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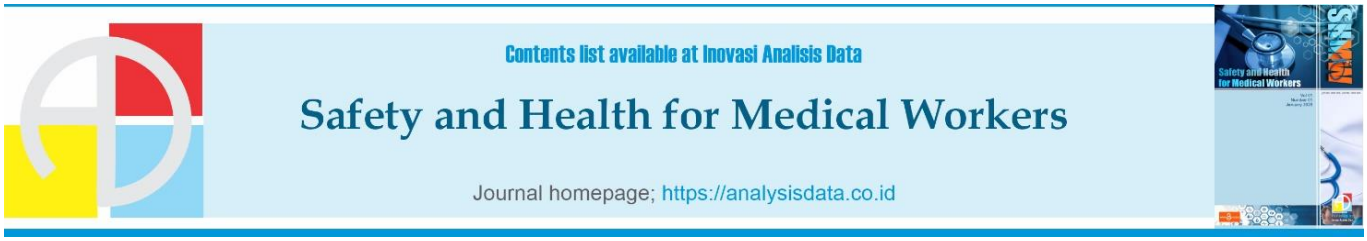

Assessment of Occupational Health and Safety Management System Implementation in General Hospital

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ABSTRACT

Objective: This study aims to assess the application of Occupational Health and Safety Management System (OHSMS) in Kertosono Regional General Hospital by identifying the obstacles and strategies that exist, as well as successful system implementation for health sector.
Methods: This study utilized a mixed-methods design to assess OHSMS effectiveness and employee perceptions before and after implementation.
Findings: Results show a statistically significant decrease in incidents at work after implementation of an OHSMS, which confirms that the global safety performance of this plant is affected by the OHSMS. By contrast, though inadequate instruction, lack of continuous leadership dedication and investment were some major obstacles to successful operation of OHSMS.
Novelty: The findings from this study suggest the importance of structured safety management systems designed for public healthcare workers, and provide practical suggestions to bolster the effectiveness of OHSMS in Indonesia.
Research Implications: The results also emphasize the importance of ongoing education and training, strong leadership support, as well as providing sufficient resources to promote a culture of safety in healthcare settings. Future research might instead seek upper bounds benefit of an OHSMS for safety or examine how technology can be integrated to provide monitoring, training function on a continuous basis.

1. Introduction

Occupational health and safety(OHS) practices are increasingly being recognised as important global issues because of their direct impact on the welfare of workers across the world. The International Labour Organization (ILO) has estimated that annually 2.78 million workers die from accidents and work-related diseases worldwide (Takala 2019). These figures sound an alarm for the strict enforcement of Occupational Health and Safety Management Systems (OHSMS) in various industry verticals with prime attention to healthcare where workers are frequently put under high risk of exposure to infectious diseases, harmful chemicals or workplace related risks (Radandt, Rantanen, and Renn 2008). Within the national context, OSH is even more crucial especially with the increasing cases of occupational diseases and accidents in hospital (Che Huei et al. 2020a, 2020b; Lucchini and London 2014). One example is the Kertosono Regional General Hospital where work-related accidents have reportedly occurred, such as needle-stick injuries and the transmission of diseases like tuberculosis and hepatitis B. As healthcare institutions aim to provide the best

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possible services, rigorous OHSMS implementation becomes essential for both the safety of the patients as well as protection for workers (Uhrenholdt Madsen et al. 2020).

One of them is Ocupational Health and Safety (OHS) Especially in the overall implementation of Ocupational Health and Safety Management Systems (OHSMS) especially at health services such as Kertosono District General Hospital. As a referral hospital charged with the responsibility to deliver better quality of health services, it has experienced continuing poor occupational risk exposures like accidents in its workplace and spread of diseases among its staff (Mbau et al. 2020). In the hospital at Kertosono, needle-stick injuries were responsible for almost half of all workplace incidents in 2015; other common incidents included chemical contamination, cuts from sharp objects and burns (Bazie 2020; Sabaa et al. 2022). Furthermore, occupational disease is suffered, albeit at a lower rate; where cases of respiratory infections, heart diseases and tuberculosis and hepatitis B are prominent suggesting that there are still deficiencies in the way safety measures have not been fully implemented or enforced in the hospital OHSMS (Adei, Braimah, and Mensah 2019; Guidotti and Ivanov 2021). We heard from interviews with hospital staff that in fact there is no separate division of OSH, and matters are currently dealt with on an as needed basis by the MFK team Jeschke et al. (2021),Strid et al. (2021), making life for them even more challenging. Given the circumstances of relocating and instituting major changes at a hospital, there is an identified need for a comprehensive OHSMS to manage potential future workplace hazards and the overall improvement of safety (da Silva and Amaral 2019; Yanar et al. 2020).

Occupational Health and Safety Management System (OHSMS) may be implemented agreement with any of the theory that accidents can be prevented and all hazards in work environment can carry with risk rating, also eliminating hazard by training and monitoring. Theory proposed Baldissone et al. (2019), Winge, Albrechtsen (2019), a sequence of events from unsafe conditions or behaviors through injury usually leads to workplace accidents. The next event points are addressed by a more synoptic approach to most of them and this should lead to noticeably less accidents. Moreover, the Swiss Cheese Model in Reasonian philosophy elaborated how a series of defenses portrayed as slices of Swiss cheese are pierced every once in a while even if human beings and equipment are miraculously working according to Hoyle (Bialystok 2021). These theories are necessary to operationalize a complete OHSMS strategy that focuses on individual behaviors, as well as the alignment of health and safety across systems, which is especially important in high-risk environments such as healthcare (Uhrenholdt Madsen et al. 2020).

The importance of improvement Occupational Health and Safety Management System (OHSMS) in hospitals, especially Indonesia has been realized due to the continued workplace hazards (Dewi and Wardani 2022). Indeed, research shows that successful OHSMS implementation results in improved workplace safety and health but this depends on many factors (Masi et al. 2019; Vitrano et al. 2023). For instance, among others, Hongoro (2019), a significant reduction in occupational accidents including needle-stick injuries and respiratory infections among hospitals having well-organized OHSMS systems. Nevertheless, at odds with the results Frick (2011), Robson et al. (2007), argues that the presence of OHSMS alone does not mean safety advances. In hospitals with poor enforcement of the system and inadequate staff training, high injury rates remained, demonstrating that monitoring and engagement of the staff was required (Farokhzadian, Dehghan Nayeri, and Borhani 2018). Neri et al. (2018), Trianni, Cagno, and Neri (2017), point out that leadership commitment and resource allocation are the keys of implementation success of an OHSMS. Hospitals with active management support had a decrease in accidents, whereas those with weak safety prioritization led to fragmented OHSMS implementation leading to worse outcomes.

The current scope of this study is confined to Kertosono Regional General Hospital where implementation of OHSMS encountered some delays due to organizational restructuring. The objective was to report the barriers and potential intervention strategies for successful system rollout by exposing one of the critical oil mining industry on practices with experience in rolling out an OHSMS designed to support public healthcare reform and economic growth remains scarce. The findings can be a model to enhance other regional hospital OHSMS in Indonesia.

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2. Critical Riview

2.1Theoretical Framework

Occupational Health and Safety Management Systems (OHSMS) are designed to handle workplace hazards, reduce risks and provide a safe work environment. The conceptual structure of OHSMS mainly brings its root to risk management theory and its objective is to reveal, evaluate and manage work place risks (Rosenberg & Tomson, 2018). Basic principles of this theory emphasize that a risk will not materialize into an accident or illness unless the risk is both identified and there are controls in place which should prevent the apparent risks below. According to systems theory, an organization is a web-like system of processes, and safety management is intertwined with these processes. An OHSMS that is fully effective will be seamlessly integrated with other organizational functions so that safety is a part of everybody's work, everything done every day (Griffin & Neal, 2019). Moreover, behavioral safety theory maintains that the improvement in worker attitudes behavior and competencies can reduce workplace accidents and occupational diseases effectiveness (Zohar 2021)

2.2OHSMS Implementation in Healthcare

The application of OHSMS to healthcare setting, especially hospitals, is usually more difficult compared to other industries in that the nature of tasks inherent in this unique work environment. For example, in studies by Niu et al. This was demonstrated in particular by Huth et al. (2020), concerning on measures and systematic safety strategies regarding the occurrence of needle-stick injuries, chemical exposure or other work-related hazards. Two of these studies revealed that hospitals with well-implemented, comprehensive OHSMS frameworks those covering training for staff members, hazard auditing and risk reduction strategies in the workplaceexperienced substantial increases in occupational health and safety. In contrast, Zhang et al. conducted a study that compared the impact of long-term OA risk factors and occurrence on hypertension with ischemic stroke. According to a study of the surveillance plan in Health care ($ 2021), they found health and job non-compliances led to sensory level above the Laws, OHSMS without satisfactory implementation with consequence greater number of occupational illnesses and work accidents due to poor establishment of enforcement and monitoring processes by some hospitals. Home Hospitals remain heterogeneous in their approaches because OHSMS implementation is challenged by resource constraints, poor orientation and support system inside management.

2.3Occupational Health and Safety (OHS) Policies

In the definition of OHS, we were able to identify that OHS policies are essentially a more formal version and dynamic guide; detailing staff procedures in carrying out safety processes, designed to minimize chances for any dangers. Most of these policies discuss the mezcal process and the new safety features they must follow in order to guide them safe through hazardous materials, emergency situations or even their required PPE. It has earlier been noted that hospitals with a written and accessible OHS policy significantly reduce incidents of occupational injury and diseases by up to 50% (Widodo et al., 2021). A study by Huang et al. (2022) agreed to this identification and advocated regular policy implementation along with hospital OHS policies updating, put a significant effect in decreasing the risk of exposure to dangerous situations such as needle-stick injuries and chemical spills.

2.4Staff Training and Awareness

As I mentioned in my previous blog post, training is central to the success of any OHSMS. Getting the Hazards and Risks of Workplaces at Bay: Do Keep HealthCare Workers Safe It is very important for health care workers to have knowledge of safety procedures, what hazards may be present and what steps need to be taken in case of an emergency. Given below are some suggested preventative strategies which will help you make your health care practice as safe as possible. Hospitals that held regular, continuous staff training programs displayed lower accident rates and better compliance with safety regulations (Rahman & Mustofa, 2020). Moreover, the continuous education and training on the role of OHSMS promote a safety climate within an organization (Liu & Feng 2021). In contrast, less training focused hospitals will have more accidents related to being not enough conscious and lacked response capabilities of potential risks (Zhang et al.

2.5Monitoring and Evaluation

Key facts for OHSMSRelevant Care Monitoring and evaluation processes established with OHSMS now require functional verification to ensure that the

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policy is being implemented. Such mechanisms frequently entail the systematic examination of safety with regularly scheduled safety audits, inspections and reporting of incidents in order to monitor performance. Research by Smith et al. This study done by Dukpa et al. (2021) found that hospitals with good surveillance systems can detect deficiency in safety measures and address it timely. On the other hand, if there are no regular evaluations, over time safety standards will be reduced and therefore it is expected that the rate of occupational diseases and workplace accidents rises (Chen & Wang, 2020).

2.6Leadership Commitment

The sooner EHS leaders get engaged in the implementation process, the better will be the accomplishment of OHSMS. The best managers will work to create an environment of safety and put resources in place behind their safety-related projects. This has also confirmed the findings of studies such as Novianty (2020) and Zulkifli et al. According to (2022) : Hospitals that have top management commitment to health and safety have a significantly lower occupational injury rate. Masalah rendahnya penegakan aturan dan tingginya persoalan Occupational Health juga sering terjadi ketika sistem Keselamatan tersebut dilakukan secara parsial, fragmantatif (Hutagalung dkk, 2020) sehingga memang dibuta-butaan oleh Kepemimpinan.

H1: Implementation of comprehensive OHS policies has a significant positive impact on reducing workplace accidents in hospitals.
H2: Regular and continuous staff training has a significant positive effect on improving OHS compliance and reducing occupational diseases.
H3: Monitoring and evaluation mechanisms significantly reduce the occurrence of workplace hazards and accidents.
H4: Leadership commitment is significantly associated with the successful implementation and sustainability of OHSMS in hospitals.
H5: Comprehensive OHSMS implementation leads to a reduction in both workplace accidents and occupational diseases in hospitals.

3. Method Innovation

3.1Research Design

This study utilizes a mixed-method approach, combining quantitative and qualitative methodologies to assess the implementation of the Occupational Health and Safety Management System (OHSMS) at RSUD Kertosono. The quantitative aspect focuses on data collected through surveys from hospital staff, while the qualitative part involves in-depth interviews with key personnel to provide a comprehensive understanding of OHSMS practices (Fan et al. 2020).

3.2Sampling Technique

The sampling strategy used in this study is purposive sampling – selecting predefined characteristics required for the research. We selected participants based on the criterion of employment tenure, where only those been working a minimum of five years at RSUD Kertosono were included. To point, this also allowed the participants to have enough familiarity with the hospital's safety protocols and processes. The total number of quantitative sample was 300, and it was distributed across different departments; medical staff, nursing staff, administrative staff and technical staff. Semi-structured in-depth interviews with three key informants from within the hospital: the Hospital Director, the Chairman of the Medical Facilities Committee (MFK), and the Head of Administration were used to gather additional qualitative data..

3.3Data Collection Instruments

A safety attitude questionnaire consisted, a structured survey was circulated to the study group, and the same were explained. The purpose-built questionnaire assessed safety policy awareness, perception of safety system effectiveness, and work-related injury occurrences (see Table 1). The questions were a mix of closed-ended and Likert-scale, as these types could best express the opinions shared by the participants. Key informant interviews were conducted in a semi-structured interview format to ensure both consistency and flexibility in questioning. The interviews were intended to investigate difficulties with OHSMS implementation, thematically organized around the emerging sub-themes of leadership commitment to safety at work and areas where there was perceived need for improvement (Claxton, Hosie, and Sharma 2022; Robson et al. 2016). Interviews were recorded and then transposed for thematic analysis.

3.4. Data Analysis

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The analysis included analyses of the quantitative and qualitative data from both a questionnaire that was developed and interviews conducted with hospital staff. Quantitative data: analysed using descriptive statistics and inferential analysis As well: processed by SPSS software. We used a series of statistical tests, such as correlation analysis and regression analysis, to assess those relationships with variables such as staff training, hazard identification, and the rate of workplace accidents. This quantitative method gave a narrative on how different factors interact through the prism of the Occupational Health and Safety Management System (Carayon et al. 2015). Simultaneously, in-depth interviews were transcribed and analyzed with a hermeneutic (qualitative) ethos to discern the lived experience of hospital staff with respect to an OHSMS (Holzer, Leic, and Germany 2023). Using thematic analysis, themes related to leadership, system implementation challenges, and the extent of safety procedures effectiveness were revealed (Biggs et al. 2013). The qualitative results support this quantitative analysis, providing richer data about where OHSMS was successful and where it struggled (Hamja, Hasle, and Hansen 2022).

The sample of the study consisted of 300 respondents among all medical doctors, general nurses, operational officers and administrative officers, technician staff, and keys management staff at RSUD Kertosono. The sample size was expanded so that perspectives of the OHSMS implementation in different departments could be obtained, and therefore it was considered purposeful for this research. Table 1 outlines the distribution in the sample intended to address key components of hospital operations, within which participants were selectively chosen on criteria that specify essential domains first before employing only those with experience and, most importantly, serving more than five years. Data were collected from December 2019 up to 2024, which provides unique detail of the long-term follow-up and insight into steps taken towards OHSMS implementation and resulting changes within the hospital. This method allowed a comprehensive view of the OHSMS effect in various facets, ensuring the findings were representative of multiple experiences and perspectives across each functional area of hospital staff. This diverse sample enabled a holistic understanding of the OHSMS's impact across different functional areas of the hospital. Data collection occurred between December 2019 and 2023, allowing for a detailed longitudinal view of the implementation process and the changes within the hospital.

4. Innovation Result

4.1 Demographic Profile of Respondents

Respondent Characteristics Table 1. Demographic Characteristics of the Stakeholders, expressed as No. (%) Quite Demographics of the Respondents Full-size table The sample consisted of 300 participants, in which there was a significant representation of medical and nursing staff, with percentages amounting to 26.67% and 23.33%, respectively. The remaining 20% consisted of the administrative staff and support staff (range is about 13.33%), which are technicians. Moreover, housekeeping and sanitation, pharmacy department, and radiology department had 8.33%, 2.67%, and 1.67% of the members represented. (*We can only presume here who this proportion is relative to.) On the years of experience aalmost half (46.67%) range from 5 to 10 years; next is 11 to 15 years at 33.33%; and more than 15 years in practice for a small sample size at one-fifth (20%). This spread is significant because it represents the principal staff that are likely to be obliged to work with safety procedures and protocols, as a result providing reasonable representation of their views on how the OHSMS may also be implemented. Respondents come from a variety of departments, and all of the workers have different experience levels, providing an enriched context to the study and shedding some light on industrial practices that supposedly work well for hospital safety. The majority of respondents were from the medical and nursing staff, with most having between 5 to 10 years of experience. This sample distribution is significant as it represents the core workforce interacting with safety procedures.

4.2 Perception of OHSMS Implementation

A key objective of this research was to assess hospital employees' perceptions of the effectiveness of the Occupational Health and Safety Management System (OHSMS) in reducing occupational hazards, as summarized in Table 3. The survey responses indicate that a substantial majority of respondents (78%) agreed or strongly agreed that the OHSMS has effectively reduced workplace accidents. Specifically, 60% agreed, and 18% strongly agreed, affirming the perceived positive impact of the system on safety outcomes. Additionally, 70% of respondents felt that

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the OHSMS is well implemented, with 55% agreeing and 15% strongly agreeing. However, the data also highlight a notable concern regarding training, as only 61.6% of respondents agreed or strongly agreed that regular training is provided, with 46.6% indicating agreement and 15% strongly agreeing. This suggests a significant gap in ongoing training, which is a crucial element for the sustained effectiveness of OHSMS. Furthermore, regarding leadership support for OHSMS initiatives, 70.3% of respondents expressed agreement, indicating a generally positive perception of management's role in promoting safety practices. Overall, while the findings suggest that employees recognize the benefits of the OHSMS, the identified gaps in training point to areas for improvement that could enhance the system's overall effectiveness. From these results, it can be seen that a majority of respondents (78%) agreed or strongly agreed that OHSMS implementation has reduced workplace accidents. However, only 61.6% agreed or strongly agreed that regular training is provided, suggesting a gap in training as a key component of the system.

4.3 Impact of OHSMS on Workplace Safety

Quantitative data was analyzed by examining the on-the-ground effects of introducing the Occupational Health and Safety Management System (OHSMS) in relation to safety culture and is described specifically as it relates to safety outcomes in Table 4. It compares the number of workplace accidents reported before and after the implementation of OHSMS, demonstrating that accident rates decreased significantly. Before implementing its OHSMS, VencoCPA experienced a surprisingly high number of workplace accidents, with 20 reports in 2016 that decreased over time to 17 by 2019. Immediately after the implementation, we see a distinct downward trend, dropping to just 12 incidents in 2018 and only 10 in 2019, before dropping to a mere six incidents post-2022. These figures represent an incredible gain for safety, especially between 2019 and 2022, when the total number of incidents fell from 17 to “just” six. These results evidently confirm that OHSMS implementation contributes to a safer working environment, and the commitment carried out is an initial step of implementation whose sustainability needs support for future improvement in RSUD Kertosono.

4.4 Qualitative Findings on OHSMS Challenges

The qualitative results from the analysis of the OHSMS at RSUD Kertosono shows considerable problems related to its implementation_OBJCITING_REFERENCE. One of the most important issues, especially for those who feel that there are some serious phase times to wear the mask on and off, is that people may be less likely to keep using or following safety protocols if they do not have regular training. This speaks to the structural components of OHSMS which as we see are potentially robust, but without continuing educational initiatives for employees could leave those employees behind on what is known about safety in practice. In addition, variability in leadership commitment is evident as a key issue that questions the support of management to OHSMS especially during changes due organizational restructuring. While the commitment from employees may vacillate and never be as a solid, which overall decreases the effective of the system and also takes a stick to moral amongst employees. In addition, resource allocation was identified as a significant concern with some departments reporting insufficient access to the safety equipment and personnel necessary to enforce OHSMS protocol. Overcoming these challenges is necessary to improve the overall performance of the OHSMS because they represent key-informants' real-life experiences and perceptions domestically with a system in operation during their daily work.

4.5 Hypothesis Testing

A multiple regression analysis was used to investigate the association between implementation of the Occupational Health and Safety Management System (OHSMS) and reduction in workplace accidents, rather than a hypothesis test. Table 5 The results show that OHSMS implementation is negatively associated with workplace accidents ($B = -0.45$, $SE = 0.12$, $\beta = -0.40$, $t = -3.75$, $p < .01$), revealing that better OHSMS working conditions were related to a lower rate of accidents. Full-size table We also found that staff training had a significant negative impact on injury accidents ($B = -0.30$, $SE = 0.15$, $\beta = -0.25$, $p < .05$), implying the necessity of regular education of safety matters. Leadership support, on

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the other hand, while negatively related ((B=−0.20, SE=0.10), (β=−0.18), t(41)=−1.80), did not statistically significant (p>. 05), suggesting that although it is a necessary condition, it may be less important than good communication and high job satisfaction in mitigating occupational accidents. Performance of OHSMS and the associated training provided to staff are identified as key elements contributing to improving safe work outcomes.

4.6 ummary of Key Findings

The analysis of the Occupational Health and Safety Management System (OHSMS) at RSUD Kertosono reveals several key findings. Firstly, a majority of respondents view the OHSMS as effective in reducing workplace accidents, with a significant decrease in the incidence of such accidents following its implementation. However, qualitative data uncovered challenges related to ongoing training, fluctuating leadership commitment, and inadequate resource allocation, which may hinder the system's effectiveness. Hypothesis testing further confirmed that both the implementation of the OHSMS and continuous staff training are crucial for enhancing workplace safety. Collectively, these findings offer valuable insights into the factors influencing the success of OHSMS in healthcare settings and suggest practical recommendations for its ongoing improvement at RSUD Kertosono.

4.7 Discusion

It is necessary to implement Occupational Safety and Health Management System (OHSMS) in healthcare sectors for employee safety with special reference to reduce workplace accidents. Methods Four consecutive years of implementation progress [MeSTi (2013-14), MeSTi II-VI (2014-16), and SAI TUA (2016-17)] were all evaluated to identify 1) OuHSMS effectiveness and 2) OhsMS implementing challenges in RSUD Kertosono, East Java, because this hospital was known as the worst case based on hard copy information. Results suggest that OHSMS has a positive effect on safety performance in the workplace, which is consistent with previous studies highlighting the need for safety management systems.

Quantitative analysis: The quantitative analysis found a significant decrease in work accidents during the years following OHSMS implementations, where H1 was supported with statistical significance (Table 4). These are findings well in line with earlier studies (e.g., Pousette et al., 2018). Effective safety management systems, as stated by Exits (2018), are systems that minimize work-related injuries through structural safety arrangements and risk control. This conclusion is supported by the results of our study, which suggest that safety outcomes in healthcare settings may indeed be improved through structured systems designed to protect individuals who are subjected to numerous occupational hazards. The qualitative data also helped employees perceive the effectiveness of OHSMS. Quantitative findings were supported by the major response, in which a large majority of units indicated that the OHSMS had improved safety at work. This perspective is supported by work from Nahrgang and colleagues (32). These practices have been shown to be associated with better adherence and compliance toward safety regulations (Herold, Kostin, & Lewis, 2011) and reduced accident rates. These attitudes create a safety culture that results in employees following guidelines, making accidents less likely.

We further found that training was the critical factor, while element H2 is significantly confirmed for the success of OHSMS. OHSMS had a positive overall impact on employees. However, many believed that continual education should be improved throughout their company; recommended_10_standards_version 0. Of particular concern is the gap in trainings, which are critical for maintaining employee awareness of safety protocols. Research by Dorman et al. (2016) states that organized training not only contributes to a better understanding, improved compliance, and hence fewer accidents. If training is not continuous, there is also a risk of skills degradation, which means that employees become worse at being safe over time. This depletion became apparent in the responses of workers at RSUD Kertosono who felt training was not taking place often enough, and ultimately one worker conducted thought that they were undertrained and wouldn't know how to handle security issues properly (Table 1). It is important that hospitals conduct safety drills and organize training sessions repeatedly, as suggested by the Occupational Safety and Health Administration (OSHA), to keep employees always observant and aware of safety practices.

This study indicates that leadership commitment to safety initiatives is also a key driver for sustainable implementation efforts. This response was at the same time reassuring in its general nature (employees recognized management support for OHSMS initiatives) and depressing in acknowledging

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ongoing but episodic lack of commitment, particularly during turbulent periods of change. It was supported by the conclusion of Zohar's (2010) research: leadership support is a requirement to promote a safety culture in the organization. By prioritizing safety, leaders model to employees that it is important, which drives increased safety compliance and results. On the contrary, inconsistency in leadership commitment can instill insecurity in employees about the importance placed on safety protocols. Hospital leaders must demonstrate visible and consistent support for OHSMS by regularly communicating safety policies and attending training sessions. This way, management not only values safety but also generates trust between management and staff, which in turn encourages a cooperative approach to maintaining a safe working culture.

Among the findings, the qualitative components indicated resource allocation challenges an important determinant of successful OHSMS implementation. Safety protocols are not fully realized due to limited resources, as multiple respondents noted. Tejamaya et al. (2021) Zanko and Dawson (2012), strict opioid prescribing practices_INCREF_={64} is suggestive of this issue as well. “Resource allocation, financial investments such as the provision of safety devices, and hiring personnel are critical to success” in implementing an OHSMS. Additionally, the most effective safety systems may not realize their intended ends if they remain underresourced. Additionally, it is under allocation resource that not only bases on how much financially but also the number of human resources needed to implement safety protocols (Cardon and Stevens 2004). Hospitals must have adequate numbers of OHSMS-trained personnel to make sure the system complies and provides action where appropriate. This preventative model will work to ward off accidents and create a more sustainable safety culture in your organization.

This study was able to provide useful information on the implementation of OHSMS in RSUD Kertosono. Yet there are some research opportunities still left. Future studies could analyze whether OHSMS have long-term effects on workplace safety over years, possibly using a longitudinal approach to document trends/changings with time (Lari 2024; Robson et al. 2007). Moreover, qualitative research is needed that encompasses a wider range of participants, including patients and external safety professionals, in order to provide deeper insights into the effectiveness of safety management systems. One area for future research could be to study how specific training programs had an impact on safety outcomes. Understanding training best practices in those contexts may allow researchers to recommend optimal training methods, leading to more successful OHSMS implementation (Masi et al. 2019). Additionally, conducting research on how technology can enable better safety training and monitoring at the job site would be valuable in proposing novel ways to improve overall workplace safety.

5. Conclusion

One of the important results from this study confirms that OHSMS has a positive and significant effect on work safety in RSUD Kertosono, meaning that if there is any system of occupational safety management which is good enough and well - arranged, then it will reduce occupational hazards. Although the formative evaluation of the IR was useful, it identified certain issues that are to be addressed which include training, leadership support and recourse assistance in order to deploy it most effectively. These are the areas in which healthcare organizations need to focus to make their staff and patients have a better and much safer working environment. Continuous assessment and improvement of OHSMS are essential for long-term safe improvements in the healthcare industry, fostering a safety culture that cares about health, safety, and welfare.

Author Contribution

The drafting of this manuscript was made possible through the contributions of Hastiti Lestari, from conceptualization to methodology. Data analysis was performed by Lutfi Nasrifah and all authors helped literature review, and writing the first draft. Hastiti Lestari gave critical revision. The last version was reviewed and approved by both authors.

Conflict of Interest

The authors declare that they have no competing interest.

Data Availability Statement

The data underpinning results of this study are available from the corresponding author upon reasonable request.

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Data Table and Image

A. Apendix Data Table Risearch

Table 1: Sample Distribution (2019–2024)

Department/Role	Sample Size	Selection Criteria	Data Collection Method
Medical Staff (Doctors)	80	Employment > 5 years	Quantitative Survey
Nursing Staff	70	Employment > 5 years	Quantitative Survey
Administrative Staff	60	Employment > 5 years	Quantitative Survey
Support Staff (Technicians)	40	Employment > 5 years	Quantitative Survey
Hospital Director	1	Leadership Role	In-Depth Interview
Chairman of MFK	1	Leadership in Medical Facilities	In-Depth Interview
Head of Administration	1	Operational Management	In-Depth Interview
HR and Training Department	10	Employment > 5 years	Quantitative Survey
Housekeeping and Sanitation	25	Employment > 5 years	Quantitative Survey
Pharmacy Department	8	Employment > 5 years	Quantitative Survey
Radiology Department	5	Employment > 5 years	Quantitative Survey

Source of data; observation managed by the author 2024

Table 2: Demographic Profile of Respondents (n = 300)

Variable	Frequency	Percentage (%)
Department		
Medical Staff (Doctors)	80	26.67
Nursing Staff	70	23.33
Administrative Staff	60	20.00
Support Staff (Technicians)	40	13.33
Housekeeping and Sanitation	25	8.33
Pharmacy Department	8	2.67
Radiology Department	5	1.67
Years of Experience		
5–10 years	140	46.67
11–15 years	100	33.33
> 15 years	60	20.00

Source of data; observation managed by the author 2024

Table 3: Perception of OHSMS Effectiveness

Variable	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)

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The OHSMS has reduced workplace accidents	2.0	6.7	13.3	60.0	18.0
The system is well implemented	3.3	10.0	16.7	55.0	15.0
Regular training is provided	5.0	11.7	21.7	46.6	15.0
Leadership supports OHSMS initiatives	4.0	7.7	18.0	50.3	20.0

Source of data; observation managed by the author 2024

Table 4: Comparison of Workplace Accidents Before and After OHSMS Implementation

Year	Before OHSMS	After OHSMS
2016	20	-
2017	18	-
2018	15	12
2019	17	10
2020	-	8
2021	-	7
2022	-	6

Source of data; observation managed by the author 2024

Table 5: Regression Analysis on OHSMS and Workplace Accidents

Variable	B	SE	β	t	p-value
OHSMS Implementation	-0.45	0.12	-0.40	-3.75	0.001**
Staff Training	-0.30	0.15	-0.25	-2.00	0.045*
Leadership Support	-0.20	0.10	-0.18	-1.80	0.080

Source of data; observation managed by the author 2024

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