

RESEARCH ARTICLE

A Comparative Study to Assess an Attitude towards Computer Application in Nursing Practice among the Staff Nurses

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ABSTRACT:

Nursing is professional caring. Though we are in technology world many of the Hospital follows the most of the traditional method of nursing care which has got lot of paper work than the client care. This trend has to be changed. Hence this study is focusing on assessment and comparison of Nurses attitude towards computer application in nursing practice by a standardized tool P.A.T.C.H (Pretest for Attitudes Toward Computers in Healthcare). Quantitative approach with descriptive research design was used for the study. Staff Nurses working in Private Hospital and Government Hospital were selected by using convenient sampling technique. Total sample size is forty. Prochaska Diclemente's Stage of Change Model theory was applied for the present study. Both descriptive and inferential technique was used for the study. Study findings shows, according to P.A.T.C.H. Scale Private Staff Nurses had 5% of the limited awareness, 40% of them had realistic view, 50% of them had enthusiastic view and 5% of them had idealistic view about computer application in nursing practice. Government Staff Nurses had 35% realistic view, 55% of them had enthusiastic view and 10% of them had idealistic view. Among the Private staff Nurses 59% of them had positive attitude, 20% of them had negative attitude and 21% of them were expressed that no opinion. Among the Government Staff Nurses 59.5% of them had positive attitude, 15% of them were had negative attitude and 25.5% of them were expressed as no opinion. Chi square test was used to find out the association between attitude and selected demographic variables at 0.05 level of significance. It shows that there is no association between attitude and age, sex, education, Year of experience, Income, Type of family, religion, marital status and Place of residence. There is association between attitude and Source of information. Overall finding of the study shows that there is no much difference between private and government staff nurses towards computer application in nursing practice. They must be educated regarding current trends and recent advancement by using information technology.

KEY WORDS: P.A.T.C.H (Pretest for Attitudes Toward Computers in Healthcare), Nursing Informatics, Prochaska Diclemente's Stage of Change Model, Enthusiastic view and Idealistic view.

INTRODUCTION:

P.A.T.C.H (Pretest for Attitudes Toward Computers in Healthcare)¹

Nursing care seeks mutual resolution of health care deficits in individuals, groups, and communities.

Nurses have the knowledge and skills needed to provide quality care for those who have either a temporary or permanent loss of their self-care capabilities. Caring of this sort may involve anything from psycho-physiologic problems to deficits in personal or family health knowledge. This caring always includes genuine warmth, kindness, and empathy.² As we are living in technology era, we should go along with current trend which is one of the standards of profession. Application of computer skill in nursing field is increasingly evident now a day. Hospital Information Systems are sophisticated, highly integrated communication

systems concerned primarily with client clinical information. One essential application is the recording and monitoring of the nursing staff's educational activities.³

Nursing requires computer competencies. Nursing informatics is a narrower, specialized field inside of the wider medical informatics. Nursing informatics represents the way that nurses utilize technology in their daily duties. This includes using the latest developments to help make nursing more modern and efficient — while still providing excellent personalized patient care.⁴ Computers influences nursing profession in many ways and reducing workload that will enhance Nurses to give Quality nursing care. Nurses all around the world have risen to the challenge of new technology. Mainly it can be used in nursing documentation. Nursing requires computer competencies. First of all Nurses should have positive attitude towards innovation in nursing practice.⁵

Hence the researcher would like to assess the attitude towards computer application in nursing practice and compare the attitude of Staff Nurses working in Private and Government sector by using standardized PATCH scale.

SIGNIFICANCE OF THE STUDY:

There have been much advancement in the field of health care in the last two decades and this progress seems to be advancing with even more speed in the future. One of such areas is the nursing informatics, which has nearly revolutionized the health care system. Nursing informatics is an evolving specialty of nursing and is playing a substantial role in health care information system, features and functions.⁶ Although worldwide this specialty has become well established but in the developing countries like India the field is still in the budding stage. Computers have been added as a compulsory subject in all the nursing courses, yet the expertise and the utilization of this knowledge is limited. This paper reviews the literature to draw information on the past, present and the future of nursing informatics.

In order to shape the future it is definitely important to peep into our past so that we can retrieve useful information, facts and issues from those old days. It is well accepted that communication of information is an important aspect of nursing. In fact Florence Nightingale stressed a lot on authenticity of the information used and conveyed by nurses. She also collected and analyzed and graphically presented the data as a statistician. In this light Florence Nightingale is being considered as the first nurse information.

Nursing standards have been rising slowly but steadily.⁷ If we look through the past as well as the present, very little progress has been made in this regard. Even today there are lots of issues in obtaining the right information at the right time. Just about 35 years ago, personal computers were non-existent, but today it is unimaginable to function without these computers in one or the other form. The

technology is evolving at a tremendous speed raising issues related to competencies and training of the professionals. This makes the enhancement of knowledge and understanding of nursing informatics even more urgent.

OBJECTIVES:

- To assess the attitude towards computer application in nursing practice among the Staff Nurses working in Private Hospital and Government Hospital
- To compare the attitude towards computer application in nursing practice among the Staff Nurses working in Private Hospital and Government Hospital
- To find out the association towards computer application in nursing practice among the Staff Nurses with selected demographic variables.

NULL HYPOTHESES:

- H₀** There will not be any positive attitude towards computer application in nursing Practice among the Staff Nurses working in Private Hospital at 0.05 level of significance
- H₀** There will not be a significant difference on attitude towards computer application in nursing practice among the Staff Nurses working in Private Hospital and Government Hospital at 0.05 level of significance
- H₀** There will not be any significant association between Staff Nurses attitude towards computer application in nursing practice with selected demographic variables at 0.05 level of significance.

METHODOLOGY:

Research approach:

Quantitative research approach was used for the present study

Research Design:

Descriptive - Comparative research design was used

Setting:

Selected Private & Government Hospital sector, Puducherry was used for setting.

Population:

All the Staff Nurses working at Selected Private & Government Hospital sector, Puducherry was used as a Population for the present study

Sample:

Staff nurses who are all available and interested to participate in the study during the data collection period were included with inclusion criteria.

Sample Size:

Forty Staff nurses were participated in the study. Twenty from the private Sector and twenty from the Government sector

Sampling Technique:

Convenient sampling technique was used to select the samples.

Description of the Tool:

Section I- It consist of Demographic variables such as age, sex, education, year of experience, income, type of family, Religion, marital status, place of residence and source of information

Section II-P.A.T.C.H (Pretest for Attitudes Toward Computers in Healthcare) standardized scale was used as a tool. It is a Five point Likert scale with 50 items which bring the attitude of health care professionals towards application of computers in health care set up.

Data Analysis:

Both descriptive and inferential statistics were used. Chi square test was used to find out the association between attitude and selected demographic variables.

CONCEPTUAL FRAME WORK:

Prochaska Diclemente’s Stages of Change Model

Pre contemplation:

Increase awareness of need for change; personalize information on risks and benefits. Researcher would like to assess the usage of computers in nursing practice

Contemplation:

Motivate, encourage making specific plans. Investigator assess and compare the attitude towards computer application in nursing among the Staff Nurses of Private and Government sector.

Decision:

Assist in developing concrete action. PATCH scale used to assess the attitude of Staff Nurses towards computer application in nursing practice.

Action:

Assist with feedback, problem solving, social support, reinforcement. In-service education could be planned to change the staff nurses attitude & enhance their skill in computer application.

Maintenance:

Assist in coping, reminders, finding alternatives, avoiding slips/relapses (as applies). Hospital should accept the Innovations in nursing practice.

Certificate in Computer course should be a mandatory for all Staff nurses.

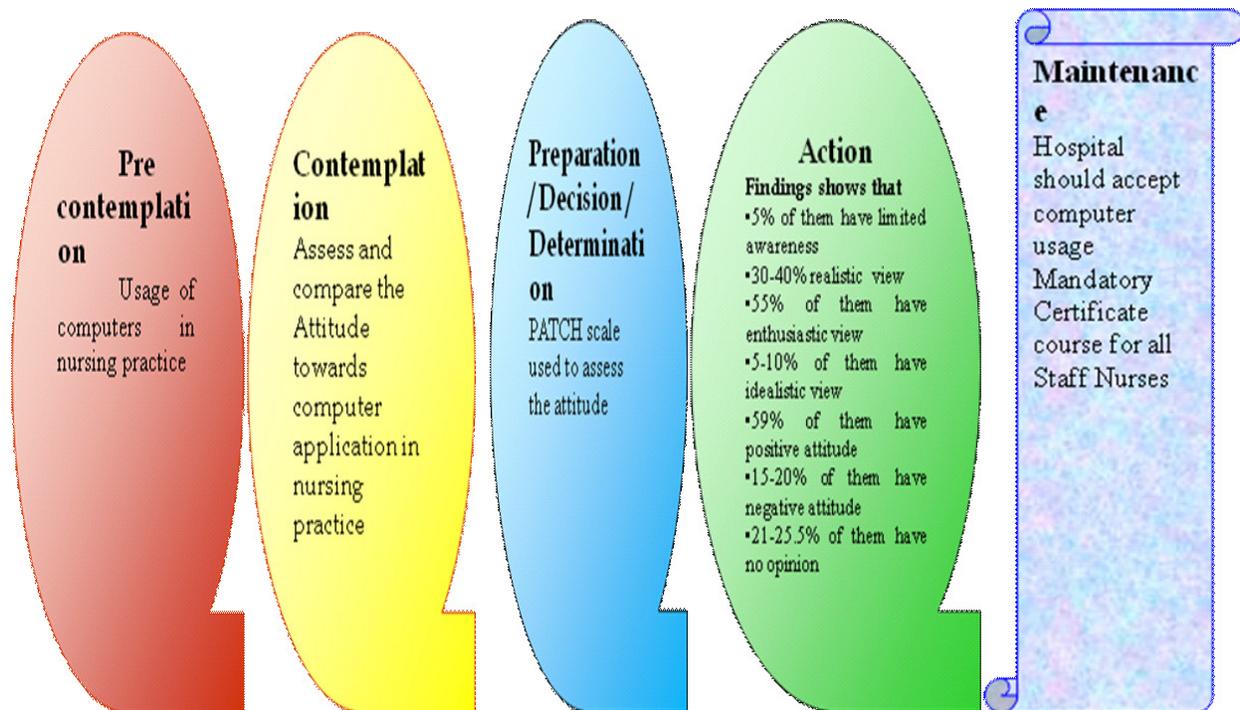


Figure – 1: Prochaska Diclemente’s Stages of Change model theory

Figure: 1 shows that application of Prochaska Diclemente’s Stages of change model in assessment of attitude of staff nurses in their clinical practice.

RESULTS:

PART- I

TABLE: 1 DISTRIBUTION OF PARTICIPANTS ACCORDING TO THE DEMOGRAPHIC VARIABLES

Sl. No	Demographic variables	Age	Distribution of participants (%)
1	Age	20 – 25	52.5
		25 – 30	30
		30 – 35	10
		35 & above	7.5
2	Sex	Female	67.5
		Male	32.5
3	Education	DGNM	32.5
		B.Sc.(N)	62.5
		M.Sc.(N)	5
4	Income	< 5,000/-	42.5
		5,000 – 10,000	15
		10,000<	42.5
		< 3 Years	67.5
5	Year of Experience	4 – 6 Years	15
		> 6 Years	17.5
		Nuclear	70
6	Type of Family	Joint	30
		Hindu	75
7	Religion	Christian	22.5
		Muslim	2.5
		Single	70
8	Marital Status	Married	30
		Urban	65
9	Place of residence	rural	35
		Newspaper	42.5
10	Source of Information	Electronic media	40
		Health professionals	17.5

Table 1 shows that the distribution of Staff Nurses according to their demographic variables. Maximum number of participants (52.5%) were belongs to the age group of 20-25 years, 67.5% of the staff nurses were female. 62.5% of them were B.Sc.(N) graduates, 42.5% of them were getting less than rs.5,000/- & 42.5% of them were getting more than Rs.10,000/-, Maximum participants (67.5%) were had less than 3 years of experience, 70% of them were nuclear family, 75% of them were Hindus, 70% of them were single, 60% Of them were residing in urban area and 42.5% of them gained knowledge through Newspaper.

PART-II

TABLE:2 ATTITUDE TOWARDS COMPUTER APPLICATION BY PATCH

Sl. No	Variables	Limited awareness	Realistic view	Enthusiastic view	Idealistic view
1	Private Staff Nurses	5%	40%	50%	5%
2	Govt. Staff Nurses	-	35%	55%	10%

Table: 2 shows that findings according to P.A.T.C.H. Scale Private Staff Nurses had 5% of the limited awareness, 40% of them had realistic view, 50% of them had enthusiastic view and 5% of them had idealistic view about computer

application in nursing practice. Government Staff Nurses had 35% realistic view, 55% of them had enthusiastic view and 10% of them had idealistic view.

TABLE: 3 ATTITUDES TOWARDS COMPUTER APPLICATION

Sl. No	Variables	Mean Percentage		
		Positive attitude	Negative Attitude	No opinion
1	Private Staff Nurses	59%	20%	21%
2	Govt. Staff Nurses	59.5%	15%	25.5%

Table: 3 shows that positive & negative attitude of staff nurse towards computer application in nursing practice. Among the Private staff Nurses 59% of them had positive attitude, 20% of them had negative attitude and 21% of them were expressed that no opinion. Among the Government Staff Nurses 59.5% of them had positive attitude, 15% of them were had negative attitude and 25.5% of them were expressed as no opinion.

PART – III

TABLE: 4 Association between selected demographic variables and level of knowledge

S.No	Variable	λ^2 Value	Table value at 0.05 level	Level of significant
1	Age	1.49	3.89	Not Significant
2	Sex	1.04		
3	Education	2.92		
4	Year of Experience	0.18		
5	Income	0.78		
6	Type of family	1.92		
7	Religion	1.12		
8	Marital status	0.92		
9	Place of residence	1.74		
10	Source of information	6.06	3.89	Significant

Table: 4 Shows the association between attitude and selected demographic variables. It shows that there is no association between attitude and age, sex, education, Year of experience, Income, Type of family, religion, marital status and Place of residence. But there is an association between attitude and Source of information.

RECOMMENDATIONS:

The study findings shows that Staff Nurses have less knowledge on computer application in nursing practice, negative attitude towards it and less positive attitude towards it.

- In service education programme can be planned to enhance the knowledge towards computer application
- Nursing informatics can be implemented in clinical area
- Continuing education can be planned for Nurses

- Computer course can be mandatory for the staff nurses
- Salary hikes can be made for additional educational qualification with computer knowledge

Computers in hospitals carry with them exciting and challenging potential for Nursing. Clinical practice reflecting high quality standards of care can be defined, and for the first time communicated to each nursing practitioner to become an integral component of her daily planning and documenting of patient care. For the nursing administrator, the department's philosophy can now be translated into concrete practice. But, the nurse administrator must also ensure that the practice reflected in the computer is current and is valid. The content of nursing applications must meet the needs of all practitioners regardless of education level, experience or clinical specialty. Mechanisms must be in place for the continuing evaluation of changing practice with the means to change the content of the nursing pathways in the computer quickly and easily. In the struggle for recognition as a profession, Nursing now has a unique opportunity to define and validate nursing's clinical practice. How it meet this challenge will chart the course of Nursing for the future.

CONCLUSION:

The study findings show that Staff Nurses working in both Private and Government sector have positive attitude than negative attitude towards computer application in nursing practice and also 21 to 25% of them have expressed that no opinion to few items. It shows that still we are lack in computer usage in nursing. Computer has become the part and parcel of life of people in developed countries. So it's a high time for us to accept and practice the innovation in nursing practice for providing quality nursing care.

BIBLIOGRAPHY:

1. P.A.T.C.H. Assessment Scale V. 3 (Pretest for Attitudes Toward Computers in Healthcare) © June Kaminski 1996 – 2012. Retrieved from <http://nursing-informatics.com/niassess/plan.html>
2. Patricia A. Potter and Anne Griffin Perr. Fundamentals of Nursing. Elsevier a division of Reed Elsevier India private Lt, New Delhi. 2005; 6th ed.
3. Carter J. Standards of Nursing Care. Springer Publishing Company, New York. 1976.
4. Jiang WW, Chen W and Chen YC. Important computer competencies for the nursing profession. Sep;12(3); 2004: 213-26.
5. Janet B. Kelly. Computers in Hospitals: Nursing Practice Defined and Validated. 1989: 206-216. A review. Available from: URL: http://link.springer.com/chapter/10.1007%2F978-1-4612-3622-1_21
6. Harriet Helen Werley. Nursing Information Systems. J Am Med Inform Assoc. 2003 Mar-Apr; 10(2): 224-225. A review available from :URL: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC150375/>
7. Lysaught, J. From Abstract into Action. National Commission for the Study of Nursing and Nursing Education. McGraw-Hill, New York. 1973.

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