



THE RELATIONSHIP BETWEEN COMPLIANCE WITH THE USE OF PERSONAL PROTECTIVE EQUIPMENT IN NURSES WITH EFFORTS TO PREVENT OCCUPATIONAL DISEASES AT PERTAMEDIKA UMMI ROSNATI HOSPITAL BANDA ACEH

HUBUNGAN ANTARA KEPATUHAN PENGGUNAAN ALAT PELINDUNG DIRI PADA PERAWAT DENGAN UPAYA PENCEGAHAN PENYAKIT AKIBAT KERJA DI RUMAH SAKIT PERTAMEDIKA UMMI ROSNATI BANDA ACEH

Rauzah Zakilla^{1*}, Yadi Putra², Nurul Sakdah³

^{1*,2,3}Diploma Three Nursing Study Program, Faculty of Health Sciences, Abulyatam University

*email koresponden: rauzhahz@gmail.com

DOI: <https://doi.org/10.62567/micjo.v3i2.2413>

Abstract

Controlling hazards in the work environment can be done through various means, but technical control is the top priority. The use of personal protective equipment (PPE) is considered the application of a safe way of working. This study aims to determine the relationship between compliance with the use of personal protective equipment (PPE) and efforts to prevent occupational diseases in nurses at Pertamedika Ummi Rosnati Hospital Banda Aceh. This type of research is quantitative with an analytic design with a cross-sectional study approach. Data collection was carried out from June 13 to 20, 2025, at Pertamedika Ummi Rosnati Hospital. The population in the study was all nurses in the inpatient room of Pertamedika Ummi Rosnati Hospital Banda Aceh, totaling 59 people with sampling techniques using total sampling. Data analysis using the chi-square test, where the results showed there was a relationship between knowledge ($p = 0.001$), attitude ($p = 0.036$), and compliance using PPE ($p = 0.015$) with efforts to prevent occupational diseases. The conclusion of this study found that there is a relationship between compliance with the use of personal protective equipment (PPE) and efforts to prevent occupational diseases in nurses at Pertamedika Ummi Rosnati Hospital Banda Aceh. It is recommended that nurses increase efforts to prevent occupational diseases by continuing to use PPE even though sometimes it is not provided in hospitals, such as masks.

Keywords : Knowledge, Attitude, Compliance, Personal Protective Equipment (PPE), Occupational Disease Prevention Efforts.

Abstrak

Pengendalian bahaya dilingkungan kerja dapat dilakukan melalui berbagai cara, namun pengendalian teknis dan menjadi prioritas utama. Penggunaan alat pelindung diri (APD) dianggap penerapan cara kerja yang aman. Penelitian ini bertujuan untuk mengetahui hubungan kepatuhan penggunaan alat pelindung diri (APD) dengan upaya pencegahan penyakit akibat kerja pada perawat di RS Pertamedika Ummi Rosnati Banda Aceh. Jenis penelitian ini adalah *kuantitatif* dengan desain *analitik* dengan pendekatan *crosssectional study*. Pengumpulan data dilakukan pada tanggal 13 sampai dengan 20 Juni 2025 di RS Pertamedika Ummi Rosnati. Populasi dalam penelitian seluruh seluruh tenaga perawat di ruang rawat inap RS Pertamedika Ummi Rosnati Banda Aceh yang berjumlah 59 orang dengan teknik



pengambilan sample menggunakan *total sampling*. Analisis data menggunakan uji *chi Square* dimana hasil penelitian menunjukkan ada hubungan pengetahuan ($p=0,001$), sikap ($p=0,036$) dan kepatuhan menggunakan APD ($p=0,015$) dengan upaya pencegahan penyakit akibat kerja. Kesimpulan penelitian ini ditemukan ada hubungan kepatuhan penggunaan alat pelindung diri (APD) dengan upaya pencegahan penyakit akibat kerja pada perawat di RS Pertamedika Ummi Rosnati Banda Aceh. Disarankan kepada perawat dapat meningkatkan upaya pencegahan penyakit akibat kerja dengan tetap menggunakan APD meski terkadang tidak disediakan di Rumah Sakit seperti masker.

Kata Kunci : Pengetahuan, Sikap, Kepatuhan, Alat Pelindung Diri (APD), Upaya Pencegahan Penyakit Akibat Kerja.

1. INTRODUCTION

Hospitals are one of the industries engaged in health service delivery, whose primary objective is to provide the best possible services to the community in order to improve the highest level of public health. Although they provide positive impacts, these factors can also generate negative consequences for all components involved in the healthcare service process, which may result in losses (Bulo, R., 2024).

Hospitals are also workplaces where both healthy individuals (staff and visitors) and sick individuals (patients) gather. Therefore, hospitals are work environments with a high risk of occupational diseases as well as work-related accidents. There is a risk of exposure to infectious disease agents, contact with blood and body fluids, as well as injuries from needles or sharp instruments that can transmit diseases such as hepatitis B and HIV/AIDS. Nurses constitute the largest proportion of healthcare workers, accounting for nearly 60% of all hospital personnel, and are among the professions most frequently affected by occupational diseases. This is because nurses are in close contact with patients 24 hours a day, especially surgical nurses who work in operating rooms, frequently handling sharp instruments in high-stress environments, leading to fatigue that may increase the risk of workplace accidents (Mulfiyanti, 2023).

Hazards in the workplace, including physical, biological, and chemical hazards, must be properly managed to create a healthy, safe, and comfortable working environment. Hazard control can be carried out in various ways; however, engineering controls are the top priority. Meanwhile, the use of personal protective equipment (PPE) is considered the last line of defense after technical controls and safe work practices have been optimized (Pabebang, 2024).

Worker compliance in using PPE is categorized as good when workers adhere to PPE usage. This is because hospital workers generally demonstrate positive behavior toward PPE use. Their knowledge regarding PPE is also considered good, as they understand its importance in carrying out their duties (Wasty, 2021).

Compliance with PPE usage is an important measure in preventing workplace accidents, especially in healthcare facilities. It is a behavior influenced by environmental factors. PPE usage is part of these environmental factors that can affect compliance. Proper use of PPE reflects behavior aimed at ensuring physical safety and avoiding occupational accidents. Therefore, compliance with PPE plays a crucial role in minimizing risks and preventing hazards (Doda, 2021).

Healthcare workers, including doctors and nurses working in emergency departments, have a higher risk of contracting diseases compared to staff in other units, as they handle patients whose medical histories are often unknown. Nurses' compliance with PPE usage significantly affects disease transmission. If PPE compliance is neglected, the risk of contracting diseases such as hepatitis and HIV/AIDS increases (Kasim et al., 2020).

Compliance with PPE usage among nurses is also essential to minimize the risk of injury or infection from infectious patients. It plays an important role in maintaining occupational health and safety (OHS). PPE usage is mandated by healthcare institutions and has become a standard practice in carrying out procedures according to established regulations (Taribaba, L., 2024).



Infections among surgical nurses may occur due to frequent contact with blood, tissues, and bodily fluids that can enter the body through needle-stick injuries, wounds, or mucous membrane exposure. Splashes of contaminated fluids from patients may also cause infections. One of the contributing factors is non-compliance in using PPE such as gloves (Wasty et al., 2021).

According to Shabat (2020), factors associated with PPE usage behavior among informal workers include knowledge, training, attitudes, motivation, communication, availability of PPE, supervision, as well as punishment and rewards. Similarly, Retnaningsih et al. (2020) state that PPE compliance is influenced by predisposing factors (age, length of service, knowledge, attitudes, and education level), enabling factors (facilities and infrastructure), and reinforcing factors (health worker attitudes and existing regulations).

Nurses are one of the key factors influencing the quality of nursing care in healthcare services. Their role is crucial as they are at the forefront of healthcare delivery. Professional nurses not only manage individual patients but also oversee the overall and continuous care process to ensure effective nursing services. Nurses are also responsible for preventing Healthcare-Associated Infections (HAIs) to improve service quality. The International Council of Nurses states that one indicator of improved nursing care quality is a reduction in morbidity and mortality rates caused by infections (Dewi, F., 2022).

Occupational diseases arise as a result of exposure to workplace environments or hazardous materials present in the workplace, including industrial waste. Many workers underestimate occupational risks and consequently fail to use protective equipment or PPE (Jufrizal, 2023).

Efforts to prevent and control infection transmission risks can be achieved by breaking the chain of infection, which is one of the simplest and most effective methods. One way to do this is by properly using PPE. PPE is essential for protecting both healthcare workers and patients in hospitals. Types of PPE include masks, gloves, gowns, and others, which should be used according to their specific functions (Delima, 2022).

Prevention of occupational diseases involves identifying potential hazards, promoting occupational health, controlling risks, and providing information about PPE. Additionally, immunization for workers exposed to certain biological agents is an important preventive measure (Permenkes No. 56, 2016).

According to data from the International Labour Organization (ILO), more than 250 million workplace accidents occur annually, and over 160 million workers suffer from occupational diseases, with more than 2 million deaths resulting from work-related issues (Mulyadi, 2024).

The World Health Organization (WHO) estimates that approximately 83,000 cases of disease transmission among healthcare workers occur globally due to failure to use PPE. Nosocomial infections are prevalent worldwide, particularly in low- and middle-income countries where infectious diseases remain a major cause of morbidity. A WHO study found that about 8.7% of patients in 55 hospitals across 14 countries in Europe, the Middle East, Southeast Asia, and the Pacific experienced nosocomial infections, with Southeast Asia accounting for around 10% (Pabebang, Y., 2024).

In the era of regional autonomy, reported data on occupational accidents and diseases submitted to Indonesia's Ministry of Manpower remain very limited compared to the actual potential cases. Reports to BPJS Ketenagakerjaan show higher numbers: in 2019, there were 15,486 cases with 13,519 victims; in 2020, 6,037 cases with 4,287 victims; and in 2021, 7,298 cases with 9,224 victims. These cases originate from approximately 126 million workers across Indonesia (Mulyadi, 2024).

The prevalence of workplace accidents in Aceh Province in 2019 reached 163 cases, accounting for 2.1% of the national total. The highest number of accidents occurred among hospital workers compared to other healthcare facilities. However, in Aceh, accurate data are still lacking because many hospitals do not report workplace accidents to relevant authorities such as BPJS or the Department of Manpower (Riska, 2019).

Pertamedika Ummi Rosnita General Hospital (RSPUR) is a Type C hospital located in Banda Aceh. It has 10 service units, including outpatient clinics, emergency department, operating room,



anesthesia unit, ICU, Class 1 & VIP wards, Class 2 and Class 3 inpatient wards, physiotherapy unit, and polyclinic services. RSPUR provides healthcare services to the community in the Baiturrahman district and continues to develop in terms of services and infrastructure due to its strategic location on the main road of Gampong Ateuk Pahlawan.

A preliminary study was conducted in the inpatient ward of RSPUR in December 2024. Observations of five nurses revealed that two nurses did not change gloves when handling different patients, four nurses were seen placing masks on their chins and reusing them when attending patients, three nurses performed handwashing despite not providing direct patient care, and one nurse used gloves even without performing procedures.

Initial data collection showed that there were 78 nurses working in the inpatient ward of RSPUR. Interviews with five nurses indicated that all of them reported practicing disease prevention by washing hands before and after procedures and using gloves. However, all nurses admitted that they did not use complete PPE.

Based on the background above, the researcher is interested in conducting a study on the relationship between compliance with PPE usage and efforts to prevent occupational diseases among nurses.

2. RESEARCH METHOD

This study employed a quantitative approach using an analytical method with a cross-sectional study design. The research was conducted at a single point in time to identify whether there is a relationship between the dependent and independent variables through a one-time measurement. Data were collected using a questionnaire as the research instrument.

3. RESULT AND DISCUSSION

Based on the results of a study conducted on June 13, 2025, on 59 nurses using two enumerators (students), the results are as follows:

Respondent Characteristics

Table 1. Frequency Distribution of Respondent Characteristics at Pertamedika Umni Rosnati Hospital, Banda Aceh 2025 (n=57)

No	Age Category	f	%
1	Late Adolescence (17-25 years)	1	1,7
2	Early Adulthood (26-35 years)	43	72,9
3	Late Adulthood (36-45 years)	15	25,4
Total		59	100
No	Work Period Category	f	%
1	<5 Years	21	35,6
2	≥5 years	38	64,4
Total		59	100
No	Education Category	f	%
1	Diploma 3 in Nursing	29	49,1
2	Bachelor's Degree in Nursing	22	37,3
3	Nurse	6	13,6
Total		59	100

Source: Primary Data (2025)

Based on Table 1, it can be seen that the majority of nurses are in early adulthood (26-35 years), namely 43 nurses (72.9%), with 38 nurses (64.4%) having worked for more than 5 years, and 29 nurses (49.1%) holding a Diploma 3 degree in Nursing.

Univariate Analysis



The univariate analysis in this study aimed to determine the distribution of knowledge, attitudes, compliance with PPE use, and efforts to prevent occupational diseases. For more details, see the following table.

1. Knowledge

The frequency distribution of nurses' knowledge at Pertamedika Umami Rosnati Hospital, Banda Aceh, based on the research results, is shown in Table 4.2:

Table 2. Frequency Distribution of Nurses' Knowledge at Pertamedika Umami Rosnati Hospital, Banda Aceh 2025 (n=59)

No	Knowledge	f	%
1	Good	36	61
2	Not Enough	23	39
Total		59	100,0

Source: Primary Data (2025)

Based on Table 2, it is known that the majority of respondents (36 respondents) had good knowledge, 61%.

2. Attitudes

The frequency distribution of nurses' attitudes at Pertamedika Umami Rosnati Hospital, Banda Aceh, can be seen in Table 4.3 as follows:

Table 3. Frequency Distribution of Nurses' Attitudes at Pertamedika Umami Rosnati Hospital, Banda Aceh, 2025 (n=59)

No	Attitude	f	%
1	Positive	35	59,3
2	Negative	24	40,7
Total		59	100,0

Source: Primary Data (2025)

Based on Table 3, it is known that the majority of respondents had a positive attitude, namely 35 respondents (59.3%).

3. Compliance with PPE Use

The frequency distribution of compliance with PPE use by nurses at Pertamedika Umami Rosnati Hospital, Banda Aceh, can be seen in Table 4.4 below:

Table 4. Frequency Distribution of Compliance with PPE Use by Nurses at Pertamedika Umami Rosnati Hospital, Banda Aceh 2025 (n=59)

No	Compliance with the Use of PPE	f	%
1	Compliant	32	54,2
2	Disobey	27	45,8
Total		59	100,0

Source: Primary Data (2025)

Based on Table 4, it is known that the majority of respondents, 32 respondents (54.2%), complied with the use of PPE.

4. Occupational Disease Prevention Efforts

The frequency distribution of occupational disease prevention efforts by nurses at Pertamedika Umami Rosnati Hospital, Banda Aceh, can be seen in Table 4.5 below:

Table 5. Frequency Distribution of Occupational Disease Prevention Efforts by Nurses at Pertamedika Umami Rosnati Hospital, Banda Aceh, 2025 (n=59)

No	Disease Prevention Efforts	f	%
1	Good	33	55,9
2	Not enough	26	44,1
Total		59	100,0



Source: Primary Data (2025)

Based on Table 5, it is known that the majority of respondents (33 respondents, 55.9%) categorized occupational disease prevention efforts as good and poor.

Bivariate Analysis

1. Relationship between Knowledge and Efforts to Prevent Occupational Diseases

The results of the chi-square statistical analysis relating knowledge to efforts to prevent occupational diseases are shown in the following table:

Table 6. Relationship between Nurses' Knowledge and Efforts to Prevent Occupational Diseases at Pertamedika Ummi Hospital Rosnati Banda Aceh (n=59)

Knowledge	Disease Prevention Efforts						P Value
	Good		Not enough		Total		
	f	%	n	%	n	%	
Good	27	75	9	25	36	100	0,001
Not enough	6	26,1	17	73,9	23	100	
Total	33	55,9	26	44,1	59	100,0	

Source: Primary Data (2025)

Based on Table 6, it is known that of the 59 respondents, 36 (100%) had good knowledge, with the majority of them (27 respondents) categorizing occupational disease prevention efforts as good. Meanwhile, of the 23 respondents (100%) with poor knowledge, the majority (17 respondents) categorizing occupational disease prevention efforts as poor.

After cross-tabulation with a 2x2 table with no values less than 5 (expected), a p-value of 0.001 ($\alpha = 0.05$) was obtained, indicating that H_a was accepted, meaning there is a relationship between knowledge and occupational disease prevention efforts.

2. Relationship between Attitudes and Occupational Disease Prevention Efforts

The results of the chi-square statistical analysis relating attitudes to occupational disease prevention efforts are shown in the following table:

Table 7. Relationship between Nurses' Attitudes and Efforts to Prevent Occupational Diseases at Pertamedika Ummi Rosnati Hospital Banda Aceh (n=59)

Attitude	Disease Prevention Efforts						P Value
	Good		Not enough		Total		
	n	%	n	%	n	%	
Positive	24	68,6	11	31,4	35	100	0,036
Negative	9	37,5	15	62,5	24	100	
Total	33	55,9	26	44,1	59	100,0	

Source: Primary Data (2025)

Based on Table 7, it is known that of the 59 respondents, 35 (100%) had a positive attitude, with the majority of them (24 respondents, 68.6%) categorizing occupational disease prevention efforts as good. Meanwhile, of the 24 respondents (100%) with a negative attitude,

regarding attitude, the majority of respondents (62.5%) were in the poor category of occupational disease prevention efforts.

After conducting a cross-tabulation using 2x2 with no values less than 5 (expected), a p-value of 0.036 ($\alpha = 0.05$) was obtained, indicating that H_a was accepted, meaning there is a relationship between attitude and occupational disease prevention efforts.

3. Relationship between PPE Use Compliance and Occupational Disease Prevention Efforts

The results of the chi-square statistical analysis relating PPE use compliance to occupational disease prevention efforts are shown in the following table:



Table 8. Relationship between Nurses' Compliance with Personal Protective Equipment Use and Efforts to Prevent Occupational Diseases At Pertamedika Ummi Rosnati Hospital Banda Aceh (n=59)

Compliance with the Use of PPE	Disease Prevention Efforts						P Value
	Good		Not Enough		Total		
	N	%	n	%	n	%	
Obedient	23	71,9	9	28,1	32	100	0,015
Not obey	10	37	17	63	27	100	
Total	33	55,9	26	44,1	59	100,0	

Source: Primary Data (2025)

Based on Table 8, it is known that of the 59 respondents, 32 (100%) were compliant with PPE use, with the majority of them (23 respondents (71.9%)) categorizing their efforts to prevent occupational diseases as good. Meanwhile, of the 27 respondents (100%) who were non-compliant with PPE use, the majority (17 respondents (63%)) categorizing their efforts to prevent occupational diseases as poor.

After cross-tabulation with a 2x2 table with no values less than 5 (expected), a p-value of 0.015 ($< \alpha = 0.05$) was obtained, indicating that H_a was accepted, meaning there is a relationship between compliance with PPE use and efforts to prevent occupational diseases.

Discussion

1. The Relationship Between Knowledge and Efforts to Prevent Occupational Diseases

Based on the research results above, it was found that out of 59 respondents, 36 (100%) had good knowledge. Among them, the majority demonstrated good efforts in preventing occupational diseases, totaling 27 respondents (75%). Meanwhile, among 23 respondents (100%) with poor knowledge, most had inadequate efforts in preventing occupational diseases, totaling 17 respondents (73.9%). After conducting a cross-tabulation test, the p-value obtained was 0.001 ($< \alpha = 0.05$), indicating that H_a is accepted, meaning there is a relationship between knowledge and efforts to prevent occupational diseases.

A comprehensive understanding of Occupational Health and Safety (OHS) significantly contributes to increasing awareness and compliance in implementing OHS procedures in the workplace. Conversely, a lack of knowledge tends to lead to neglect of safety standards, which can increase the risk of workplace accidents and reduce efforts to prevent occupational diseases (Motulo et al., 2022).

Adequate knowledge enhances workers' awareness and understanding of occupational safety and health procedures. This enables them to take appropriate preventive measures, effectively identify risks, and comply with safety regulations more discipline, thereby improving OHS practices and reducing workplace accidents (Siregar et al., 2020).

The results of this study are in line with research by Ardiansyah et al. (2025), which found a significant relationship between nurses' knowledge of OHS and its implementation in the workplace, with a p-value of 0.004, indicating that the difference did not occur by chance.

Similarly, the findings of Maharani et al. (2025) show relationships between knowledge ($p = 0.000$), attitude ($p = 0.000$), length of service ($p = 0.021$), and availability of facilities ($p = 0.045$) with compliance in implementing occupational health and safety among nurses at AK Gani Hospital, Palembang.

The researcher assumes that nurses' understanding influences efforts to prevent occupational diseases, which is also related to their length of service. This is supported by the finding that 42.4% of nurses had ≥ 5 years of work experience. The longer the work experience, the stronger the knowledge retention, especially regarding disease prevention efforts. In addition, higher education levels contribute to broader insights into nursing practices, including occupational disease prevention.

However, there are still nurses who lack adequate understanding of occupational disease prevention, as evidenced by some nurses using masks only when provided by the hospital, which ultimately affects the effectiveness of prevention efforts.



2. The Relationship Between Attitude and Efforts to Prevent Occupational Diseases

Based on the research results, out of 59 respondents, 35 (100%) had a positive attitude, with the majority demonstrating good occupational disease prevention efforts (24 respondents or 68.6%). Meanwhile, among 24 respondents (100%) with a negative attitude, most had poor prevention efforts (15 respondents or 62.5%). The cross-tabulation test showed a p-value of 0.036 ($\alpha = 0.05$), indicating that H_a is accepted, meaning there is a relationship between attitude and efforts to prevent occupational diseases.

One of the dominant factors causing workplace accidents in hospitals is human factors, particularly unsafe work behavior. Therefore, understanding and attitude toward OHS are important components in preventing workplace incidents. Hospitals are high-risk work environments, making the optimal implementation of OHS systems essential to prevent accidents and occupational diseases, especially among healthcare workers (Tanjung et al., 2022).

Nurlaili and Al Ridha (2022) stated that, in addition to knowledge, attitude is also influenced by age, education, and length of service. Better knowledge leads to more positive attitudes toward accident prevention. Likewise, higher age and longer work experience contribute to more positive attitudes.

Research conducted by Fazri (2022) on factors influencing OHS implementation among nurses in the Emergency Department of Aceh Tamiang Regional Hospital showed that attitude had a p-value of 0.001, indicating a significant influence on OHS implementation (Fazri, 2023).

Similarly, Manurung et al. (2025) found that predisposing factors such as knowledge ($0.007 < 0.05$) and attitude ($0.037 < 0.05$), as well as enabling factors such as facilities ($0.037 < 0.05$), were significantly related to OHS implementation.

The researcher assumes that attitude plays an important role in the implementation of occupational disease prevention efforts among nurses. The results also indicate that some nurses at Pertamedika Ummi Rosnita Hospital have not optimally implemented OHS (44.1% had negative attitudes).

Additionally, some nurses are reluctant to use personal protective equipment due to discomfort, rarely undergo health checks, do not comply with OHS procedures, and lack awareness of provided information regarding prevention efforts. This may also be influenced by education level, as most respondents held a diploma (49.1%).

3. The Relationship Between PPE Compliance and Efforts to Prevent Occupational Diseases

Based on the research results, out of 59 respondents, 32 (100%) were compliant in using PPE, with the majority showing good occupational disease prevention efforts (23 respondents or 71.9%). Meanwhile, among 27 respondents (100%) who were non-compliant, most demonstrated poor prevention efforts (17 respondents or 63%). The cross-tabulation test showed a p-value of 0.015 ($\alpha = 0.05$), indicating that H_a is accepted, meaning there is a relationship between PPE compliance and efforts to prevent occupational diseases.

Nurses are human resources in hospitals who provide direct patient care. Universal precautions are essential to prevent disease transmission between healthcare workers and patients. Compliance with PPE use in hospitals is influenced by communication, availability of equipment, supervision, and nurses' attitudes. Disease transmission in hospitals can be prevented by improving safety and discipline in PPE usage across all service units (Simamora, 2020).

Efforts to prevent workplace accidents include eliminating risks or controlling hazard sources, with PPE as the last line of defense. According to the International Labour Organization (ILO, 1989), the hierarchy of hazard control consists of elimination, substitution, engineering controls, administrative controls, and PPE. Prevention efforts focus on the work environment, equipment, and especially workers (Situmorang et al., 2025).

This study is consistent with Mulfiyanti (2022), which found that professional nurses tend to comply with PPE usage as part of occupational disease prevention, with a p-value of 0.009. Disease contamination in hospitals can be minimized by improving safety and discipline in PPE usage among all nurses.



The researcher assumes that nurses' compliance with PPE usage is closely related to efforts to prevent occupational diseases. High compliance can significantly reduce the risk of disease transmission and injury, while non-compliance increases these risks. This forms the basis for the observed relationship between PPE compliance and occupational disease prevention efforts.

4. CONCLUSION

Based on the results of the study conducted at Pertamedika Ummi Rosnati Hospital, Banda Aceh, from June 13-20, 2025, the following conclusions can be drawn:

1. There is a relationship between compliance with PPE use and efforts to prevent occupational diseases at Pertamedika Ummi Rosnati Hospital, Banda Aceh, with a p-value of 0.015.
2. There is a relationship between knowledge and efforts to prevent occupational diseases at Pertamedika Ummi Rosnati Hospital, Banda Aceh, with a p-value of 0.001.
3. There is a relationship between attitude and efforts to prevent occupational diseases at Pertamedika Ummi Rosnati Hospital, Banda Aceh, with a p-value of 0.036.

5. REFERENCES

- Arni J, et al., (2022). Perilaku Penggunaan Alat Pelindung Diri Pada Pekerja Di Sorowako Sulawesi Selatan. <https://journal.universitaspahlawan.ac.id>
- Darmadi. (2021). Pencegahan Dan Pengendalian Infeksi Di Rumah Sakit. Yogyakarta: Gosyen Publishing.
- Delima, R. et al., (2022). Kepatuhan penggunaan alat pelindung diri (APD) pada tenaga Kesehatan di rumah sakit pendidikan universitas syiahkuala Banda Aceh. *JIMNFKeP* volume v1 No 4. <https://jim.usk.ac.id>
- Dewi Mulyanti (2023). Hubungan Penggunaan Alat Pelindung Diri (APD) Pada Perawat Dalam Upaya Pencegahan Penyakit Akibat Kerja. *Akademik Keperawatan Lapatau Bone*. <https://drive.google.com>.
- Dewi, F et al., (2022). Kepatuhan penggunaan perawat dalam penggunaan alat pelindung diri (APD) untuk memutus rantai penularan covid-19 di Rsud Cut Meutia Aceh Utara. *Sehat rakyat (jurnal Kesehatan Masyarakat)* *vol.1* *No* *2* <https://journal.yp3a.org/index.php/sehatrakyat/article/view/919/459>
- Doda, V. et al., (2021). Hubungan pengetahuan dengan kepatuhan penggunaan APD pada pekerja di rumah sakit: systematic review. *Jurnal KESMAS*, Vol 10 N02. Februari 2021. <https://drive.google.com>.
- Indrianingrum, S. (2019). Hubungan Pengetahuan Perawat Tentang Alat Pelindung Diri (APD) dan Kepatuhan Perawat Menggunakan Alat Pelindung Diri (APD) di Ruang Rawat Inap Rumah Sakit Harum. *Skripsi, Universitas Esa Unggul, Jakarta*.
- Inge Wasty. Et al., (2021). Hubungan Pengetahuan Dengan Kepatuhan Penggunaan APD Pada Pekerja Di Rumah Sakit: Systematic Review. *Jurnal Kesmas*. Vol. 10, No. 2, Februari 2021. <https://ejournal.unsrat.ac.id>
- Jufrizal Et Al., (2023). Penggunaan Alat Pelindung Diri (APD) Dengan Kejadian Penyakit Kulit Pada Petugas Kebersihan Kota Banda Aceh. *Jurnal Penelitian Perawat Profesional*, Vol. 5. No. 3. <https://jurnal.globalhealthsciencegroup>.
- Kasim, Y., Mulyadi, N., & Kallo, V. (2020). Hubungan Motivasi & Supervisi Dengan Kepatuhan Perawat Dalam Penggunaan Alat Pelindung Diri (Apd) Pada Penanganan Pasien Gangguan Muskuloskeletal Di Igd Rsup Prof Dr. RD Kandou Manado. *Jurnal Keperawatan UNSRAT*, 5(1), 112054.
- Kementerian Kesehatan RI. (2020). Pedoman Pengendalian Dan Pencegahan Infeksi Di Fasilitas Pelayanan Kesehatan. Jakarta: Kemenkes RI. <https://infeksiemerging.kemkes.go.id>.
- Khofifah, N. M. (2021). *Gambaran Pengetahuan Dan Sikap Perawat Tentang Penerapan Keselamatan*



- Dan Kesehatan Kerja Di Rumah Sakit Islam Sultan Agung.*
- Mulyati, S., et al, (2021). Hubungan Faktor Predisposisi dan Masa Kerja Dengan Penggunaa Alat Pelindung Diri (APD) Pada Pekerja Di Bagian Produksi PT. Sawit Mulya Kabupaten Bengkulu Utara Provinsi Bengkulu Tahun 2021. *Journal of Nursing and Public Health*, 9(2), pp. 108–115. Available at: <https://jurnal.unived.ac.id/index.php/jnph/article/view/1813/1268>.
- Mulyadi, (2024). Analisis kepatuhan penggunaan alat pelindung diri pada petugas *cleyani service di RSUD Palembang Bari, kota Palembang*. Health care: *jurnal Kesehatan 13 (1)*. <https://jurnal.payungnegeri.ac.id>.
- Nara, M.Y (2020). Komunikasi Terapeutik Dalam Asuhan Keperawatan Di Ruangan Rawat Inap Kelas III RSud prof. Dr. W.Z. Johannes Kupang. *Jurnal Communio: Jurnal Jurusan Ilmu Komunikasi*, 9 (1). 1489-156. <https://doi.org/10.35508/Jikom.V9i1.2390>
- Nurchayati, (2018). Perilaku penggunaan alat pelindung diri pada pekerja di Sorowako Sulawesi Selatan hal (6).<https://ejournal.unsrittomohon.ac.id>.
- Nopriadi, N., & Fitri, A. (2022). A Promosi Kesehatan Tentang Upaya Pencegahan Dan Vaksinasi Covid-19 Di Puskesmas Siak Hulu I Kabupaten Kampar Tahun 2021: Musfardi Rustam, 1, 2 Nopriadi3, Aminatul Fitri 4. *Jurnal Pengabdian Kesehatan Komunitas (Journal of Community Health Service)*, 2(1), 74–80.
- Permenkes No.56. (2016). *Penyelenggaraan Pelayanan Penyakit Akibat Kerja*. Kemenkes RI.
- Ppni, Aipni, Aipd. (2023). Standar Kompetensi: Standar Kompetensi: Standar kompetensi: *Standar Kompetensi Perawat Indonesia*, hal 1-5.
- Retnaningsih, R., Kurnianto, A., Andhitara, Y., Ardhini, R., Satrioaji, H. W., & Budiman, J. (2020). Ensefalitis pada infeksi corona virus disease 2019 (covid-19): sebuah tinjauan literatur. *Medica Hospitalia: Journal of Clinical Medicine*, 7(1A), 361–371.
- Ridley, J. (2022). *Kesehatan Dan Keselamatan Kerja: Teori Dan Praktik*. Jakarta: Gramedia Pustaka Utama.
- Roslani, E.N (2022). Upaya Pencegahan Penyakit Akibat Kerja Pada Perawat Di Rumah Sakit. https://osf.io/preprints/osf/uk2cv_v1
- Sari AF et al., (2022). Analisis penggunaan alat perlindungan diri (APD) covid-19 pada petugas pukesmas di kota padang 2020: 5 (4): 102 hal (11). <https://journal.universitaspahlawan.ac.id/index.php/prepotif/article/view/1531>.
- Shabat, S. (2020). *Teknik Manajemen Keselamatan dan Kesehatan Kerja*. FT. Bisa Sumber Daya Manusia.
- Siswanto, J., Ningsih, D. S., & Indrayani, R. (2020). Factor-faktor Yang Mempengaruhi Kepatuhan Penggunaan Alat Pelindung pada Perawat. *Jurnal Keperawatan*. <https://repository.universitalirsyad.ac.id>.
- Tawarka. (2021). *Keselamatan Dan Kesehatan Kerja: Manajemen dan Implementasi K3 Di Tempat Kerja*. Surakarta: Harapan Press.
- Taribaba, (2024). Hubungan pengetahuan dan sikap perawat dengan kepatuhan penggunaan APD di Pukesmas Kakaskasen Tumohon. *Jurnal multidisiplin sariputra* volume 14 No 2. Penerbit: LPPM Universitas Sariputra Indonesia. <https://ejournal.unsrittomohon.ac.id/index.php/multidisiplinsariputra/article/download/151/120>.
- Utami dkk, (2020). Pengetahuan, sikap dan keterampilan Masyarakat dalam mencegah covid-19 di DKI Jakarta. *Jurnal Kesehatan Holistic*. <https://ejournal.stikesrshusada.ac.id/index.php/jkh/article/view/85>.
- Wasty, I., Doda, V., & Nelwan, J. E. (2021). Hubungan pengetahuan dengan kepatuhan penggunaan apd pada pekerja di rumah sakit: systematic review. *KESMAS: Jurnal Kesehatan Masyarakat Universitas Sam Ratulangi*, 10(2).
- Widyaati, E. (2020). Penerapan Keselamatan Kerja Dan Pencegahan Penyakit Akibt Kerja Pada Perawat Di Rumah Sakit. <https://www.academia.edu>.



- Yanez, Benitez et al., (2020). Pengaruh kenyamanan pemakaian APD terhadap kinerja professional pemberi asuhan (PPA) Kamar Bedah Di Rumah Sakit Kota Padang Masa Pandemi Covid-19 hal (7).
- Yusan Papebang, et al., (2024). Hubungan Pengetahuan Dan Motivasi Perawat Dengan Kepatuhan Penggunaan APD Selama Bekerja Di RS Elim Rantepao Tahun 2021. LPPM: *Jurnal Ilmiah Kesehatan Promoitif*, p-ISSN: 2548-7140. <https://drive.google.com>.