

SUMMARY

The care of the CABG patient is intense, complex, and rewarding. The patient is admitted to the intensive care unit unconscious, intubated, and completely dependent on advanced technology as well as the expert care of the health team is very important. Nurses are a part of the team that makes this return to health a possibility for the patient.

The aim of this study is to design, implement and evaluate a teaching program on the performances for nurses regarding nursing care provided to coronary artery bypass grafting patients. The research hypothesis was that nurses' knowledge and practice will be improved after the teaching program.

The study was conducted at Nasser Institute Hospital, at the cardiac care unit. a quasi-experimental research design with pre-post assessment was used. Subjects consisted of all available nurses working with coronary artery bypass grafting patients (n=30) and working at the above mentioned settings regardless their age, level education and years of experience in two shifts (morning and afternoon), over a six months periods.

The tools of data collection included a knowledge questionnaire and an observation checklist that were designed by researcher. The knowledge questionnaire was used to assess nurses socio-demographic and their knowledge regarding nursing care provided to patients with coronary artery bypass grafting. It includes knowledge about anatomy of the heart, circulation of the heart. as well as heart surgery, types of the heart surgery, the function of cardiopulmonary bypass machine, complications of cardiopulmonary bypass machine, nursing role before and after coronary artery bypass graft surgery, laboratory investigations after the heart surgery, definition coronary artery bypass graft. Causes of atherosclerosis and predisposing factors of atherosclerosis, in addition to definition of mechanical ventilator, role of nurse in mechanical ventilator, complications of mechanical ventilator, definition of central venous pressure , complications of central venous pressure , definition of endotracheal tube , purposes of suctioning, steps of suctioning, complications during suctioning ,role of nurse in endotracheal tube , definition of tracheotomy, definition of chest tube, role of nurse in chest tube, complications of chest tube, role of nurse in intravenous injection, role of nurse in urinary catheter and the purposes of dressing. And medications of the heart surgery as morphine, lasix, adrenaline, The observation checklist was used

to assess general nursing processes such as most assessments: respiratory assessment, cardiovascular assessment, skin assessment, fluid and electrolytes assessment, pain assessment and neurological assessment.

And they included most procedure carried out in the study such as vital signs, arterial blood gases, suction, chest x ray, electro cardiogram, mechanical ventilator, urinary catheter, oxygen therapy, chest tube, central venous pressure, intravenous infusion, sterile dressing and cardiopulmonary resuscitation.

These tools were applied two times during the study, before implementation of the teaching program intervention and immediately after the intervention. The actual filed work started by a pilot study that was carried out during August to September 2010 on three nurses to test the applicability of the study tools and setting, and accordingly the result of pilot were not done any modifications.

According to the finding of the exploratory phase, the nurses training needs were determined. Accordingly, the general and specific objective of the program was stated.

Program content as well as teaching methods were prepared. The study tools used for assessment (questionnaire sheet, observation sheet) were used to evaluate the effect of the program.

The main finding of the study can be summarized as follows:

- Nurses' age ranged between 22 and 39 years. More than half of the nurses (56.7 %) were married. As regards nursing qualification, more than two thirds of them (76.7%) had a diploma of secondary nursing school, and (13.3%) of them had speciality diploma, and only (10.0%) a bachelor degree in nursing , most of the nurses (60%) had ten or more years experience. As attending training courses only (66.7%) of them had attended such courses.
- Thirds of nurses (26.7%) had unsatisfactory in knowledge at the pre-program phase. At the post program phase (100.0%) of them had satisfactory knowledge ($p < 0.005$).
- Almost of nurses (83.3%) had inadequate in practice at the pre-program phase. At the post program phase (96.7%) of them had adequate practice ($p < 0.001$).
- Knowledge and practice percentages had not statistically significant.

- statistically significant positive correlations were revealed between knowledge and nurses' age, experience and qualification at the pre-program.

It is concluded that nurses' knowledge and practice related to nursing care provided to patient with CABG surgery was deficient as Thirds of nurses had unsatisfactory in knowledge at the pre-program phase and Almost of nurses had inadequate in practice at the pre-program phase. The developed teaching program has lead to significant improvements in nurses' knowledge and practice. Therefore, it is recommended that the developed training program be applied on a wider scale in similar settings to further confirm its utility and benefits in improving nurses' knowledge and practice. Further research is suggested evaluate the long term effect of such programs.

Based on the finding of the current study, the following recommendations are proposed.

- Nurses involved in the care of critical patient in post heart surgery are integral members of hospitalized patient care team; therefore, they should develop and upgrade their knowledge and skills related to the care of these patients.
- The developed training program could be applied on a wider scale in similar settings to further confirm its utility and benefits in improving nurses' knowledge and practice.

- Standardized nursing procedures should be used to guide the nurses in dealing with patients with heart surgery.
- Further research is suggested to evaluate the long-term effect of such programs, and how much of the gained benefits in terms of improved knowledge and skills is retained over time, and also to assess the effect of refresher booster sessions.