

Annexure –I**Information Sheet for participants**

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Introduction

I Dr. Manasvi P. Kumar working as an assistant professor with Center for Health Management Studies and Research, Bharati Vidyapeeth University, Pune and I am enrolled for PhD course in Hospital administration under the faculty of interdisciplinary studies, Bharati Vidyapeeth University. The topic for my research is: **“Exploring the factors responsible for sustainable quality management system in operation theatre of teaching hospital of Pune city”**

Purpose

This study will help to identify the critical factors responsible for quality management system in operation theatre complex and will help to develop the protocols to maintain quality management system in one of the most important and resource intensive area of the hospital i.e operation theatre complex.

Statement

“Exploring the factors responsible for sustainable quality management system in operation theatre of teaching hospital of Pune city”

Aim

To develop a site specific approach for sustainability of Quality Management System in the Operation theatre complex

Objectives

1. To examine the existing Quality Management System (QMS) related to the operation theatre complex.

2. To assess the gap between existing QMS followed by healthcare professionals during perioperative care (Pre-operative, Intra-operative and Postoperative phases) process in the operation theatre complex and standards proposed by healthcare quality organizations [National Accreditation Board for Hospital and Healthcare providers (NABH), World Health Organization(WHO)]
3. To identify the common causes of gaps in perioperative care process with regard to quality management.
4. To identify the variations in quality parameters across all the phases (Initial phase, Mid phase and Late phase) of QMS implementation of OT complex.
5. To assess the perception of healthcare professionals regarding the factors responsible for sustainable quality management system in the Operation Theatre Complex of a teaching hospital.
6. To propose recommendations for sustainability of a quality management system in the operation theatre complex.

Research Questions

1. What is the existing quality management system in the Operation Theatre Complex of a teaching hospital in Pune city?
2. What are the gaps between existing quality management practices during the perioperative care of patients with respect to standards?
3. Why do these gaps exist in quality management practices during the perioperative care of patients?
4. What is the trend of variations of quality parameters across all the three stages of the quality management system?
5. What is the perception of multifunctional team regarding the critical factors responsible to sustain quality management system in the operation theatre complex?
6. How these gaps in management can be bridged and a sustainable quality management system can become a reality?

Operational Definition:

- **Operation theatre complex** : Operation theatre complex is a physically separate area that comprises operating rooms and their interconnecting hallways and ancillary work areas (Preoperative holding room, Post-operative recovery room, scrub sink rooms)
- **Operation theatre: A very important area of** an operation theatre complex where surgeries are performed in an aseptic environment.
- **Preoperative Phase:** This phase starts when a patient is posted for surgery after informed consent is taken by the surgeon to before arrival of patient to the actual operation theatre. (

Activities related to preparation of patient in ward + preoperative holding area of operation theatre complex)

- **Intra operative phase** : Activities of operation theatre where actual surgery is performed.

Study setting

Study is being conducted in the operation theatre of a selected teaching hospital of Pune

What will happen if participate

A. Confidentiality

The information gathered in this research will be kept confidential by researcher and will be used for research purpose only .Information about the identity of the participants will be kept confidential and name and designation will be coded.Researcher will not share these codes with any one and will be kept with lock and key.Soft copies of data will be password protected.

B. Voluntary participation

Your participation will be voluntary. Any point of time during the research you are free to windrow your participation.

C. Risks involved

There will be no risk from researcher side to the department.. The researcher will obtain only information related to the study and will not tamper any information. The researcher will follow all the rules and regulations of the department/hospital.

I. Sharing of Research Findings

At the end of the study, researcher will be sharing the information to the operation theatre, department of anaesthesia and department of surgery fraternity hospital authority and university.

II. Whom to Contact

In case of any doubts or clarifications you are free to contact

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Annexure -II**Consent form**

Please tick [] on the space given below if you are agreeing with these statements:

1. I confirm that I have read and understood about the study and its purpose. []
2. I understand that my participation in the study is voluntary. []
3. I understand that my participation in the study will help the research to understand the phenomenon and find out the related facts. []
4. I understand that I am free to withdraw at any time, without giving any reason. []
5. I understand that my identity will not be revealed to anybody. []
6. I agree to take part in the above study []

Researcher's Name:

Dr. Manasvi P. Kumar



Signature of the Investigator



Signature of the participant

Annexure -III**Pre-Operative Checklist****(Pre-Operative Holding Room Activities)****Name of Surgery****Type of Surgery****Patient In Time..... Out time**

S.N.	Parameters	Yes/No	Remark
A	Patient Document Checking		
1	Check for availability of required documents in patient's medical record (Consent , PAC report & Investigation reports: HIV, HbsAg) by Pre-operative nurse		
2	Check for Pre- op orders in medical record (Patient File) by Preoperative Nurse		
3	Completeness of consent by Pre-operative nurse		
B	Patient Preparation		
1	Physical Check for site preparation		
2	Check for site marking		

3	Verbal Confirmation with Patient about Surgical Bath		
4	Check for NBM status with patient		
5	Check for removal of Jewellery, denture, contact lenses		
C	Nursing Documentation		
1	Pre-operative checklist signed by Pre-operative Nurse		
2	Pre-operative checklist cross verified and signed by OT Incharge Nurse		
3	Patient arrival details are recorded in Pre OP register immediately		

B- Intra- Operative Checklist

(Operation Theatre Activities)

Patient In Time..... Out time

S.N.	Parameters	Yes/No	Remark
A	Readiness of Operation Theatre		
1	Readiness of Anaesthesia Equipment & medicine		
2	Availability of Anaesthesia Team		

3	OT table related issues were found		
4	OT light is adequate as per requirement		
5	OT Temperature is as per requirement		
6	Humidity of OT is as per norms		
7	Patient and surgery related details are displayed on white board of OT		
8	Required instrument and equipment discussed by surgeon with scrub nurse prior to surgery in OT		
9	Availability of equipment as per requirement		
10	Availability of adequate sterile medical supplies (instruments, Linen)		
11	OT trolley is ready for surgical procedure before patient enters in OT		
12	Validation of Instrument sterility by scrub nurse is done and recorded		
13	Availability of adequate staff for shifting and positioning of patient on OT table as required		

B	Before Induction of Anaesthesia		
1	Surgical team members know each other		
2	Surgical team discuss patient related concerns in OT (Briefing)		
3	Patient identity verification by anaesthesia team and scrub nurse		
4	Anaesthetist has verbally reconfirmed with patient about any known allergy in OT		
5	Patient counselling about the anaesthesia procedure		
6	Duration of surgery announced by surgeon		
C	Before Incision		
1	Operating Surgeon has confirmed the identity of patient with medical record and verbal confirmation with patient		
2	Surgeon verifies the scheduled procedure name with record and verbal confirmation with patient.		
3	Patient arrives with marked site in operation theatre.		

4	Airways difficulty is discussed by anaesthetist with surgical team members in OT		
5	Anticipated blood loss is discussed by team members		
6	Check for antibiotic administration status and repeat dose		
D	Intra Operative		
1	Instrument and medical supplies issues were found		
2	Circulating nurse is always present in the OT for circulation of required items(Instruments, sutures, other equipment)		
3	With no delay OT technician (attendant) gives support to the surgical team in case of any requirement.		
E	Before Transferring out		
1	Nurse verbally confirms the instrument, sponges, needle counts		
2	Verbal reconfirmation of performed procedure by circulating nurse/nursing team with surgical team		

3	Container of adequate size for sample preservation is available in OT		
4	Specimen is preserved in appropriate solution		
5	Specimen are labelled correctly by surgery team		
6	Lab form (HPE) is filled up correctly by surgery team in OT		
7	Care plan for recovery of patient is discussed and planned		
8	Transfer of patient is planned by surgical team		

C-- Post- Operative Checklist

(Post- Operative Recovery Room Activities)

Patient In Time..... Out time

S.N.	Parameters	Yes/No	Remark
1	Post op bed is ready		
2	Post op nurse get information about the arrival of patient in advance		
3	All the equipments for post op monitoring of patients are available in		

	adequate no		
4	All the monitoring equipments are in working condition		
5	Adequate staff is available for shifting of patient		
6	Comfortable shifting of patient on bed is done		
7	Patient's physical privacy is maintained while shifting patient from stretcher to bed		
8	Bed rails are placed properly		
9	Medical gas supply is adequate		
10	Bed side patient monitoring instructions are given to post op nurse by surgical team		
11	Patient's file is handed over to post op nurse during patient shifting		
12	Patient's operation notes are completed and signed by authorized person(Operating surgeon) immediately after surgery		
13	Anaesthesia records are completed and signed by authorized person(Anaesthetist) immediately after surgery		
14	Patient's transfer plan is explained by surgical team to post op nurse		
15	HPE specimen sent to Lab immediately after the shifting of		

	patient in recovery		
16	Pain management score card maintained by Anaesthesia team		
17	Patient has been discharge as per criteria		
18	Any infection reported by the surgery department team after 48 hours of surgical procedure		

Annexure - IV**Questionnaire**

To assess the perception of healthcare professionals about the factors responsible for sustainable quality management system in operation theatre complex

Demographic Data

- **Department : Surgery/Anaesthesia/Nursing**
- **Qualification :**
- **Designation : Professor/Associate professor/Asst. professor/Lecturer/Nurse In-charge/ Staff Nurse**
- **Gender : Male / Female**
- **Age :**
- **Years of experience in this hospital :**
- **Total years of experience**

Instructions: Please read the following statements and select (tick mark) the most appropriate number which represents your most appropriate response on the scale of 1 to 5: **Strongly Disagree =1, Disagree=2, Neither agree nor disagree =3, Agree =4, Strongly Agree =5.**

(You are free to express your opinion about the quality management practices which you feel should be given importance during the Perioperative cycle other than below mentioned items)

Item No.	Items	Strongly agree	Agree	Neither	Disagree	Strongly
A	Top Management commitment					
1.	Operation theatre quality improvement is an integral part of hospital management's strategic decision.					

2.	Active involvement of hospital's top management develops supportive environment for quality management in operation theatre.					
3.	Hospital management always gives priority to operation theatre quality management activities					
4.	Management imposes the quality management activities in operation theatre without knowing the ground level challenges.					
5.	We are forced to follow quality management protocols set by the top management.					
6.	Operation theatre related healthcare professionals share their views openly within the team.					
7.	We are not involved in decision making for quality improvement activities of operation theatre.					
8.	Management encourages the teamwork for quality improvement in operation theatre.					
9.	Hospital's top management motivates healthcare professionals for participation in quality management activities of operation theatre complex.					
10.	Hospital's top management readiness to adopt new ideas of quality improvement in operation theatre helps in sustaining a quality management system in operation theatre.					
11.	Hospital's top management always values our views and involves us in the formulation of quality improvement protocols related to operation theatre complex.					
12.	Cross functional teamwork and cooperation is required for sustainability of quality management system in Operation theatre.					
13. A)	Sometimes it is not possible to follow quality management protocols in the operation theatre due to unavailability of human resource.					
(B)	Sometimes it is not possible to follow quality management protocols in the operation theatre due to unavailability of required material.					

(C)	Sometimes it is not possible to follow quality management protocols in the operation theatre due to unavailability of required instrument and equipments.					
(D)	Hospital management always provides financial support to operation theatre in order to implement quality improvement activities wherever and whenever is required.					
B	Human Resource Development					
14.	Recruitment of required skilled human resource helps in establishing quality management system in operation theatre.					
15.	Hospital management provides adequate human resource (Nursing staff, Multipurpose health worker) for maintaining quality management system in operation theatre.					
16.	Quality improvement training helps individual staff to utilize their potential.					
17.	Frequent training and education about quality management activities helps in sustainability of system.					
18.	Quality management activities of operation theatre get collapse after sometime because of lack of training.					
19.	We get rewards and recognition for improving quality in operation theatre					
20.	Monetary rewards can motivate lower level staffs to maintain quality improvement in operation theatre.					
C						
21.	Structured quality management committee exists in operation theatre.					
22.	OT quality management committee members meet regularly as per planned schedule.					
23.	Operation theatre quality management is a component of hospital's overall quality management system.					
24.	We are well aware about the quality management goal of operation theatre.					

25.	re provided a quality management manual to understand the cols related to operation theatre.					
26.	Operation theatre quality manual supports in the establishment of quality improvement in operation theatre.					
27.	Operation theatre quality committee does periodic audit in operation theatre.					
28.	O T quality improvement activities related documentation is burden to individual.					
29.	We are given authority to make decisions if quality standards are not meeting.					
30.	Operation theatre quality management committee guides for quality management documentation.					
31.	Operation theatre has defined quality indicators to measure the quality of operation theatre.					
32.	Hospital's quality management committee has explained us clearly about our role and contribution in data capturing related to operation theatre quality improvement activities or quality indicators.					
33.	Operation theatre quality committee does periodic analysis of data related to quality management activities.					
34.	Periodic analysis of data related to quality management activities helps operation theatre to improve the quality of operation theatre services.					
35.	After periodic analysis of data hospital management takes corrective action for quality improvement of operation theatre.					
D	Infrastructure and Technological support					
36.	Adequate quality infrastructure of operation theatre helps in establishment of quality improvement activities in operation theatre.					
37.	Operation theatre complex is divided into zones as per the universal standard.					
38.	Proper zoning (clean zone, sterile zone, disposal zone) of the operation theater helps in unidirectional flow of					

	human resource.					
39.	Information technology helps operation theatre in sustainability of quality management system.					
40.	Operation theatre is equipped with latest technology support (latest equipment) as per requirement of surgical case load.					
E	Process management					
41.	Quality management team does the process mapping periodically to check the variations in processes.					
42.	We know the methods of process measurement.					
43.	We know the method of process improvement					
44.	Process measurement is an important component of sustainable quality management in operation theatre.					
G	Healthcare Professionals willingness to participate in Quality improvement					
45.	Healthcare professionals related to operation theatre are very receptive about quality improvement changes.					
46.	Leadership of department head (Surgeon, Anaesthesiologist, Nursing in charge) plays important role in maintaining quality management practices in operation theatre.					
47.	Readiness to change is an important aspect of sustainable quality management in operation theatre.					
	External forces					
48.	Competitor hospitals encourage hospital to maintain the quality of operation theatre services.					
49.	Opportunity of tie ups with various government and private agencies encourages hospital to maintain quality.					
50.	Accreditation bodies encourage hospital to maintain quality management system.					

Thanks for your participation in this survey.

Comments: