
	<h1>Gema WIRALODRA</h1>
<div></div>	<div></div>
<div></div>	<p>Editor-in-Chief: Yudhi Mahmud</p>
<div></div>	<p>  Publisher: Universitas Wiralodra </p>

Evaluation of the Implementation of the Occupational Health and Safety Program at the Tidore Islands City Regional General Hospital Based on SNARS Edition I

Mardia Habel^{a*}, Gunawan Hi Ibra^b, Sitti Hartinah^c

^aUniversitas Bumi Hijrah, Indonesia,
mardiiyahabel@gmail.com

^bUniversitas Muslim Indonesia, Indonesia,
nwnibra@gmail.com

^cUniversitas Bumi Hijrah, Indonesia,
Hartinatitin16@gmail.com

To cite this article:

Habel, M., Ibra, G. H., & Hartinah, S. (2025). Evaluation of the Implementation of the Occupational Health and Safety Program at the Tidore Islands City Regional General Hospital Based on SNARS Edition I. *Gema Wiralodra*, 6(3), 449 – 456.

To link to this article:

<https://gemawiralodra.unwir.ac.id/index.php/gemawiralodra/issue/view/58>

Published by:

Universitas Wiralodra

Jln. Ir. H. Juanda Km 3 Indramayu, West Java, Indonesia

Evaluation of the Implementation of the Occupational Health and Safety Program at the Tidore Islands City Regional General Hospital Based on SNARS Edition I

Mardia Habel^{a*}, Gunawan Hi Ibra^b, Sitti Hartinah^c

^{a*}Universitas Bumi Hijrah, Indonesia, mardiiyahabel@gmail.com

^bUniversitas Muslim Indonesia, Indonesia, nwnibra@gmail.com

^cUniversitas Bumi Hijrah, Indonesia, Hartinatitin16@gmail.com

*Correspondence: mardiiyahabel@gmail.com

Abstract

Evaluation of the implementation of occupational health and safety programs in hospitals is an activity carried out to assess the quality of the program's effectiveness. Accreditation is an acknowledgment of the quality of hospital services. The accreditation standard used since January 1, 2018 is the SNARS Edition which consists of 16 chapters, one of which is health facility management (MFK) which contains risk management. This study is a study with a qualitative descriptive approach to evaluate the implementation of occupational health and safety programs in the Tidore Islands City Regional General Hospital using data analysis techniques in the form of data collection, data reduction and data presentation. Informants in this study amounted to 3 people consisting of key informants, regular and supporting. The results of this study indicate that the hospital has established policies related to K3, and has human resources who have decrees and certificates, has implemented safety and security programs, B3 management, disaster management, fire protection systems, medical equipment management and supporting systems. In the implementation of the program there are obstacles, namely: lack of human resources who are experts in the field of K3 and support related to funding. The conclusion of the implementation of the K3 program at the Tidore Islands City Hospital is that there are several shortcomings, including the hospital lacking human resources who are experts in the field of K3, the hospital does not yet have complete equipment related to active fire protection systems and early fire detection systems.

Keywords: Evaluation, Occupational Health and Safety, SNARS Edition I

1. Introduction

Hospitals are healthcare institutions with a high risk of occupational safety and health hazards, both for healthcare workers, patients, and visitors. Potential hazards in hospitals include the risk of infection, injury from medical equipment, exposure to chemicals, and fire. Based on the Decree of the Minister of Health No. 432 of 2007 and Law No. 36 of 2009 concerning Health, hospital managers are required to ensure occupational safety and health for all parties within the hospital environment. The Decree of the Minister of Health No. 432 of 2007 concerning Guidelines for Occupational Health and Safety Management in Hospitals explains that hospitals have many potential hazards that threaten the lives and livelihoods of hospital employees, patients, and visitors within the hospital environment (Kemenkes RI 2007). Hospital human resources, patients, patient companions, visitors, and the hospital environment must be protected from health problems and accidents (Sastrini, Y. E., Pertiwi, G. H., & Khoiri, 2023). In its operations, hospitals face various risks that can affect the safety and health of workers and patients, including physical, chemical, biological, ergonomic, and psychosocial risks. (Nova 2020). The high level of risk of work accidents proves the need for preventive measures, one of which is by implementing an Occupational Safety and Health Management System (SMK3) (Ramli and S 2023).

Based on data from the International Labour Organization (ILO) in 2022, globally, more than 2.78 million people die annually due to workplace accidents or non-fatal occupational diseases. The International Labour Organization (ILO) states that high levels of workplace

accidents are caused by humans, jobs, and the workplace environment. According to Heinrich, workplace accidents can occur due to unsafe human behavior or actions and dangerous work environment conditions (Suhartoyo, et al., 2022).

One of the efforts to improve the quality of service in hospitals, especially in terms of health and safety for human resources (HR) of the hospital, patients, visitors/patient escorts, the community around the hospital is by implementing Hospital Occupational Safety and Health (K3RS). This is emphasized in Law No. 44 of 2009 concerning Hospitals, article 40 paragraph 1, namely: "In an effort to improve the quality of hospital services, periodic accreditation must be carried out at least once every 3 (three) years." In addition, the benefits obtained by accredited hospitals are increased public trust in hospitals related to the quality and safety of patients in the hospital and being able to set standards for a safe and efficient work environment so that hospital staff will also feel satisfied (Simanjuntak E, 2021).

Occupational Safety and Health (K3) is one of the important elements in hospital accreditation as stated in the National Hospital Accreditation Standards (SNARS) Edition I, specifically in the Facility and Safety Management (MFK) chapter. Although the Tidore Islands City Regional General Hospital (RSUD) has been fully accredited, initial observations indicate that there are still obstacles in the implementation of the K3 program, including limited human resources and an incomplete active fire protection system. Based on this, this study was conducted to evaluate the implementation of the K3 program at the Tidore Islands City Regional General Hospital based on SNARS Edition I. The importance of evaluating the implementation of the Occupational Safety and Health program at the Tidore Islands Regional General Hospital (RSUD) is not only related to meeting accreditation requirements, but also concerns the safety of healthcare workers, patients, visitors, and the continuity of healthcare services in an island region with limited emergency access. Although the RSUD has achieved full accreditation, initial evidence such as needlestick incidents and PPE compliance reports indicate operational gaps that could reduce service quality and increase occupational health risks.

2. Method

This type of research is qualitative research, while the approach or research pattern used in this study uses a descriptive research approach pattern. This study aims to obtain in-depth information about the Evaluation of the Implementation of the K3 Program at the Regional General Hospital of Tidore Islands City Based on SNARS Edition I. The instrument in this study is the researcher himself with the tools used are interview guidelines, notebooks, stationery, recording devices and cameras. This study uses 3 informants.

Table 1.

Informant Characteristics Based on Gender, Age, Occupation, Length of Service, and Last Education At TIKEP Regional Hospital

NO	Informant	JK	Age	Occupation	Length of Service	Last Education	Ket
1	F	L	30 Years	dr	2 years	dr. sp	IK
2	N	P	39 years	PNS	10 years	S2	IP
3	U	P	27 years	PNS	3 years	Ns.	IB

Based on the research method, data collection techniques in this study were carried out through in-depth interviews, direct observation, and document review. Interviews involved key

informants, regular informants, and supporting informants. Observations were conducted using a checklist based on SNARS elements and photo documentation. Document review included K3RS policies, K3 Committee Decrees, B3 management SOPs, MSDSs, KAK/PAK incident records, and facility round reports.

Researchers also conducted data analysis, which included data reduction, data presentation, and conclusion drawing. The process included interview transcription, open coding, grouping data into SNARS themes, and triangulation between interviews, observations, and document review.

3. Results and Discussion

a. Determination policy

The establishment of the hospital occupational safety and health policy or abbreviated as K3RS at the Tidore Islands City Regional General Hospital has been formed and implemented in 2016, the implementation of the K3RS policy began to be actively implemented in 2022 in written form and has been signed directly by the Hospital director, in addition this K3RS policy has been socialized with six work programs including, safety and security, management of hazardous and toxic materials, disaster preparedness, fire protection systems, medical equipment management, and utility systems (support systems). Based on these results, it can be concluded that the Tidore Islands City Regional General Hospital has had a written policy related to Occupational Safety and Health.

These results align with research by Yulianto et al. (2021), which showed that the effectiveness of K3RS implementation is highly dependent on hospital management support and the existence of formal, written policies. Comprehensively disseminated policies improve healthcare workers' compliance with occupational safety procedures. Furthermore, research by Silvia Nengcy et al. (2022) stated that Sijunjung Regional General Hospital already has a policy in the form of a director's work letter (SK) and standard operating procedures on hospital occupational safety and health, but the delivery and dissemination of these policies has not been optimal.

b. Human Resources (HR)

The formation of the K3RS team is very important in the Hospital, this is because considering the high risk of accidents and occupational diseases in the hospital, so that the presence of K3RS members can help organize occupational safety and health programs in the Hospital. Based on the results of research on three informants, it was found that the Tidore Islands City Regional General Hospital already had K3RS HR which was then named the K3RS committee based on the director's decree regarding the formation of the K3RS committee team. K3RS committee members at the Tidore Islands City Regional General Hospital have had a decree in addition to that, several of the K3 members have had K3 certificates, one of which is the chairman of the K3 committee who has a K3RS expert certificate and several other members who have K3 certificates and K3 backgrounds, meanwhile all members and employees at the Tidore Islands City Regional General Hospital have been included in training and provision activities on K3, one of which is provision on the use of APAR which is held directly by the K3RS Committee.

This research is in line with the results of research conducted by Yudi & Nopriadi (2021) that Bangkinang Regional General Hospital has had K3 Hospital resources in the form of the K3RS Committee as an K3 organization as stated in the Decree of the Director of Bangkinang Regional General Hospital No. 445 / RSUD / I-1 / 2018. Bangkinang Regional General Hospital also has 5 human resources who have received K3 training. Also research conducted by

Rosmalia (2021) which stated that efforts to increase the role of the K3RS Committee to be able to create an OHS culture at Tegal Hospital require improvements in several lines, namely: (1) management commitment as the highest authority to ensure that OHS aspects are well integrated with the organizational structure and resource allocation and prioritize OHS in every activity; (2) communication of the OHS program from the OHSRS committee to the leadership to convince that OHS is important by showing that incident data that occurs is an indication of the potential for an increasingly large incident; (3) the need for a committee team that is truly focused on implementing OHS management starting from the program, implementation, monitoring, evaluation to improving OHS performance by forming a separate OHS unit or section (Rosmalia, R., Sukmandari, E. A., & Atmoko, 2021).

c. Safety and security

Based on the results of research conducted by researchers through observation and interviews with three informants, it was found that the Tidore Islands City Regional General Hospital has regulations related to safety and security programs. In addition, the K3RS Committee is responsible for safety and security in the Hospital, which collaborates with the security team. The K3RS Committee also carries out identification and inspection processes related to areas of the Hospital that are at risk related to safety and security. The Hospital also installs monitoring to identify areas that are considered at risk.

These results are in line with the research results of Arifin & Dewi (2020) which stated that the combination of HIRAC-based risk management and visual surveillance (CCTV) can reduce the potential for security incidents in healthcare facilities by up to 60%.

d. Management of Hazardous and Toxic Materials (B3)

The Tidore Islands Regional General Hospital has regulations related to the management of hazardous and toxic materials (B3). The hospital also has a list of B3 and its waste, in addition to the Hospital also makes MSDS attachments and makes labels related to B3 waste management, on the other hand, the Hospital also has SOPs related to reports of spills or incidents related to B3, and the Hospital also has a permit for the use of B3 waste in the Hospital.

This is in line with the results of research conducted by Ratih (2019) entitled Review of the K3 Management System in Supporting the Achievement of Hospital Accreditation with the results of the assessment elements that have been fulfilled including the hospital having regulations related to the regulation of B3 and its waste as well as B3 waste processing carried out in the hospital in collaboration with third parties (Berliana 2019). This is also in line with research by Najwa, S. (2023) In handling Hazardous and Toxic Materials (B3) appropriate Standard Operating Procedures (SOP) are needed to minimize work-related accidents. Minister of Health Regulation number 18 of 2020 in Nursafira, A., Kamsul, K., Ananingsih, E. S., Yuniati, F., & Kumalasari, I. (2023) reveals the management of Hazardous and Toxic Materials (B3) and B3 waste in accordance with laws and regulations with the marking of B3 waste symbols and labels as B3 waste identities, making it easier for officers to recognize the placement of B3 waste according to the type and nature of B3 waste. Hazardous material parameters (According to SNARS Edition 1 of 2018) aim to ensure that the management of hazardous and toxic materials carried out by hospitals is safe and in accordance with applicable regulations (Baeti, A. N., & Widowati, 2021)

Hospitals really need to do this to protect staff, patients, patient attendants and patient visitors from exposure to hazardous and toxic materials in the hospital.

e. Disaster Management

The Tidore Islands City Regional General Hospital has regulations related to disaster management, in addition, the Tidore Islands City Regional General Hospital also carries out disaster identification activities both internally and externally and also has a list of disasters and SOPs in the handling process, the Hospital also has a decontamination room in the Hospital's Emergency Room.

This is in line with the results of research conducted by Ratih (2019) entitled Review of the K3 Management System in Supporting the Achievement of Hospital Accreditation, which states that RSIA X Semarang City does not yet have written regulations regarding disaster management, but the IGD room has a decontamination room in accordance with statutory regulations and all staff, contract employees and land tenants have participated in emergency response simulations carried out in conjunction with APAR training (Berliana 2019). The results of another study conducted by Nurul Fajriah in 2022 at Indramayu Regional General Hospital related to the analysis of hospital readiness in facing disasters, it is known that the existing facilities and infrastructure related to disaster management are contained in the Director's Decree on mass disaster management in the attachment to the hospital disaster plan and the Director's Decree on fire detection and extinguishing systems, including parking areas, waiting rooms, triage rooms, decontamination rooms, service rooms, medical equipment, fluids (infusion, antiseptic, 70% alcohol, bethadin H2O2), oxygen cylinders, injections, bathrooms, elevators, fire extinguishers (APAR, hydrant, sprinkle, smoke detector, fire alarm), evacuation routes, assembly points, PPE (helmets, masks, hazmat, gloves), public kitchens, medical equipment posts are service facilities in hospitals in providing treatment to patients, care, and treatment used for diagnosis, therapy, rehabilitation and medical research both directly and indirectly. (Fajriah Nurul, 2022).

According to research views, it is very necessary for hospitals to implement an OHS program related to a disaster management system. This is done so that hospitals are able to identify disasters that occur both in the hospital environment and outside the hospital.

f. Fire Protection System

Tidore Islands City Regional General Hospital has a fire protection program to ensure that residents in the Hospital are safe from the dangers of fire, in addition, the Tidore Islands City Regional General Hospital also conducts an assessment of fire risks and follows up on the results of the assessment carried out, the Tidore Islands City Regional General Hospital has an early fire detection tool in the form of a manual alarm (spiker) for the detection and notification process for fires so that the house does not yet have an early detection tool in accordance with statutory regulations, in addition, the Hospital also only has APAR as an active protection system, on the other hand the Hospital has an evacuation route and assembly point in accordance with statutory regulations.

This is in line with the research conducted by Yudi Susanto and Nopriadi et al., which found that Bangkinang Regional Hospital has a fire safety policy in the form of a Disaster Plan, which includes a Fire Safety Standard Operating Procedure (SOP), a map of fire-risk areas, evacuation routes, a site plan, and assembly points. However, no indication of the location of fire protection equipment has been found (Yudi.S 2021).

Based on this, according to the researcher's view, the implementation of a fire protection system program is very necessary in every hospital, this is to help all hospital residents avoid the risk of fire hazards.

g. Medical equipment management

Tidore Islands City Regional General Hospital has regulations related to the management of medical equipment, and also has an inventory list and a risk list of medical equipment, the Hospital also carries out inspections and performs functional tests on new equipment, and the Hospital also has a maintenance and calibration program that is carried out routinely and on schedule.

This is in line with the results of research conducted by Rafika et al (2022) entitled Implementation of K3 Standards at Buton Regional General Hospital, Southeast Sulawesi, which states that Bunton Regional Hospital has managed medical equipment by calibrating it at the Health Facility Security Center (BPFFK) with prior written approval using a queue system and some medical equipment is recalibrated by hospital electromedical technicians for medical equipment maintenance (Rafika Zainudin, Fairus Prihatin 2023). Based on this discussion, according to the researcher's view, medical equipment management is very necessary in every hospital. This is done to minimize the risk of work accidents caused by medical equipment.

h. Utility system management (support system)

Tidore Islands City Regional General Hospital has regulations related to utility systems (support systems) and has an inventory list of utility systems in the form of electricity availability, generators, water availability, networks and also IPAL in the Hospital, in addition to that, the utility system is also tested, inspected and maintained regularly and scheduled, the utility system at Tidore Islands City Regional General Hospital is also repaired regularly and scheduled.

This was also conveyed by Yadi Susanto and Nopriadi et al., (2021) with the research title Evaluation of Occupational Safety and Health (K3) at Bangkinang Regional Hospital in 2021. The results of this study obtained information that Bangkinang Regional Hospital has an inventory list of existing infrastructure. Bangkinang Regional Hospital has also ensured the availability of water and electricity 24 hours a day as an effort to create a safe work environment (Yudi.S 2021). Based on these results, according to researchers, the availability of utility systems (support systems) in the form of water, electricity, and networks are important things that need to be provided by the Hospital, where the utility system greatly helps the health service process in the Hospital.

i. Output components

The hospital has a much safer environment, in addition, the impact of the implementation of the K3 program is that all staff begin to understand the importance of K3, staff also begin to understand how to overcome the dangers of K3 risks. In addition, the obstacles encountered by the K3RS committee in implementing the program are where there is still a lack of human resources who are experts in the field of K3, in addition to the very minimal budget support from the hospital.

This is in line with the results of research conducted by Prayitno (2024) which states that Then related to factors in the implementation of K3 in hospitals, including staff/employee compliance still needs to be optimized, lack of awareness in reporting work accidents, lack of personnel in the K3 committee, facilities that are not sufficient and not evenly distributed, lack of funds needed in the implementation of K3 programs at Tidar Regional Hospital, Magelang City (Prayitno, P., Widiastuti, 2024). This is in line with the results of research conducted by Enne et al (2023) entitled Analysis of the Implementation of Hospital K3 Standards at Dr. Tadjuddin Chalid Hospital Makassar in 2022. The results of the study said that in terms of implementing K3 standards, Dr. Tadjuddin Chalid Hospital still has obstacles such as the lack

of human resources in the K3 Hospital installation which only has 1 member in the K3RS section, whereas in the decree of the Indonesian Minister of Health number 432 of 2007 concerning K3 management guidelines in hospitals in the K3 organizational structure in hospitals model 2 point 2 hospital K3 implementation organizations consist of at least a chairman, secretary and members. However, in reality at Dr. Tadjuddin Chalid Hospital Makassar only has 1 person in charge of K3RS.

4. Conclusion

The implementation of the OHS program at Tidore Islands City Hospital has been successful and meets most of the SNARS Edition I indicators, particularly in policy, safety, and hazardous and hazardous materials management. However, deficiencies remain in OHS expert human resources, funding, and the availability of active fire protection facilities. The hospital needs to strengthen training, recruitment of OHS experts, and investment in fire protection systems to achieve comprehensive OHS implementation.

5. References

- Arifin, D., & Dewi, R. (2020). Penerapan Manajemen Risiko K3RS Berbasis HIRAC di Rumah Sakit Pendidikan. *Jurnal Kesehatan Masyarakat Nasional*, 15(3), 175–184.
- Baeti, A. N., & Widowati, E. (2021). Kesiapan Rumah Sakit Menghadapi Akreditasi Dalam Pemenuhan Standar Manajemen Fasilitas dan Keselamatan. *Indonesian Journal of Public Health and Nutrition Article Info*, 1(1), 1–12. <https://doi.org/10.15294/ijphn.v1i1.44997>
- Berliana, Ratih. 2019. “Tinjauan Sistem Manajemen K3 Dalam Mendukung Pencapaian Akreditasi Rumah Sakit RSIA X Kota Semarang.” *Skripsi*, ii–121.
- Fajriah, Nurul, Sutopo Patria Jati, Yuliani Setyaningsih. Analisis Komitmen Manajemen Rumah Sakit terhadap Kesiapsiagaan dalam Menghadapi Bencana di RSUD Indramayu. Vol. 21 No. 1 Tahun 2022.
- Kemenkes RI. 2007. “Keputusan Menteri Kesehatan Republik Indonesia Nomor 432/Menkes/Sk/Iv/2007.” *Pedoman Manajemen Kesehatan Dan Keselamatan Kerja (K3) Di Rumah Sakit*, 15.
- Najwa, S. (2023). Penanganan limbah bahan berbahaya dan beracun (b3) di rumah sakit Aisyiyah Bojonegoro. *CHEMVIRO: Jurnal Kimia dan Ilmu Lingkungan (JKIL)*, 1(1), 1–6.
- Nursafira, A., Kamsul, K., Ananingsih, E. S., Yuniati, F., & Kumalasari, I. (2023). Gambaran Pengelolaan Limbah Medis Padat pada Klinik Bidan Praktik Mandiri di Kecamatan Lempuing Kabupaten Ogan Komering Ilir Tahun 2023. *Sehat Rakyat: Jurnal Kesehatan Masyarakat*, 2(3), 397–409.
- Nova A, Mutmainah S., Angelia I (2020). Analisis Penerapan Keselamatan Dan Kesehatan Kerja Pada Program Keselamatan Kerja Di Rumah Sakit Umum Daerah Sungai Dareh. *J Kesehat Med Saintika*.
- Prayitno, P., Widiastuti, N. (2024). Evaluasi Pelaksanaan Program Kesehatan Dan Keselamatan. *Jurnal Riset Akuntansi Dan Bisnis Indonesia STIE Widya Wiwaha*, 4(2), 675–705.
- Rafika zainudin, Fairus Prihatin, suharni fahrin. 2023. “Pelaksanaan Standar K3 Di Rumah Sakit Umum Daerah Buton Sulawesi Tenggara Tahun 2022” 4 (2): 236–51. <https://pasca-umi.ac.id/index.php/jmch/article/view/1298/1494>.
- Ramli, Nurfadillah Mardiany, and Ikhrum Hardi S. 2023. “Penerapan Sistem Manajemen Keselamatan Dan Kesehatan Kerja Di RSUD Labuang Baji Makassar Tahun 2023.” *Journal of Muslim Community Health (JMCH)* 4 (4): 99–111. [https://pasca-](https://pasca-umi.ac.id/index.php/jmch/article/view/1298/1494)

- umi.ac.id/index.php/jmch/article/view/1378/1585.
- Rosmalia, R., Sukmandari, E. A., & Atmoko, D. (2021). Peran Komite Keselamatan Dan Kesehatan Kerja Dalam Penerapan Safety Culture Di Rumah Sakit Umum Tegal Tahun 2020. Bhamada: Jurnal Ilmu Dan Teknologi Kesehatan (EJournal), 12(1), 46–54.
<https://doi.org/10.36308/jik.v12i1.262>
- Sastrini, Y. E., Pertiwi, G. H., & Khoiri, M. M. (2023). Kesehatan dan Keselamatan Kerja : Tinjauan Komprehensif. In Penerbit Tahta Media (Vol. 1). Penerbit Tahta Media.
<http://tahtamedia.co.id/index.php/issj/article/view/496>
- Samsualam, Suharni, Enne. 2023. “Analisis Implementasi Standar K3 Rumah Sakit Pada Rumah Sakit Dr.Tadjuddin Chalid Makassar Tahun 2022.” *Journal of Muslim Community Health (JMCH)* 2023 <https://doi.org/10.52103/Jmch.V4i3.1142> 4 (3): 176–86.
<https://pasca-umi.ac.id/index.php/jmch/article/view/1142/1376>.
- Suharyoyo, F. M., Sumampouw. O. & Pampengan N. H (2022). Occupational Accidents among Fishermen in Manado, North Sulawesi. *E-Clinic*, 10 (1), 1
- Simanjuntak E. (2021). Tinjauan Pelaksanaan Review Berkas Rekam Medis Sesuai Standar Manajemen Informasi Dan Rekam Medik (MIRM 13 . 4). Jurnal Ilmiah Perkam Dan Informasi Kesehatan Imelda, Vol. 6, No. 1, Februari 2021:7-13, 6(1), 7–13.
<http://jurnal.uimedan.ac.id/index.php/JIPIKI%0A>
- Silvia Nengcy dkk .(2022). Analisis Program Keselamatan dan Kesehatan Kerja di Rumah Sakit Umum Daerah Sijunjung. *JIK (Jurnal Ilmu Kesehatan)*. Jurnal homepage: <https://jik.stikesalifah.ac.id>
- UU. 2009. “Undang-Undang No.44 Tahun 2009 Tentang Rumah Sakit.”
- Yulianto, R., et al. (2021). *Pengaruh Kebijakan Manajemen terhadap Implementasi K3RS*. Jurnal Kesehatan dan Keselamatan Kerja, 12(2), 155–164.
- Yadi,S, Nopriadi. 2021. “Evaluasi Pelaksanaan Program Keselamatan Dan Kesehatan Kerja (K3) Di Rumah Sakit.” *JURNAL KESEHATAN MASYARAKAT MULAWARMAN* 3 (1): 2686–3601.