

Summary

A better educational program about physical assessment skills might make nurses more knowledgeable about those skills, enabling them to use the skills more frequently and with less difficulty.

Thus, the aims of this study were to:

- 1-Identify the important physical assessment knowledge and skills required for clinical nursing practice by nurse interns at Benha Faculty of Nursing.
- 2-Develop, implement and evaluate the impact of an educational program of patient physical assessment for nurse interns.

To achieve these aims, this study was conducted at the special care units, allocated for nurse interns practice at Benha University Hospital. These units included the (ICU), (CCU), Emergency Care Unit and Dialysis Unit

The study sample included the following groups :

A) A jury group:

This group consisted of the following subgroups:

- 1- The most senior staff members in the Internal Medical and Surgical Departments at Benha Faculty of Medicine, (10 members).
- 2- The most senior staff member of the Adult Medical – Surgical Nursing Department at the Faculty of Nursing, Alexandria University (10 members).

3- 25% of nurse interns who were receiving their internship year program at Benha University Hospital (32 nurse interns).

B) Studied groups:

Group I:

This group included all nurse interns of Benha Faculty of Nursing who received their internship year program at the University Hospital, in the year 2004-2005 (130 nurse interns).

Group II:

This group included adult patients in the study setting, who were assigned to, and clinically assessed by the Group I members utilizing the introduced assessment sheets (Tool IV).

Data were collected through the use of the following tools:

♣ Tool I:

The Important Patient's Physical Assessment Knowledge & Skills Opinionnaire. This tool was developed to identify the jury group member's opinions about the important physical assessment knowledge and skills needed by nurse interns.

♣ Tool II:

The Patient's Physical Assessment Knowledge Test. This tool was developed to test the knowledge of the studied group members in relation to physical assessment based on the opinionnaire findings (Tool I).

♣ **Tool III:**

The Patient's Physical Assessment Observation Checklist.

This checklist was used to assess the studied group performance of the important physical assessment skills identified by (Tool I).

♣ **Tool IV:**

The Patient's Physical Assessment Sheet. It was developed to provide a complete and organized systematic framework for nursing assessment and to develop the nurse interns skills in documentation.

♣ **Tool V:**

The Patient's Physical Assessment Educational Program.

This program was developed based on an extensive review of literatures and the results of opinionnaire.

The program contents included:

- a- Overview of the physical assessment.
- b- Examination techniques and normal findings.
- c- Abnormal findings.
- d- Documentation.

The study was conducted through the following phases:

I-Assessment phase:

This phase was implemented through serial interviews, with the jury group members to get their opinions about the important physical assessment knowledge and skills needed by nurse interns, using tool I. The studied group of nurse interns at Benha university Hospital, was tested for knowledge and

checked for their practice of the essential physical assessment skills , using tool II and III.

II-Experimental phase:

1) Developing the educational program:

The program was developed based on literatures and the jury group members , opinions(tool I) related to physical assessment.

2) Executing the educational program:

a-The program was implemented for the studied group members. It was classified into six sessions, each lasting 3 hours. The studied group was divided thereafter, into 3 subgroups. The cognitive part of the program was explained at the class room, lectures and discussion were used, together with an overhead projector. A program handouts were also provided. The clinical skills were explained by demonstration and redemonstration.

b-The developed assessment sheet (Tool IV) was introduced to "Group I" members to apply the program contents and their skills in documentation, during their nursing interventions of patients' study sample "Group II".

III. Evaluation phase:

This phase included two parts:

A) Immediate evaluation:

1-At the end of the six program sessions, each nurse intern of the three subgroups were evaluated for their knowledge, by giving

the post knowledge test and watched for their practice of physical assessment skills, for their adult patients in order to determine the impact of the educational program.

2-Also the patients' assessment sheets were corrected by the researcher and checked against patients' data.

B) Late, follow-up evaluation:

1-The researcher evaluated the studied group members" Group I" after 2 months from implementing the program to evaluate their knowledge and skills.

2-Patients' assessment sheets were also revised and checked.

Results of the study

1-Results related to important patient's physical assessment knowledge and skills opinionnaire.

The opinionnaire results clarified that, some items didn't obtained the agreement of 50% of the jury group members; as "Inspect the internal nasal cavity for patency" (26.9%), and "Inspect the tympanic membrane for landmarks and color" (34.6%).

Similar findings were seen in relation to "Percuss the heart borders for heart size"(32.7%), "Percuss liver for span" (42.3%), "Percuss spleen for size"(34.7%), "Percuss stomach for tympany"(26.9%).

There were statistical significant differences among the opinions of nurse interns, medical faculty staff and nursing

faculty staff in relation to some assessment skills. Nurse interns ratings were lower than those medical and nursing staff.

2- Results related to assessment of knowledge pre- and post-program and follow up phases.

The results revealed that the educational program was effective in improving nurse intern's knowledge about physical assessment. The results revealed that ,presence of highly significant improvement in all items of knowledge from pre- to post- tests with ($P < 0.01$). There were statistical significant decrease of knowledge in the late follow up than in the post-program phase for all items except for certain items related to heart ,breasts, abdomen and neurologic system that showed insignificance changes.

3-Results related to assessment of skills in pre- , post-program and follow up phases.

The results revealed that the program was effective in improving the majority of nurse interns physical assessment skills, except some skills related to respiratory system that showed no significant improvement after two months. Some of these skills include" palpate chest wall for symmetry, vocal fremitus,masses,and tenderness " ($Z = 1.34$), and "Auscultate breath sounds for location of various sounds, presence of adventitious breath sounds" ($Z = 2.01$).

Similar results were found in some skills related to cardiovascular system, as "Inspect anterior chest for contour, pulsations, lifts, heaves, and retractions" ($Z= 1.83$), and "palpate precordium for pulsations, thrills, lifts, & heaves" ($Z= 1.34$), that showed no significant improvement between pre and post program, and after two months with ($P> 0.05$) .

The results related to the abdomen and gastrointestinal system showed insignificant changes in some skills as "Percuss abdomen for tones in all quadrants." ($Z= 1.34$), "Palpate abdomen deeply for tenderness, mass, aorta pulsation" ($Z= 2.2$), and "Assess abdominal circumference for intraabdominal hemorrhage or ascites" ($Z= 1.84$).

For neurologic system examination showed the same findings in relation to some skills as "Assess cranial nerves" ($Z= 1.61$), "Assess cerebellar function for balance & coordination" ($Z= 1.52$), showed significant improvement immediately post program with ($P< 0.05$) and insignificant improvement after two months. Item of "Assess extremities for sensory function and deep tendon reflexes" showed insignificant improvement immediately post program and after two months ($Z= 1.34$), and ($p>0.05$).

There were statistical significant decrease in all of the physical assessment skills in the late follow up than in the early post-program.

4-Results related to assessment of Patient's Physical Assessment Sheet in the pre and post program and follow up phases.

The results revealed that, the program was effective in improving the nurse interns skill in documenting the patient's physical assessment for all systems with ($p<0.01$), except for recording the vital signs that showed insignificant improvement between pre-, post- program and after two months with ($p>0.05$). Also ,the results documented that, There were statistical significant decrease in scores of the assessment sheet in the late follow up than in the early post-program, for all items.

Recommendations

- ◆Particular emphasis should be placed on undergraduate teaching of patient physical assessment to improve nurse's ability to give quality health care .
- ◆Nursing physical assessment sheets, should be included in patient's hospital records especially in the special care units to allow nurses to document their findings.
- ◆Frequent periodic and advanced workshops on physical assessment should be conducted for nurse graduates by Faculty of Nursing Staff members, to enhance their physical assessment skills and practice, increase confidence in practice of physical assessment, and change nurses attitudes and values.

- ◆ Special pre-service, and on the job training courses, on physical assessment, as well as specialized nursing, have to be followed, when recruiting new comers in the special care units.
- ◆ More research in this area is necessary to identify the perceived barriers to the use of physical assessment, in the clinical setting by baccalaureate nurse graduates.