

## Analysis of Quality Healthcare Services in District Hospitals of Haryana: A Perspective of Doctors & Healthcare Staff

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### Abstract

**Background:** Assessing the quality of healthcare is a crucial method for evaluating the effectiveness of a specific healthcare facility. Therefore, it is essential to assess hospital quality as frequently as feasible.

**Aims & Objective:** To determine the quality of healthcare delivery in district hospitals of Haryana by evaluating the perspectives of doctors & healthcare staff.

**Material and Methods:** A self-administered questionnaire with Likert scale was used to conduct a cross-sectional study of hospital doctors and healthcare staff at Civil Hospitals Kaithal, Kurukshetra, Nuh, Rohtak, and Panipat between October 2022 and April 2023.

**Results:** Hospitals lack modern & technologically advanced equipment, according to 35.5% of doctors and 38.2% of healthcare staff (Nurses & Paramedical). 43.1% of doctors and 43.8% of healthcare staff expressed dissatisfaction with the quality of diagnostic facilities. 53.9% of doctors and 44.9% of healthcare staff reported a shortage of competent staff. 31.8% of doctors and 24.4% of healthcare staff stated dissatisfaction with their remuneration. 76.2% of doctors and 62% of healthcare staff agreed that the hospital does offer a satisfactory level of health services to patients.

**Conclusion:** The study findings indicated that the level of satisfaction among healthcare staff and doctors regarding the hospitals' overall organization, procedures, and outcomes ranged from mild to moderate.

**Keywords:** Quality Healthcare, District Hospitals, Doctors, Healthcare Staff

### Introduction

To effectively manage quality, one must first have a clear understanding of what quality entails. Despite its daily relevance, there is no definitive definition of quality. The term "Quality" originates from the Latin word "qualis," which translates to "what kind of." The Oxford English Dictionary defines quality as the level of excellence, superiority in its class, and a distinctive characteristic. Defining quality is challenging due to its subjective nature and intangible attributes. Like happiness and satisfaction, the perception of quality is subjective and varies from person to person. [1] [2]

The desire for quality has been inherent in human beings for an extended period, but the measurement and setting of official quality standards emerged in the 20th century. Globalization has given rise to sophisticated customers who possess a keen ability to recognize and appreciate quality, and they have high expectations of receiving it throughout their course of life. [3] Whereas there is no universally agreed-upon definition of quality, its several definitions do have certain basic aspects as discussed below:

- Quality implies the act of satisfying or surpassing expectations.
- Quality means continuous improvements in the process and system.
- Quality is dynamic with a focus on efficiency and effectiveness
- Quality can be improved with a consistent and citizen-centric approach [4].

### Dimensions of Quality Healthcare

Quality healthcare refers to the extent to which health services for both individuals and communities enhance the probability of achieving desired health outcomes. It relies on empirical expert knowledge and is crucial for attaining comprehensive healthcare. As nations pledge to attain universal health coverage, it is crucial to meticulously evaluate the quality of healthcare and healthcare facilities. Quality healthcare can be defined in several manners, however, there is an increasing recognition that quality healthcare services should have the following characteristics as per WHO 2016:

1. Effective: offering individuals in need evidence-based healthcare treatments.
2. Safe - ensuring the prevention of any potential injury or danger to individuals under the care.

3. People-centered - care is characterized by its ability to cater to the specific preferences, requirements, and values of each individual.
4. Timely - minimizing waiting periods as well as detrimental delays.
5. Equitable - delivering care that is consistent in quality regardless of gender, ethnicity, geographic location, and socio-economic position.
6. Integrated - offering comprehensive healthcare services across all stages of life.
7. Efficient - the act of maximizing the use of existing resources and minimizing any unnecessary loss or waste [5].

### **Healthcare Quality: Understanding and Significance**

Healthcare quality might be interpreted differently depending on one's perspective. Patients' perceptions vary depending on their focus on relationships with healthcare providers, treatment and research outcomes, as well as their overall environment and setting of the healthcare facility. However, healthcare providers primarily associate quality with the reliable delivery of services, adhering to established standards, and utilizing specialized equipment. The issue of quality in healthcare is of utmost importance, as it directly impacts the delivery of health services and even human life. Therefore, for every healthcare organization, maintaining the highest quality of healthcare services is the primary concern.

India as a welfare state, since independence an emphasis on comprehensive and quality healthcare. Subsequently, India has ratified Article 25 of the 1948 Universal Declaration of Human Rights, which guarantees the right to an existence sufficient for one's health and well-being, including access to food, clothing, housing, healthcare, and essential social services. Article 21 of the Indian Constitution, the Law of the Land, ensures a fundamental right to life and personal liberty, and the right to health is an essential aspect of a dignified existence. Furthermore, Articles 38, 39, 42, 43, and 47 of the Directive Principles of State Policy (DPSP) impose a duty on the government to guarantee the successful attainment of the right to health for every citizen.

A significant challenge in healthcare is the inability to assess quality when it lacks a clear definition. Quality healthcare is characterized by continuously delivering healthcare services that are beneficial, productive, and cost-effective according to the most recent medical norms and standards. It ought to fulfill the requirements of the patient and satisfy healthcare providers [6].

According to the World Health Organization 2005, Healthcare quality encompasses various aspects, including efficiency, efficacy, effectiveness, equity, accessibility, comprehensiveness, acceptability, timeliness, appropriateness, continuity, privacy, and secrecy. The provision of education and awareness about health issues to the patient and their family, their involvement in treatment planning and decision-making, the degree of patient satisfaction, ensuring safety and support in the care environment, lowering mortality and morbidity, and enhancing the patient's quality of life and functional health status are additional characteristics that have been included to describe quality healthcare.

There exists a wide array of metrics that can be employed to assess the quality of hospitals. The measures are classified into three categories:

- Structure measures
- Process measures
- Outcome measures

Dr. Avedis Donabedian (1966) originally conceptualized these measurement categories. Donabedian argued that the three measured categories—structure, process, and outcome, reflect distinct attributes of healthcare delivery. To comprehensively assess healthcare performance, Donabedian suggested that performance in every aspect should be monitored. The structure of healthcare is assessed to evaluate the suitability of the setting in which patient care is delivered. The process of healthcare involves assessing the proper execution of patient care along with administrative functions. Healthcare outcomes are assessed to evaluate the effectiveness of patient support services and medical care.

A healthcare delivery system comprises multiple components, including community attributes, organizational traits, staffing arrangements, ownership, provider attributes, and population characteristics. The structure incorporates all the factors that exhibit an influence on the environment in which healthcare is delivered. This refers to the concrete components of a system, which include the physical infrastructure, equipment, and manpower. It also includes intangible features, such as organizational characteristics like employee training and payment systems. These characteristics have an impact on the conduct of healthcare providers and patients within

a healthcare system and act as indicators of the overall quality of care offered in a facility or system. Structure refers to the consistent elements of a healthcare delivery system that can either help or hinder the ability to access and give services. Organizational certification is the most common approach employed to assess the structural quality as given by the National Accreditation Board for Hospitals and Healthcare Providers (NABH). It provides accreditation for various structural elements of the healthcare system, such as hospitals, clinical laboratories, managed care programs, and utilization review programs. Research has consistently shown that structural variables are often associated with differences in the care process, but not with significant discrepancies in outcomes [7] [8].

Process refers to the comprehensive collection of actions that constitute the entirety of healthcare. In addition to patient education, diagnosis, treatment, and preventative care, this may additionally involve action taken by patients and their families. Processes can be stated as technical processes, which involve the delivery of care, and interpersonal processes, which comprise how care is provided. Donabedian argues that measuring the process of healthcare delivery is essentially the same as measuring the quality of care, as the process encompasses all the actions involved in providing healthcare. Direct observations of medical visits, patient and practitioner interviews, and medical records are all good sources of information about the process. The term "process" encompasses both the technical proficiency and the interpersonal skills and personal qualities of the physician. An alternative method for evaluating the quality of health care is to analyze the extent to which the care aligns with practice guidelines or professional standards. Practice monitoring is another approach to process assessment that involves comparing the cost, utilization, and/or quality patterns of providers to a pre-established standard. Furthermore, the evaluation of process assessment, particularly the interpersonal quality of care, can be conducted by analyzing consumer rating assessments. These ratings are usually acquired by conducting surveys with individuals enrolled in health plans. They include assessments of the quality of care provided and the level of satisfaction with the care received [9, 7].

Outcome, as the third dimension of quality, pertains to the impact of care on the health status of patients and communities. It encompasses all modifications in health output, behavior, and knowledge, as well as patient satisfaction and health-related quality of life. Outcomes are often regarded as the paramount objective of healthcare. Nevertheless, it is exceptionally difficult to precisely measure impacts that may be solely attributable to healthcare. Establishing correlations between process and outcomes generally necessitates the use of extensively large sample populations, alterations based on case mix, and long-term monitoring, as outcomes may require a significant amount of time to become measurable. It encompasses the results of initiatives to prevent, diagnose, and treat health issues, and is commonly regarded as the ultimate measure of healthcare quality evaluation. The condition-specific approach, the general approach, and the adverse events approach are the three methods used to assess outcomes [9, 7].

Generally, an organized structure enhances the probability of an effective process, which in turn increases the possibility of favorable outcomes. Any one of the three Donabedian quality levels can be used to measure quality, and each level corresponds to a significant component of the overall quality of healthcare. Nevertheless, due to the indirect relationship between the structure of the healthcare services delivery system and the processes or outcomes, policymakers typically find process or outcome metrics more valuable than structural measures. Process data are considered to be more sensitive and accurate indicators of quality compared to outcome data since a negative outcome is not always the case when the quality of treatment is below standard, and it may not be easily detected due to the time required for tracking. Having said that, it is crucial to remember that if a connection has been shown, process metrics may be used as substitutes for outcomes. For instance, the process measure of a child undergoing immunization under Mission Indardhanush serves as a measure for the desired outcome of preventing these childhood illnesses.

## **REVIEW OF LITERATURE**

The literature on quality healthcare services analysis from healthcare providers' perspective spans several decades and encompasses a wide range of methodologies, theories, and empirical findings. This section provides a comprehensive review of key studies and contributions relevant to the examination of quality healthcare with a focus on doctors' and healthcare staff perspectives.

The provision of quality care and products is of utmost significance in an individual's life. Individuals are perpetually and consistently seeking high-quality products and services. The demand for high-quality services has led corporate entities, businesses, and organizations worldwide to consider it crucial to thoroughly examine it as a vital component of every service and production procedure [10]. Defining quality, especially in the context of the healthcare industry and its services, can be difficult and ambiguous. Hence, the term "quality" can be employed to denote a higher standard of efficiency and allure [11]. When it comes to healthcare services, the term "quality"

refers to the degree to which the provision of healthcare services to a certain population and group of people increases the possibility of the desired health outcome, and this is the criterion that is used to quantify quality component of healthcare services [12]. Quality healthcare service refers to the provision of services to individuals in a technically skilled manner, accompanied by effective communication skills, cultural sensitivity, and collaborative decision-making for better accessibility, acceptability, and efficient delivery of health services [13]. Quality healthcare services are related to user satisfaction, a higher level of hospital structure leads to more satisfaction [14, 15]. Enhancing the quality of healthcare services by reducing hospital infections and hospital-induced disease rates through sanitation and cleanliness can potentially enhance patients' quality of life. Monitoring can help to resolve some problems and concerns with hospitals and health institutions [16].

Since understanding health seekers' and health provider perceptions and satisfaction is crucial and complicated, assessing the quality of healthcare in the public health sector is difficult [17, 18]. Healthcare service quality refers to the level of value provided by healthcare service providers, which may be measured quantitatively. The measurement of quality care is determined by identifying if the care provided meets certain standards of quality. The objective of healthcare quality is to provide people in need with the best quality medical resources, aiming to ensure an exceptional quality of life, treat diseases wherever feasible, and enhance life expectancy. Currently, numerous surveys are being conducted to ensure quality healthcare by utilizing various quality measures. The quality of healthcare worldwide is undergoing significant transformation. Customer satisfaction is a crucial metric for assessing the responsibility of services provided in healthcare organizations. The improved socioeconomic level and convenient availability of medical facilities have resulted in heightened expectations and demands from users of healthcare services. Monitoring user perception is a basic yet crucial component of a successful hospital's strategy to assess and enhance performance [19, 20].

It has been studied that out-patient service quality satisfaction depends upon three determining factors that are consultation with the doctor, information provided to patients by healthcare providers, and the physical environment of the health facility [21]. Proper hygiene and sanitation in hospitals with a focus on washrooms and waiting areas, lead to a fair level of satisfaction according to the hospital process [22]. The "SERVQUAL model" determined that statements such as Physical Facilities, Appearance of doctors and staff, obtaining feedback and keeping patients informed, and Staff and doctors understanding the specific needs of patients were found to be significant. Consistency in service quality and staff responsiveness to consumer inquiries are crucial in this context. The factor of "easy to comprehend written materials" is not highly significant, as the written material is in medical terminology and the decision-makers involved are distinct from the users [23, 24]. Healthcare quality in the context of hospitals is a consequence of effective cooperation between patients and healthcare organizations within a conducive atmosphere. The studies have determined that signage displaying directions and assistance at the entrance, as well as the time lapsed between admission and the commencement of treatment, have a significant impact on the overall quality of healthcare provision [25, 26]. The quality of healthcare service is influenced by the individual characteristics of the healthcare provider and the user as well as factors related to the healthcare delivery system, the organization itself, and the larger domain.

The quality of health service providers can be assessed in two ways: professional competence and operational service quality [27, 28]. Ensuring patient satisfaction has been a significant concern for healthcare executives. Several studies have utilized customer satisfaction as a means to enhance the quality of healthcare services. With the rise in competition, there is now greater emphasis on customer as well as healthcare provider satisfaction as a crucial metric for continuously reviewing the performance of healthcare programs. The Healthcare workers employed at public hospitals exhibit higher levels of satisfaction with their remuneration and additional perks compared to their counterparts in private hospitals [29, 30]. Several studies indicate that highly engaged personnel are more capable than their less engaged counterparts in attaining organizational objectives, such as retaining employees, improving the quality of patient care or services offered by their team or unit, fostering a culture of patient safety, and delivering patient-centered care [31, 32]. The healthcare provider's satisfaction serves as a crucial intermediary factor in enhancing the strength of the relationship between healthcare service quality and user trust in healthcare service providers [33]. Doctors' and staff's satisfaction with healthcare is a complex issue that has become a crucial consequence of the healthcare industry. Healthcare staff gave higher scores to the factors such as: "positive relationship with colleagues", "satisfaction in working with colleagues", and "favorable view of my supervisor". In contrast, nurses gave lower ratings to factors like "excessive workload", and "Salary" [34, 35]. The healthcare provider's expression of discontent with the services suggests that the hospital policies and administration should make further efforts to enhance the quality of services. There is dissatisfaction among doctors and staff concerning the availability of the latest types of equipment, distribution of funds, and hospital dispensary functioning [36, 37]. Although the majority of healthcare practitioners were highly satisfied, a tiny yet significant number reported dissatisfaction. Male doctors have been observed to report greater satisfaction than

female doctors, as measured by expectations versus perceptions. Female doctors exhibit higher satisfaction levels in their interactions with patients and colleagues than their male counterparts. A significant proportion of physicians express dissatisfaction with administrative tasks and time limitations [38, 39]. Doctors expressed contentment with their profession's social and personal dimensions while expressing dissatisfaction with the pressures stemming from the practice environment and concerns related to their work setting [40, 41].

It was not possible to generalize the quality dimensions across all types of services collectively, but valuable insights were accessible for each specific service type. The level of tangibility is of greater significance for services that involve more tactile acts. Moreover, the significance diminishes when transitioning from services aimed at individuals to services aimed at belongings. The need for reliability is greater for services that involve intangible aspects of service delivery. Services aimed at the belongings of the clients will also necessitate increased dependability. Services aimed at the consumer necessitate a higher level of guarantee compared to those aimed at their belongings. Additionally, greater certainty will be required for services involving intangible actions [42, 43].

Government hospitals have several issues, such as inadequate physical surroundings, an antiquated health information system, minimal formal quality control, a lack of planning, the bundling of unrelated tasks, incorrect staffing practices, and more. Some of the issues include weak leadership, lack of coordination, inadequate supply of pharmaceuticals and medical supplies, and a lack of good public relations. The public will suffer greatly if the healthcare sector's quality of services falls short of expectations, as this will result in poor health and decreased productivity, which will hinder economic development [44, 45].

This research focuses on evaluating the quality of healthcare services and its impact on the satisfaction of healthcare providers at government hospitals that provide specialized healthcare. Additionally, a recent review has highlighted the importance of quality healthcare and job satisfaction among healthcare providers. The study seeks to examine the health provider's assessment of the service quality provided by government hospitals. Furthermore, it aids in the identification of the characteristics and elements that assess the quality of healthcare service in government hospitals.

### Research Methodology

The aim of this study was "Analysis of Quality Healthcare Services in District Hospitals of Haryana: A Perspective of Doctors & Healthcare Staff".

#### Objectives

1. To evaluate the level of healthcare services provided by Government Hospitals in Haryana.
2. To assess the doctors' attitudes and perceptions of the present structure, procedures, and outcomes of healthcare services at government hospitals in Haryana.
3. To assess the healthcare staff's attitude and perception of the present structure, procedures, and outcomes of hospitals and healthcare services in government hospitals of Haryana.

### Research Design of the Present Study

The current study used an exploratory research design. The current study is descriptive as it presents findings regarding the quality features of healthcare in the district hospital of Haryana.

### Sample Design

A total of 250 samples of healthcare professionals were collected by the researcher, comprising 105 doctors and 145 healthcare staff who were randomly picked from five district civil hospitals in the state of Haryana.

The sample design is shown in Table.

Table 1 Sample Design

Sr. No.	Name of Hospital	Number of doctors	% Of Doctors	Number of Healthcare staff	% Of Healthcare staff	Total Number of doctors and Healthcare Staff	Total % Of Doctors and Healthcare Staff
1	Civil Hospital, Kaithal	20	19.0	30	20.6	50	20.0

2	<b>Civil Hospital, Kurukshetra</b>	22	21.5	28	19.3	50	20.0
3	<b>Civil Hospital, Rohtak</b>	23	21.9	29	20.0	52	20.8
4	<b>Civil Hospital, Panipat</b>	21	20.0	32	22.0	53	21.2
5	<b>Civil Hospital, Nuh</b>	19	18.0	26	17.9	45	18.0
	<b>Total</b>	105	100	145	100	250	100

This research study focuses on the Five District civil hospitals located in Haryana. These hospitals are selected from Haryana due to the inadequate amount of study conducted to assess the quality of hospitals in the region.

### Sampling Tools

The study employed a pre-structured questionnaire to collect data on socio-demographic traits, as well as respondents' attitudes and perceptions regarding the hospital's structure, processes & outcomes services.

### Data Collection Method

Following the selection of the sample, the subsequent stage in research programs is the collection of data. To maintain the accuracy of the obtained data, efforts are made to reduce the impact of cost and human engagement on its reliability. The current study is grounded on two categories of data.

1. Primary data
2. Secondary data

The present study gathers primary data through personal interviews, observation, and questionnaires completed by healthcare professionals from five civil hospitals. Several inquiries on the issues are formulated, and these inquiries are arranged in a logical order. The majority of the questions are in the format of multiple-choice and closed-ended and are completed using the survey method.

### Sample Framework under study

This study focuses on healthcare providers from five specific civil hospitals in Haryana: Kaithal, Kurukshetra, Nuh, Rohtak, and Panipat. The selection of these five district civil hospitals was based on their health indicators performance and status as reported by NITI Aayog in the SDG 2019 report. Additionally, these hospitals were picked due to their high patient count compared to other district hospitals.

### Research Instruments

The data obtained from the present research is evaluated using several statistical methods, including mean, standard deviation, standard error, and chi-square test. SPSS and MS Excel are utilized for this analysis.

### Data Analysis and Interpretation from Doctors' Perspectives

**Table 2 Statistical analysis of doctors' views regarding the overall healthcare structure of the hospitals**

	Mean	S.D	S.E	Chi-Square	Asym p.Sig.
Is the hospital equipped with modern facilities and innovative healthcare equipment?	3.61	.988	.124	14.869	.0003
Is the physical environment for work (such as temperature, lighting, dust levels, noise levels, cleanliness, etc.) normally satisfactory?	2.89	1.348	.119	46.282	.0001
Are the diagnostic facilities, such as X-ray, laboratory services, USG, CT scans, and ECG, satisfactory?	3.45	1.203	.114	45.212	.0031
Do the hospital's sanitation facilities, including toilets, biomedical waste collection and disposal, and hygiene, meet the required standards of quality?	2.93	1.079	.139	36.275	.0012
Does the hospital have an adequate number and competent working staff?	3.14	1.439	.131	23.452	.0002

Total	3.20	1.211	.125	33.218	.0049
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The average mean response from doctors about the overall quality of the hospital's structure was  $3.20 \pm 1.211$ , suggesting that they were satisfied with it. The doctors' overall assessment that is mean value of the quality of available equipment was  $3.61 \pm .988$ , indicating their satisfaction with the available equipment's quality. The mean value for diagnostic facilities as per doctors' responses is  $3.45 \pm 1.203$ , signifying the moderate level of satisfaction with diagnostic facilities available. The mean response for the quality of sanitation facilities was  $2.93 \pm 1.079$ , signifying a moderate level of satisfaction. The doctor's views on the availability of enough manpower resulted in a mean response of  $3.14 \pm 1.439$ , showing a shortage of staff in the hospitals. It's found that the chi-square test is 33.218 with a p-value of 0.0049 i.e., less than 0.001, which is statistically significant.

**Table 3 Statistical analysis of doctors' views regarding the overall healthcare processes of the hospitals**

	Mean	S.D	S.E	Chi-Square	Asymp. Sig.
Are the policies and processes for ensuring high-quality patient care in the hospital clearly defined?	3.80	1.173	.120	23.522	.0023
Are patients adequately informed about their disease, examinations, and treatment?	2.97	.961	.119	52.389	.000
Are the hospital's rules, regulations, and policies administered uniformly to all employees?	3.76	1.149	.156	19.468	.0013
The hospital offers autonomy in establishing one's working methodologies.	3.32	1.108	.124	20.695	.0002
Are the work norms that govern the hospital maintained by the management?	3.75	1.172	.182	28.844	.0001
TOTAL	3.52	1.112	.140	28.983	.0039

Doctor satisfaction with the hospital process was indicated by the mean response of  $3.52 \pm 1.112$  for the overall quality of hospital processes. The doctors' average mean response for the quality of policy and procedures in the hospitals was  $3.80 \pm 1.173$ , indicating their low level of satisfaction with it. The mean response for the quality of information provided to the patients was  $2.97 \pm .961$ , showing a moderate level of satisfaction. The mean response of doctors regarding the uniform administration of rules, regulations, and policies had a mean answer of  $3.76 \pm 1.149$ , indicating a moderate level of satisfaction. The doctors' views regarding the freedom to pick their working techniques had a mean answer of  $3.32 \pm 1.108$ , indicating a lower level of satisfaction. The means value of response regarding work norms maintained by management is  $3.75 \pm 1.172$ , signifying a high value of satisfaction. It's found that the chi-square test is 28.983 with a p-value of 0.0039 i.e., less than 0.01 which is statistically significant.

**Table 4 Statistical analysis of doctors' views regarding the overall outcome of the district hospitals**

	Mean	S.D	S.E	Chi-Square	Asymp. Sig.
Does the hospital prioritize the provision of quality healthcare services over financial considerations?	3.34	1.031	1.020	27.584	.0001
Does the hospital ensure a safe working environment and effectively mitigate safety hazards?	3.42	1.021	1.167	39.290	.0002
Is there optimal cooperation and collaboration among the hospital staff?	3.73	0.932	.995	58.462	.000
Does the remuneration provided adequately compensate for the tasks and duties you are expected to fulfill?	3.37	1.152	1.204	36.368	.0013
Does the hospital provide comprehensive health care and improved working conditions for patients?	3.59	0.974	.985	35.929	.0011
Total	3.49	1.022	1.074	39.526	.00036

The average mean response given by doctors for the overall quality of hospital outcomes was  $3.49 \pm 1.022$ , reflecting their satisfaction with the outcomes. The doctors' mean response for the quality healthcare service delivery in light of financial restrictions was  $3.34 \pm 1.031$ , indicating their dissatisfaction. The mean response for safety and mitigation measures is  $3.42 \pm 1.021$ , indicating a moderate level of satisfaction, and for cooperation & collaboration, the mean response is  $3.73 \pm 0.932$ , signifying a high level of satisfaction among doctors. The mean response for remuneration provided and comprehensive health care given is  $3.37 \pm 1.152$ , and  $3.59 \pm 0.974$  respectively, indicating a moderate level of satisfaction among doctors. It's found that the chi-square test is 39.526 with a p-value of 0.0036 i.e., less than 0.01, which is statistically significant.

#### Data Analysis and Interpretation from Healthcare Staffs' Perspectives

**Table 5 Statistical Analysis of Nurse's views regarding the overall structure of the hospitals**

	Mean	S.D	S.E	Chi-Square	Asymp. Sig.
Is the hospital equipped with modern facilities and innovative healthcare equipment?	3.12	1.106	.117	22.943	.0001
Is the physical environment for work (such as temperature, lighting, dust levels, noise levels, cleanliness, etc.) normally satisfactory?	3.08	1.098	.121	56.121	.0021
Are the diagnostic facilities, such as X-ray, laboratory services, USG, CT scans, and ECG, satisfactory?	3.48	.989	.092	50.704	.0013
Do the hospital's sanitation facilities, including toilets, biomedical waste collection and disposal, and hygiene, meet the required standards of quality?	3.49	1.180	.093	53.097	.0001
Does the hospital have an adequate number and competent working staff?	2.99	1.401	.123	16.820	.0021
Total	3.23	1.154	.109	39.937	.0057

The mean response from healthcare staff about the overall quality of the hospital's structure was  $3.23 \pm 1.154$ . The average response from staff regarding the quality of available equipment was  $3.12 \pm 1.106$ , indicating that they were dissatisfied with the available equipment's quality. The physical environment for work with a mean response of  $3.08 \pm 1.098$ , shows the low level of satisfaction among healthcare staff. A high degree of satisfaction was indicated by the mean response of  $3.49 \pm 1.180$  regarding the quality of sanitation facilities. The mean score was  $3.48 \pm .989$ , depicts the moderate level of satisfaction regarding diagnostic facilities in hospitals. Regarding the availability of sufficient personnel, the healthcare staff's mean response was  $2.99 \pm 1.401$ , indicating a staffing shortage in the hospitals. It's found that the chi-square test is 39.937 with a p-value of 0.0057 i.e., less than 0.05 which is statistically significant.

**Table 6 Statistical Analysis of Healthcare Staffs' views regarding the overall processes of the hospitals**

	Mean	S.D	S.E	Chi-Square	Asymp. Sig.
Are the policies and processes for ensuring high-quality patient care in the hospital clearly defined?	3.68	1.007	.096	56.092	.002
Are patients adequately informed about their disease, examinations, and treatment?	3.82	.948	.089	82.697	.001
Are the hospital's rules, regulations, and policies administered uniformly to all employees?	3.77	1.205	.116	30.220	.001
The hospital offers autonomy in establishing one's working methodologies.	3.06	1.083	.099	40.037	.000
Are the work norms that govern the hospital maintained by the management?	3.69	.727	.075	53.752	.000
Total	3.60	.994	.095	52.559	.004

The mean response from healthcare staff about the overall quality of hospital processes was  $3.60 \pm .994$ . The mean response from healthcare staff regarding the quality of policies and procedures in the hospitals was  $3.38 \pm 1.007$ , indicating that they were content with the level of quality. A higher degree of satisfaction was

indicated by the mean response of  $3.82 \pm .948$  for the quality of the information provided to the patients. When asked about their level of satisfaction with having the freedom to pick their working techniques, healthcare staff gave a mean response of  $3.06 \pm 1.083$ . There is a high level of satisfaction among healthcare staff concerning work norms governed by management with a mean response of  $3.69 \pm .727$ . It's found that the chi-square test is 52.559 with a p-value of 0.004 i.e., less than 0.05, which is statistically significant.

*Table 7 Statistical Analysis of Nurse's views regarding the overall outcomes of the hospitals*

	Mean	S.D	S.E	Chi-Square	Asymp. Sig.
Does the hospital prioritize the provision of quality healthcare services over financial considerations?	3.63	.949	.090	22.339	.0004
Does the hospital ensure a safe working environment and effectively mitigate safety hazards?	3.59	1.038	.099	55.541	.0012
Is there optimal cooperation and collaboration among the hospital staff?	3.98	.897	.085	110.862	.0010
Does the remuneration provided adequately compensate for the tasks and duties you are expected to fulfill?	3.63	1.216	.116	73.156	.0009
Does the hospital provide comprehensive health care and improved working conditions for patients?	3.49	.986	.093	64.165	.0018
Total	3.66	1.017	.096	65.212	.0053

The means response of the healthcare staff's responses about the quality of the overall results of the hospitals were found to be  $3.66 \pm 1.017$ . A mean response of  $3.63 \pm .949$  was received from healthcare staff on the quality of healthcare service delivery about financial constraints. This indicates that nurses were not satisfied with the issue. The mean response for the quality of cooperation and collaboration among the staff members was  $3.98 \pm .897$ , which indicates a greater level of satisfaction. There was a mean response of  $3.63 \pm 1.216$  for the healthcare staff's thoughts regarding the salary that was paid to them, which indicates a lower degree of satisfaction. With  $3.59 \pm 1.038$  mean response among staff shows a high level of satisfaction with safety and mitigation hazards in hospitals. A mean response of  $3.49 \pm .986$ , regarding working conditions, depicts a moderate level of satisfaction. It's found that the chi-square test is 65.212 with a p-value of 0.0053 i.e., less than 0.05 which is statistically significant.

### Findings and Conclusion

The survey had a total of 250 responses, with 105 (42%) being doctors and 145 (58%) being nurses. Of the total sample of doctors, 62.4% were male responders and 37.6% were female respondents. 13.3% of the doctors belonged to the Medicine department, 8.1% were from Surgery, 3.4% were from the Anesthesia, 5.2% were from the Obstetrics and Gynecology, 6.3% were from the Ophthalmology department, 8.7% were from the Orthopedics, 7.9% were from the Pediatrics, 10.1% were from the Dental, 12.7% were from the Ayush, and 24.3% were from other departments. 19% of the doctors surveyed were from Kaithal, 21.5% were from Kurukshetra, 21.9% were from Rohtak, 20% were from Panipat, and 18% were from Nuh. Out of the total number of doctors surveyed, 38.5% had been in service for 0-5 years, 23.1% had been in service for 5-10 years, 8.2% had been in service for 10-15 years, and 30.2% had been in service for more than 15 years.

The vast majority of respondents in the healthcare staff were female nurses, accounting for 81.3% (118), while the remaining 18.7% (27) were male paramedical professionals. Among the nurse responders, 12.2% were from the Medicine department, 8.1% were from Surgery, 6.7% were from the Outpatient Department (OPD), 29.3% were from Obstetrics and Gynecology, 0.9% were from Ophthalmology, 17.9% were from the Inpatient Department (IPD), 4.7% were from Orthopedics, 6.8% were from Pediatrics, 11.6% were from the Emergency, and 1.8% were from other departments. 20.6% of the healthcare staff surveyed were from Kaithal, 19.3% were from Kurukshetra, 20% were from Rohtak, 22% from Panipat, and 17.9% were from Nuh. 36.4% of the nurse responders had been providing services for 0-5 years, 24.5% had been providing services for 5-10 years, 4.8% had been providing services for 10-15 years, and 34.3% had been providing services for more than 15 years. 6.2% of doctors strongly disagree & 29.3% of doctors disagree, with the quality of equipment. 50.2% of doctors agree & 7.3% of doctors strongly agree with the quality of working conditions in district hospitals. 50.1% of doctors agree & 6.8% of doctors strongly agree with the quality of diagnostic facilities. 47% of doctors agree & 10.4% of doctors strongly agree that the hospital facilities of sanitation and cleanliness are satisfactory. 14.8% of

doctors strongly disagree & 39.1% of doctors disagree, that the hospital does have availability of adequate and competent manpower. 21.2% of doctors strongly disagree & 29.2% of doctors disagree, that the policy & procedures for quality patient care in the hospital are clear. 56.4% of doctors agree & 19.6% of doctors strongly agree that the patients are given enough information about their disease, examinations, and treatment given in the hospital. 89.8% of doctors agree & 19.1% of doctors strongly agree that the hospital's rules & policies are equally applied to all the employees by hospital management. 14.1% of doctors strongly disagree & 31.2% of doctors disagree that the hospital does provide the freedom to choose its working methods. 46.4% of doctors agree & 13.1% of doctors strongly agree that the management is supportive. 40.7% of doctors agree & 4.7% of doctors strongly agree that the hospital considers the delivery of quality healthcare services over financial considerations for better healthcare delivery. 49.9% of doctors agree & 5.8% of doctors strongly agree that the hospital provides safety in the work environment & eliminates safety hazards. 58.1% of doctors agree & 14.1% of doctors strongly agree that there is cooperation & collaboration within the staff of the hospital. 15.3% of doctors strongly disagree & 16.5% of doctors disagree that the salary paid to them is adequate for the work done and responsibilities given. 7.3% of doctors strongly disagree & 16.5% of doctors disagree that the hospital does provide overall quality health services to patients.

8.9% of healthcare staff strongly disagree & 29.3% of healthcare staff disagree, with the quality of equipment. 46.1% of healthcare staff agree & 18.7% of healthcare staff strongly agree with the quality of working conditions. 42.4% of healthcare staff agree & 13.8% of healthcare staff strongly agree with the quality of diagnostic facilities available in hospitals. 44% of healthcare staff agree & 22.9% of healthcare staff strongly agree that the hospital facilities of sanitation and hygiene are satisfactory. 14.7% of healthcare staff strongly disagree & 30.2% of healthcare staff disagree that the hospital does have availability of adequate and competent manpower. 47.3% of healthcare staff agree & 16.6% of healthcare staff strongly agree that the policy & procedures for quality patient care in the hospital are clear. 53.3% of healthcare staff agree & 26.1% of healthcare staff strongly agree that the patients are given enough information about their disease, examinations, and treatment. 3.8% of healthcare staff strongly disagree & 26.5% of healthcare staff disagree that the hospital's rules & policies are equally applied to all employees.

4.7% of healthcare staff strongly disagree & 31.4% of healthcare staff disagree that the hospital does provide the freedom to choose their working methods. 58.3% of healthcare staff agree & 12.3% of healthcare staff strongly agree that the management is supportive of the applicable work standards that govern the hospital. 46.2% of healthcare staff agree & 15.8% of healthcare staff strongly agree that the hospital does consider the delivery of quality healthcare services over financial considerations. 49.9% of healthcare staff agree & 18.5% of healthcare staff strongly agree that the hospital provides a safe work environment & eliminates safety hazards. 57.3% of healthcare staff agree & 26.4% of healthcare staff strongly agree that there is perfect cooperation & collaboration within the staff of the district hospital. 11.2% of healthcare staff strongly disagree & 13.2% of healthcare staff disagree that the hospital adequately pays salaries considering the responsibilities & duties they have. 1.9% of healthcare staff strongly disagree & 16.4% of healthcare staff disagree that the hospital does provide overall quality healthcare services and better working conditions to patients.

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