy for their work like creating visual presentations, presenting written work and researching topics. They are more effective at working independently as a result of e-learning, and a similar proportion said that learners were better able to work at their own pace.

The study findings are supported by a descriptive study conducted^{21,22} on Undergraduate nursing students' attitude towards online classes during lockdown period in India: imposed or interested. The study findings revealed that more than two-third (76%) participants showed unfavorable attitude towards online classes. There was a significant difference between age, residence, father and mother education with participants' year of study ($p < 0.05$). There was significant association found among gender, mother education and family income with their year of study ($p < 0.05$).

Conclusion

The study explored the student's attitude towards e-learning. Though e-learning was implemented as a substitute during the pandemic, majority of the nursing students showed a favorable attitude towards e-learning. Therefore, the present study suggests a greater probability on e-learning that they will accept it. Many students had internet problems and technological issues. If e-learning can be made user-friendly with reduced technical barriers supplemented with programs that can enhance practical learning abilities. E-learning can be the vital alternative teaching learning method and in the nursing field²³.

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