Available Online at http://www.recentscientificcom

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 15, Issue, 09, pp.4947-4951, September, 2024

International Journal of Recent Scientific Research

ISSN: 0976-3031

RESEARCH ARTICLE

ASSESSMENT OF LEVEL OF IMPLEMENTATION OF SANITATION AND HYGIENE GUIDELINES IN SUB DISTRICT HOSPITALS IN GADAG DISTRICT BY USING KAYAKALP ASSESSMENT TOOL

[1]Manjegowda H. P and Dr. Gulappa Devagappanavar [2]

[1]Master of Public Health Scholar, School of Environmental Science Public Health and Sanitation Management, Karnataka State Rural Development and Panchayat Raj University Gadag.

[2]Assistant Professor School of Environmental Science Public Health and Sanitation Management, Department of Public Health Karnataka State Rural Development and Panchayat Raj University Gadag.

DOI: http://dx.doi.org/10.24327/ijrsr.20241509.0932

ARTICLE INFO

Article History:

Received 22nd July, 2024
Received in revised form 19th August, 2024
Accepted 16th September, 2024
Published online 28th September, 2024

Key words:

Kayakalp, Sanitation, Hygiene, Sub-district hospital, Hospital hygiene, infection control

ABSTRACT

Background: According to the World Health Organization, the efficacy of infection prevention and control protocols, as well as the provision of superior quality healthcare, is contingent upon health facilities adhering to appropriate sanitation standards and reducing the risk of pathogen exposure for both patients and healthcare workers. Infections that may lead to adverse pregnancy outcomes, sepsis, or even mortality among pregnant women and their neonates necessitate particular vigilance to avert. Throughout each phase of the sanitation service continuum—ranging from the provision of safe toilets and proper containment to the transportation, treatment, and ultimate disposal or intended use of waste—a comprehensive sanitation system is designed and executed to ensure the segregation of human excreta from human interaction. When sanitation safety is strategically planned, it facilitates the implementation of a holistic approach to address faecal management issues, encompassing everything from toilets to secure disposal or utilization. Healthcare-associated infections (HAIs) impact hundreds of millions of individuals globally on an annual basis. Despite being recognized as the most prevalent adverse occurrence in healthcare settings, the comprehensive global ramifications of HAIs remain ambiguous due to the difficulties inherent in acquiring reliable data. A principal objective of the WHO's Infection Prevention and Control (IPC) team is to understand and assess the worldwide prevalence and impact of HAIs. This study endeavours to evaluate the degree of implementation of Sanitation and Hygiene practices within sub-district hospitals in the Gadag district and to ascertain opportunities for enhancement. **Objectives:** To assess the level of implementation of sanitation and hygiene guidelines in sub-district hospitals in Gadag District. **Methods:** A cross-sectional study was conducted in sub-district hospitals in Gadag district, and an universal sampling technique was used to choose the health centers. A kayakalp checklist 2021 was used to obtain the data from December 2023 to January 2024. Data were entered into Microsoft Excel, and results were expressed in frequency and percentages. **Results:** Total 4 sub-district hospitals were visited; the total score was 100 in that Mundaragi Sub-district hospital has 65/100 (65%), Shirahatti Sub-district hospital 67/100 (67%), Rona 70/100 (70%), and Naragund 63/100 (63%). **Conclusion:** The findings from the different sub-district hospitals show differences in how sanitation and hygiene regulations are applied. While some hospitals adhere to cleaning guidelines in important areas with great diligence, others need major improvements, especially when it comes to the cleanliness of auxiliary areas, restrooms, and the oversight of cleaning activities.

*Corresponding author: **Manjegowda H P**

Master of Public Health Scholar, School of Environmental Science Public Health and Sanitation Management, Karnataka State Rural Development and Panchayat Raj University Gadag

INTRODUCTION

The Sanskrit terms "kayas," which means "body," and "kalpa," which means "transformation," "rebirth," or "rejuvenation," are the source of the phrase "Kayakalp." The Kayakalp encompasses the following seven themes: hospital maintenance, waste management, infection control, sanitation

and hygiene, support services, promotion of hygiene, and feedback system (1).

The Ministry of Health & Family Welfare, Government of India, is initiating a national initiative to award public health institutions that exhibit excellent standards of hygiene, sanitation, and infection control in order to support this endeavor (2).

The Kayakalp Yojana is one such innovative approach to improving public healthcare services. Its primary goal was to establish a culture in the institutions that would encourage cleanliness, infection control, and hygiene practices by rewarding and praising those that performed exceptionally well in following Kayakalp rules and then continuing such practices (3).

For Kayakalp, evaluation is conducted under four overarching headings: evaluation components (thematic area, criteria, and check point); evaluation types (internal, peer, external); evaluation techniques (observation, staff interview, record review, and patient interview); and scoring system (full compliance, partial compliances, and non-compliances).

One of these honors is the Kayakalp-Award, which is given to public health institutions in order to meet the "Swachh Bharat Abhiyaan" mission and the necessity of quality improvement and sustainability in healthcare facilities. It is concerning how unclean public areas, particularly medical facilities, are in our nation. Not only is cleanliness vital from an aesthetic standpoint, but poor hygiene and cleanliness are key contributors to illness (4).

The primary goal of healthcare facilities is to cure people and, therefore, diseases and infections. However, staff members also have an obligation to "do no harm" to patients and any family members who may be visiting the facilities. An atmosphere that is clean and sanitary in healthcare facilities is essential for preventing hospital-acquired illnesses and lays the groundwork for a great patient and visitor experience (5).

Hospital environments are complicated and home to a wide range of microbiological organisms. Hospital environments can include reservoirs of microorganisms in many places, many of which provide a risk of infection to patients, visitors, and medical staff. It is commonly known that microorganisms may spread from the environment to patients and healthcare personnel through both direct and indirect contact. Surfaces that have more frequent hand touch have a higher potential for spreading illness than those that see less contact (6).

Nosocomial infections, also referred to as hospital-acquired infections (HAIs), represent a significant risk to patients' health since they raise hospital stays' duration, expenditures, and morbidity and death rates. At any one moment, the prevalence of HAIs in low- and middle-income nations ranges from 5.7% to 19.1% (7).

The supply of water, sanitation, medical waste management, hygiene, and environmental cleaning infrastructure and services in all areas of a hospital is referred to as "WASH in health care facilities." All officially recognized facilities that offer healthcare are included in the category of "health care facilities," including public and private (including faith-run) primary, secondary, and tertiary hospitals as well as health posts and clinics. Temporary structures created for emergency situations are also included in this category (8).

In healthcare settings, WASH is essential to delivering high-quality, patient-focused treatment. Achieving accessible and high-quality health care requires WASH. To enhance work performance, safeguard patients and staff, and maintain the dignity of vulnerable groups like the elderly and disabled, it is essential to provide clean, potable drinking water, water for cleaning, a sufficient number of functional toilets, waste segregation, waste disposal demarcation, and hygiene-related health education (9).

The provision of water, sanitation, health care waste, hygiene, and environmental cleaning infrastructure and services throughout all portions of a facility is known as water, sanitation, and hygiene (WASH) in health care facilities. WASH is essential and offers several advantages, such as enhancing the standard of care and the health of mothers, children, and adolescents, lowering antimicrobial resistance (AMR), and bolstering infection prevention and control (IPC) procedures (10).

Globally, access to sufficient, useful, and reasonably priced healthcare services is always necessary, especially as the world races to meet the Sustainable Development Goals (SDGs) by 2030. The COVID-19 epidemic has put further strain on already overburdened facilities and put several nations' capacity to deliver safe, effective, and egalitarian healthcare to the test (11).

In order to achieve any of the global health-related objectives, such as lowering maternal mortality and ending avoidable newborn deaths, water, sanitation, and hygiene, or WASH, is a crucial component of the sustainable development goals.1-3 WASH is given top priority in healthcare institutions as a vital component to achieving all national and international health objectives. Reducing healthcare-acquired infections and antimicrobial resistance, as well as enhancing occupational health and safety that results in high-quality care services in the facilities, are some advantages of having enough WASH in healthcare facilities (12).

MATERIALS AND METHODS

Study setting: The study was conducted in sub-district hospitals of Gadag district (Mundaragi, Naragund, Ron, Shirahatti).

Study design: A hospital-based cross-sectional study was conducted in sub-district hospitals by using Kayakalp checklist 2021.

Sampling design and sampling size: Universal sampling technique was used toochoose the health centers and 4 sub-district hospitals of Gadag.

Data source: Primary data were obtained by introducing the questionnaire on study participants who visited the sub-district hospitals to obtain the data related to sanitation and hygiene.

Statistical method: Data were entered into an Excel sheet, analyzed, and expressed in frequency and percentages.

Ethical approval: obtained from the Institutional Ethics Committee of Karnataka State Rural Development and Panchayat Raj University Gadag. RDPRU/SEP/MPH/2023/6.

RESULTS

Table 1 Distribution of Socio demographic details of the study participants (n=8)

Characteristics		Frequency (%)
Gender		
	Male	5 (62.5%)
	Female	5 (62.5%)
Age group		
	25-30	2 (25%)
	31-35	4 (25%)
	46-50	2 (25%)
Education level		
	Under graduate	3(37.5%)
	Diploma	2(25%)
	Post graduate	2(25%)
	Doctorate Degree	1(12.5%)
Religion		
	Hindu	5(50%)
	Muslims	2 (25%)
	Christian	1(12.5%)
Socio Economic Status		
	APL	6(75%)
	BPL	2(25%)
Marital Status		
	Married	8(100%)

In the current study, I conducted a study on 8 participants, in that 5 participants are female and 3 participants are male, and more than one-fourth of the respondents are undergraduates, and very few of them are postgraduates and doctorate degree holders, and all the participants are married; almost all are above-poverty line participants.

Table 2 Distribution of Level of Implementation of Sanitation and Hygiene in Mundaragi Sub District Hospital.

Ref.no	Criteria	Score obtained	Total
B1	Cleanliness of Circulation Area	6	10
B2	Cleanliness of Wards	6	10
B3	Cleanliness of Procedure Areas	9	10
B4	Cleanliness of Ambulatory Area (OPD, Emergency, Lab)	8	10
B5	Cleanliness of Auxiliary Areas	4	10
B6	Cleanliness of Toilets	4	10
B7	Use of standards materials and Equipment for Cleaning	8	10
B8	Use of Standard Methods Cleaning	7	10
B9	Monitoring of Cleanliness Activities	5	10
B10	Drainage and Sewage Management	8	10
	Total	65	100

In the present study, Mundaragi Sub-District Hospital, the overall application of sanitation and hygiene criteria received a score of 65 out of 100. The areas with the highest scores were the procedure areas' cleanliness (9/10) and the usage of standard cleaning supplies and equipment (8/10), both of which demonstrated strict adherence to the rules in these areas. Auxiliary facilities and restrooms, on the other hand, had lower cleanliness ratings (4/10), suggesting room for improvement in these crucial areas.

Table 3 Distribution of Level of Implementation of Sanitation and Hygiene guidelines in Shirahatti Sub District Hospital

Ref.no	Criteria	Score obtained	Total
B1	Cleanliness of Circulation Area	8	10
B2	Cleanliness of Wards	6	10
B3	Cleanliness of Procedure Areas	9	10
B4	Cleanliness of Ambulatory Area (OPD, Emergency, Lab)	5	10
B5	Cleanliness of Auxiliary Areas	5	10
B6	Cleanliness of Toilets	5	10
B7	Use of standards materials and Equipment for Cleaning	7	10
B8	Use of Standard Methods Cleaning	9	10
B9	Monitoring of Cleanliness Activities	5	10
B10	Drainage and Sewage Management	8	10
	Total	67	100

In the current study, with an aggregate score of 67 out of 100, Shirahatti Sub-District Hospital received a slightly higher rating than Mundaragi. Once again, the application of regular cleaning procedures and the cleanliness of procedural areas received the best results (9/10). The auxiliary and ambulatory areas received lower scores (5/10) for cleanliness, indicating that they require work to fulfill the necessary standards for sanitation and hygiene.

Table 4 Distribution of Level of Implementation of Sanitation and Hygiene guidelines in Naragund Sub District Hospital

Ref.no	Criteria	Score obtained	Total
B1	Cleanliness of Circulation Area	7	10
B2	Cleanliness of Wards	7	10
B3	Cleanliness of Procedure Areas	7	10
B4	Cleanliness of Ambulatory Area (OPD, Emergency, Lab)	8	10
B5	Cleanliness of Auxiliary Areas	6	10
B6	Cleanliness of Toilets	6	10
B7	Use of standards materials and Equipment for Cleaning	8	10

B8	Use of Standard Methods Cleaning	7	10
B9	Monitoring of Cleanliness Activities	6	10
B10	Drainage and Sewage Management	8	10
	Total	70	100

In the present study, with a total score of 63 out of 100, Nargund Sub-District Hospital received the lowest rating. Notable problems were found with the auxiliary areas' cleanliness (4/10), the restrooms' (3/10), and the cleanliness activities' monitoring (4/10). Notwithstanding these obstacles, the hospital performed admirably in terms of procedure area cleanliness and the application of conventional cleaning supplies and techniques (8–9/10). The findings imply that although essential hygiene procedures have a strong basis, significant advancements in a few areas are necessary to reach the necessary levels.

Table 5 Distribution of Level of implementation of Sanitation and Hygiene guidelines in Ron Sub district hospital.

Ref.no	Criteria	Score obtained	Total
B1	Cleanliness of Circulation Area	6	10
B2	Cleanliness of Wards	6	10
B3	Cleanliness of Procedure Areas	9	10
B4	Cleanliness of Ambulatory Area (OPD, Emergency, Lab)	8	10
B5	Cleanliness of Auxiliary Areas	4	10
B6	Cleanliness of Toilets	3	10
B7	Use of standards materials and Equipment for Cleaning	8	10
B8	Use of Standard Methods Cleaning	7	10
B9	Monitoring of Cleanliness Activities	4	10
B10	Drainage and Sewage Management	8	10
	Total	63	100

In the present study, Ron Sub-District Hospital was the hospital with the greatest overall score (70 out of 100). The spaces designated for procedures, ambulatory areas, and the use of standard cleaning materials received the highest grades (8/10). The ancillary spaces and restrooms had a somewhat lower grade (6/10), suggesting a moderate need for improvement in terms of cleanliness.

DISCUSSION

Mundargi Sub District Hospital Sanitation and Hygiene score

In the current study Mundargi Sub District Hospital Sanitation and Hygiene scores 63/100 (63%) As per the previous study on Assessment of Swacchta Guidelines Implementation at Government District Teaching Hospital, Madikeri by Mallappa SB, Somaiah PT. reports that Sanitation and hygiene score was 53/100 (53%) in Sanitation and Hygiene section (13).

Shirahatti Sub District Hospital Sanitation and Hygiene score

In the current study Shirahatti Sub District Hospital Sanitation and Hygiene scores 67/100 (67%) As similar study on to assess the clean hospital initiative by Mayadhar Panda, Sikata Nanda report reveals that in 2016-17 58/100(58%) and in 2017-18 81/100 (81%) in Sanitation and hygiene section (14).

Ron Sub District Hospital Sanitation and Hygiene Score

In the current study Ron Sub district hospital Sanitation and Hygiene obtains 70/100 (70%) A similar study conducted by Singh et.al to assess the Kayakalp Yojna in Public Health in 4 districts of Himachal Pradesh report reveals that 71/100(71%), 71/100(71%), 97/100(97%), 90/100(90%) in sanitation and Hygiene section (15).

Nargund Sub District Hospital Sanitation and Hygiene score

In the current study Nargund Sub district Hospital Sanitation and Hygiene obtains 65/100 (65%) A similar study conducted by Singh et.al in tertiary care institute to Evaluate Sanitation and hygiene in healthcare facility report reveals that 58/150 (38%) Implemented the guidelines in Sanitation and Hygiene section.

CONCLUSION

The results from the various sub-district hospitals highlight disparities in the implementation of sanitation and hygiene guidelines. While some hospitals show strong adherence to cleanliness protocols in critical areas, others require significant improvements, particularly in the cleanliness of auxiliary areas, toilets, and the monitoring of cleanliness activities. These findings emphasize the need for continuous monitoring and targeted interventions to ensure comprehensive hygiene and sanitation in healthcare facilities, thereby improving patient safety and care outcomes.

Acknowledgement

I would like to acknowledge my Parents and Dr.Mahesh M and My Teacher R.P Prahlad for their valuable support and guidance.

References

1. Debbarma B, L. J, Christina S, Goutam S, Akoijam BS. Awareness on Kayakalp among health care workers in a tertiary care hospital, Imphal. Int J Community Med Public Health. 2021 Jan 27;8(2):634.
2. Kayakalp Guidelines 2021 (with eco-friendly). available from https://qps.nhsrcindia.org/kayakalp-swachh-swasth-sarvatra/quality-GKSSS.
3. Tiwari DA, Tiwari A. Kayakalp: Impact of Swachh Bharat Abhiyan on cleanliness, infection control & hygiene promotion practices in District Hospitals of Chhattisgarh, India. IOSR J Environ Sci Toxicol Food Technol. 2016 Sep;10(09):55–8.
4. Mehta P, Chavda BA. Compliance of Kayakalp - Quality Standards. *Unnati* Business Journal. 2018;6(1):21.
5. Rattan, Saurabh & Gupta, Anmol & Sharma, Gopal. (2019). 'Kayakalp' peer assessment of phc's-infection

control and hygiene promotion at first point of contact for care. 10. 34207-209. 10.24327/ijrsr.2019.1008.3845.

6. Implementation Guidebook for Kayakalp. available from https://qps.nhsrcindia.org/kayakalp-swachh-swasth-sarvatra/quality-GKSSS.
7. Patwardhan V, Kotwani P, Saxena D. Assessment of infection control practices: A cross-sectional study from public health facilities of Madhya Pradesh. Indian J Community Med 2019;44:399-400.
8. Water Sanitation and Hygiene guidelines Available from: https://www.who.int/publications/i/item/9789241515511.
9. Ganesan MB, Shukla A, Galhotra A, Agrawal S. Situational Analysis of Water, Sanitation, and Hygiene in Health-care Facilities of a District in Central India. Int J Appl Basic Med Res. 2023;13(4):204–11.
10. Trivedi P, Bhavsar P, Kalpana P, Patel K, Das T, Yasobant S, et al. Dissecting WASH Assessment Tools and Recommending a Comprehensive Tool for Indian Healthcare Facilities. Risk Manag Healthc Policy. 2023 Aug;Volume 16:1593–610.
11. Odjegba EE, Bankole AO, Layi-Adigun BO, Dada VO. Water, sanitation, and hygiene in healthcare centres: appraisal in a pandemic. J Water Sanit Hyg Dev. 2021 Nov 1;11(6):926–36.
12. Subramaniam S, Selvavinayagam TS. Supportive supervision as an effective intervention in improving water, sanitation and hygiene facilities in government health facilities of Tamil Nadu. Int J Community Med Public Health. 2018 Feb 24;5(3):1082.
13. Mallappa SB, Somaiah PT. Assessment of Swacchta Guidelines Implementation at Government District Teaching Hospital, Madikeri, Kodagu District, Karnataka State using KAYAKALP Assessment Tool. 2016;7(11).
14. Panda M, Nanda S. A study to assess the clean hospital initiative and quality of health services using kayakalp tool in a first referral unit, of Khordha district of Odisha, India. Int J Community Med Public Health. 2018 Nov 24;5(12):5397.
15. Ganju S, Gupta A, Ganju S, Gautam N. Assessment of Kayakalp yojna in public health-care facilities in Himachal Pradesh. Med J Dr Patil Vidyapeeth. 2022;15(3):372.
16. Singh R, Rattan S, Chauhan N, . P, Dhadwal DS. Evaluation of a tertiary care institute as per Kayakalp Programme guideline in the Sub Himalayan region: a descriptive study. Int J Community Med Public Health. 2021 Sep 27;8(10):5036.

How to cite this article:

Manjegowda H. P and Gulappa Devagappanavar.(2024). Assessment of level of Implementation of Sanitation and Hygiene Guidelines in Sub District Hospitals in Gadag District by using Kayakalp Assessment Tool. *Int J Recent Sci Res*.15(09), pp.4947-4951.

****