
Analysis of Sanitation Facilities and Infrastructure Management in Supporting Service Quality at Toto Kabila Regional General Hospital

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Abstract

Hospital sanitation facilities and infrastructure management plays an important role in supporting service quality and preventing disease transmission. However, challenges remain, particularly in supervision and visitor compliance with cleanliness regulations. Purpose: This study aimed to describe and analyze the management of sanitation facilities and infrastructure in supporting service quality at Toto Kabila Regional General Hospital. This study employed a descriptive qualitative design. The research subjects were sanitation officers and cleaning service supervisors selected using purposive sampling. Data were collected through in-depth interviews, observation, and documentation, and analyzed through data reduction, data presentation, and conclusion drawing. The results showed that sanitation management was implemented through coordinated planning, implementation, supervision, and evaluation. Daily monitoring was conducted using cleanliness checklists for each room. Cleaning equipment and Personal Protective Equipment (PPE) were adequately available to support sanitation activities. The implementation of sanitation standards based on the Regulation of the Minister of Health Number 7 of 2019 supported cleanliness, comfort, and safety in the hospital environment. However, visitor and patient-family compliance with cleanliness regulations remained a challenge. The management of sanitation facilities and infrastructure has supported hospital service quality. Strengthening supervision, periodic evaluation, and visitor education is needed to maintain environmental health and service quality.

Keywords: Hospital, Hospital Sanitation, Facilities and Infrastructure, Service Quality, Environmental Health

I. INTRODUCTION

Hospitals are health service facilities that have an important role in improving the health status of the community through promotive, preventive, curative, and rehabilitative services (Fikri & Winarto, 2026). In addition to serving as health service facilities, hospitals are also environments with a high risk of disease transmission due to exposure to microorganisms, medical waste, and high levels of human activity within them. Therefore, the management of hospital sanitation facilities and infrastructure is one of the most important aspects in maintaining the quality of health services as well as the safety of patients and health workers (Lestari et al., 2024).

Can Workload and Competency Affect Performance? (Case Study of Yonzikon 13/Karya Etmaka Soldier)

Hospital environmental health refers to a hospital environment capable of supporting the provision of safe, comfortable, clean, and healthy health services for all service users. Based on Regulation of the Minister of Health of the Republic of Indonesia Number 7 of 2019 concerning Hospital Environmental Health, every hospital is required to meet sanitation standards covering waste management, provision of clean water, vector control, air quality, lighting, ventilation, and cleanliness of hospital facilities and infrastructure (Jumadewi, 2021). Suboptimal sanitation management can increase the risk of nosocomial infections, reduce patient comfort, and affect the overall quality of health services (Widasmara et al., 2025).

The quality of hospital services is an important indicator for assessing the success of health services provided to the community (Novitasari, 2024a). According to the World Health Organization (WHO), health service quality is the level of health services capable of improving health outcomes in accordance with professional standards and patient needs. Improving service quality is influenced not only by the competence of health workers, but also by the availability of adequate, clean, safe, and well-maintained facilities and infrastructure (Novitasari, 2024b). Hospitals that are able to maintain the quality of their environmental sanitation will find it easier to provide quality services and improve patient satisfaction (Laila & Paramarta, 2024).

Toto Kabila Regional General Hospital, as one of the health service facilities in Bone Bolango Regency, has a responsibility to maintain the quality of hospital environmental sanitation in accordance with applicable standards. Based on initial observations, sanitation management at Toto Kabila Regional General Hospital has been implemented through routine cleaning activities, supervision by sanitation officers, and the use of standard operating procedures (SOPs) for cleaning. Nevertheless, several obstacles were still found, such as visitor behavior that was less disciplined in maintaining hospital environmental cleanliness and the need to strengthen sanitation supervision continuously. These conditions indicate that the management of sanitation facilities and infrastructure still requires evaluation to optimally support improvements in hospital service quality.

Good management of sanitation facilities and infrastructure is expected to create a clean, safe, and comfortable hospital environment for patients and health workers. In addition, the implementation of sanitation systems in accordance with standards is also an important part of supporting patient safety programs and the continuous improvement of health service quality. Therefore, an analysis of the management of sanitation facilities and infrastructure in supporting hospital service quality is needed to determine the extent to which hospital environmental sanitation has been implemented in accordance with applicable provisions. Based on the foregoing, this study aimed to analyze the management of sanitation facilities and infrastructure in supporting service quality at Toto Kabila Regional General Hospital.

II. LITERATURE REVIEW

Previous studies have shown that hospital environmental sanitation has a close relationship with the quality of health services (Aprilia et al., 2025). Solehudin and Sihura stated that the implementation of hospital accreditation standards, including environmental

sanitation management, has an effect on improving service quality and patient safety (Solehudin & Sihura, 2023). Another study conducted by Tiana et al. found that the completeness of health facilities and infrastructure was significantly associated with improvements in the quality of health services in health service facilities (Tiana et al., 2024). In addition, Aludin et al. explained that medical waste management that does not comply with standards can reduce the quality of the hospital environment and increase the risk of health problems for patients and health workers (Wua et al., 2021).

Hospital sanitation quality is influenced not only by the availability of cleaning facilities, but also by the supervision system, maintenance, and compliance of all service users with environmental cleanliness regulations. Factors such as medical waste management, cleanliness of patient care rooms, air quality, ventilation, lighting, and visitor behavior are important components in supporting a healthy hospital environment (Ashari & Hairuddin, 2025). A hospital environment that is not properly maintained can become a source of disease transmission and reduce the level of patient comfort during treatment.

III. RESEARCH METHODOLOGY

This study used a descriptive research design with a qualitative approach. A qualitative approach was selected because this study aimed to provide an in-depth description of the management of sanitation facilities and infrastructure in supporting service quality at Toto Kabila Regional General Hospital. The study obtained information directly from relevant informants regarding sanitation conditions, the environmental cleanliness management system, and the implementation of sanitation supervision within the hospital environment.

The study was conducted at Toto Kabila Regional General Hospital, Bone Bolango Regency. The study was conducted in October 2025. The population in this study consisted of all personnel involved in sanitation management and environmental cleanliness at Toto Kabila Regional General Hospital. The research sample consisted of sanitation officers and cleaning service supervisors who were considered to understand the process of managing hospital sanitation facilities and infrastructure. The sampling technique used purposive sampling, namely the deliberate selection of informants based on the consideration that the informants possessed knowledge and experience related to the research object.

The variables in this study included the management of hospital sanitation facilities and infrastructure and the quality of health services. The sanitation management examined included planning, implementation, supervision, maintenance, and evaluation of hospital environmental cleanliness. Meanwhile, service quality was assessed from the aspects of cleanliness, comfort, environmental safety, and the support provided by sanitation management to health services in the hospital.

Data collection techniques were conducted through in-depth interviews, observation, and documentation. Interviews were conducted with sanitation officers and cleaning service supervisors using a structured interview guide to obtain information regarding the hospital sanitation management system. Observations were conducted directly on the condition of hospital environmental cleanliness, the availability of cleaning facilities, the use of personal

Can Workload and Competency Affect Performance? (Case Study of Yonzikon 13/Karya Etmaka Soldier)

protective equipment (PPE), and the implementation of sanitation standard operating procedures (SOPs). Documentation was conducted by reviewing supporting documents such as cleanliness checklists, sanitation supervision reports, and standard operating procedures used at Toto Kabila Regional General Hospital.

The data obtained were analyzed descriptively and qualitatively through the stages of data reduction, data presentation, and conclusion drawing. Data reduction was conducted by selecting and simplifying data from interviews, observations, and documentation according to the research focus. The data were then presented in narrative form to facilitate interpretation of the research findings. The final stage involved drawing conclusions based on the results of data analysis concerning the management of sanitation facilities and infrastructure in supporting service quality at Toto Kabila Regional General Hospital.

IV. RESEARCH RESULTS AND DISCUSSION

Results

This study was conducted at Toto Kabila Regional General Hospital, Bone Bolango Regency, with the aim of analyzing the management of sanitation facilities and infrastructure in supporting hospital service quality. Research data were obtained through in-depth interviews, direct observations, and documentation involving sanitation officers and cleaning service supervisors engaged in managing hospital environmental cleanliness. Based on interviews with informants, it was found that the management of sanitation facilities and infrastructure at Toto Kabila Regional General Hospital had been implemented in a structured manner through the stages of planning, implementation, supervision, and evaluation of environmental cleanliness. Each cleaning service staff member performed duties in accordance with the Standard Operating Procedures (SOPs) established by the hospital. Cleaning activities were carried out daily throughout all service areas, including inpatient rooms, administrative rooms, corridors, and the surrounding hospital environment.

The results showed that the supervision and evaluation of cleanliness were conducted routinely by sanitation officers and cleaning service supervisors. Supervision was carried out daily to ensure that all hospital areas were clean and complied with hospital environmental health standards. In addition to routine supervision, the hospital also conducted training for cleaning staff every three months to improve staff knowledge and skills in implementing proper sanitation procedures. Based on interviews with informants, the cleanliness evaluation system used cleanliness checklist forms in each room. The checklists were used to monitor room cleanliness periodically and served as a basis for follow-up when discrepancies with applicable cleanliness standards were identified. Sanitation officers reported the monitoring results to the cleaning service supervisor so that corrective action could be taken immediately when cleanliness problems were found in the field.

Observation results showed that supporting sanitation facilities at Toto Kabila Regional General Hospital were sufficiently available. The hospital provided cleaning equipment such as mops, cleaning fluids, waste bins, and Personal Protective Equipment (PPE) for cleaning service

staff. The availability of these facilities supported the effectiveness of sanitation activities and assisted staff in maintaining the cleanliness of the hospital environment optimally.

Based on interviews, the procurement of cleaning equipment and PPE was carried out through cooperation with a third party as the supplier of cleaning equipment. This procurement system was considered effective because it was able to ensure the continuous availability of cleaning equipment and materials according to the hospital's needs. Informants explained that all cleaning service staff received work equipment appropriate to the type of task and the needs of each room. Observations also showed that the overall cleanliness of the hospital environment was in good condition. Inpatient rooms, administrative rooms, and the surrounding hospital environment appeared clean and orderly. Cleaning staff routinely cleaned floors, patient beds, ventilation systems, and areas that had the potential to become sources of disease transmission. In addition, ventilation and air circulation in each room were also considered to maintain good air quality and comply with hospital environmental health standards.

Based on interviews with the cleaning service supervisor, cleaning activities focused on areas with a high risk of disease transmission, particularly patient beds and treatment rooms. The cleanliness of patient beds was a primary concern because these facilities were used alternately by patients. Cleaning staff used cleaning fluids that were safe and did not adversely affect the health of patients or health workers so that the comfort of the hospital environment could be maintained. Although sanitation management had been implemented quite well, this study also identified several obstacles in maintaining hospital environmental cleanliness. The main obstacle originated from the behavior of visitors and patients' families who were still less disciplined in maintaining hospital environmental cleanliness, such as disposing of waste improperly and not complying with established cleanliness regulations. In addition, some cleaning service staff experienced communication difficulties with visitors who were sometimes less cooperative with cleaning personnel.

Based on interviews and observations, the implementation of good sanitation management had a positive impact on hospital service quality. A clean, safe, and comfortable hospital environment was considered capable of increasing patient comfort during treatment and supporting the safety of patients and health workers. Environmental cleanliness also helped prevent the risk of disease transmission and improved the overall quality of health services. Overall, the results showed that the management of sanitation facilities and infrastructure at Toto Kabila Regional General Hospital had been implemented quite well in accordance with the provisions of Regulation of the Minister of Health of the Republic of Indonesia Number 7 of 2019 concerning Hospital Environmental Health. Nevertheless, stronger supervision, periodic evaluation, and increased education for visitors are still required to maintain the sustainability of hospital service quality and environmental health.

Discussion

This study was conducted at Toto Kabila Regional General Hospital, Bone Bolango Regency, with the aim of analyzing the management of sanitation facilities and infrastructure

Can Workload and Competency Affect Performance? (Case Study of Yonzikon 13/Karya Etmaka Soldier)

in supporting hospital service quality. Research data were obtained through in-depth interviews, direct observations, and documentation involving sanitation officers and cleaning service supervisors engaged in managing hospital environmental cleanliness. Based on interviews with informants, it was found that the management of sanitation facilities and infrastructure at Toto Kabila Regional General Hospital had been implemented in a structured manner through the stages of planning, implementation, supervision, and evaluation of environmental cleanliness. Each cleaning service staff member performed duties in accordance with the Standard Operating Procedures (SOPs) established by the hospital. Cleaning activities were carried out daily throughout all service areas, including inpatient rooms, administrative rooms, corridors, and the surrounding hospital environment.

The results showed that the supervision and evaluation of cleanliness were conducted routinely by sanitation officers and cleaning service supervisors. Supervision was carried out daily to ensure that all hospital areas were clean and complied with hospital environmental health standards. In addition to routine supervision, the hospital also conducted training for cleaning staff every three months to improve staff knowledge and skills in implementing proper sanitation procedures. These findings are consistent with the theory of hospital sanitation management, which states that periodic supervision and evaluation are important components in maintaining the quality of the hospital environment. According to Regulation of the Minister of Health of the Republic of Indonesia Number 7 of 2019 concerning Hospital Environmental Health, sanitation supervision needs to be conducted continuously to ensure that all hospital facilities meet environmental cleanliness, safety, and health standards (Susilawati et al., 2025). Routine supervision can help prevent nosocomial infections and improve the quality of health services (Phalosa et al., 2025). The results of this study are also consistent with the study by Priyono and Adiprasetyo, which stated that improving hospital service quality needs to be achieved through physical facility maintenance, sanitation supervision, and periodic internal audits (Priyono & Adiprasetyo, 2025). The implementation of routine training for cleaning staff at Toto Kabila Regional General Hospital demonstrates an effort to improve human resource competencies as part of hospital service quality management.

Based on interviews with informants, the cleanliness evaluation system used cleanliness checklist forms in each room. The checklists were used to monitor room cleanliness periodically and served as a basis for follow-up when discrepancies with applicable cleanliness standards were identified. Sanitation officers reported the monitoring results to the cleaning service supervisor so that corrective action could be taken immediately when cleanliness problems were found in the field. The use of cleanliness checklists as an evaluation tool indicates that sanitation management at Toto Kabila Regional General Hospital has implemented a structured supervision system. This is consistent with the concept of health service quality management, which emphasizes the importance of documentation and evaluation as part of continuous quality improvement. According to Lestari et al., effective hospital quality management can help hospitals identify sanitation problems and carry out improvements quickly and appropriately (Lestari et al., 2025). Observation results showed that

supporting sanitation facilities at Toto Kabila Regional General Hospital were sufficiently available. The hospital provided cleaning equipment such as mops, cleaning fluids, waste bins, and Personal Protective Equipment (PPE) for cleaning service staff. The availability of these facilities supported the effectiveness of sanitation activities and assisted staff in maintaining the cleanliness of the hospital environment optimally.

Based on interviews, the procurement of cleaning equipment and PPE was carried out through cooperation with a third party as the supplier of cleaning equipment. This procurement system was considered effective because it was able to ensure the continuous availability of cleaning equipment and materials according to the hospital's needs. Informants explained that all cleaning service staff received work equipment appropriate to the type of task and the needs of each room. These findings are consistent with the study by Tiana et al., which stated that the completeness of health facilities and infrastructure has a significant relationship with improvements in the quality of health services. Adequate facilities and infrastructure can improve the effectiveness of health workers' performance and create comfort for patients during the provision of health services in hospitals (Tiana et al., 2024). Observations also showed that the overall cleanliness of the hospital environment was in good condition. Inpatient rooms, administrative rooms, and the surrounding hospital environment appeared clean and orderly. Cleaning staff routinely cleaned floors, patient beds, ventilation systems, and areas that had the potential to become sources of disease transmission. In addition, ventilation and air circulation in each room were also considered to maintain good air quality and comply with hospital environmental health standards.

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These findings indicate that the success of hospital sanitation management is influenced not only by sanitation officers and hospital management, but also by the behavior of visitors and patients' families. This is consistent with the study by Bahtiar et al., which stated

Can Workload and Competency Affect Performance? (Case Study of Yonzikon 13/Karya Etmaka Soldier)

that community behavior is one of the factors affecting the success of hospital environmental sanitation (Bahtiar et al., 2025). Therefore, more intensive education and supervision of visitors are needed so that hospital environmental cleanliness can be maintained optimally.

Based on interviews and observations, the implementation of good sanitation management had a positive impact on hospital service quality. A clean, safe, and comfortable hospital environment was considered capable of increasing patient comfort during treatment and supporting the safety of patients and health workers. Environmental cleanliness also helped prevent the risk of disease transmission and improved the overall quality of health services. The results of this study are consistent with the study by Solehudin and Sihura, which stated that the implementation of hospital sanitation standards and accreditation has an influence on improving service quality and patient safety (Solehudin & Sihura, 2023). Hospitals that are able to maintain the quality of their environmental sanitation will find it easier to improve patient satisfaction and maintain health service quality sustainably. Overall, the results showed that the management of sanitation facilities and infrastructure at Toto Kabila Regional General Hospital had been implemented quite well in accordance with the provisions of Regulation of the Minister of Health of the Republic of Indonesia Number 7 of 2019 concerning Hospital Environmental Health. Nevertheless, stronger supervision, periodic evaluation, and increased education for visitors are still required to maintain the sustainability of hospital service quality and environmental health.

V. CONCLUSIONS AND RECOMMENDATIONS

Conclusion

This study concludes that the management of sanitation facilities and infrastructure at Toto Kabila Regional General Hospital has been implemented quite well through the stages of planning, implementation, supervision, and evaluation carried out in a coordinated manner among sanitation officers, cleaning service staff, and cleaning supervisors. Routine sanitation activities, supported by the availability of cleaning facilities, the use of Personal Protective Equipment (PPE), and the implementation of Standard Operating Procedures (SOPs), have supported the creation of a clean, safe, and comfortable hospital environment for patients and health workers.

This study also shows that the implementation of sanitation management in accordance with Regulation of the Minister of Health of the Republic of Indonesia Number 7 of 2019 concerning Hospital Environmental Health has had a positive impact on improving hospital service quality, particularly in maintaining environmental cleanliness, patient comfort, and efforts to prevent the risk of disease transmission within the hospital environment. In addition, routine supervision and periodic training for cleaning staff are supporting factors in maintaining hospital sanitation quality sustainably.

Nevertheless, several obstacles remain in the implementation of hospital environmental sanitation, particularly those related to the behavior of visitors and patients' families who have not fully complied with hospital cleanliness regulations. Therefore, stronger supervision, periodic evaluation, and increased education for all hospital service users are

needed so that the management of sanitation facilities and infrastructure can operate more optimally and the quality of health services at Toto Kabila Regional General Hospital can continue to improve.

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Can Workload and Competency Affect Performance? (Case Study of Yonzikon 13/Karya Etmaka Soldier)

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