

Auditing of Nursing Care Offered for patients undergoing cataract surgery at Assiut Ophthalmic Hospital

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Abstract

Nursing audit is used to evaluate the nursing care given to achieve deserved and feasible quality of nursing care. The aim of this study was to assess nursing care offered for patients undergoing cataract surgery at Assiut Ophthalmic Hospital. **Research design:** Descriptive research design was used. **Setting:** The study was conducted at Assiut Ophthalmic Hospital, Assiut, Egypt. **Subjects:** The sample consisted of all available nurses (65 nurses) who gave direct care for cataract surgery patients. **Tools: Tool (I):** Nursing assessment questionnaire (include 3 parts; Nurses' demographic information, Nurses' level of knowledge, Nurses' practice observation checklist). **Tool (II):** Nursing care standards for patients undergoing cataract surgery (Developed). **Results:** 63.1% of nurses have fair knowledge and 6.6% have adequate level of practice. Also, a statistically significant difference was found between routine care & nursing care standards. **Conclusion:** Nurses had fair level of knowledge about cataract and adequate level of practice regarding routine care for patients undergoing cataract surgery. A gap was found between usual nursing care and nursing care standards for those patients. **Recommendations:** Guidelines should be followed when dealing with cataract patient and developing a system that connects nurses' knowledge acquired by lectures on cataract service with the nursing care practice.

Keywords: Auditing, Nursing Care & cataract surgery.

Introduction

Clinical audit is a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change. Aspects of the structure, processes, and outcomes of care are selected and systematically evaluated against explicit criteria. Where indicated, changes are implemented at an individual, team, or service level and further monitoring is used to confirm improvement in healthcare delivery. (Wells et al., 2018).

Ophthalmic nurse must always be mindful of her professional accountability, naturally possess all the qualities required of a nurse working in any specialty or environment, have a key role to play in health education, health promotion and have a prime responsibility for the quality of care they deliver regardless of the setting. The ophthalmic nurse must possess all the qualities required of a nurse working in any specialty or environment. (Shaw et al., 2019) Professional standards describe the competent level of care in each phase of the nursing process. They reflect a desired and achievable level of performance against which a nurse's actual performance can be compared. The main purpose of professional

standards is to direct and maintain safe and clinically competent nursing practice. These standards are important to our profession because they promote and guide our clinical practice. They provide an evaluation tool to ensure clinical proficiency and safety (Davis, 2019).

Cataracts are the clouding of the eye lens, which is normally clear. Most cataracts develop slowly over time, causing symptoms such as blurry vision. Cataracts could be surgically removed as day case procedure that restores vision in nearly everyone. Cataracts are common among older people. More than 50% of people age 80 years old or older have had cataracts. (Cleveland Clinic medical professional, 2020).

With age vision deteriorate and may lead to blindness due to a variety of causes, most importantly and commonly occurring is cataract. In Egypt approximately 1 million people blind and 3 million visually impaired. Nearly 60% of the visually impaired in Egypt have cataract, which requires a simple surgical operation to correct. (World Health Organization, 2019). The prevalence of cataract in Egypt was 43.7% (higher in woman, 26.5% than men 17.2%). (Saif, 2020).

Significance of the study

Through clinical researchers experience as a head nurse at ophthalmic hospital, it has been observed that; patients undergoing cataract surgery need detailed evaluation of many components of health care throughout relevant audit care standards. Therefore, this study will be the first in this geographical location which could be helpful for health professionals especially nurses in planning and implementing quality of care and improving quality of care given to those patients.

Aim of the study

Assess nursing care offered for patients undergoing cataract surgery at Assiut Ophthalmic Hospital.

Research Question:

Is there a distinction between routine nursing care offered and nursing care standards for patients undergoing cataract surgery?

Subjects & Method

Research design:

To accomplish the study's aims, a descriptive research approach was used.

Setting of the study:

This study was carried out in the Eye out Patient Department (EOPD), Theater and inpatient department of Assiut Ophthalmic Hospital, Assiut, Egypt during the period from September 2020 to January 2021

Sample:

Sixty five Nurses working at the Ophthalmic Hospital who were providing direct care for patients undergoing cataract surgery have been exposed to a written questioner and observional checklist to evaluate and assess their knowledge and performance.

Tools:

Two tools were utilized for data collection:

Tool I: Nursing assessment questionnaire:

It was constructed by the researcher based on review of literature to assess nurses' knowledge and practice about cataract. It was divided into three sections:

Part 1: Nurses' demographic information: including age, gender, educational level, and years of experience...etc.

Part 2: Nurses' knowledge assessment questionnaire: to assess nurses' knowledge about the cataract as definition, causes, common symptoms and signs, complications, pre and post operative nursing care and home instructions.

Scoring system:

The total number of questions was 20 questions (8 list, 4 T & F and 8 choose). One grade was given for the right answer and zero for the wrong one; Those with a score of less than 50% were grade as unsatisfactory level of knowledge, while those with a score of 50% to 70% were considered to have a fair

level of knowledge, and those with a score of more than 70% were considered to have a satisfactory level of knowledge. (OnianWa et al., 2017).

Part 3: Nurses' practice observation checklist:

It was used to assess nurses' practice regarding routine care for patients undergoing cataract surgery. It included vital signs, Ophthalmic instillation medication, precautions for infection control, perioperative nursing care and home instructions.

Scoring system:

Each step correctly done was given one grade and zero for the wrong one. Those who scored less than 60% were seen to be performing inadequately, while those who scored more than 60% were deemed to be performing adequately.

Tool (II): Developing nursing care standards for patients undergoing cataract surgery:

This tool was developed by the researcher after reviewing current national and international literature. It included nursing care standards for patients undergoing cataract surgery based on the Royal College of Ophthalmologists (Hornby, 2016) and the National Institute for Health and Clinical Excellence (NICE) (Kelly, 2012) to compare nursing practice with the standards guidelines' recommendations.

Standards (1): Ensures that the ophthalmic departments are ready to receive ophthalmic patients.

Standards (2): Ensures that the ophthalmic department safe to receive patient.

Standards (3): Ensure that continuous monitoring and recording are followed for ophthalmic patients.

Standards (4): Ensure that all infection control measures are properly followed in all procedures.

Standards (5): Ensures that all staff follows ethics and patient rights.

Methods

The investigation took place in two stages:

Preparatory phase (stage one):

After conducting an exhaustive literature review, the researcher created data gathering instruments in this step (nursing and medical textbooks, journal, internet resources, etc.). This phase ended by content validity and pilot study.

Content validity: It was chosen by a panel of three professionals (2 professors of medical surgical nursing and 1 professor of ophthalmology) who evaluated the instruments for clarity, comprehensiveness, understanding, applicability, and ease of administration. Test reliability of the tools was ascertained statistically using Cronbach's alpha test ($R=0.86$)

Pilot study: To assess the applicability, language and time needed to answer the data collection tools, the pilot study was conducted on 10% (7 nurses) from the selected sample. The pilot study sample was

included in the main investigation since no alterations were required based on the results of the pilot study.

Ethical considerations

1. Administrative Approval, Permission and consent was taken from the authority in charge and from the participant in the study.
2. At any moment, study participants have the right to refuse to participate or withdraw from the study for any reason.
3. The study followed standard clinical research ethics, and there was no harm to the participants.
4. Data collection took into account the privacy of study participants.

Phase (2): Implementing phase:

- The director of the Ophthalmic Hospital gave his official approval to proceed with the proposed investigation.
- The researcher introduced herself prior to conversation, explained the nature and goal of the study, and asked the nurses to complete the questionnaire sheet (tool I part 1) that related to the demographic data and (tool I part 2) to assess

nurses' knowledge during the initial interview. -The researcher filled out the observation checklist to assess nurses' practice during the routine care for patients undergoing cataract surgery (Tool I part 3).

- The nurses were observed by the researcher while they were performing nursing care for patients undergoing cataract surgery during morning and afternoon shifts (about 6 to 8 nurse per day for 9 times at different days and every time take 2hour).
- The researcher assessed nurses' performance regarding nursing care standards (tool II).
- The period of data collection was five months from September 2020 to January 2021.

Statistical analysis

A statistical package for (SPSS) version (23) was used to analysis data.

The results were analyzed using the appropriate statistical methods and tests. The information gathered was examined and collated using frequency, percentage, averages, Chi-square test and one way anova.

Results

Table (1): Percentage distribution for demographic trails among nurses participant (n=65)

Variables	N.	%
Age by years		
20-less than 30yrs	35	53.8
30 less than 40 yrs	9	13.8
More than 40 yrs	21	32.4
Sex		
Male	11	16,9
Female	54	83,1
Level of education		
Diploma	33	50.7
Nursing institute	12	18.5
Nursing college	20	30.8
Years of experience		
Less than 5 yrs	25	38.5
5yrs -10yrs	11	16.9
More than 10 yrs	29	44.6
Have you received specialized training courses about cataract?		
Yes	35	53,8
No	30	46,2
session of training		
One session	20	30.8
1-3 session	9	13.8
More than 3 session	6	9.2
Benefit of training		
Excellent	18	27.7
Very good	10	15.4
Good	6	9.2
Poor	1	1.5

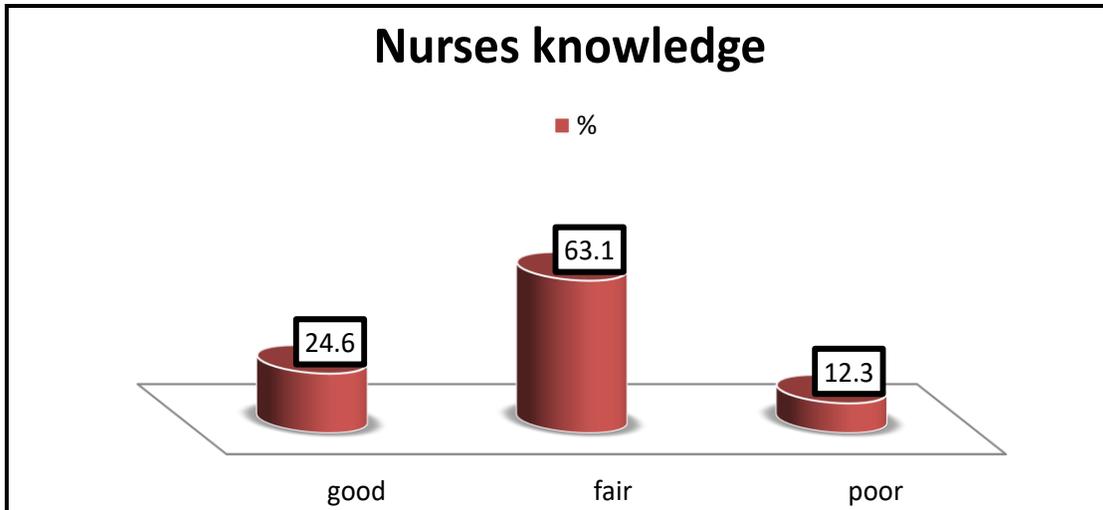


Fig (1): Shows that only 24.6 of nurses have good knowledge level of cataract pathway.

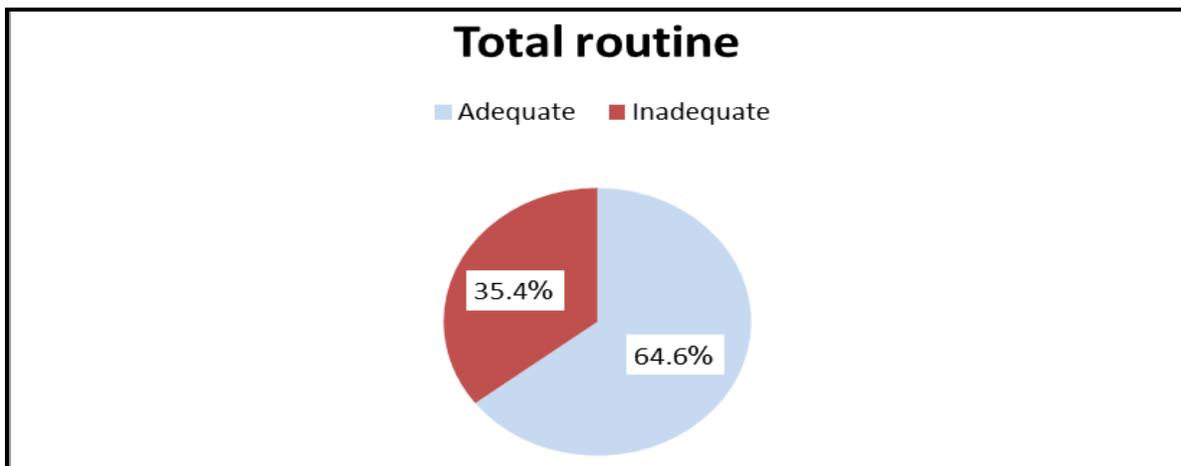


Fig (2): Demonstrates that 35.4% of nurses have inadequate level of performance regarding routine care for patient undergoing cataract surgery.

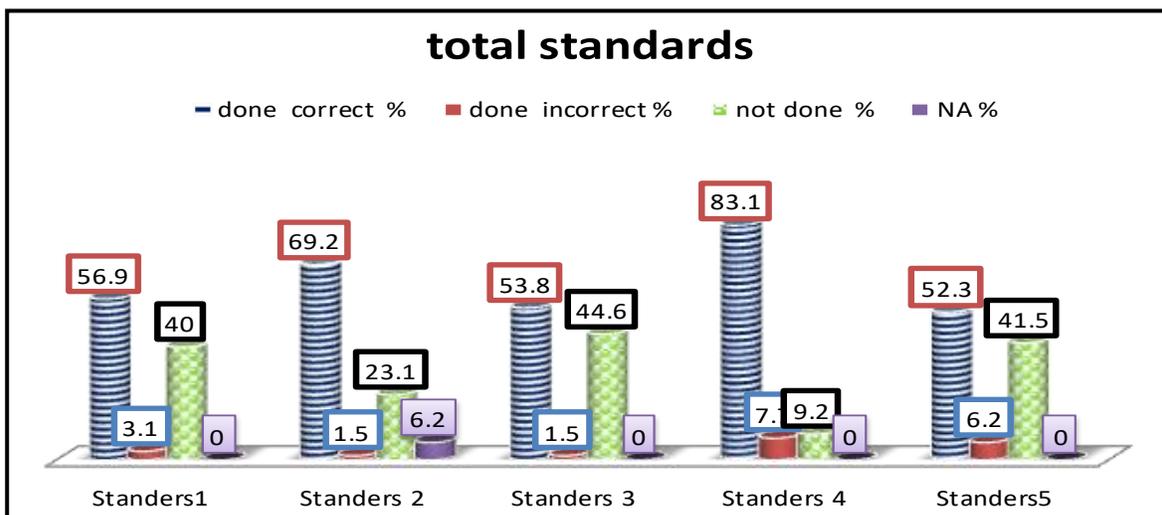


Fig (3): Total nursing care standards for patients undergoing cataract surgery (n=65):

Table (2): For patients undergoing cataract surgery, a comparison between routine care and performed nursing care standards (n=65).

Variables	Standards nursing care Done correct		Routine nursing care Done correct		X2	Sig.
	N.	%	N.	%		
Prepare the ophthalmic department with the necessary equipment	35	53.8	0	0.0	47.895	.001**
Prepare patient room;	41	63.1	0	0.0	59.888	.001**
The ophthalmic department should contain the following	36	55.4	0	0.0	49.787	.001**
Preventing patient falls	37	56.9	55	84.6	12.048	.001**
Reporting accidents and errors:	46	70.8	0	0.0	71.190	.001**
Maintaining safe environment in administration of medication	55	84.6	41	63.0	7,806	.004**
Maintaining comfort	41	63.1	55	84.6	26.198	.001**
Nursing care for ophthalmic patient	40	61.5	40	61.5	.000	ns..571
Discharge advice	30	46.2	29	44.6	.031	.500ns
Identify and supervise methods of disinfecting	52	80.0	40	61.5	5.355	.017*
Using universal precaution:	55	84.6	46	70.8	3.595	.045*
Ensures that all staff follow ethics and patient rights	34	52.3	0	0.0	46.042	.001**

Pearson chi-square

* Significant $P < 0.05$ Ns: No significant $P > 0.05$ ** significance $P < 0.01$

Table (1): shows that over half of the nurses (53.8 percent) were between the ages of 20 and 30. The majority of the nurses (83%) were female, had a diploma education (50.8%), had more than 10 years of experience (44.6%), and had completed specialist cataract training courses (53.8 percent).

Fig (1): Shows that only 24.6% of nurses have good knowledge level of cataract pathway.

Fig (2): Demonstrates that 35.4% of nurses have inadequate level of performance regarding routine care for patient undergoing cataract surgery.

Fig (3): According to the study, the highest percentage of nurses correctly perform the first (56.9%), second (69.2%), third (53.8%), fourth (83.1%), and fifth (52.3%) nursing care standards for cataract surgery patients

Table (2): Shows that a statistically significant difference were found between routine care and nursing care standards in all items except nursing care for patient with ophthalmic disorders and discharge advice.

Discussion

According to the present study, more than half of nurses were between the ages of 20 and 30, female and have diploma education. Also, about half of them their experience was more than 10 years. This consistent with the work done by Abd Elhameed et al. (2020) who revealed that the majority of nurses

working in the ophthalmic unite, were female, have diploma, more than half of them their experience was more than 10 years and more than half of them aged between 30 to less than 40 years old.

Regarding nurses' knowledge about cataract, our study showed that most of nurses have fair knowledge level. From the researcher point of view this might be related to about of half of nurses didn't receive any previous training courses about nursing care of patients undergoing cataract surgery and increased work load which may hinder nurses' ability to read and update their knowledge,

The present study was in the line with the study conducted by **Rababa et al. (2020)** which identified that staff nurses had insufficient knowledge regarding cataract surgery and nurses need to receive nursing guidelines about how to care for such group of patients in this area. Also, **Etafa et al. (2020)** who found that ophthalmology nurses have only a rudimentary understanding of the fundamentals of sterile technique required to offer safe and effective nursing care to their surgical patients during the intraoperative phase.

Chang, & Thiel (2020) & Von Vogelsang, et al. (2020) reported that; insufficient knowledge is a factor among nurses who care for patients undergoing cataract surgery. Most incorrect nursing care in operation room could be a result of serious consequences as surgical site infection and good knowledge about these conditions is vital. Also,

Prestridge, (2019) added that nurses must be able to expand their knowledge through ongoing education, by of nursing staff.

Regarding nurses' practice the highest percentages of nurses were seen in the current survey have adequate level of performance regarding routine care for patient undergoing cataract surgery. From our point of view this finding may be related to that some nurses have long years of experience, therefore, they are aware of the necessary equipment and preparation of patient undergoing cataract surgery.

This was concurring with **Buchan et al. (2020)** who found that the majority of study group had a good practice level about nursing care in operation room (cataract surgery). **Tran et al. (2018)** also, clarified that suitable intervention packages need to be developed and in service education need to be given periodically for the effectiveness of improving the quality of nursing services offered.

This does not match the with work done by **Aschieri et al. (2021)** who found that the nurses lack the efficiency of updating their practice after being and settled in the clinical environment for a long time and possible explanation for this finding was the workload.

Regarding nursing care standards for patients undergoing cataract surgery, the current study clarified that about two third of nurses performed steps of nursing care standards for patient undergoing cataract surgery. In this regard **Mohammed et al. (2019)** reported that each organization and profession must set standards and objectives to guide practitioners in performing safe and effective care. Also, not only must standards exist, but leader and managers also must see that subordinates know and understand the standards and employee must be aware that their performance will be measured in terms of their ability to meet the established standards.

Finally, the present study revealed presence of a gap between routine care and nursing care standards. From the researcher's point of view this may be due to lack of orientation program prior to work, inavailability of procedure book specially prepared for the cataract surgery and lack of direction and nurse's appraisal about patient's care. This result supported with **Abdullah et al. (2021)** who stated that literature reports presence of a gap between the nurses' knowledge and their actual behavior with respect to the use of standard of care .

Conclusion:

Based on the results of the present study, it can be concluded that the majority of ophthalmic nurses have fair level of knowledge about cataract and adequate level of practice regarding routine care for

patients undergoing cataract surgery. Agap was found between routine nursing care and nursing care standards for those patients

Recommendations:

Based on results of the present study the following can be recommended:

1. Training sessions about caring of patients undergoing cataract surgery should be developed to improve the quality of nursing care offered for such group of patients.
2. Lectures and seminars should be organized about cataract service pathway with the help of ophthalmology consultants and professors.
3. Guidelines should be followed when dealing with such group of patients.
4. Nurses training program of how to apply nursing care standards for patients undergoing cataract surgery should be organized.
5. Develop a system to monitor and follow up the application of nursing care standards.
6. Developing a system that connects nurses' knowledge acquired by lectures on cataract service with the nursing care practice.

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