

# Final D

*by* Nazish S

---

**Submission date:** 28-May-2019 09:51AM (UTC+0530)

**Submission ID:** 1136776332

**File name:** Nazish\_Dissertation\_Plagrism.docx (1.29M)

**Word count:** 3878

**Character count:** 21861

## **SECTION 2: DISSERTATION**

# **IDENTIFICATION OF GAPS IN QUALITY OF CARE PROVIDED IN AN OUTSOURCED DIALYSIS UNIT BASED ON NABH STANDARDS**

## **CHAPTER 1: INTRODUCTION**

### **Introduction**

- Hippocrates said “Wherever the art of Medicine is loved, there is also a love of Humanity” Inherent in this aspect still after decades most of the healthcare organizations are struggling to achieve Quality of care and Patient satisfaction. Now the organizations had started shifting their concern from the profitability is the only key towards no harm to the patient. All efforts taken for curing the patient and to take measures to prevent hospital acquired infections and adverse events and ensure patient safety.
- With the advent of social, group and personal insurances team and their increased footprint in the Indian Healthcare ecosystem the challenge of access to routine therapeutic procedures such as dialysis has been mitigated to a large extent.
- PPE is playing a pivotal role in enabling the public health systems to provide the required treatment to a large patient base in the country. Private sectors healthcare providers have taken the initiative of providing nephrology care on a war footing in a manner where they have come up with dialysis centers in many multi-specialty hospital and also as standalone centers.
- The sporadic increase in the number of dialysis units needs to go ahead with certain checks and balances. Quality of care is one vital parameter which can never be overlooked during the delivery of healthcare services. Practices of quality care always require external validation such as accreditation to bodies such as NABH and JCI etc. Therefore NABH accreditation takes center stage for dialysis unit which caters to a large patient base for ensuring their safety and best quality practices.
- On one hand the consumer awareness is increasing with the growth of latest technology, and on the other hand the Healthcare Industry is developing rapidly and expanding so much so that it would not be incorrect to term it as “**Healthcare Industrial Revolution**”. We can find tremendous change in the health seeking behavior of the patients but also the providers are doing their level best to provide an efficient and effective Healthcare delivery system that is at par with The International Standards.

- It is not only the treatment for what the patient comes to hospital for but the need of quality care and prompt healthcare delivery based on the international standards. Now the Healthcare providers are geared up to shift their focus from care delivery to 'Quality Care' delivery. Providers are now setting their goal and are committed to bring about this change globally and this commitment is very well depicted from the pace with which the healthcare facilities are rushing for accreditations like NABH and JCI. Such programs not only ensure patient safety and quality care but also depict organization's commitment to quality care.
- In order to inline the department and every staff of the department for the delivery of quality service, it is necessary and mandatory to identify all the gaps which is hindering the streamlining of processes, provide rigorous training to employees on ideal industry practices and their continuous assessment to identify areas of improvement. Not only this, there is a need to design a tool which comes in handy for the employees for any future reference whenever required.

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

2

#### **Accreditation:**

"A public recognition of the achievement of accreditation standards by a healthcare organization, demonstrated through an independent external peer assessment of that organization's level of performance in relation to the standards".

#### **Three Fold Benefits of Accreditation:**

Accreditation benefits all stake holders. All in all a threefold benefit of accreditation benefits the patient, the employees and the organization.

5 Patients are the biggest beneficiary. Accreditation results in high quality of care and patient safety. The patients get services by credential medical staff. Rights of patients are respected and protected. Patient satisfaction is regularly evaluated.

The staff in an accredited hospital is a satisfied lot as it provides for continuous learning, good working environment, leadership and above all ownership of clinical processes.

Accreditation to a hospital stimulates continuous improvement. It enables hospital in demonstrating commitment to quality care. It raises community confidence in the services provided by the hospital. It also provides opportunity to healthcare unit to benchmark with the best.

Accreditation provides an objective system of empanelment by insurance and other third parties. Accreditation provides access to reliable and certified information on facilities, infrastructure and level of care.

2

#### **Introduction**

National Accreditation Board for Hospitals & Healthcare Providers (NABH) is a constituent board of Quality Council of India, set up to establish and operate accreditation programme for healthcare organisations. the board is structured to cater to much desired needs of the consumers and to set benchmarks for progress of health industry. The board while being supported by all stakeholders including industry, consumers, government, have full functional autonomy in its operation.

#### **International Linkage**

- NABH is an Institutional Member as well as a Board member of the International Society for Quality in Health Care (ISQua).
- NABH is a member of the Accreditation Council of International Society for Quality in Health Care (ISQua).
- NABH is on board of Asian Society for Quality in Healthcare (ASQua).

## **Vision, Mission & Scope**

To be apex national healthcare accreditation and quality improvement body, functioning at par with global benchmarks.

To operate accreditation and allied programs in collaboration with stakeholders focusing on patient safety and quality of healthcare based upon national/international standards, through process of self and external evaluation.

## **NABH Standards for Hospitals**

<sup>4</sup> The standards provide framework for quality assurance and quality improvement for hospitals. The standards focus on patient safety and quality of care. The standards call for continuous monitoring of sentinel events and comprehensive corrective action plan leading to building of quality culture at all levels and across all the functions.

The 10 chapters in the standard reflect two major aspects of healthcare delivery i.e. patient centered functions (chapter 1-5) and healthcare organisation centered functions (chapter 6-10).

### **Outline of NABH Standards :**

#### **Patient Centered Standards**

1. Access, Assessment and Continuity of Care (AAC).
2. Care of Patients (COP).
3. Management of Medication (MOM).
4. Patient Rights and Education (PRE).
5. Hospital Infection Control (HIC).

#### **Organisation Centered Standards**

6. Continuous Quality Improvement (CQI).
7. Responsibility of Management (ROM)
8. Facility Management and Safety (FMS).
9. Human Resource Management (HRM).
10. Information Management System (IMS)

<sup>3</sup> Patient safety and quality of life are sensitive to each dialysis session being performed without fault. In current performance-rewarded dialysis provision systems (e.g. the Portuguese and German healthcare systems), pay-for-performance (P4P) measures for dialysis quality are based on monthly assessments of performance indicators, such as dialysis dose adequacy and adherence to prescribed treatment time [1–3]. Such monthly assessments fall short of assuring highest dialysis quality for every single session. For example, prescribed treatment time can be very different from the actual treatment time in a single session, as patients can be disconnected prematurely for several reasons, ranging from hypotension to the simple request of the patient. However, it should be pointed out that such safety and quality deviations

are rarely due to the lack of professional knowledge, but are rather the result of poor organization, verification, coordination, communication and a general lack of a common culture of safety and quality. However, less is known about primary care physician (PCP) and nephrologist co-management of patients in the end-stage of renal disease. Specifically, most patients with advanced kidney failure undergo chronic dialysis treatments and are clinically managed by clinical staff at dialysis facilities on a frequent basis (e.g., thrice weekly for in-center hemodialysis or monthly for home-based dialysis). Due in part to the rigidity of the dialysis treatment schedule, management of co-morbid illness and their complications by providers outside of the dialysis unit is challenging. Patients commonly receive supervision of non-renal health needs during their dialysis treatment visits due to convenience and familiarity. As a result, primary care management may default to renal providers. Compared to early-stage CKD care, this observed focus – of nephrologist involvement in treating primary care needs of patients with end-stage renal disease (ESRD) – raises important questions about the role of the PCP, traditionally considered the patient’s medical home for continuous comprehensive care and the “quarterback” responsible for assessing, balancing, and coordinating the care of patients’ multiple competing conditions [5, 6]. Who is responsible for and actively managing the primary care needs of these dialysis patients? Discrepant expectations and subsequent provision of primary care may exacerbate care fragmentation in this highly complex and vulnerable patient population, increasing the potential for unnecessary duplication of care or adverse outcomes. To date, PCP and nephrology roles in the actual provision of primary care services for chronic dialysis patients is not well-defined. We conducted a systematic review of primary care service provision for dialysis patients, in order to assess 1) patient and provider perceptions of PCPs and nephrologists roles; 2) the extent to which PCPs and nephrologists deliver primary care services to chronic dialysis patients; 3) reported barriers to patients’ receipt or physicians’ delivery of primary care services; and 4) the measures used to assess provider provision and primary care outcomes in dialysis patients.

### **CHAPTER 3**

### **OBJECTIVES**

#### **GENERAL OBJECTIVE:**

Identification of Gaps in Quality care based on NABH standards in the department of Dialysis unit and accordingly revision of departmental quality standard and capacity building of all staff.

#### **SPECIFIC OBJECTIVES:**

- Identification of gaps in quality care based on NABH standards with the help of quality checklist.
- Revision of departmental quality standards in line with NABH standards with the help of training.
- Continuous quality assessment and ensure proper documentation of CAPA with the help of regular and continuous monitoring.
- Development and dissemination of capacity building material for different categories of staff.

## **CHAPTER 4:** **METHODOLOGY**

### **Methodology of Data Collection.**

- Study Design:** Cross-sectional observational study
- Study area:** DCDC Kidney Care- Kalra Hospital
- Study Population:** Entire staff of Dialysis Department-Kalra Hospital
- Dialysis Technicians
  - Dialysis Housekeeping Staff
  - Admin Staff
- Study period:** From 18 Feb 2019 till 18 May 2019
- Sample Method:** Convenience sampling
- Sample Size:** Entire available staff of the Dialysis unit

### **Data Collection tools and techniques:**

For Data Collection following plan will be implemented

Primary Data will be collected through:

- **Tools** – Self Assessment Toolkit by NABH i.e. Checklist (Appendix.3)  
In-depth interview schedules
- **Techniques** – In depth interviews (Containing Open and Closed questionnaires) (Appendix-2)  
Observations

➤ **One questionnaire (Close ended- multiple choices):**

✓ **in which section 1 includes:**

1- General NABH pre and post training assessment) open ended questionnaire.

✓ **the other section 2-8 includes below mentioned topics:**

- 2- Sentinel Event
- 3- Needle Stick Injury
- 4- BMW
- 5- Patient Rights and Responsibility
- 6- Infection Control/Hand Hygiene
- 7- Spill Management
- 8- Vulnerable Patient/Patient Safety

Pre training assessment was carried out with the help of the above mentioned questionnaire, whereas post training assessment was done after completion of training program to check the efficacy of the same. Same questionnaire was used for Pre and post training assessment.

**Details of tools used for gap analysis:**

S. No	Study	Maximum Marks	Passing Marks
1	General NABH Pre and Post assessment	12	7
2	Sentinel Event	07	5
3	Needle Stick Injury	08	6
4	BMW	10	6
5	Patient Rights and Responsibility	10	6
6	Infection Control/Hand Hygiene	10	6
7	Spill Management	10	6
8	Vulnerable Patient/Patient Safety	14	8

**Table-1**

**Procedure.** To get an initial understanding about the Dialysis Department, a checklist was prepared after going through the NABH Guidelines. On the basis of which gap analysis was done to find out areas which needs to be work upon in order to improve the quality standards of the department before NABH. On the other hand Pre training assessment was carried for all the dialysis Technicians with the help of the above mentioned questionnaire, whereas post training assessment was done after completion of training program to check the efficacy of the same, the housekeeping staff and security guards were interviewed face to on basic topics i.e. Hand Hygiene, Emergency Codes, Spill Management as a part of pre training assessment and then after training for the same post training assessment was done.

Daily classes of an hour was held and Dialysis technicians and Housekeeping Staff from evening shift i.e. 2pm-8pm were asked to reach one hour before to attend the classes, and according next week roster and batch was set so as to provide training to each and every staff for each and every topic.

## **CHAPTER 5:** **OBSERVATIONS AND ANALYSIS**

**Section Wise Breakdown of Cases.** Any healthcare organization is a very complex setup which involves professionals from various field and their expertise for its key functions to work efficiently and effectively. Nowadays, a hospital is no longer a setup administered and governed by just clinicians. With the corporatization coming into picture, now several non-clinical aspects to the facility have become **an integral part of the care delivery system**. This change in **the** organizations structure is due to the change in health seeking behavior of the patient and also their increased awareness.

But despite this structural change of the organization most of them faces some internal issue out of which the most common is that one department might not be aware of certain traits and characteristics of another which creates gap for the smooth workflow and service delivery.

These gaps were evident during the Pre training analysis and majority of them were covered in the training programs, while there were some which required some exercise as depicted by the Post Training Analysis.

**(Pre-training Assessment)  
N= 31 (Dialysis Technicians):**

**1) General NABH pre Training Assessment:**



Fig. 1.1

**Interpretation:** 70% of the Dialysis Technicians was unaware about NABH

**2) Sentinel Event Awareness:**



Fig. 1.2

**Interpretation:** 70% of the Dialysis Technicians was unaware about Sentinel Event

3) *Needle Stick Injury:*



Fig. 1.3

**Interpretation:** 67% of the Dialysis Technicians was unaware about Needle Stick Injury

4) *Biomedical Waste Management (BMW):*



Fig. 1.4

**Interpretation:** 70% of the Dialysis Technicians was unaware about Biomedical Waste Management

5) *Patient Rights and Responsibility:*



Fig. 1.5

**Interpretation:** 70% of the Dialysis Technicians was unaware about Patient Rights and Responsibility

6) *Infection Control/Hand Hygiene:*



Fig. 1.6

**Interpretation:** 63% of the Dialysis Technicians was unaware about Infection Control/Hand Hygiene

7) Spill Management :



Fig. 1.7

**Interpretation:** 53% of the Dialysis Technicians was unaware about Spill Management

8) Vulnerable Patient/Patient Safety:



Fig. 1.8

**Interpretation:** 67% of the Dialysis Technicians was unaware about Vulnerable Patient/Patient safety

**Status of all 8 sections in one frame (Pre-Training):**

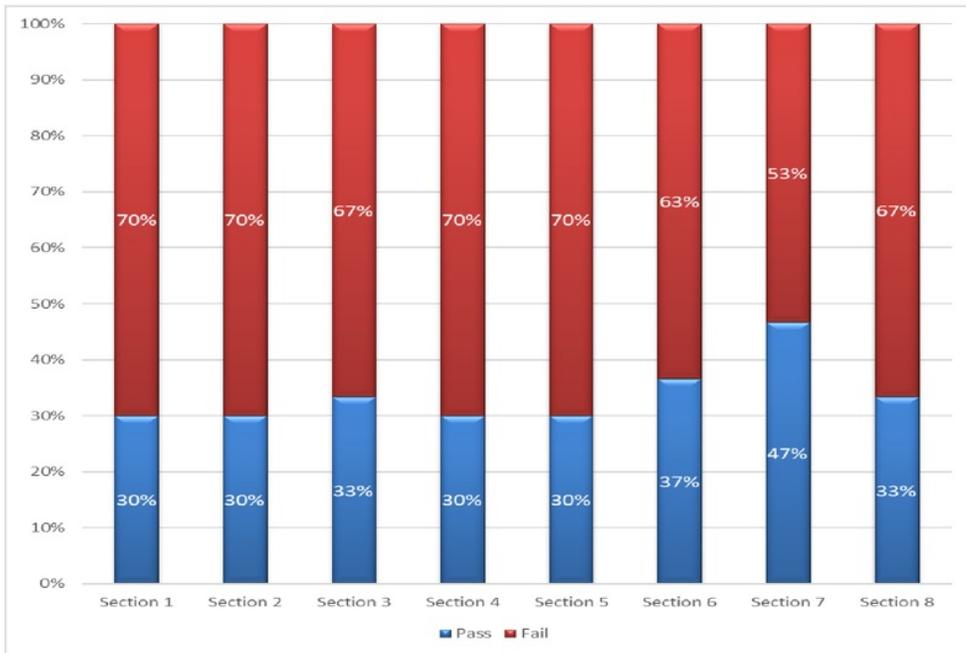


Fig. 1.9

**Final Status Post training (Pass/Fail):**



Fig. 1.10

From total Dialysis Technicians Passing percentage was 33% whereas Failing percentage was 67%

**(Post-training Assessment)**

**Dialysis Technicians:**

**1) General NABH Post Training Assessment:**



Fig. 2.1

**Interpretation:** 53% Dialysis Technicians are now aware about NABH post training

**2) Sentinel Event Awareness:**



Fig. 2.2

**Interpretation:** 60% Dialysis Technicians are now aware about Sentinel Event post training

3) *Needle Stick Injury:*



Fig. 2.3

**Interpretation:** 63% Dialysis Technicians are now aware about Needle Stick Injury post training

4) *Biomedical Waste Management (BMW):*

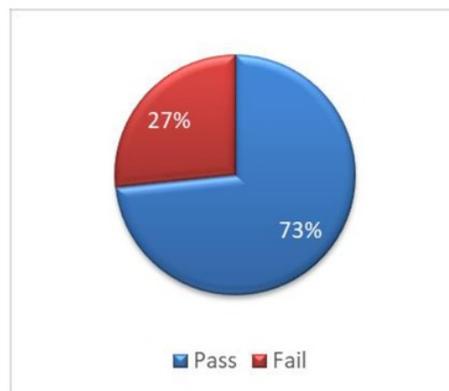


Fig. 2.4

**Interpretation:** 73% Dialysis Technicians are now aware about Biomedical Waste Management post training

5) Patient Rights and Responsibility:



Fig. 2.5

**Interpretation:** 80% Dialysis Technicians are now aware about Patient Rights and Responsibility post training

6) Infection Control/Hand Hygiene:



Fig. 2.6

**Interpretation:** 90% Dialysis Technicians are now aware about Infection Control/Hand Hygiene post training

7) Spill Management:

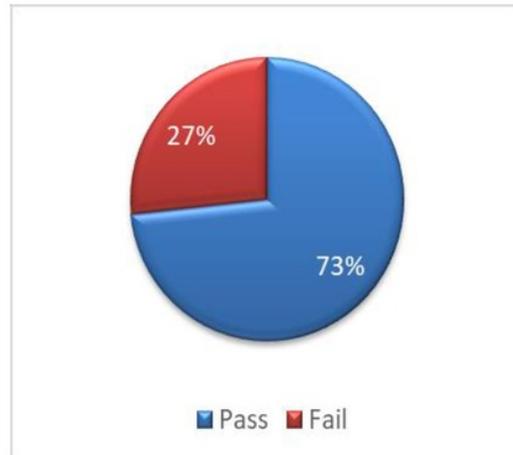


Fig. 2.7

**Interpretation:** 73% Dialysis Technicians are now aware about Spill Management post training

8) Vulnerable Patient/Patient Safety:



Fig. 2.8

**Interpretation:** 77% Dialysis Technicians are now aware about Vulnerable Patient/Patient Safety post training

**Final Status Post training (Pass/Fail):**



Fig. 2.9

**Interpretation:** From total Dialysis Technicians Passing percentage was 63% whereas failing percentage was 37%

**Comparison Pass Fail Percentage Section wise Pre and Post Training:**

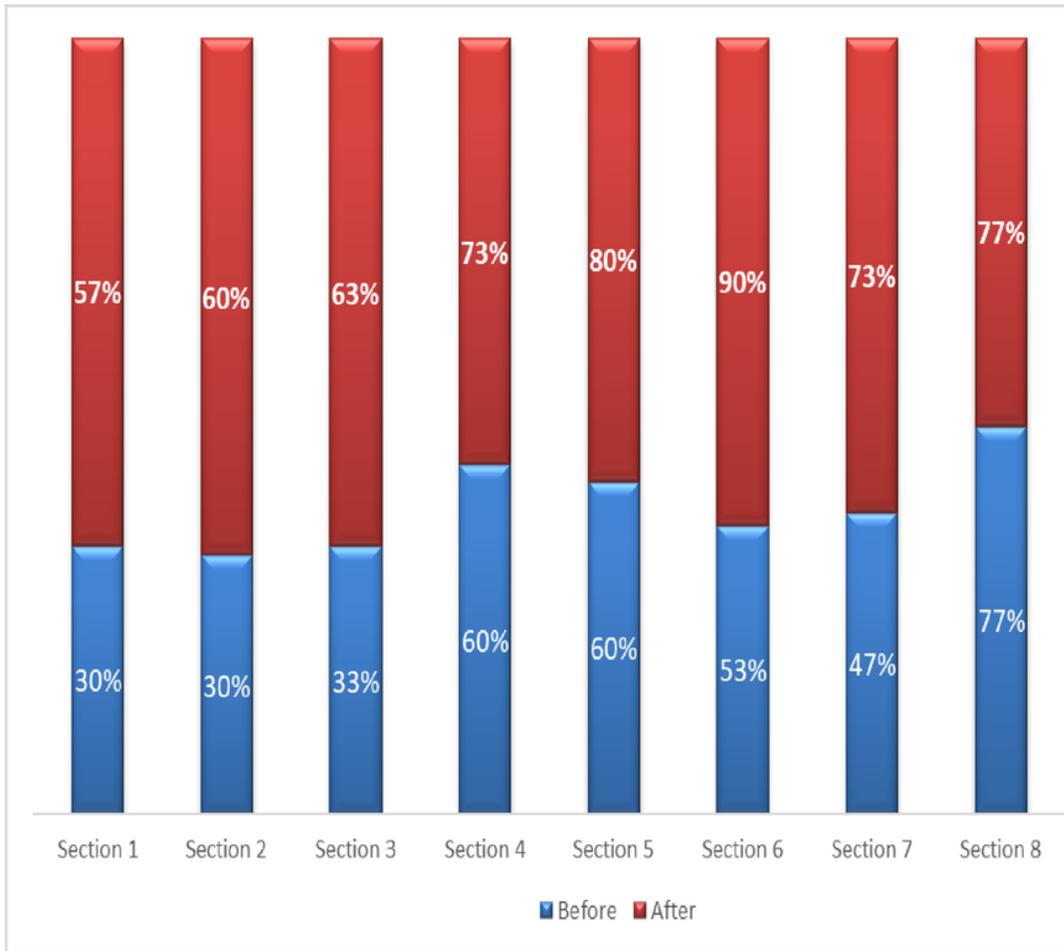


Fig. 3.1

**Interpretation:** The above fig. 3.1 projects that the passing percentage of Dialysis Technicians about NABH(Section1) increased from 30% to 57%, about Sentinel Event(Section 2) from 30% to 60%, about Needle Stick Injury(Section 3) from 33% to 63 %, about Biomedical waste management(Section 4) from 60% to 73%, about Patient Rights and Responsibility(Section 5) from 60% to 80%, from Infection Control/Hand Hygiene(Section 6) from 53% to 90%, about Spill management(Section 7) from 47% to 73%, about Vulnerable Patient/Patient Safety(Section 8) it remained 77%

**Overall Pass/fail status before and after Training:**

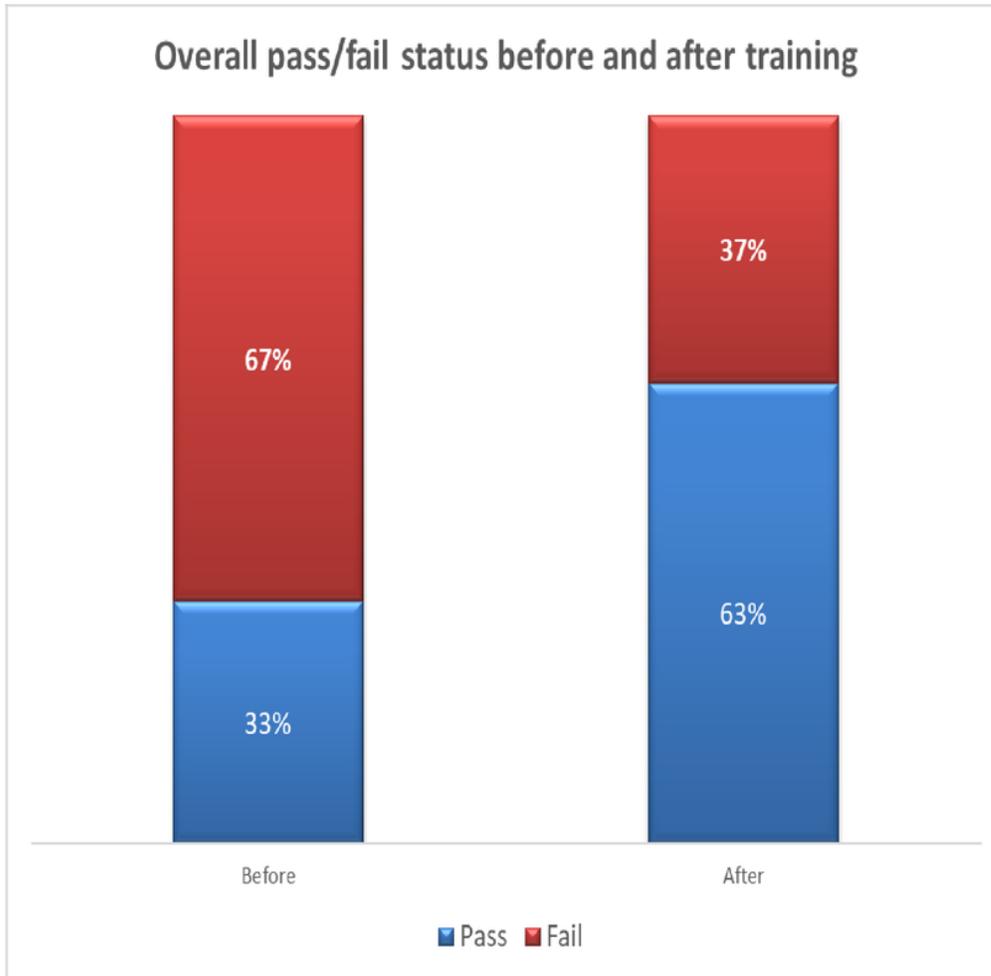


Fig. 3.2

**Interpretation:** From pre-training to post training the passing percentage increased 30% i.e. from 33% to 63%.

**(Pre-training Assessment)  
N= 10 (House-Keeping Staff):**

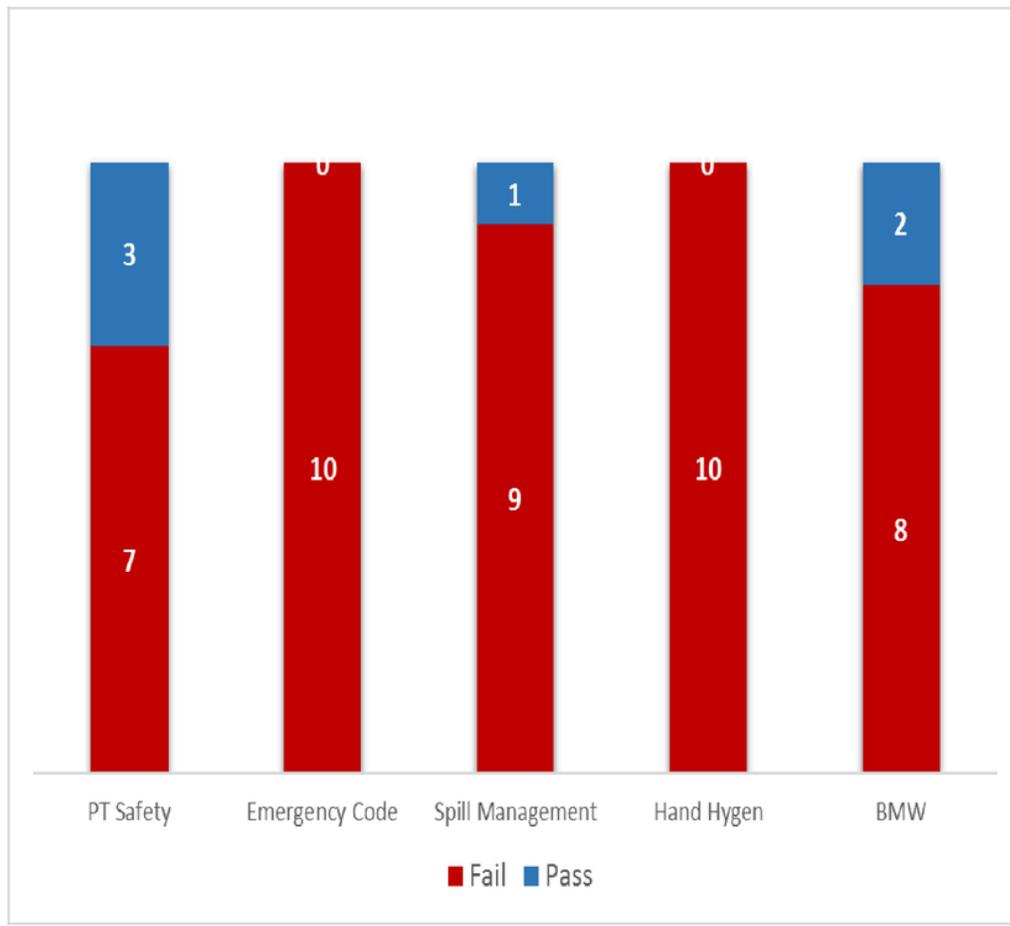


Fig. 4.1

**Interpretation:** As per fig 4.1 it's been found that when pre training assessment was done the Dialysis Housekeeping staff was unaware about almost all the required topics i.e. Out of 10 staff 7 were unaware about Patient Safety, all 10 was totally unaware about emergency code and hand hygiene, and 9 about spill management.

**(Post-training Assessment)  
N= 10 (House-Keeping Staff):**

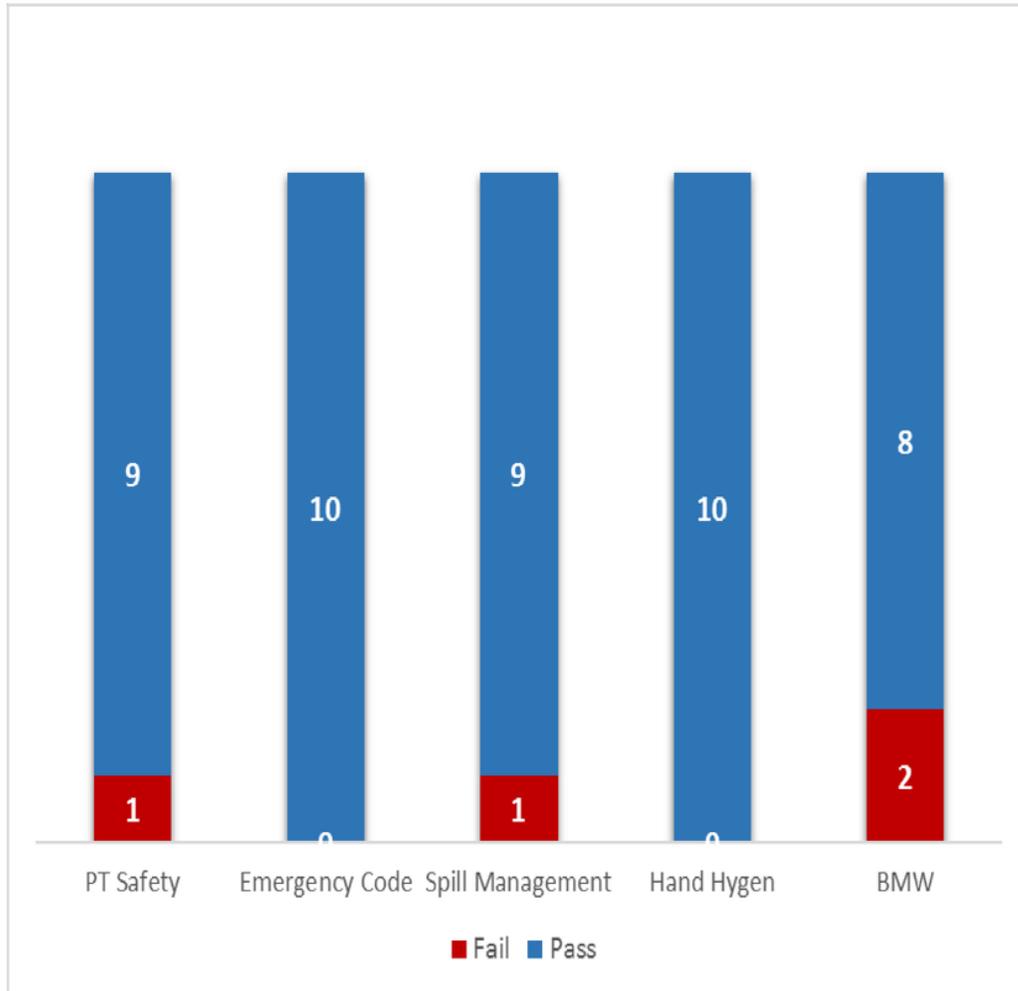


Fig. 4.2

**Interpretation:** Fig 4.2 shows that when post training the awareness level of Dialysis Housekeeping staff improves as i.e. Out of 10 staff now 9 staffs are now got aware about Patient Safety and spill management, all 10 got aware about emergency code used in the Kalra hospital and hand hygiene, and 8 about biomedical waste management.

**Overall Pass/fail status before and after Training:**

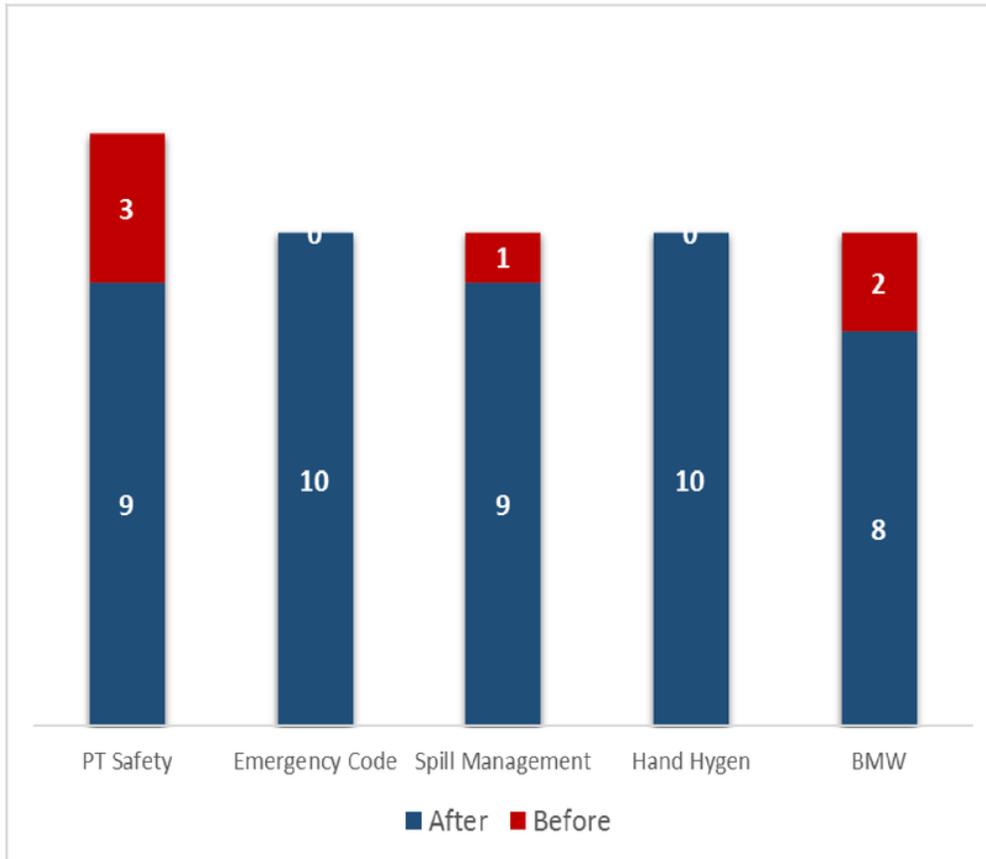


Fig. 4.3

**Interpretation:** Fig. 4.3 depicts that Pre-training only 3 housekeeping staff was aware about Patient Safety post training it increased to 9, pre-training no housekeeping staff was aware about emergency code, when we talk about spill management only 1 staff was able to clear this section pre-training however post training it moves to 9, and for hand hygiene and biomedical waste management pre-training no. of staff was pass was 2 and 8 respectively but post training these no. increased to 10 and 8 respectively.

### **Gaps Analysis in the Dialysis Department:**

Following are the points which was found during internal audit by Dialysis management that can create hurdle during NABH and add onto more NCs of the department which in-turn affect Kalra Hospital's Pre-NABH audit, these points were found on the basis of checklist (in appendix).

- Big Dustbins were not as per the requirement (without peddle wheel).
- Patients file was not maintained only entry was done in the Dialysis Book.
- Patient Consents were not proper.
- Beds Wheel were rusted and jammed.
- Formalin was being used for cleaning and restoring Dialyzers.
- Privacy curtains were not provided.
- PM and Calibration were not done and records unavailable.
- Dialysis Staff records were not there as well police verification of staff not done.
- Dialyzers for re-use were not stored properly.
- Plastic containers were purchased for storing Dialyzers for re-use.
- Defibrillator was not working.
- Autoclaving technique used in Dialysis Department was not acceptable
- For Oxygen supply to patient, oxygen cylinders were used and placed inside the department that was not acceptable as per NABH standards.
- For storing chemicals no separate place was there, chemicals were stored in the store room only with other consumables.
- Department was not whitewashed since long leaving the walls and ceilings dirty and dusty.
- Spill Kit was not available.
- Privileging of Doctors is not done.
- SOP was not signed.

**Action Taken to Remove the above mentioned Gaps:**

- New peddle wheel dustbin (Yellow, Green, Red and Blue) were purchased.
- File for each and every Dialysis patient was maintained which included latest prescription and blood investigations, one ID proof and address proof, if patient is from panel than panel card photocopy, consent properly signed was kept in the file.
- With the help of Kalra Hospital new Consent (valid for 1 month) was took into consideration.
- New bed wheels were changed.
- Formalin was replaced with Renaline for the same.
- Department was Installed with Privacy curtains in all the required area and places.
- PM and calibration done for all the required equipment's and accordingly records were maintained.
- Proper record of each and every Dialysis Staff was maintained in file along with police verification.
- Plastic containers were purchased for storing Dialyzers for re-use
- Working Defibrillator was brought in.
- Approval taken for utilization of CSSD services of Kalra Hospital for Dialysis Department.
- Central line for oxygen was started after approval and mutual agreement in between Kalra hospital and DCDC-Kidney Care.
- Separate area in Dialyzer Reprocessing Room and on the roof top was marked and MSDS was placed along with every Chemical.
- White-washing of the Department done.
- Spill kit arranged.
- Informed HR and Doctors Privileging done and record for the same kept.
- Signed SOP was arranged form Head office.

## RECOMMENDATION

### Possible Reasons for Unawareness of Dialysis Staff on General Topics required during NABH:

- No trainings and classes conducted
- No referral Handouts with the staff
- No charts being displayed in key areas
- HR Policies are so formed that outsourced staff is given no induction training.
- No previous knowledge or OJT

➤ The recommendation based on the general analysis and observations during my dissertation in Dialysis department can go a long way in improving the Quality of Dialysis department.

- **Training of the Staff:** Regular training of the entire staff is of utmost importance. Not only for the audit but even after it, which will no doubt help in enhancing knowledge of the staff and also improve the quality of patient care.
- **Formation of Quality Circles:** Quality Circles(QCC) should be formed among Dialysis Staff and other departments of the hospital etc., so that the experience available amongst the people working on ground is shared amongst themselves for overall benefit of all stake holders.
- **Allocation of Helpers:** for quality formats allocation of technicians is required for updating the formats which will be thereafter cross-checked by the Centre Manager, Assistant or DMO for ensuring the completion of documents.
- **Increase the Pre-induction Training Period:** of the new staff and regular structured refresher training for the complete staff by the hospital.
- **Involving of Functional Staff in the Audit of all Departments:** For that the staff from medical and non- medical departments can be detailed for carrying out audits on the monthly basis. This can help in the self-assessment by staff and bring in behavioral changes. Regular checks and controls is must so as to maintain the quality of the department.
- **Providing Handbooks/ Charts:** NABH Handbook should be circulated to employees for any future reference, which also includes all the required topics and details about the organization so that the outsourced department and its staff can be aware about the organization. Charts should be displayed in key areas for the information of staff as well as patients.

## **1** **Conclusion:**

Altogether, the findings highlight opportunities for improvement and have important implications on the quality of care that dialysis patients receive. On the other hand it's been talked and analyzed through the project that regular training of the staff is very important and must be made mandatory. Weekly training on an hour can be planned and implemented for future without any gap.

Along with the internal training some external must be managed for training on any one selective topic once a month or on quarterly basis.

In order to maintain the changes made within the department regular control and surveillance needs to be undertaken so that the quality improvement dose not deteriorate instead continuous quality improvement should be done.

CAPA must be taken immediately without any delay as and when required.

If the above steps are followed regularly without and gap the quality standards of the department and awareness level of the staff will improve, providing the patient right level of care and proper services they need.\_

# Final D

## ORIGINALITY REPORT

<b>24%</b>	<b>24%</b>	<b>19%</b>	<b>15%</b>
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

## PRIMARY SOURCES

<b>1</b>	<b>bmcnephrol.biomedcentral.com</b> Internet Source	<b>9%</b>
<b>2</b>	<b>nabh.co</b> Internet Source	<b>5%</b>
<b>3</b>	<b>academic.oup.com</b> Internet Source	<b>4%</b>
<b>4</b>	<b>www.nabh.co</b> Internet Source	<b>4%</b>
<b>5</b>	<b>cyberlectures.indmedica.com</b> Internet Source	<b>3%</b>
<b>6</b>	<b>drbhavdeep.com</b> Internet Source	<b>&lt;1%</b>

Exclude quotes  On

Exclude matches  Off

Exclude bibliography  On