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Original Article

Quality of patients' cares in the recovery wards of Isfahan university of medical sciences

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Abstract

BACKGROUND: Each member of society needs suitable services in recovery wards including patient safety in the ward, improvement and taking care of patients after surgery and anesthesia in order to decrease undesirable evidences, mortality and morbidity. The special characteristic of recovery cares is nursing cares. The nurse is one of the effective members of a health group and her/his effective role in admitting, preparing, caring, and physical, moral and social supports of patient is accepted by all experts of medical sciences. The aim of the present study was to determine standards observance in the recovery wards of the treatment centers of Isfahan University of Medical sciences (IUMS) in 2003.

METHODS: This was a descriptive study with easy sampling. The quality of cares given by personnel of recovery wards after anesthesia was determined by using questionnaire and checklist. Obtained data was analyzed by SPSS software.

RESULTS: This study showed that in the recovery ward, most of the cases were managed near the standard status. Based on the criteria of patient discharge from recovery wards, the results demonstrated that nurses observed the criteria in most of the cases; only in reporting description of events during and after operation, 68.8% were substandard.

DISCUSSION: Since the side effects of anesthesia may appear during the transfer of patient to the recovery room, in recovery room or even after transferring to the ward, so a codified recovery room care plan and professional and skilled personnel who have the ability to observe standards in recovery room can be effective in prevention and treatment of these side effects.

KEY WORDS: Quality of cares, recovery cares, recovery ward.

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All of the society members need to promote and to learn about health and coordinated affairs; They need to receive inclusive and complete treatment and health cares and social activities to provide a standard life which guarantees their health. They also need coordinated medical and nursing services to diagnose and treat their diseases on time [1]. Society needs suitable services of recovery wards including, patient safety in the ward, improvement and taking care of themafter surgery and anesthesia to decrease unwanted evidences, mortality and morbidity [2]. Patients in recovery wards require precise monitoring of air ways, breathing activity, heart beating, blood pressure and temperature, interavenus liquid intake, and care of surgical drainage tools and urinary catheters.

The most critical requirements of a patient consist of saving the general situation of body,

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keeping social condition, having knowledge and understanding about environment and finally respecting his/her rights by others [3]. Frouliti believed that the nature of recovery cares is nursing cares and recovery ward is a ward of critical cares. He also quoted a passage from the Thompson's speech "The only person who handles critical cares environment is *nurse*". Florence Nightingale in 19th century had taken care of severe injured patients or who needed precise care in special wards [4]. All nurses should be trained and become familiar with all plans, should participate in clinical researches and should be encouraged in gathering of new findings. A matron could be efficient for managing these wards. A recovery nurse needs to know about factors and techniques of anesthesia, priorities after operation, and evaluation of emergency problems. He/she also needs to be expert in the skill of keeping the air ways open, primary and advanced life resuscitation skills and recovery cares [5].

A recovery nurse should have enough information about the physiology of anesthesia and surgery in order to organize the appropriate priorities of cares for patient and to diagnose potential problems of general anesthetized patients to do the best interventions [4].

As the recovery cares are complicated and have many affairs with other care units, and as the patients are at high risk significantly, the cares should be done by surgeon, anesthesiologist and nurse in this ward. Becker's study showed that 51 percent of patients operated from upper part of stomach were atelectized and the reason was intra bronchial secretion and lack of pulmonary ventilation [6]. Since in training hospitals, some medical and nursing students participate in presentation of care services to patients besides the surgery and anesthesiology students, some deficiencies in the process of admission, care and discharge may be occurred in recovery. Moreover, because the intended priorities of a surgeon and an anesthesiologist might be different, so this matter could result in happening of some problems and side effects for patient after anesthesia and operation. Therefore, patient will be potentially more inconsistent than the other situations. Because a nurse is one of the important elements of health and treatment system, his/her role in accepting, preparing, caring physical, mental and social supports of patient is not covered up from all medical experts [4]. In addition, nurses should keep their knowledge on the highest level to present accurate methods of nursing cares [7]. These factors encouraged the researcher to study in this area. The aim of this research was to determine the standards observance in the case of admission, care and discharge of patient in the recovery wards of the selected treatment centers of IUMS in 2000.

Methods

This descriptive study described the situations, the methods of care, and standards observances in recovery care units.

Selected variables in this study included the quality of admission, caring and discharge of operated patients who endured general anesthesia. Sampling was performed through convenient method and the sample of the study was the same as the population of it. Samples were 32 occupied personnel of nursing ranks worked in recovery wards of the depended centers of IUMS during the study. The environment of the study involved the recovery wards of the treatment centers of IUMS and the examined criteria of the study included: 1- All nursing ranks consisted of nurse, nurse's aide (Behyar), technician of operation room and technician of anesthesiology working in recovery wards during the research; 2- At least a six-month continuously or periodically employment background in recovery ward.

The data gathering tools were an observational checklist and a questionnaire filled by the researcher's colleagues. Scoring the questions of the checklist were as follows: if the criteria of the checklist corresponded with the current standards, they would take code 1 and if not, they would take code 0. Then, in order to analyze the data, the goals of the research in each field were identified.

The questionnaire and checklist consisted of the standards of recovery ward and reliability and validity of these standards were proved previously by the members of the scientific group of our faculty.

Analysis of the data was performed using descriptive statistics by SPSS software.

Results

With regard to the age, gender, marital status and the degree of education of the studied personnel, 50% of them were in the range of 30-39 years old, 56.6% were female, 62.5% were married, 37.5% with bachelor degree and 37.5% of the nurse's aide with diploma. In the case of employment background, the highest frequency was the background below five years old. Regarding the number of nurses, just 17% of the units had standard number of personnel.

The results showed that in studying of the quality of standards observance in the admission of patients in recovery wards, most of the cases were near the standard state and the highest frequency because of the substandard admission was related to the assessment and on time registration of patient (Table 1).

In the case of the quality of standards observance of patient care in recovery wards, some items like as, monitoring and recording of breath conditions (59%), monitoring and temperature recording (78%), nurse's attention of applied medications during anesthesia (65.6%), and finally monitoring and recording blood pressure and respiratory rate (59.4%) were substandard and in the rest of the cases did not take high percent (Table 2).

Table 1. Frequency distribution of the quality of standards observance in patient's admission in the recovery wards.

Assessment cases	Standard Percent	Substandard Percent
Transfer of patient to bed	97	3
Bedding	97	3
Taking care of the drainage of the wound	75	25
Patient accompanying by one of the members of anesthesiology team.	97	3
A member of anesthetist team staying near patient's bed	97	3
Assessment and registration at the time of admission	50	50
Anesthesiology team's member reports to nurses	78	22
Taking care of air ways and…	97	3

Table 2. Frequency distribution of the quality of standards observance

Examination cases	Standard (%)	Substandard (%)
Monitoring and recording of breath conditions	41	59
Pain assessment	75	25
Considering the patient's verbal complaints	87.5	12.5
Considering the non-verbal symptoms of pain	84	16
Monitoring of vital signs	84	16
Evaluation of patient's position	97	3
Keeping patient in a relax mood	97	3
Providing quiet environment for patient	87.5	12.5
Injection of sedative drugs	78	22
Monitoring and recording of body temperature	22	78
Helping patient to get his/her full consciousness	72	28
Informing patient about his/her condition	72	28
Speaking with patient during regular intervals	87.5	12.5
Control of noises	81	19
Providing relaxation and clothing for patient	81	19
Stomach and bladder examinations	53	47
Attention about used anesthetic drugs	34.4	65.6
Keeping air ways opened	56	44
Monitoring and recording of fluid intake and excretion	65.5	34.5
Examinations and recording consciousness stage	67.7	32.3
Monitoring and recording of blood pressure and respiratory rate	40.6	59.4
Evaluation of Venus infusion lines	62.5	37.5
Evaluation of draining tools an other catheters	59	41
Assessing the place of surgery cut and bleeding control	53	47
Encouraging the patient to cough and change the position	72	28
Sucking secretions necessarily	93.7	6.3
Using oxygen necessarily	100	0

In the case of the quality of standards observance in discharging patients from recovery wards, the results showed that in most of the cases, nurses observed discharge criteria; but in reporting a full history of evidences during and after operation 68.8% of the cases were substandard (Table 3).

Table 3. Frequency distribution of the quality of standards observance of discharging patients from the recovery wards.

Evaluation of cases	Standard (%)	Substandard (%)
Patient will be transferred to ward	100	0
Considering the criteria of discharge	100	0
Cardiopulmonary function evaluation	100	0
Air ways evaluation	97.5	2.5
Easiness of patient's awaking	93.7	6.3
Speaking to the patient considering his/her age	93.7	6.3
Assessing his/her sitting ability without any help	56.6	34.4
Evaluation of sufficiency and consistency of fluids	96.6	3.4
Reporting a full history of evidences during and after operation	31.2	68.8
Identifying the quality of patient's assessment	72.5	27.5
Getting anesthesiologist approval about the criteria of discharge	75	25

Discussion

The results showed that the recovery wards in most of the cases of patient admission have worked near the standards. Due to patient transfer to bed, Dripps stated: "Care must be taken to prevent physical injuries to patient when he transfers from operation bed to stretcher, because patients not receive sufficient cares may fall and hurt. During quick transferring, patient may suffer some pressures on muscles and ligaments, injury of brachial plexus and severe drop of blood pressure [3]. Vanet, 1995, believed that presenting a complete report to nurse of recovery unit can speed the improvement of patient. He suggested a systematic and regular method for presentation of reports [8].

With the permission of anesthesiologist, patient would be transferred to recovery room by mobile nurse, patient's carrier and anesthesiologist himself. Anesthesiologist and accompanying nurse presented necessary reports for recovery nurse who should record the time of patient's entrance and his/her consciousness stage (conscious, semi-conscious or unconscious) in the according file at current time [9].

Also, we found that some factors such as, monitoring and recording of breathing condition, body temperature, nurse attention about used anesthetic medications, monitoring and recording of blood pressure and respiratory rate were substandard with high frequency.

In recovery wards, expert nurses are essential to control precisely blood pressure and vital signs in patient after anesthesia. Today, the most prevalence breathing problems after operation may be derived from lasting the effect of muscle-loosing materials in body that results in creating hypoxia and hypoxemia [8]. So, precise evaluation of respiratory rate and depth after anesthesia and control of the blood circulation and vital signs (pulse, blood pressure, respiratory rate) in every 15 minutes are important and critical factors. Also, the main purpose of recovery room is to monitor the function of respiratory system, to prevent decreasing of blood-oxygen-level and increasing the amount of carbon dioxide resulted of closing the air ways. This goal achievement demands detection of clinical manifestation of the phenomenon [8].

Paraskos, supposed that tissue blood circulation is a very important factor. But in practice, it can be only assessed indirectly through monitoring of the heart beating, blood pressure, color, peripheral temperature, fullness of the veins and echocardiography [10-12].

Since anesthetic side effects may appear in recovery room during transferring from operation room and even after transferring to ward, so a comprehensive and precise care plan in recovery ward with skilled and experienced personnel can play an effective role in preventing and treating these side effects. Getting operation reports and concerning on laboratory reports are the essential skills to present correct cares for patient.

Conclusion: In accordance with the results of this study, the importance of the cares in recovery wards, and activities standardization, we suggest to evaluate the

reasons and obstacles of unregistering and misevaluating patients in recovery wards, the reasons of no access to anesthesiologist and also the reasons of not using skilled and experienced personnel in recovery wards.

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