

USE OF COMPUTERS IN NURSING :

A Good Innovation

M. B. Chendake

Information technology has brought a complete change in management and information systems all over the world. What ever things were just a dream or impossible are now within the reach of human beings. Anything happening at any corner of the world reaches to us within no time. This has affected all aspects of life. It has brought a change in life style, knowledge, skill & management. Due to the vast advancement, yesterday's information becomes old the very next day, people are learning to digest this change by adopting it. Those who do not get adjusted to the change, may lag behind & loose their values. Thus, computer literacy has become an essential thing in our day to day living.

Nursing has a long and rich tradition and it has its own values. Still a Nurse is considered as a key person in patient management. But, as this technology has brought major changes in patient management, hospital administration and education, this is high time that the Nurses should introspect and should bring necessary changes otherwise they may loose their importance in it.

To understand the use of computers in Nursing it can be divided in three major areas :

- 1) Nursing Education
- 2) Nursing Service
- 3) Nursing Administration.

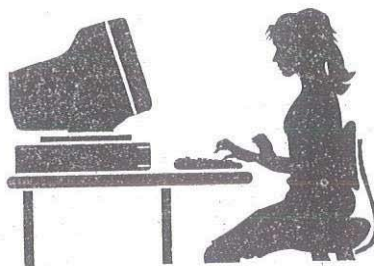
NURSING EDUCATION

The syllabus can be transferred on floppies and can be used in teaching during daily lectures. At a time two to three students can get comprehensive knowledge of each subject in Nursing. It will give best and effective audio-vi-

sual effect, students can understand easily and it will be retained in memory for a longer duration. Printouts can be taken out, which can be circulated in groups. Teachers and students can reuse floppies, whenever necessary, independently, provided they should have knowledge of computer operations.

Library can be fully computerized. Only one person can handle the whole library. Any information can be fed to computer thorough which student can use and update their knowledge at any time and solve their problems.

Students looking for higher edu-



cation in Nursing can use personal computer, which will totally change the approach to study in Nursing. Internet has opened up new vistas in research. Any sort of new information in scientific world, can be obtained on the screen and used for reference by just feeding their code to the computer. It will help to bring equity in syllabus as floppies of all subjects can be prepared by experts and circulated to all Nursing colleges. These floppies can be authorised by council. It will help to minimise confusion in steps of Nursing procedures and to improve the teaching and working standard of the institutions.

The answer of various questions can be standardised and transferred to flop-

pies and which can be circulated among the students and can be

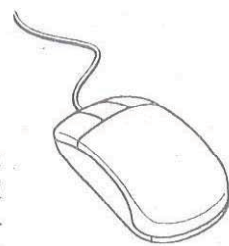
referred by both teacher and students whenever required. Floppies with information on various diseases will not be only useful in teaching but, in patient management also. The floppies can be updated according to latest additional informations.

Additional course of computer operating can be introduced in Nursing education which will help the Nurse to use computers independently in the hospital and college.

NURSING SERVICE

There are various devices which are computer aided and used regularly in hospitals of C.T. Scan, MRI, Ultrasound, Treadmill test, ECG machine, Blood and gas analyzers for diagnosis. Cardiac monitors, respirators, blood pressure, pulse respiration csf pressure, blood gas monitors, dialysers for patient management. Various complicated surgeries can be done with the help of computer aided devices as they will help to decide actual size, shape, nature and place for e.g. laser surgery in brain tumours, tele-therapy in malignant tumours etc.

The Nurse working in the ward can use computer for daily working. She can prepare a separate file for each patient daily, which can include patients' diagnosis, complaints complete physical assessment, daily lab reports and doctor's orders or treatment of the patient. She can feed special instructions for that patient in the file. For e.g. specific diet, specific investigations at a particular time, specific instructions to be given to the patient at a specific time,



Author : Jr. Tutor, College of Nursing, Krishna Hospital & MRC, Karad, Dist- Satara, Maharashtra.

for e.g. NBM after 10 p.m. etc. and timings of medications. She can print it and can use as a separate written record for whole day. Addition and subtraction can be done in management according to changes suggested by doctors. She can update the information, if patient's feed is changed or patient is transferred from one ward to another or discharged, in 'whole hospital data file', which is prepared by admission dept., as all computers will be inter-linked through net work.

In critical care unit these computer aided devices will not only help in management of the patient but, even in independent decision making to a Nurse up to a certain extent.

NURSING ADMINISTRATION

In the school for each student separate file can be prepared since admission and time to time file can be updated, till completion of that course & finally that file can be closed. It can be transferred to a floppy for storage, printout can be taken out as another written record to preserve. Paper checking, calculation of marks, taking out percentage, preparing results, graphs, for the record of co-curricular activities, any disciplinary action taken, and master file of college can be prepared with the help of a computer.

Superintendents can prepare separate file of each staff which includes positions, responsibilities salaries increments, leave record, promotions, health records etc. She can prepare duty schedules. She can get information about staff working in particular ward, work load of that wards, and can do necessary changes to minimise the problems or to provide help. She can get information of any particular patient on the screen immediately.

Ward supervisors can feed inventory stocks to computers, they can update information of wards as well as hospital. Definitely they can also guide the staff by direct supervision.

Whole hospital census, admission record, discharge record, follow up records, even individual file of the patient can be saved and reused. When a patient gets readmission, specific disease record, immunization records, birth records, death records morbidity and mortality records can be prepared with the help of computers. This demographic data can be made available to staff & students when ever required, and can be utilised for research purposes also.

Billing & accounting can be done with the help of computers. The records can be saved on floppies. So, this list is never ending and many more examples of its use can be given.

Already many private, government, semi-government hospitals are fully or partially computerised, computer has proved its importance by saving time, manpower, work load, minimising problems preparing & saving records & its storage and also enhancing the efficiency & accuracy of the work. Now Nurses should think whether they should take this as a challenge and accept it or continue in the traditional way. It is a fact that if the Nurses accept this challenge, it will help to update their knowledge & skill. They will become more competent, confident, & efficient and definitely it will reflect in the improved quality care given to patients. Ultimately this change will help to improve image of the Nurse and to maintain her values and position in the society.



Nurses and Supporters Participate in the History of the Future at Geneva, Switzerland on 9 November, 1999.

At a special reception culminating a year of Centennial celebrations, the International Council of Nurses (ICN) ceremoniously displayed contents of a 'Time Capsule' entitled 'Nursing and Health at the turn of the Century'. The time capsule will contain video, text and photographic documents as well as messages to the future from many organisations, including the World Health Organisation, the World Medical Association, the International Committee of the Red Cross and ICN's Board of Directors. Nurses from all over the world will also have the opportunity to contribute their messages for future generations through a Web based Time Capsule page. The time capsule is to be sealed on New Year's Eve this year and opened again only in the year 2049.

The ICN First Vice President, Lucille Joel, who presided over this travel time said, "this time capsule is being created as a channel of communications allowing the rare privilege of transmitting a message to our successors."

Dr. Joel was joined by the ICN Board of Directors and representatives of many diplomatic Missions and health and international organisations on the occasion.

For further information please
contact Linda Carrier - Walker at
Tel. 41 22 908-0100 or
email: carrwalk@uni2a.unige.ch

Prayer Heals ...

Sr. Francisca Vizapalli, the former President, TNAI, recently after an unfortunate fall, got her femur fractured. Earlier, she had a knee replacement of both the legs. Now she has undergone replacement of the head of femur at VIMHANS Hospital, Delhi.

Let us all jointly pray for her speedy recovery.

Chief Editor