

KNOWLEDGE REGARDING COMPUTERS AMONG STAFF NURSES

¹P. Savithri, ²Katari Kantha, ³Arumugam Indira, ⁴Kavya Varghese

¹H.O.D, Department of Child Health Nursing, Sree Narayana Nursing College, Nellore, Andhra Pradesh, 524003, India.

²Department of Community Health Nursing, Narayana College of Nursing, Nellore, Andhra Pradesh, 524003, India.

³Principal, Narayana College of Nursing, Nellore, Andhra Pradesh, 524003, India.

⁴Narayana College of Nursing, Nellore, Andhra Pradesh, 524003, India.

Corresponding author: Katari Kantha, Associate Professor, Department of Community Health Nursing, Narayana College of Nursing, Nellore, Andhra Pradesh. E-mail id:kanthanaren@gmail.com

Abstract: Nurses work closely with doctors and other medical professionals to manage and implement healthcare plans for patients. In today's medical facilities, nurses must have a good grasp of how computers are used in the nursing profession. In most instances, medical staff no longer need to decode doctors orders and patient needs that were written on a bedside medical chart. Electronic health records help doctors and nurses communicate more efficiently by eliminating most misinterpretations of written and verbal orders. Using computers, smartphones and tablets, nurses can create and manage electronic health records and update them, as needed.

Objective: To assess the knowledge regarding computers among staff nurses working in Narayana medical college hospital, Nellore.

Methods: The staff nurses in this cross-sectional study working in Narayana medical college and hospital, Nellore. A total of 100 staff nurses were randomly selected. Trained investigators administered a standard questionnaire to each participant during a face to face interview and carried out data collection procedure.

Results: The results show that, out of 100 staff nurses with regard to the level of the knowledge on computers 26% of nurses having 'C' grade knowledge, 70% of nurses having 'B' grade knowledge, and 4% of nurses having 'A' grade knowledge.

Conclusion: Knowledge on Computers among staff nurses was found to be very low. Increasing accessibility to computers and delivering training on the use of computers for staff nurses will increase the knowledge of computers. This will facilitate the rate of diffusion of the technology to the health sector. Hence, programs targeted at enhancing knowledge and skill of computer applications and increasing access to computer should be designed. The association between computer knowledge/skill and health care delivery competence should be studied.

Keywords: Knowledge, Computers, Tele Health, Staff Nurses.

1. INTRODUCTION

Since the advent of computers, there have been significant interests in the collection, storage, retrieval, and analysis of a wide range of information in all spheres of socioeconomic development endeavor¹. In the health sector, advances in information and computer technology in the last quarter of the twentieth century has led to the ability to more accurately profile individual health risk, to recognize better basic physiologic and pathologic processes and diagnosis through new imaging and scanning technologies. Such technological development, however, demands an increased responsibility of practitioners, managers, and policy makers to assess appropriateness of new technologies².

Contemporary health care faces a many changes on account of emerging and reemerging diseases but nothing will change the way health care is provided more than the current advances in information, communication and technology. Nursing, being an integral part of the healthcare delivery system, is exposed continually to a variety of changes³. The responses of the nurses to changes could vary from unreserved support to total rejection⁴. For instance, the introduction of computers can elicit diverse feelings among nurses. A positive attitude could see a rapid adoption with accompanying realization of

the benefits of computerization. A less positive attitude or rejection is likely to retard attempts to modernize service delivery.

Computers are among the many facets of information, communication and technology that have rendered the wide world a village⁵. In most parts of the globe, especially the developed nations, computers are used in almost all spheres of life⁶Computers are ubiquitous accessories in all sectors of the economy, from the banking sector, transport, engineering, education, health sector etc.

In the 1990s the government of Japan gave incentives to hospitals willing to adopt electronic medical records (EMRs)⁷. Things are not different in the UK where Chan, Brew and Lusignan⁸ reported that the health service had invested heavily in information technology. The establishment of a National Health Information System (HIS) in Canada has continued to receive government support through the Economic Action Plan⁹ In the USA, federal incentive payments for adoption and meaningful use of electronic health records (EHRs) are available for hospitals and office based physicians¹⁰. The payments could run into billions of dollars over a period of ten (10) years, according to the press release. And in Australia, the national and state governments were reportedly investing heavily in health information systems¹¹. These efforts aim at mainstreaming information systems in the delivery of healthcare.

The use of computer and information technology to support an electronic health record (EHR) is quickly becoming a standard practice in health care. For nurses and other health-care team members, the use of computer technology provides quick access to important information about your health or illness.

In the health care area, scientific and technological advances lead to the obsolescence of knowledge and professional skills in a remarkably short period of time. Thus, a comprehensive basic professional preparation is no longer sufficient for a whole life of practice. Moreover, given the emphasis on evidence based practice, nursing staff members constantly need to update their knowledge and professional abilities. Therefore, continuing education has increasingly become essential to guarantee high-quality nursing practice (Goldsworthy, 2016).The aim of the current study is to assess the knowledge regarding computers among staff nurses working in Narayana medical college hospital, Nellore.

2. DETAILED RESEARCH PLAN

This cross sectional study was carried out in Narayana Medical College and Hospital of Nellore district. The target population of this study consisted of all staff nurses who meet the inclusion criteria like who are between 20-60 years, who are available during the data collection time and who are not associated with any co morbid diseases.

The target population of this study consisted of 100 staff nurses. Sample size was calculated to estimate the prevalence of different health outcomes investigated in the survey, considering a confidence level of 95%, prevalence for the unknown outcomes of 50%, sampling error of 3 percentage points, percentage of losses estimated at 10%. Based on these parameters, we obtained a sample size of 100 staff nurses. For association tests, considering an estimated prevalence of the outcome of 50%, 80% power and 95% confidence level, this sample size would allow detecting as statistically significant a knowledge ratio of up to 1.4 as a risk factor and up to 0.6 as protective factor for both genders.

TOOLS FOR DATA COLLECTION:

SECTION A: It deals with demographic data including age, Educational status, Religion, Source of knowledge, Gender, Marital status, Source of information, Attended computers course, No. of times attended and Designation.

SECTION B: The tool consist of 2 parts as follows,

Part 1 – Deals with selected socio demographic variables.

Part 2 – It consist of 30 questions to assess the knowledge regarding computer among nurses.

DATA COLLECTION PROCEDURE:

This cross-sectional study was conducted in Narayana Medical College and Hospital of Nellore district during 2016. This study comprises of both male and female staff between 20-60 years, staff on leave and are not willing to participate and to give informed consent were excluded from the study.

Institutional ethics committee approved the study tool. Written informed consent was obtained from participants.

3. RESULTS AND DISCUSSION

A total of 100 staff nurses were participated in the study. The table 1 shows the socio demographic profile of the staff nurses.

Table 1. Frequency and percentage distribution of sociodemographic data. (N=100)

Sl.No.	Demographic Variables	Frequency	Percentage	Total
1.	Age			100%
	a. 20-25 years	70	70%	
	b. 25-30 years	25	25%	
	c. 30-35 years	5	5%	
2.	40-50 years	0	0%	
	Educational status			100%
	a. GNM	26	26%	
	b. ANM	60	60%	
c. Post BSc Nursing	9	9%		
3.	d. MSc Nursing	5	5%	
	Source of knowledge			100%
	a. Books & journals	16	16%	
	b. CNE programme	20	20%	
c. Internet	18	18%		
4.	d. All the above	46	46%	
	Source of information			100%
	a. Mass media	14	14%	
	b. Internet	62	62%	
c. Books	16	16%		
5.	d. Other health members team	8	8%	
	Attended computers course			100%
a. Yes	100	100%		
6.	No. of times attended			100%
	a. Once	37	37%	
	b. Twice	53	53%	
	c. Three times	6	6%	
7.	d. More than 3 times	4	4%	
	Designation			100%
	a. Staff nurse	75	75%	
b. In charge	20	20%		
	c. Others	5	5%	

Table 2. LEVEL OF KNOWLEDGE REGARDING COMPUTERS AMONG STAFF NURSES(N=100)

C		B		A	
No	%	No	%	No	%
26	26%	70	70%	4	4%

The above table shows that 26% of staff nurses having C grade knowledge, 70% of staff nurses having B grade knowledge, and 4% of staff nurses having A grade knowledge.

The present study results are consistent with the findings of the previous studies conducted in Nellore region¹².

4. DISCUSSION

Knowledge on Computers among staff nurses was found to be very low. Increasing accessibility to computers and delivering training on the use of computers for staff nurses will increase the knowledge of computers. This will facilitate the rate of diffusion of the technology to the health sector. Hence, programs targeted at enhancing knowledge and skill of computer applications and increasing access to computer should be designed. The association between computer knowledge/skill and health care delivery competence should be studied.

The present study results are consistent with the findings of the previous studies conducted in Nellore region¹³⁻¹⁷.

5. CONCLUSION

The present investigation reveals that Computer knowledge and utilization habit of health workers were found to be very low. Increasing accessibility to computers and delivering training on the use of computers for workers will increase the knowledge and utilization of computers. This will facilitate the rate of diffusion of the technology to the health sector. Hence, programs targeted at enhancing knowledge and skill of computer use and increasing access to computer should be designed. The association between computer knowledge/skill and health care delivery competence should be studied.

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