



Role of quality dimension and accreditation in healthcare management in private sector hospitals in UP with reference to patient safety and infection control

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Abstract

When it comes to healthcare administration, maintaining quality standards is essential for patient safety and infection control, especially in private sector institutions. With a concentration on private hospitals in the Indian state of Uttar Pradesh (UP), this research examines how quality aspects and certification could improve healthcare management practices. The study makes use of a mixed-method strategy, combining quantitative and qualitative analysis. In order to gather quantitative data, questionnaires were sent out to patients, administrators, and healthcare workers at certain private hospitals in UP. Interviews and focus groups with important people in healthcare administration and quality assurance are used to collect qualitative data. The research delves into the relationship between patient safety and infection control measures and quality aspects including infrastructure, process, result, and patient experience. It also looks at how certification systems, such NABH accreditation, affect these quality characteristics to improve. First results point to a favourable correlation between private hospitals' adherence to quality dimensions and enhanced infection control and patient safety. As a result, certification becomes an essential component in promoting responsibility, driving quality improvement programmes, and guaranteeing conformity with standards. Policymakers, hospital managers, and healthcare practitioners may all benefit from the study's findings, which provide ideas for improving healthcare management practices with a focus on infection control and patient safety. This study seeks to promote healthcare delivery in private sector hospitals in Uttar Pradesh and abroad by highlighting the significance of quality aspects and certification.

Keywords - Healthcare quality, quality dimensions, patient-centered care, accreditation standards, measurement tools

Introduction

The private sector places a premium on patient safety and infection control, making it all the more important to maintain quality standards in the ever-changing world of healthcare administration. The huge population, various demography, and varied socioeconomic variables of the Indian state of Uttar Pradesh (UP) make healthcare delivery a unique issue. Quality metrics and certification in for-profit healthcare facilities take on more importance in this setting. The infrastructure, procedures, results, and patient experience are all part of healthcare delivery's quality dimensions. These aspects are foundational for evaluating healthcare services' efficacy and efficiency. Strict quality standards must be followed in the field of patient safety and infection control in order to reduce risks and guarantee the best possible results for patients.

Because they treat a wide variety of patients with different medical conditions, private hospitals in UP are essential to the state's healthcare system. Nevertheless, these institutions constantly strive to maintain high-quality standards while facing operational obstacles and limited resources. Thus, for efficient healthcare administration, it is crucial to comprehend the relationship between quality aspects, accreditation procedures, and the effects on infection control and patient safety. A system for evaluating and comparing healthcare quality is accreditation, especially via organisations like the National Accreditation Board for Hospitals & Healthcare Providers (NABH). Accredited hospitals show they care about their patients by improving their care, following all safety rules to the letter, and using best practices.

In light of the above, the purpose of this research is to examine how quality dimensions and accreditation factor into healthcare management in private hospitals in UP, with an emphasis on preventing infections and safety for patients. This project seeks to provide significant insights for healthcare delivery stakeholders by evaluating the association between adherence to quality dimensions and the efficiency of infection control strategies. It will also examine the role of certification on increasing these practices. This study intends to add to the current literature on private healthcare management by providing actionable suggestions for enhancing infection control and patient safety in private hospitals in UP through an in-depth analysis that integrates quantitative surveys with qualitative interviews. The ultimate goal of this study is to help healthcare providers in Uttar Pradesh and beyond prioritise patient safety and infection control in their work by informing policy choices, guiding hospital managers, and empowering healthcare personnel.

The quality parameters outlined by the Agency for Health Care Quality were used for this work. Following is a list of quality dimensions as established by the AHRQ:

Safe: "keeping patients unharmed by the treatment that is meant to benefit them."

Efficient: "Avoiding underuse and misuse, respectively, by providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit."

Centric on the patient: "Offering treatment in a way that takes into account each person's unique values, preferences, and health status while also making sure that their wishes are considered in any choice about treatment."

Prompt: "Minimising wait times and potentially detrimental delays for individuals receiving and providing healthcare."

"Effective" means "not wasting anything, including time, effort, money, and resources."

Just: "Offering medical treatment that is uniform in quality regardless of demographic factors like race, gender, age, national origin, or socioeconomic status."

Prioritising patient safety: minimising injury to patients via element mistake and ensuring a safe working environment for everyone.

Here we'll take a look at each quality factor and the method for putting it into practice. First and foremost, we prioritise patient safety by addressing any action, or lack thereof, that might cause damage to the patient. The following are examples of useful resources for establishing safety measures:

1. Aims for the nation's patient safety: Joint Commission International provides these in an effort to pinpoint healthcare issues and provide solutions. This is done annually, and the NPSG for 2023

are as follows:

a. Accurate patient identification: In a hospital setting where a multidisciplinary team sees a single patient, errors in patient identification might have serious consequences. To put this into action, we need to start using patient ID bands and assign each patient a unique number when they register. This number should remain consistent for all subsequent visits.

To properly identify a patient, two pieces of information are required: the patient's name and their unique health identification number (UHID) or the patient's date of birth.

Use when: drawing blood, giving medicine, conducting operations, transfusing blood, doing procedures at the bedside, conducting diagnostic investigations, generating reports, etc.

Recognised criteria for quality assurance:

b. Enhance cooperation among employees: Improved patient outcomes are directly linked to higher rates of healthcare professional communication. These steps are done in order to put them into action:

i. Using a standardised style similar to SBAR, registers for physicians and nurses are put in place to make sure that important information is not missing when workers are handed over.

ii. Timely communication of crucial findings from diagnostics to personnel and consultants ensures that patient health and safety are prioritised by taking necessary action as soon as possible.

Quality Accreditation Standard: c. Safely use medication: According to the Institute of Medicine, medication errors significantly compromise patient safety. Among the many potential causes of avoidable medication errors, the Institute of Medicine (IOM) has identified the following:

- Patients should be actively involved in their treatment and provided with information about their medications at the pharmacy;
- Electronic prescriptions can help reduce errors caused by illegible handwriting;
- Data from patients' medical histories can help prevent errors related to allergies, drug interactions, and overdoses;
- Both manufacturers and pharmacies should work to improve labelling and packaging. Medications that look and sound similar should be branded following the Tallman technique and kept physically separate.
- To assist reduce unnecessary mistakes, hospitals should use recognised abbreviations.

Accreditation criteria for quality: d. Properly use the alarm: Healthcare personnel may be notified of patient events or equipment failures via the use of alarms. As early warning systems, they play a crucial role in patient monitoring systems.

One big problem that causes alarm dangers is alarm fatigue. Stress, distraction, and desensitisation of healthcare personnel to alerts are all effects of continuous alarm chiming. Errors caused by ignoring or failing to respond to alerts occur as a result of this.

Patients' and healthcare staff' well-being and the quality of their working conditions are directly impacted by alarm safety.

Recommendations for the Security of Alarms:

1. Correct Alarm Setup: Individual patients' demands should be taken into account when configuring alarms, and those needs should be adjusted to an acceptable level to avoid unnecessary false alerts and negative impacts on patient care. Having properly configured alarms is crucial in the operating room, the critical care unit, the newborn unit, and the paediatric unit.

2. Healthcare providers and other staff members should undergo training to ensure they are familiar

with the principles of alarm safety.

3. Keep an Eye on Your Alarms: If you want your alarms to work reliably, you need to check in on them often.

4. Seamless Integration of Alarms with Medical equipment: To avoid compatibility problems and minimise alert loudness, alarm systems should be smoothly connected with medical equipment.

5. Documenting and reviewing alarms correctly: Keeping track of when alerts occur might reveal patterns in their frequency. Improving care quality, reducing false alarms, and preventing adverse outcomes may be achieved by regular assessment of alarm occurrences.

e. Prevent Infection: To implement measures to stop the spread of infections in hospital settings. The following resources are available:

i. An observation instrument for hand hygiene developed by the World Health Organisation

ii. Conducting environmental audits to check housekeeping procedures.

iii) Identify and prevent CAUTI, CLABSI, VAE, and SSI by using infection prevention bundles.

Section IV: MRSA, VRE, and clostridium difficile monitoring

v. Putting into action both conventional and transmission-based safety measures.

vi. Launching critical area engineering controls.

seven. Controlling epidemics

viii. Healthcare facility biological waste management.

ix. Managing post-exposure prophylaxis and implementing pre-exposure prophylaxis (vaccination). (Injuries caused by needle sticks and exposure to bodily fluids)

Criteria for Quality Accreditation:

identify potential risks to patient safety:

Two, the possibility of a patient falling

a. Minimise surgical errors

3. Preventing DVT

4. Using antibiotics for prophylaxis correctly

5. To avoid developing pressure ulcers

6. Making sure informed consent is communicated correctly

It is crucial for a company's long-term viability and prosperity to foster an environment that encourages the personal and professional development of all employees. The healthcare industry is no different; a culture of safety is essential in all healthcare facilities. The first step in ensuring patient safety is detecting errors. In a healthcare setting with good reporting, risks and hazards can be easily identified. However, in a culture that discourages secrecy, poor reporting can lead to a low detection sensitivity level, which in turn can cause undetected risks and hazards—which can have catastrophic outcomes.

In order to lessen the likelihood of damage coming to patients, healthcare facilities with a strong culture of patient safety encourage the identification and reporting of patient safety incidents.

at order to better understand patient safety culture, a small research was conducted at an approved hospital using standard operating procedure (SOP) surveys.

This survey is designed to gauge the level of safety consciousness and practice inside the healthcare institution along the following dimensions.

Staff are kept aware of mistakes, have opportunities to explore how to avoid them, and are notified of any adjustments that are implemented.

- **Honesty in communication:** When employees feel secure enough to ask questions, they speak out. Important patient care information is shared between hospital units and during shift changes via handoffs and information exchange.
- **Patient safety is supported by hospital management:** Hospital management prioritises patient safety and allocates sufficient resources to ensure it.

Organisational learning and continuous improvement include reviewing work processes on a regular basis, making adjustments to prevent errors from occurring again, and evaluating the improvements.

In the realm of patient safety event reporting, the following kinds of errors are documented: (1) errors that were detected and fixed prior to reaching the patient and (2) errors that had the potential to cause damage to the patient but were ultimately averted.

Staff members who make mistakes are handled properly, and there is an emphasis on learning from those mistakes and providing assistance to those staff members.

The workplace and staffing situation is satisfactory; employees are not overworked, they put in reasonable hours, and the use of temporary, float, or PRN workers is reasonable as well.

- **The backing of supervisors, managers, or clinical leaders in patient safety:** These individuals listen to recommendations from staff members on how to make patient safety better, discourage cutting corners, and resolve issues when they arise.
- **Cooperation:** Employees are polite to one another, work well together, and support one another during hectic periods.

Literature review

The topic of healthcare quality and safety has, according to Travaglia (2009), gone through many waves of attention (for related works, see Bulger 1973, Cassirer and Anderson 2004, and Small and Barach 2002). Quality and safety in the first wave weren't so much about advanced technology or intricate interdisciplinary care as it was about the first proto-doctors, who often had a limited understanding of human biology and disease, doing the best they could for their patients under the circumstances. During the early days of healthcare, the onus for ensuring quality and safety was mostly on the doctor or carer. From prehistoric times to the Middle Ages and into the present day, this wave persisted for millennia.

A further surge of concern for security and quality emerged in the late 19th and early 20th centuries. During this 'enlightened' era, modern medicine underwent a number of changes, such as the growth of universities, the industrialization of healthcare, the introduction of new techniques, diagnostic tests, and imaging capabilities; the expansion of biomedical science; the rise of professionalisation processes; and the industrialization of healthcare (Larson 2013). By mandating that all medical students in his Viennese hospital wash their hands with chlorinated water before attending to mother births, Ignaz Semmelweis significantly lowered the infection rate in the middle of the nineteenth century (Porter 1997, Raju 1999). Early 20th-century American physician Ernest Codman compiled a list of potential sources of medical mistake after urging clinicians to track each patient's development and determine what went wrong (Codman 1917, Sharpe and Faden 1998). (Davis et al. 2002). More recent research on medical regulation (Rosenthal 1995) supports the idea that the broader politics of professional power obstructed numerous significant developments in knowledge

and practice, particularly in areas where new information might cast doubt on the independence and veracity of the developing medical professions. In the United States in particular, malpractice actions were filed against negligent practitioners at the same time as these attempts (Stetson and Moran 1934).

Quality and safety had a renaissance from the 1950s through the 1980s. The rise of new fields including critical care, emergency medicine, and surgery, as well as the proliferation of cutting-edge diagnostic and therapeutic tools, techniques, and medications, have occurred in lockstep with this trend (Le Fanu 2011). Health insurers began to worry about the growing expense of litigation and corrective treatment in the 1970s, and reports on clinical process faults and variances began to surface in the 1960s. Donabedian (2003) laid the groundwork for the present orthodoxy in quality improvement with his ideas about 'systems thinking,' 'input-process-outcome' modelling, systematic records reviews, and quality improvement strategies; he also established healthcare quality as a new and leading area of health services research and policy at this time.

It was believed that individual doctors were most suited to handle the day-to-day realities of poor treatment and patient damage, and that professional regulatory processes were the most effective means of doing so, notwithstanding the increasing interest in healthcare quality (Freidson 1975). But clinical risk and patient safety were more and more acknowledged as a 'service-level' issue in the early 1990s. Issues of quality and safety may have entered the limelight once again as a result of this fourth wave of attention, which pushed them out of the realm of professionals and into the centre of global politics. The release of the Harvard Medical Practice research in 1991 (Brennan et al. 1991, Leape et al. 1991) was a significant turning point. Negligence was responsible for roughly 28% of adverse events and 4% of hospitalisations in this retrospective case study of more than 30,000 randomly chosen hospital records in New York State for 1984. Over 98,000 adverse events were recorded for the 2.6 million patients treated in this specific year, according to their weighted totals. In the next decade, researchers in the United States, Canada, Australia, and the United Kingdom examined the same topics (e.g., Baker et al., 2004, Vincent, 2006, 2001, Wennberg, 1984, Wilson, 1995) in relation to medical mistake, adverse events, and result variance. The general agreement seems to be that around 10% of hospitalised patients would have an adverse event, which may prolong their treatment, cause disability, or even death.

Objectives of the study

- The purpose of this study is to evaluate the present state of quality in private hospitals in the state of Uttar Pradesh (UP) with respect to the following dimensions: infrastructure, procedures, results, and patient experience.
- Identify whether private hospitals in UP currently use infection control and patient safety measures and assess their efficacy.
- In order to learn how private hospitals in UP deal with patient safety, we need to look at how well infection control methods work and how well they align with quality aspects.
- To examine the role of accreditation agencies such as JCI, AHRQ, and IHI in shaping healthcare quality standards and promoting continuous quality improvement.

HYPOTHESIS: There is no significance difference between safety culture accredited and non-accredited hospital

Research methodology

Sample - A sample size of 100 respondents was taken which comprised of mainly doctors and nurses of a multispecialty hospital in UP.

Methodology - Data was collected by distributing questionnaire of SOPs hospital safety survey directly to the respondent, an explanation on how to complete the survey was also communicated.

Analysis - Frequency of response survey item is calculated. Two lowest response categories (strongly disagree/Disagree and Never /rarely) were combined and two highest response categories (Strongly agree/Agree and Most of Time / always) were combined. The midpoint was reported as neither agree nor disagree or sometime.

Percent positive scores: calculated for positively worded items as well as negatively worded item.

Positive score for positive worded items: percent positive scores are the combined percentage of respondents who answered “Strongly agree” or “Agree,” or “Always” or “Most of the time.”

Positive score for negative worded items: percent positive scores are the combined percentage of respondents who answered “Strongly disagree” or “Disagree,” or “Never” or “Rarely,” because a negative answer on a negatively worded item indicates a positive response.

Data analysis and interpretation

Calculate composite measure of percent positive scores:

Think about your hospital work area/unit...	positive	negative	neutral
We are given feedback about changes put into place based on event reports	84.6	0	15
Staff will freely speak up if they see something that may negatively affect patient care	69.2	0	31
We are informed about errors that happen in this unit	92.3	0	8
Staff feel free to question the decisions or actions of those with more authority	46.2	8	46
In this unit, we discuss ways to prevent errors from happening again	92.3	0	8
Staff are afraid to ask questions when something does not seem right	7.7	85	8
Composite measure of Percentage positives	65	15	19

Supervisor manager or clinical leader support for patient safety

Hospital has a good support from leaders and management towards establishing a culture of patient safety. 84% response received was positive towards support from the management and leadership. 13 % was neutral and 4 % was negative.

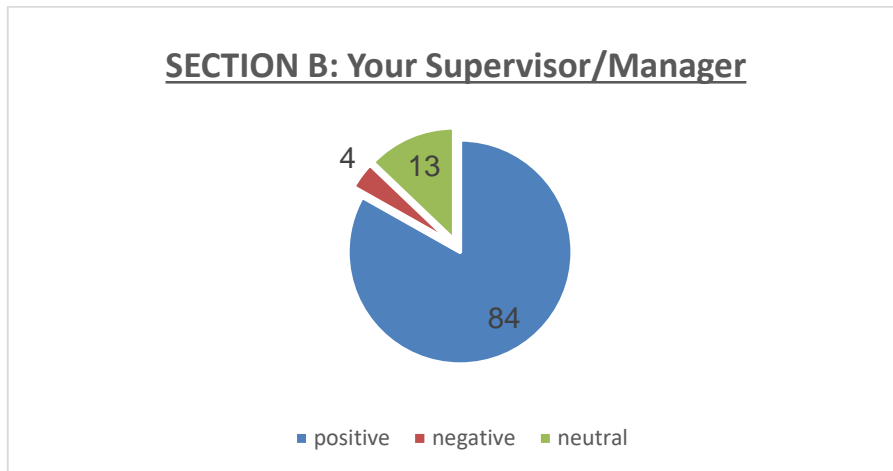


Figure 1 – Responses of supervisor/manager

2. Team Work/ Handoff & Information exchange

Culture of team work in the hospital could be analyzed through positive and negative responses of various statement such as

- There is good cooperation among hospital units that need to work together
- Important patient care information is often lost during shift changes
- It is often unpleasant to work with staff from other hospital units
- Problems often occur in the exchange of information across hospital units

Staff at Vivekananda Hospital has good team dynamics and a positive culture prevails among departments and units., which is evident through 84% positive response towards team dynamics, 6 % neutral response and 10 % negative response which has been received.

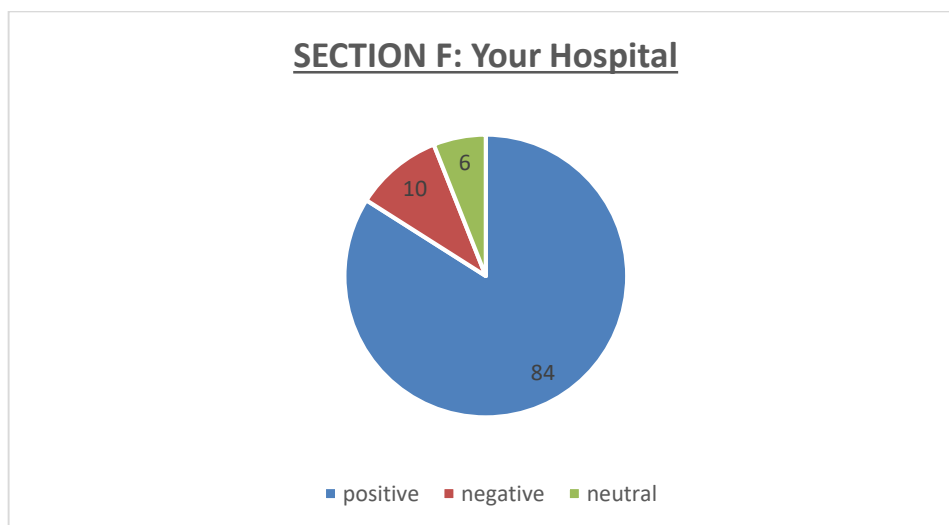


Figure 2 – Responses for hospital

3. Hospital culture on communication openness, communication about error and response to errors was analyzed based upon positive and negative response towards various statements. It has been found that hospital has communication openness and does promote communication about errors. A positive response of 65%, negative response of 15% and neutral response of 19 % indicates

that hospital needs to work upon strategies to further improve communication and enhance its approach towards communication about errors and response to errors.

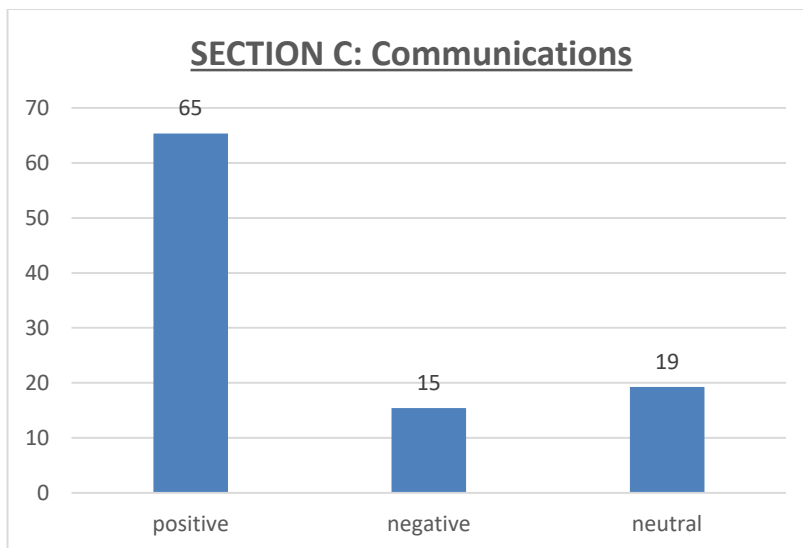


Figure 3 – responses for communication

4. Based upon the positive and negative responses for various statements in section A, outcome derived is that the overall support of leadership towards patient safety in work area/unit is 72 %, average negative response was 22 % and 6 % was average neutral response. Hospital leadership is inclined towards patient safety aspects.

Hospital management support for patient safety is paramount and staffing and work plan in area of work unit is satisfactory. This can be seen through overall patient safety grade which is 79 % positive and 21 % neutral and 0 % negative.

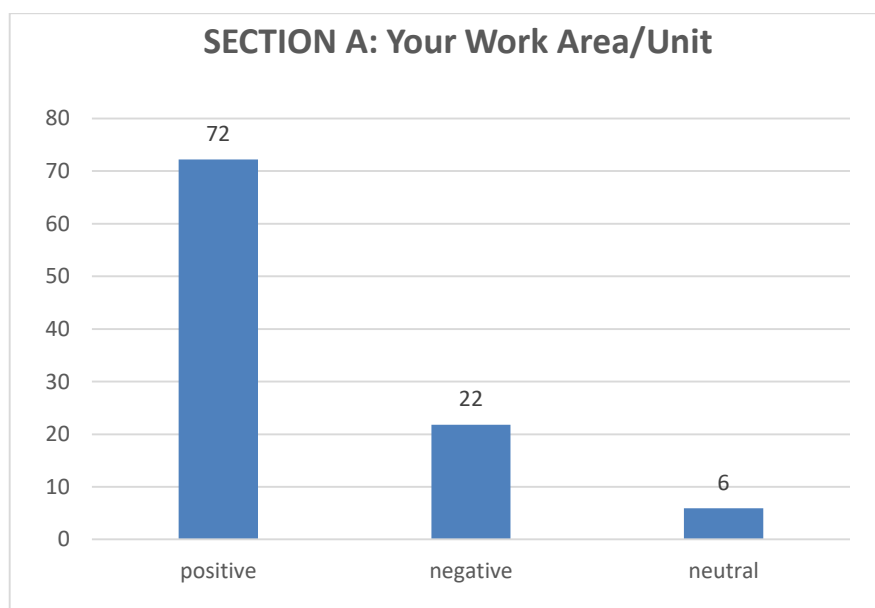


Figure 4 – Responses for work area/unit

SECTION E: Patient Safety Grade

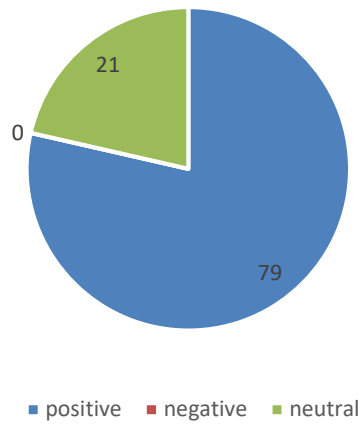


Figure 5 – responses for patient safety grade

5. Culture on Response to errors and communication about errors has to be improved. More training has to be given to staff for improving the error reporting. However, there is 83% positive response to reporting errors but frequency of reporting is low.

SECTION G: Number of Events Reported in last 12 months

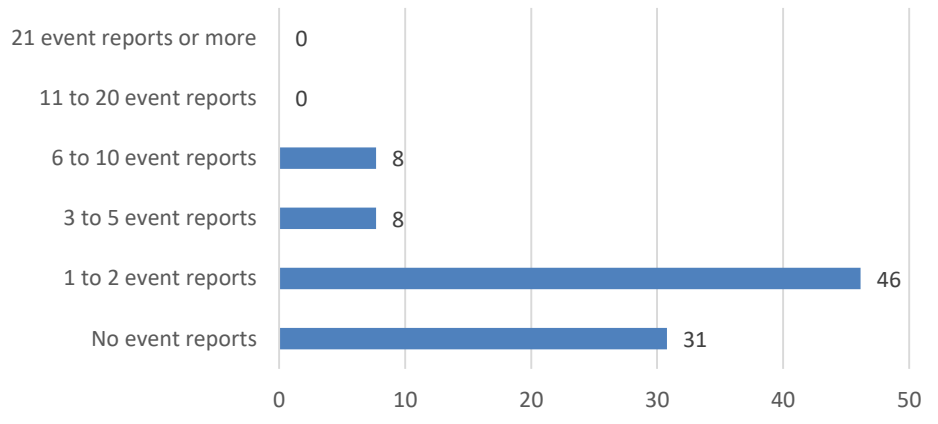


Figure 6 – Number of events reported in last 12 months

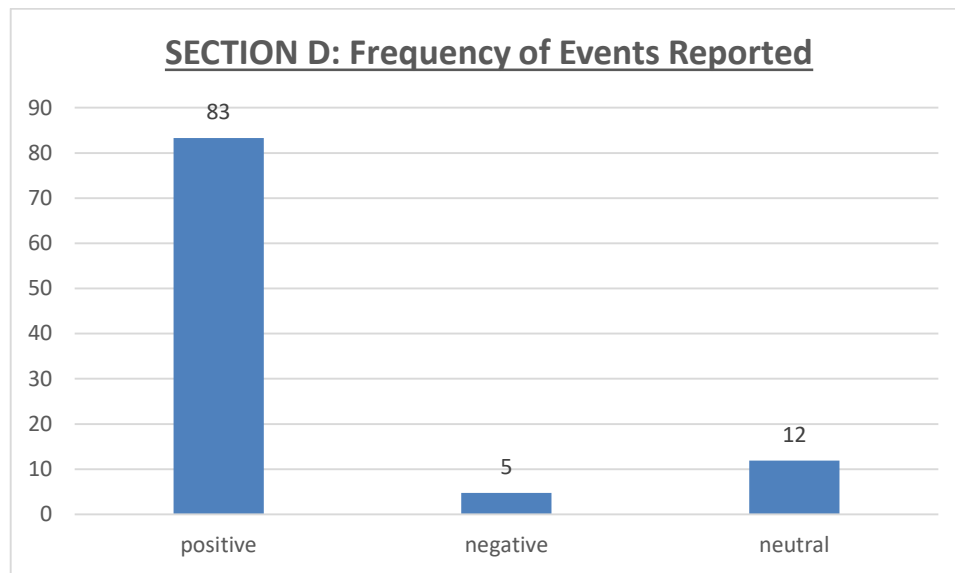


Figure 7 – frequency of events reported

Conclusion/Suggestion

After delving into the topic of patient safety and infection control in private sector hospitals in Uttar Pradesh (UP), this research has provided valuable insights on the crucial role of quality dimensions and accreditation in healthcare management. Several important conclusions have been drawn from an exhaustive examination of present methods, obstacles, and the effects of certification. To start with, the research showed that private hospitals can't guarantee adequate patient safety and infection control measures unless they stick to quality dimensions including infrastructure, procedures, results, and patient experience. There is a correlation between hospitals' emphasis on these factors and improved patient outcomes and reduced incidence of healthcare-associated infections.

Second, there is a strong correlation between accreditation—and more specifically, NABH accreditation—and superior quality standards, patient safety, and infection control procedures. In order to promote a culture of excellence in healthcare delivery, accredited hospitals show that they are committed to constantly improving and following best practices. Nevertheless, the research did find a number of difficulties encountered by private hospitals in UP, such as a lack of funding, outdated facilities, and an inadequate system for continuing education and training for medical professionals. In order to guarantee the best possible patient safety and infection control, it is crucial to address these problems and raise quality standards even higher.

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