

A Study to Analyse the Perception of Nursing Students and Faculty with Emerging Technologies in Nursing Education

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Abstract: Education has been slow to meet the changing demands of the modern world, but the expanding knowledge in many fields with its modifying effects on the curriculum and the advancing technologies with their effect on the instructional process leave no choice to education but to review its practices and to make the major changes necessary for today's world. The perception regarding technological advancement is less in nursing education due to lack of infrastructure, lack of exposure and lack of knowledge to access information and barrier hidden and view. This study helps us to analyse the perception and find out the opinion of nursing students and faculty regarding necessary modifications in the nursing education with new strategies. A Descriptive Qualitative Design was adopted and a convenient sampling technique was used. With help of structured questionnaire data was collected and findings revealed that 69% of students and 58.6% of faculty agreed that technological advancement will improve the skills and knowledge in nursing education and also helps to improve the quality of patient care and our profession too.

Keywords: Descriptive Qualitative Design, Opinion of Nursing Students.

1. INTRODUCTION

Education is enabling the rising generation to preserve the best tradition and culture of the past, but also for enriching and modifying the past to suit new social environment. Technologies are multiplying the productivity of man a hundredfold, and advances in communication media caused the world to shrivel before our eyes.

Education has been slow to meet the changing demands of the modern world, but the expanding knowledge in many fields with its modifying effects on the curriculum and the advancing technologies with their effect on the instructional process leave no choice to education but to review its practices and to make the major changes necessary for today's world.

Traditionally, nursing as a discipline, has been care oriented with the traditional value of physical touch and not concerned with applying advanced information technology. Florence Nightingale has rightly quoted that "No system can endure; without change", thus technology is changing the way we live and work. Nursing education is described to include the objectives of nursing education and the four dimensions of educative process.

Lindeman (2000) said that "Technology is identified as an influencing factor in the educative process and also in delivery of health care".

Technology has brought sweeping advancements in communications, which in turn have created opportunities for potential changes in nursing education, particularly in the instructional process that it may well wipe out many of our present day limitations on learning. Now we have marched forward from our lag stage and we are grasping the complexity of interaction in the educative process for the transition to bring in a better future.

NEED FOR STUDY:

The perception regarding technological advancement is less in nursing education due to lack of infrastructure, lack of exposure and lack of knowledge to access information and barrier hidden and view. Thus studies contemplated to find the answers to these assumptions raised after going through the review of literature in terms of existing conditions in our educational environment.

OBJECTIVES:

- ❖ To analyse the perception of nursing students regarding new strategies to access nursing education.
- ❖ To analyse the perception of nursing faculty regarding new strategies to access nursing education.
- ❖ To find out the opinion of nursing students and faculty regarding necessary modifications in the nursing education with new strategies.

2. REVIEW OF LITERATURE

A written summary to determine knowledge on a topic of interest to provide context for the study and to justify the need for the study are as follows:

- ❖ Cunningham. H & Plotkin. K (2000) conducted a study among the nursing students and faculty on using the internet in nursing clinical practicum course and its benefits and challenges. Study revealed that many students came to nursing with limited exposure to internet in education. Teaching thin clinical practicum course with web-based technology opened a door for these students, leading them one step forward to a future.
- ❖ Lindeman (2000) conducted a study among the nursing students to identify the factors influencing nursing education and practice in this modern world. Study revealed that technology, a driving force identified as an influencing factor in the educative process and also in delivery of health care.
- ❖ Saranto K. Leino – Kilipi. H & Isoahoh (1997) conducted a study regarding the view of student nurses learning environment in information technology. Study revealed that computers and information technology should be incorporated into all nursing curricula.
- ❖ Ting – Ting Lee (2000) conducted a study among nurses regarding their adoption of technology with the application of Roger’s Innovation – Diffusion model. Findings revealed that computerized nursing care plan made the nurses saved paper, had an easy to read format, and brought them a sense of control.
- ❖ AACN White Paper Review: The American Association of Colleges of Nursing (AACN) recognizes that technological advances are increasing opportunities to improve dramatically the quality of and access to nursing education. Further, technology affords increased collaboration among nursing faculties in teaching, practice, and research. Careful use of technology in education may well enhance the profession’s ability to educate nurses for practice, prepare future nurse educators, and advance nursing science in an era when the number of professional nurses, qualified nurse faculty and nurse researchers is well below national need.

3. METHODOLOGY

Research Design: A Descriptive Qualitative Design was adopted.

Setting of the Study: The study was done at two Colleges of Nursing at Salem, India

Population: Population included final year B.Sc (N) students and the nursing faculty of both the colleges with equal participation.

Sample size: The study included 100 samples, which consisted to 50 students and 50 staffs.

Sampling technique: A convenient sampling technique was used.

Tool: Tool prepared with the guidance of Research Experts and after extensive reading the tool necessary for data collection was constructed. It has 3 parts namely,

- ❖ Demographic data
- ❖ 8 statements with Yes or No responses.
- ❖ 7 statements with multiple choice responses.

Data Collection: Data collection was done at the colleges after giving an introduction about the study and the purpose of doing it. Prior consent was got from the head of institutions and the participants. The participants were assured of their confidentiality. A time limit of 20 minutes was given to complete the questionnaire.

Score interpretation: A score of 0 and 1 was given to Yes/ No responses and a score of 3.2 and 1 for multiple choice responses.

4. FINDINGS AND INTERPRETATION

The completed questionnaires were analysed with the guidance of Biostatistician. Descriptive statistics was used for analysis. The findings are presented as follows:

Table-1: Faculty and students view on the strategy to be used in method of teaching.

Groups	Lecture Strategy	Programmed Instruction Strategy	Tech. Mediated Teaching Strategy	Mean	S.D	't' Value
Nursing students	24%	16%	60%	39.3	12.74	2.10
Nursing Faculty	32%	10%	58%	34.3	11.00	

Table-1 Identifies that 60% of nursing students perceived that technology mediated teaching strategy may change the conventional thinking of nurses in their education and practice.

Table-2: Faculty and students view in preference on the technology used in communication media.

Groups	Audiotated instruction	electronic mail	interactive television	Mean	S.D	't' Value
Nursing students	16%	32%	52%	39.3	11.75	1.39
Nursing Faculty	20%	42%	38%	36.3	9.8	

Table-2 It is evident that both the nursing students and faculty perceived electronic mail and interactive television can faster the interaction of students in their learning process and students become active participants.

Table-3: Faculty and students opinion regarding the new information they can access.

Groups	Books	Journals	Internet access	Mean	S.D	't' Value
Nursing students	8%	36%	56%	41.3	12.69	2.68
Nursing Faculty	20%	48%	32%	35.3	9.46	

Table-3 It is evident that there is significant difference in their perceptions. 56% of students perceived that new information been gained easily through internet access. But 48% of faculty felt that journals only can give easy accessibility of new information.

Table-4: Faculty and students view on the influencing factors to use the technology

Groups	Incentives	Guidance	Motivation	Mean	S.D	't' Value
Nursing students	18%	20%	62%	40.66	13.29	2.14
Nursing Faculty	8%	48%	15%	35.66	9.77	

Table-4 It is evident that 62% of nursing students need motivation as an influencing factor, whereas 48% of faculty need guidance for adopting 48% of faculty need guidance for adopting this new technology.

Table-5: Opinion in the environment which will influence the utilization in practice and quality of education.

Groups	Electronic environment	Educative Environment	Hospital Environment	Mean	S.D	't' Value
Nursing students	12%	32%	56%	40.6	12.16	2.5
Nursing Faculty	8%	54%	38%	38.3	10.82	

Table -5 It is evident that 56% of students perceived hospital environment, whereas 54% of faculty perceived educative environment only will improve their utilization in practice and quality of education.

Table-6: Opinion regarding the influence of quality care

Groups	Technological Advancement	Interpersonal Relationship	Both	Mean	S.D	't' Value
Nursing students	6%	22%	72%	41.6	15.17	0
Nursing Faculty	6%	12%	82%	41.6	17.22	

Table-6 It is evident that both the nursing students and nursing faculty agreed that both the technological advancement and interpersonal relationship will improve the quality of nursing care.

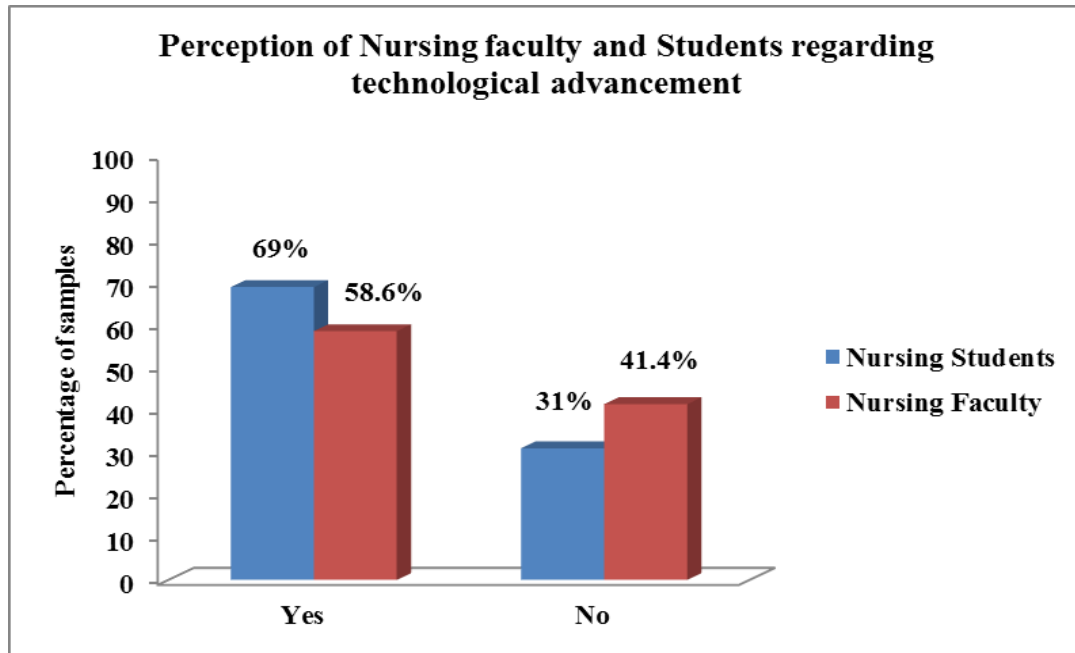


Figure-1

69% of students and 58.6% of faculty agreed that technological advancement will improve the skills and knowledge in nursing education and also helps to improve the quality of patient care and our profession too. But most of the faculty (41.4%) disagreed this, because they perceived that traditional humanistic approached patient care is necessary in nursing education.

5. RECOMMENDATIONS

- ❖ Computer assisted instruction should be emphasized in the nursing syllabus for both theory and practice.
- ❖ Internet access for updating information should be ensured to all nursing students and faculty in their respective institutions, at a minimum cost.
- ❖ Accessibility to both national and international journals to nursing students and faculty should be made as requirements in the college.
- ❖ Importance to inservice education and short term courses to access technologies should be emphasized for the teaching faculty.

6. CONCLUSION

Technological advancement in human life has influenced every aspect of life and is playing a significant role in the field of medicine. With technology alone as the main aspects, nursing care will not be complete. A human presence, touch and a smile has got great importance and effect in the healing process, thus with refined human relationships and technological strategies let us bring in quality nursing care.

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