



THE INFLUENCE OF CONTINUING PROFESSIONAL DEVELOPMENT (CPD) ON NURSES' KNOWLEDGE AND SKILLS IN PROVIDING NURSING CARE

Nurlely Tri Wahyuni*, Agusta Dian, Nurwijayanti

Master of Nursing, Universitas Strada Indonesia, Jl. Manila No.37, Tosaren, Pesantren, Kediri, Jawa Timur 64123, Indonesia

[*nurlelywahyuni28@gmail.com](mailto:nurlelywahyuni28@gmail.com)

ABSTRACT

This study aims to determine the effect of Continuing Professional Development (CPD) on improving nurses' knowledge and skills in providing quality nursing care at RSUD Aji Muhammad Parikesit. Methods: This research employed a quasi-experimental, two-group pre-test-post-test control group design. The target population was 440 nurses working at RSUD Aji Muhammad Parikesit. A proportional probability sampling technique was used, with 102 respondents divided into two groups: 51 in the intervention group and 51 in the control group. his research instrument uses a nurse performance questionnaire that has been declared valid and reliable, with a Cronbach's Alpha value of 0.951. Data were collected by measuring performance before and after the intervention. Data were analyzed using the Paired T-Test with a significance level of $p\text{-value} \leq 0.05$ at a 95% confidence level. Results: The analysis of nurses' knowledge using the Paired T-Test showed a $p\text{-value}$ of $0.000 < \alpha = 0.05$ in the intervention group, while the control group had a $p\text{-value}$ of $0.307 > \alpha = 0.05$. For nurses' skills, the intervention group had a $p\text{-value}$ of $0.000 < \alpha = 0.05$, while the control group showed a $p\text{-value}$ of $0.083 > \alpha = 0.05$. Conclusion: CPD plays a crucial role in the professional development of nurses and can serve as a strategy to improve the quality of healthcare services in hospitals.

Keywords: continuing professional development; knowledge; nursing care; nurses; skills

How to cite (in APA style)

Wahyuni, N. T., Dian, A., & Nurwijayanti, N. (2024). The Influence of Continuing Professional Development (CPD) on Nurses' Knowledge and Skills in Providing Nursing Care. Indonesian Journal of Global Health Research, 6(S6), 1515-1526. <https://doi.org/10.37287/ijgchr.v6iS6.5398>.

INTRODUCTION

Hospitals are healthcare facilities that provide comprehensive individual healthcare services through promotive, preventive, curative, and rehabilitative and/or palliative healthcare services, offering inpatient, outpatient, and emergency services (Law of the Republic of Indonesia Number 17 of 2023). As a service facility, hospitals play a vital role in providing comprehensive healthcare services to the public while upholding professional ethics and legal responsibility (Navisa, 2020). The quality of services and facilities offered by hospitals significantly impacts patient satisfaction, with research indicating that service and facility quality positively affect inpatient satisfaction (Ansori et al., 2024). Efforts to improve healthcare services in hospitals involve setting long-term goals, upgrading infrastructure, and ensuring efficiency, equity, and reliability in service delivery (Astria Apriliaivini Priscila Palenewen & Dety Mulyanti, 2023; McCray et al., 2018).

The number of nurses in Indonesia in 2020 was 460,267, according to the Indonesian Ministry of Health's 2020 report. In Indonesia, as in other countries, nurses make up the largest proportion of healthcare personnel, accounting for 30.67% (Kementerian Kesehatan RI, 2021). Meanwhile, the number of nurses at Aji Muhammad Parikesit General Hospital (RSUD) is 440. RSUD Aji Muhammad Parikesit has been making various improvements aimed at supporting the hospital's vision of being an excellent and trusted hospital. Organizational governance, training and education, continuous rewards, tiered supervision, and the formation

of an organizational culture have been undertaken to support the improvement of the performance of all human resources. However, these efforts have yet to show significant improvements in service quality. An initial study at RSUD Aji Muhammad Parikesit, conducted with 15 inpatients, revealed that 11 patients had low satisfaction levels, while 4 patients reported good satisfaction. A study with 12 nurses found that 8 nurses still made errors in performing 5 steps in nursing care, and some were not implementing care according to the Indonesian Nursing Diagnosis Classification (SDKI), Indonesian Nursing Intervention Classification (SLKI), and Indonesian Nursing Outcome Classification (SIKI). Such conditions impact the ability to deliver services and handle problems when challenges arise in service delivery. The lack of knowledge and skills among nurses leads to suboptimal service quality and an increased risk of errors.

Based on data from nursing care assessment over the past year, the average compliance rate for documenting nursing care according to SDKI, SLKI, and SIKI is between 68% and 77.45%. This may occur due to a lack of understanding of the nursing process and the skills needed to identify patient problems that require nursing interventions. During a brief interview with nurses, it was found that although guidance on documentation had been provided, nurses were still unaware of specific regulations related to the documentation process. A nurse's ability to perform nursing care depends on the competencies they possess, which are shaped by knowledge, skills, and attitude. As mentioned earlier, nursing human resources constitute the largest portion of healthcare workers in a hospital and play a crucial role in patient care delivery. If a nurse lacks sufficient knowledge and skills, it directly affects the quality of care and may pose risks to patient safety.

Each year, a large number of patients are harmed or die due to unsafe healthcare practices, contributing to a high burden of death and disability worldwide, especially in low- and middle-income countries. On average, one in ten patients experiences side effects while receiving care in hospitals in high-income countries. The Patient Safety Incident (IKP) rate in Indonesia, based on Daud et al., (2022) report, showed 7,465 cases in 2019, consisting of 171 deaths, 80 severe injuries, 372 moderate injuries, 1,183 minor injuries, and 5,659 cases with no injury. A study by Tandi et al., (2020) found that nurses' abilities in hospitals were still low in providing good nursing care. Therefore, to improve the quality of nursing care documentation, nurse training on nursing documentation, awareness development, guidance, control, and continuous monitoring need to be conducted. Nursing services are part of the healthcare system in hospitals that play a crucial role in maintaining service quality. These services are often used by the public as a benchmark for assessing hospital quality, which demands professionalism from nurses in delivering care (Fajarnita et al., 2023).

According to Simamora et al., (2017) nurses are the most important human resource in hospitals due to their dominant number (55-65%) and their role in providing constant and continuous care to patients 24/7. Improving the quality of nursing care requires the development and training of nurses in delivering care that is always adapted to technological advancements (Mendrofa & Sagala, 2019). Developing countries are currently implementing Continuing Professional Development (CPD) standards in healthcare facilities to ensure that nurses maintain ongoing competence and stay updated with guidelines that meet public health needs. Continuing Professional Development (CPD) enables nurses to maintain and develop the skills necessary to provide high-quality, safe, and effective care in all roles and conditions. It also helps nurses maintain professional development, ensuring they can provide better nursing care to patients (Kasine et al., 2018; Nilasari et al., 2021).

Research by Muhadi & Wahyuni (2020) shows that Continuing Professional Development (CPD) has a positive impact on nurses' critical awareness in providing quality nursing care. The identified priority for CPD development plans is to enhance clinical competencies, which is crucial for delivering quality services. According to Bernadetta et al., (2023) research found a significant relationship between Continuing Professional Development (CPD) and nurse competence, with a p-value of 0.000, indicating a strong correlation. Nurses actively involved in CPD tend to have better clinical skills, greater confidence in providing nursing care, and can quickly adapt to changes in clinical practice. Additionally, CPD contributes to increased patient safety, as trained and up-to-date nurses are better able to recognize and respond to patient health issues appropriately. Based on the findings from the preliminary study, further research can be conducted to analyze the influence of CPD activities on improving knowledge, skills, and nursing care documentation at RSUD Aji Muhammad Parikesit in Kutai Kartanegara Regency. Therefore, this study can provide recommendations that will help hospitals enhance nurses' competencies and performance, leading to more professional patient care.

Based on the background described above, it is important to conduct research on the "Effect of CPD on the Improvement of Nurses' Knowledge and Skills in Providing Quality Nursing Care at RSUD Aji Muhammad Parikesit." This study aims to provide recommendations that can help hospitals improve nurses' competencies, performance, and provide professional care to patients. In general, this study aims to assess the impact of Continuing Professional Development (CPD) on improving nurses' knowledge and skills in delivering quality nursing care at RSUD Aji Muhammad Parikesit.

METHOD

The research design used in this study is a two-group pre-test post-test control group design, which involves two groups of subjects: an intervention group and a control group, both measured twice: once before the intervention or treatment is given (pretest) and once after the intervention or treatment is given (posttest). This study was conducted at the Aji Muhammad Parikesit Regional Public Hospital (RSUD), and the research will be carried out after the ethical approval is issued. The Nursing Skills Questionnaire contains items regarding the performance of nurses based on nursing care. The questionnaire is adapted from Nursalam (2021) and previous research by Desi (2018). The questionnaire consists of 30 statement items covering assessment, diagnosis, planning, implementation, evaluation, and documentation. Performance is considered "good" if the score is between 111-150, "moderate" if the score is between 71-110, and "poor" if the score is between 30-70. The results of the validity and reliability test of this questionnaire showed a Cronbach's Alpha value of 0.951, indicating that the questionnaire is valid and reliable for use in this study. The target population for this research is nurses working at RSUD Aji Muhammad Parikesit, totaling 440 people. Based on sample size calculations, 82 respondents were selected, and to anticipate dropout during the study process, 25% (20 people) were added, resulting in a total of 102 respondents, divided into 2 groups: 51 in the intervention group and 51 in the control group. The research results will be analyzed using the Paired T-Test with a significance level of p-value ≤ 0.05 at a 95% confidence level.

RESULT

Respondent Characteristics Description

Table 1.
Respondent Characteristics

Variable	Intervention		Control	
	f	%	f	%
Sex				
Male	17	33.3	13	25.5
Female	34	66.7	38	74.5
Age				
19 - 29 Year	20	39.2	25	49.0
30 - 44 Year	31	60.8	26	51.0
Education				
Diploma	30	58.8	23	45.1
Ners	21	41.2	28	54.9
Length of Employment				
<2 Year	9	17.6	22	43.1
>2 Year	42	82.4	29	56.9
Employment Status				
THL	20	39.2	17	33.3
P3K	12	23.5	12	23.5
Civil Servant	11	21.6	14	27.5
BLUD	8	15.7	8	15.7
Room				
Enggang 1 kelas	4	7.8	4	7.8
Enggang 2	5	9.8	5	9.8
Punai 2	10	19.6	11	21.6
Punai 1 VIP	8	15.7	8	15.7
Punai 3	8	15.7	7	13.7
Enggang 3	5	9.8	5	9.8
Enggang 1 VIP	4	7.8	4	7.8
Intermediate	7	13.7	7	13.7

Based on the data in Table 1 above, it is known that the most common gender of respondents is female, with 66.7%. The most common age group is 30-44 years, with 60.8%. The most common educational level is a Diploma in Nursing (D3), with 58.8%. The most common length of employment is respondents who have worked for more than 2 years, with 82.4%. The most common employment status is Temporary Healthcare Workers (THL), with 39.2%. The largest distribution of nurses is from the Punai 2 ward, with 19.6%. For the control group, the most common gender is female, with 74.5%. The age group distribution is highest in the 30-44 years category, with 51%. The most common educational level is a Nursing Profession (Ners), with 54.9%. The largest distribution of length of employment is for those working for more than 2 years, with 56.9%. The most common employment status is THL (Temporary Healthcare Workers), with 33.3%. The largest distribution of nurses is also from the Punai 2 ward, with 21.6%.

Research Variables Description

Table 2.
Research Variables Description

Intervention Group	N	Min	Max	Mean	SD
Knowledge					
Pretest	51	11	31	20,90	5.368
Posttest	51	25	44	36,18	4.260
Skill					
Pretest	51	33	76	46,65	7,326
Posttest	51	114	136	125.86	5,448
Control Group	n	Min	Max	Mean	SD

Knowledge					
Pretest	51	11	31	20.98	5.353
Posttest	51	12	31	21.76	4.819
Skill					
Pretest	51	33	55	44.55	5.088
Posttest	51	35	55	45.75	4.736

Based on the data in Table 2, the description of the knowledge variable before the intervention had a mean value of 20.90, with a minimum value of 11 and a maximum value of 31. After the intervention, the mean value changed to 36.18, with a minimum value of 25 and a maximum value of 44. The mean skill score of respondents before the CPD intervention was 46.65, with a minimum value of 33 and a maximum value of 76. After the intervention, the mean skill score changed to 125.86, with a minimum value of 114 and a maximum value of 136. In the control group, the description of the knowledge variable before the intervention had a mean value of 20.98, with a minimum value of 11 and a maximum value of 31. After the intervention, the mean value changed to 21.76, with a minimum value of 12 and a maximum value of 31. The mean skill score of respondents before the CPD intervention was 44.55, with a minimum value of 33 and a maximum value of 55. After the intervention, the mean skill score changed to 45.75, with a minimum value of 35 and a maximum value of 55.

Analysis of the Effect of CPD Implementation on Knowledge in Providing Nursing Care among Nurses at Aji Muhammad Parikesit Regional Public Hospital

Table 3.

Analysis of the Effect of CPD Implementation on Knowledge in Providing Nursing Care					
Knowledge	N	Mean	SD	SE	P Value
Intervention					
Pretest	51	20,36	5.444	0,407	0,000
Posttest	51	36,16	5.654		
Control					
Pretest	51	20,21	5.378	0,508	0,307
Posttest	51	21,15	5.033		

Based on the data in Table 3 above, the mean knowledge score before the intervention was 20.36, while after the intervention, the mean score changed to 36.16. The analysis using the Paired T-Test showed a p-value of 0.000, which is less than $\alpha = 0.005$. Meanwhile, the analysis of the control group showed a mean knowledge score of 20.21 before the intervention, and after the intervention, there was no significant change, with a mean score of 21.15. The p-value obtained was 0.307, which is greater than $\alpha = 0.005$.

The Effect of CPD Implementation on Skills in Providing Nursing Care among Nurses at Aji Muhammad Parikesit Regional Public Hospital

Table 4.

Analysis of the Effect of CPD Implementation on Skills in Providing Nursing Care					
Skill	N	Mean	SD	SE	P Value
Interventio					
Pretest	51	46,65	7,326	0,616	0,000
Posttest	51	125,25	5,684		
Control					
Pretest	51	44,13	5,614	0,342	0,083
Posttest	51	44,74	5,519		

Based on the data in Table 4 above, the mean skill score of respondents before the CPD intervention was 46.65, and after the intervention, the mean skill score changed to 125.25. The analysis using the Paired T-Test showed a p-value of 0.000, which is less than $\alpha = 0.005$. Meanwhile, the analysis of the control group showed a mean skill score of 44.13 before the intervention, and after the intervention, there was no significant change, with a mean score

of 44.74. The p-value obtained was 0.083, which is greater than $\alpha = 0.005$. This study has a limitation because the data was collected using a questionnaire filled out by the respondents, with the results controlled through observation. This approach was taken due to time constraints in the research. It might have been more relevant if the skill variable was assessed based on direct observations or assessments of skill development after the intervention

DISCUSSION

The Effect of CPD Implementation on Knowledge in Providing Nursing Care among Nurses at Aji Muhammad Parikesit Regional Public Hospital

Based on the results of this study, it was found that the mean knowledge score before the intervention was 20.36, while after the intervention, the mean score increased to 36.16. The analysis using the Paired T-Test yielded a p-value of 0.000, which is less than $\alpha = 0.005$. In contrast, the analysis of the control group showed a mean knowledge score of 20.21 before the intervention, and after retesting, there was no significant change, with a mean score of 21.15. The p-value obtained was 0.307, which is greater than $\alpha = 0.005$. The results of this study indicate that the implementation of Continuing Professional Development (CPD) has a positive impact on increasing nurses' knowledge in providing nursing care at Aji Muhammad Parikesit Regional Public Hospital. However, there are still two statements where many nurses answered incorrectly. The first statement is, "After completing documentation, one must authenticate it by writing their name and signature," where 19.8% of nurses disagreed, and 9.8% disagreed with the statement "During the assessment stage, subjective and objective data are obtained from the patient." This increase in knowledge is important because adequate knowledge serves as the foundation for nurses to provide effective, safe, and standard-compliant nursing care. CPD, as a form of continuous training, allows nurses to regularly update their knowledge in line with the evolving health science and technology.

The application of Continuing Professional Development (CPD) significantly enhances nurses' knowledge and skills in providing nursing care. Research shows that CPD is crucial for maintaining professionalism and improving patient care standards in various healthcare settings. CPD has been proven to improve nurses' knowledge, skills, and job retention, ultimately enhancing patient safety and care quality (Amir et al., 2024; Vázquez-Calatayud et al., 2021). A mixed-methods study confirmed that CPD programs specifically designed for nursing practice effectively support and enhance nursing competence (Naylor, 2022). The increase in nurses' knowledge after participating in CPD is evident in their ability to apply nursing theories more accurately and in accordance with clinical practice. This aligns with research conducted by Kyaw et al., (2019) , which showed that well-designed CPD can enhance healthcare practitioners' knowledge and improve their clinical competence in the workplace. Additionally, research by Eraut (2004) emphasized the importance of continuous learning in professional environments to ensure that nurses' competencies continue to improve (Flodgren et al., 2019).

CPD is an integral part of lifelong learning for nurses, fostering a culture of continuous improvement and adaptation to the evolving healthcare demands (Mlambo et al., 2021). The World Health Organization stresses the need for CPD among healthcare professionals to maintain competence, given the changing technology and practices(Simkhada et al., 2016).The COVID-19 pandemic has highlighted the urgent need for flexible CPD programs that can quickly address emerging healthcare challenges, ensuring that nurses are well-prepared (Jean et al., 2020). While CPD is widely recognized for its benefits, barriers such as organizational culture and resource availability can limit its effectiveness, suggesting the need for systemic changes to fully realize its potential in nursing care.However, there are several

factors that can affect the effectiveness of CPD in improving knowledge. One of these is the active involvement of participants in the CPD program. According to Sherman & Chappell (2018), training that is passive or purely theoretical tends to be less effective in improving practical knowledge. In the context of Aji Muhammad Parikesit Regional Public Hospital, a more interactive and case-based approach may be more effective in strengthening the transfer of knowledge from CPD into daily nursing practice.

Another factor to consider is hospital management support. Management that provides full support in terms of time and facilities for CPD plays a crucial role in ensuring the effectiveness of the program. Mlambo et al., (2021) emphasize that strong institutional support can increase nurses' engagement in CPD, which in turn improves the success rate of the program in updating nursing knowledge. Overall, the implementation of CPD at Aji Muhammad Parikesit Regional Public Hospital has proven to have a positive impact on improving nurses' knowledge. However, further optimization is needed by increasing the interactivity of the program and securing more support from hospital management.

The Effect of CPD Implementation on Skills in Providing Nursing Care among Nurses at Aji Muhammad Parikesit Regional Public Hospital

Based on the results of this study, the mean skill score of respondents before the CPD intervention was 46.65, and after the intervention, the mean skill score increased to 125.25. The analysis using the Paired T-Test yielded a p-value of 0.000, which is less than $\alpha = 0.005$. In contrast, the analysis of the control group showed a mean skill score of 44.13, and after re-evaluation, there was no significant change, with a mean score of 44.74. The p-value obtained was 0.083, which is greater than $\alpha = 0.005$. The results of this study indicate that Continuing Professional Development (CPD) plays a significant role in improving the skills of nurses at Aji Muhammad Parikesit Regional Public Hospital in providing nursing care. However, the study also shows that many nurses still answered incorrectly to the statement "Data obtained through assessment are grouped into bio-psycho-social-spiritual data," with 5.8% of nurses answering "never" and 7.7% answering "sometimes." Similarly, for the statement "Conducting client data assessment when the client is admitted to the hospital," 34.6% of nurses answered "sometimes." Clinical skills are one of the key elements in quality healthcare services. Improving these skills not only supports the accuracy of nursing actions but also ensures patient safety and adherence to applicable standards and procedures.

Continuing Professional Development (CPD) plays a crucial role in improving nursing skills and the quality of nursing care. Research indicates that CPD significantly impacts nursing skills and overall job performance, leading to improved patient safety and care quality (Amir et al., 2024). The improvement in nursing skills after CPD implementation can be attributed to the use of practice-based learning methods and clinical simulations, which allow nurses to directly sharpen their practical abilities. This is consistent with research conducted by Hartono & Afriza (2019), which stated that CPD based on simulation can significantly improve nurses' technical skills, especially in emergency situations or complex cases. Ongoing training through CPD enables nurses to evaluate and refine the nursing techniques they use daily. This aligns with the findings of Puspitaningrum & Hartiti (2017) which discovered that training programs offering nurses the opportunity to actively engage in hands-on practice sessions result in more noticeable skill improvements compared to purely theoretical training. According to Redwood et al., (2024) CPD programs help nurses maintain up-to-date expertise, which is crucial for safe and competent patient care. Workshops focused on evidence-based nursing practices have been shown to improve nurses' knowledge and the application of research in clinical settings (Mu'afiro et al., 2023). Studies have revealed that

participation in CPD correlates with improved quality of nursing care, as nurses report an increase in skills and knowledge from these programs (Simkhada et al., 2016). Despite these benefits, barriers such as staff shortages and lack of management support hinder CPD participation, highlighting the need for institutional commitment to facilitate ongoing professional development.

However, several challenges may affect the effectiveness of CPD in improving skills. One of these is the lack of active involvement from nurses in the program. Margot-Cattin et al. (2018) emphasize the importance of individual motivation in participating in CPD, as more engaged nurses tend to show greater improvement in skills. At Aji Muhammad Parikesit Regional Public Hospital, a CPD approach involving problem-based training and active nurse participation may be more effective in enhancing their clinical skills. Another influencing factor is the quality of instructors providing the training. As stated by Harrington & O'Neill (2021) experienced instructors with in-depth clinical knowledge play a vital role in ensuring that the skills taught align with the latest clinical practices. Training guided by less competent instructors can reduce the effectiveness of the CPD program. Moreover, institutional support also plays a crucial role in the success of CPD. Support that includes providing adequate training facilities, sufficient time for nurses to attend CPD sessions, and the availability of practice tools is essential in improving nurses' clinical skills. Research by Aiken et al., (2021) shows that nurses working in environments with strong professional development support tend to demonstrate higher skill improvement (Resnick, 2019).

Overall, the implementation of CPD at Aji Muhammad Parikesit Regional Public Hospital has proven to have a positive impact on improving nurses' clinical skills. However, the program can be further optimized by ensuring active participation from nurses, using interactive learning methods, and providing competent instructors and adequate facilities.

Differences in Knowledge Between the Intervention Group and the Control Group on Knowledge and Skills in Providing Nursing Care After CPD Implementation at Aji Muhammad Parikesit Regional Public Hospital

Continuing Professional Development (CPD) is an important strategy in enhancing nurses' knowledge and skills. In the study conducted at Aji Muhammad Parikesit Regional Public Hospital, the results revealed significant differences between the intervention group (which received CPD) and the control group (which did not receive CPD). These findings highlight the effectiveness of CPD in supporting the improvement of nursing care quality (Kousar et al., 2022). The intervention group showed a significant increase in knowledge after participating in CPD. CPD provided updates on nursing practice standards, the latest protocols, and evidence-based approaches, which found that CPD significantly improves nurses' ability to understand nursing theory and apply it in clinical practice. In contrast, the control group showed no significant changes in their knowledge levels, indicating the need for continuous learning to support nurses (Kalantari et al., 2021).

The improvement in skills within the intervention group included clinical decision-making abilities, procedure execution, and therapeutic communication. CPD participants were more confident in managing high-complexity patients, such as critically ill or chronically ill patients. Dilawari et al., (2021) also reported that nurses who received CPD had better technical and interpersonal skills compared to nurses who did not receive training. As a referral hospital, Aji Muhammad Parikesit Regional Public Hospital faces challenges in providing care to patients with various complex cases. The enhancement of knowledge and skills through CPD helps nurses deliver quality nursing care that meets standards, contributing to improved patient safety and satisfaction. The results of this study also show

that CPD plays a role in bridging the gap between theory and clinical application in practice. The differences in knowledge and skills between the intervention and control groups in nursing care after Continuing Professional Development (CPD) can be significant. Several studies have shown that educational interventions, including online simulations and blended learning, improve nursing knowledge and skills, particularly in critical areas such as CPR and care for critically ill patients.

In a CPR training study, the intervention group showed higher knowledge scores (1.35 ± 0.93) compared to the control group (1.15 ± 0.93), although the difference was not statistically significant. Another study reported a significant increase in nurses' knowledge from 27.56 ± 3.11 before the intervention to 41.08 ± 4.09 after the intervention, demonstrating the effectiveness of educational programs (Abdullah et al., 2021). Skills assessment revealed that while the intervention group had a skill score of 3.70 ± 2.67 , the control group had a higher improvement (5.00 ± 1.89) (Sandra et al., 2023). A separate study highlighted that regular retraining significantly improves skill retention over time, emphasizing the need for ongoing education (Sankar et al., 2013). Conversely, some studies indicate that without continuous training, knowledge and skills may decline over time, suggesting the need for continuous CPD efforts to maintain nursing competency (Araujo et al., 2022). The significant differences between the intervention and control groups underscore the necessity of implementing structured and continuous CPD programs. The research results show an increase in knowledge scores by 15.8 and skill scores by 78.6 in the intervention group. Based on these findings, hospital management should support this program with allocated time, budget, and quality trainers to ensure the consistent development of nurses' competencies. CPD has proven effective in enhancing nurses' knowledge and skills at Aji Muhammad Parikesit Regional Public Hospital. These findings affirm the importance of CPD in supporting quality healthcare services. Therefore, CPD should be an integral part of the human resource development strategy in the healthcare sector.

CONCLUSION

Based on the results and discussion in this study, it can be concluded that There is an influence of the implementation of Continuing Professional Development (CPD) on nurses' knowledge in providing nursing care at Aji Muhammad Parikesit Regional Public Hospital. There is an influence of the implementation of CPD on nurses' skills in providing nursing care at Aji Muhammad Parikesit Regional Public Hospital. There is a significant difference in the effect of CPD implementation on knowledge and skills in providing nursing care between the control group and the intervention group at Aji Muhammad Parikesit Regional Public Hospital.

REFERENCES

Aiken, L. H., Sloane, D. M., Brom, H. M., Todd, B. A., Barnes, H., Cimiotti, J. P., Cunningham, R. S., & Mchugh, M. D. (2021). Value Of Nurse Practitioner Inpatient Hospital Staffing. *Medical Care*, 59(10).

Amir, H., Hariyati, T. S., & Noviestari, E. (2024). Continuing Professional Development (Cpd) Impact To Clinical And Nursing Practice: A Systematic Literature Review. *Asia Pacific Journal Of Health Management*, 19(Cp D), 1–9.

Ansyori, M., Soleh, A., & Febliansyah, M. R. (2024). The Effect Of Service Quality And Facilities On Hospitalization Patient Satisfaction Hasanuddin Damrah Manna Hospital. *Ekombis Review: Jurnal Ilmiah Ekonomi Dan Bisnis*, 12(1), 1261–1274. <Https://Doi.Org/10.37676/Ekombis.V12i1.4421>

Astria Apriliavini Priscila Palenewen, & Dety Mulyanti. (2023). Upaya Peningkatan Manajemen Pelayanan Kesehatan Di Rumah Sakit: Tinjauan Teoritis. *Diagnosa: Jurnal Ilmu Kesehatan Dan Keperawatan*, 1(1), 53–59. <Https://Doi.Org/10.59581/Diagnosa-Widyakarya.V1i1.165>

Bernadetta, Y., Hariyati, R. T. S., & Pujasari, H. (2023). Continuing Professional Development (Cpd) Melalui Webinar Dan Kompetensi Perawat. *Jurnal Keperawatan Silampari*, 6(2), 2083–2090. <Https://Doi.Org/10.31539/Jks.V6i2.4390>

Daud, M. L., Nelwan, J. E., & Ratag, B. T. (2022). Hubungan Antara Umur Dan Jenis Kelamin Dengan Kejadian Coronavirus Disease-19 Di Kota Bitung Tahun 2020. *Jurnal Kesmas*, 11(1), 190–195.

De Araujo, N. R., De Araújo, R. A., Moretti, M. A., & Chagas, A. C. P. (2022). Nursing Training And Retraining On Cardiopulmonary Resuscitation: A Theoretical-Practical Intervention. *Revista Da Escola De Enfermagem*, 56, 1–9. <Https://Doi.Org/10.1590/1980-220x-Reeusp-2021-0521>

Dilawari, A., Gallagher, C., Alintah, P., Chitalia, A., Tiwari, S., Paxman, R., Adams-Campbell, L., & Dash, C. (2021). Does Scalp Cooling Have The Same Efficacy In Black Patients Receiving Chemotherapy For Breast Cancer? *Oncologist*, 26(4), 292–E548. <Https://Doi.Org/10.1002/Onco.13690>

Eraut, M. (2004). Informal Learning In The Workplace. *Studies In Continuing Education*, 26(2), 247–273. <Https://Doi.Org/10.1080/158037042000225245>

Fajarnita, A., Julianti, R., & Aceh, P. K. (2023). Terhadap Pelaksanaan Praktik Pendidikan Kesehatan. *Jurnal Imliah Ilmu Kesehatan*, 1(2), 107–116.

Flodgren, G., O'brien, M. A., Parmelli, E., & Grimshaw, J. M. (2019). Local Opinion Leaders: Effects On Professional Practice And Healthcare Outcomes. *Cochrane Database Of Systematic Reviews*, 2019(6). <Https://Doi.Org/10.1002/14651858.Cd000125.Pub5>

H. Abdullah, W., Said M. H. Shehata, O., Mohamed Abdel Azeem, A., & Faisal Ellakwa, A. (2021). Educational Nursing Intervention: Its Effect On The Nurses' Performance, Patients' Daily Living Activities, Needs And Selected Visual Problems Of Cataract Surgery. *Egyptian Journal Of Health Care*, 12(2), 280–297. <Https://Doi.Org/10.21608/Ejhc.2021.150268>

Harrington, T., & O'neill, S. (2021). Adoption Of E-Portfolios For Registered Nurses & Midwives Professional Registration And Revalidation In Ireland. *Irish Journal Of Technology Enhanced Learning*, 6(1), 138–153. <Https://Doi.Org/10.22554/Ijtel.V6i1.100>

Hartono, B., & Afriza, N. (2019). Dampak Program Pengembangan Pelatihan Terhadap Kinerja Perawat Rsij Cempaka Putih Dengan Model Pendekatan System Dynamics. *Sustainability (Switzerland)*, 11(1), 1–14. Http://Scioteca.Caf.Com/Bitstream/Handle/123456789/1091/Red2017-Eng-8ene.Pdf?Sequence=12&Isallowed=Y%0ahttp://Dx.Doi.Org/10.1016/J.Regsciurbeco.2008.06.005%0ahttps://Www.Researchgate.Net/Publication/305320484_Sistem_Pembetungan_Terpusat_Strategi_Melestari

Jean, S., Jennifer, G., Pamela, D., & Jennifer, G. (2020). Nursing Continuing Professional Development—A Paradigm Shift. *The Journal Of Continuing Education In Nursing*, 51(7), 297–299. <Https://Doi.Org/10.3928/00220124-20200611-02>

Kalantari, R., Zamanian, Z., Hasanshahi, M., Faghihi, S. A., Jamali, J., & Niakan, H. (2021). The Effect Of Educational Intervention On The Improvement Of Nontechnical Skills In Circulating Nurses. *Biomed Research International*, 2021. <Https://Doi.Org/10.1155/2021/5856730>

Kasine, Y., Babenko-Mould, Y., & Regan, S. (2018). Translating Continuing Professional Development Education To Nursing Practice In Rwanda: Enhancing Maternal And Newborn Health. *International Journal Of Africa Nursing Sciences*, 8, 75–81. <Https://Doi.Org/Https://Doi.Org/10.1016/J.Ijans.2018.03.001>

Kementerian Kesehatan Ri. (2021). Profil Kesehatan Indonesia. In *Kesehatan Indonesia*. Jakarta.

Kousar, F., Yaqoob, A., Afzal, M., & Khan, M. S. (2022). Effect Of Educational Intervention On Knowledge Among Female Nurses Regarding Pre And Post Angiographic Care. *Pakistan Journal Of Medical And Health Sciences*, 16(1), 272–274. <Https://Doi.Org/10.53350/Pjmhs22161272>

Kyaw, B. M., Saxena, N., Posadzki, P., Vseteckova, J., Nikolaou, C. K., George, P. P., Divakar, U., Masiello, I., Kononowicz, A. A., Zary, N., & Tudor Car, L. (2019). Virtual Reality For Health Professions Education: Systematic Review And Meta-Analysis By The Digital Health Education Collaboration. *J Med Internet Res*, 21(1), E12959. <Https://Doi.Org/10.2196/12959>

Mccray, S., Maunder, K., Barsha, L., & Mackenzie-Shalders, K. (2018). Room Service In A Public Hospital Improves Nutritional Intake And Increases Patient Satisfaction While Decreasing Food Waste And Cost. *Journal Of Human Nutrition And Dietetics*, 31(6), 734–741. <Https://Doi.Org/10.1111/Jhn.12580>

Mendrofa, H. K., & Sagala, L. (2019). Pengaruh Pelatihan Dan Penerapan Model Metode Asuhan Keperawatan Profesional (Makp) Primary Nursing Terhadap. *Indonesian Trust Health Journal*, 2(2), 237–245.

Mlambo, M., Silén, C., & McGrath, C. (2021). Lifelong Learning And Nurses' Continuing Professional Development, A Metasynthesis Of The Literature. *Bmc Nursing*, 20(1), 1–13. <Https://Doi.Org/10.1186/S12912-021-00579-2>

Mu'afiro, A., Suwito, J., Ongko Waluyo, K., Hidayati, S., Supriyanto, S., & Anugrahini, H. N. (2023). Improving The Professional Ability Of Nurses In Nursing Interventions In Hospitals Through Evidence-Based Nursing Practice Workshop. *Frontiers In Community Service And Empowerment*, 2(1), 9–14. <Https://Doi.Org/10.35882/Ficse.V2i1.21>

Muhadi, M., & Wahyuni, T. (2020). Optimalisasi Program Continuing Professional Development (Cpd) Untuk Mendukung Peningkatan Kompetensi Dan Karir Perawat Rsi Surabaya. *Jurnal Keperawatan Muhammadiyah*, 5(2). <Https://Doi.Org/10.30651/Jkm.V5i2.6118>

Navisa, F. D. (2020). Perlindungan Hukum Terhadap Keluarga Jenazah Yang Terkena Dampak Covid-19 Atas Penolakan Pemakaman. *Yurispruden*, 3(2), 137. <Https://Doi.Org/10.33474/Yur.V3i2.6745>

Naylor, T. (2022). Development Of A Cpd Program On Caring Nursing Practice For Hospital Nurses: A Mixed-Methods Study. *Journal Of Nursing Education And Practice*, 13(3), 11. <Https://Doi.Org/10.5430/Jnep.V13n3p11>

Nilasari, P., Saraswasta, I. W. G., Agustina, F. U., Ayu, V., Pratiwi, L. A., & Afriani, T. (2021). Upaya Pengembangan Sumber Daya Keperawatan Melalui Cpd (Continuing Professional Development). *Jurnal Kepemimpinan Dan Manajemen Keperawatan*, 4(1). <Https://Doi.Org/10.32584/Jkmk.V4i1.936>

Puspitaningrum, I., & Hartiti, T. (2017). Peningkatan Kualitas Personal Dan Profesional Perawat Melalui Pengembangan Keprofesian Berkelanjutan (Pkb). Deepublish.

Redwood, T., Ward, A., Ali, T., O'dell, C., Poole, C., & Rebaudo, D. (2024). Continued Professional Development (Cpd) Provision For Nurses: A Qualitative Exploration. *Heliyon*, 10(12). <Https://Doi.Org/10.1016/J.Heliyon.2024.E32582>

Resnick, M. J. (2019). Re: Nurses' And Patients' Appraisals Show Patient Safety In Hospitals Remains A Concern. *Journal Of Urology*, 201(5), 850. <Https://Doi.Org/10.1097/01.Ju.0000554058.28178.55>

Sandra, R. M., Ahsan, A., & Yuliatun, L. (2023). Effectiveness Of Knowledge And Skills After Online Simulation Interventions And Blended Learning Are Given. *Jurnal Aisyah : Jurnal Ilmu Kesehatan*, 8(2), 375–380. <Https://Doi.Org/10.30604/Jika.V8i2.1802>

Sankar, J., Vijayakanthi, N., Sankar, M. J., & Dubey, N. (2013). Knowledge And Skill Retention Of In-Service Versus Preservice Nursing Professionals Following An Informal Training Program In Pediatric Cardiopulmonary Resuscitation: A Repeated-Measures Quasiexperimental Study. *Biomed Research International*, 2013. <Https://Doi.Org/10.1155/2013/403415>

Sherman, L. T., & Chappell, K. B. (2018). Global Perspective On Continuing Professional Development. *The Asia Pacific Scholar*, 3(2), 1–5. <Https://Doi.Org/10.29060/Taps.2018-3-2/Gp1074>

Simamora, R. H., Bukit, E., Purba, J. M., & Siahaan, J. (2017). Penguatan Kinerja Perawat Dalam Pemberian Asuhan Keperawatan Melalui Pelatihan Ronde Keperawatan Di Rumah Sakit Royal Prima Medan. *Jurnal Pengabdian Kepada Masyarakat*, 23(2), 300. <Https://Doi.Org/10.24114/Jpkm.V23i2.6880>

Simkhada, B., Mackay, S., Khatri, R., Sharma, C. K., Pokhrel, T., Marahatta, S., Angell, C., Teijlingen, E. Van, & Simkhada, P. (2016). Continual Professional Development (Cpd): Improving Quality Of Nursing Care In Nepal. *Health Prospect*, 15(3), 1–3. <Https://Doi.Org/10.3126/Hprospect.V15i3.16326>

Tandi, D., Syahrul, S., & Erika, K. A. (2020). Kualitas Pendokumentasian Asuhan Keperawatan Di Rumah Sakit: Literature Review (Quality Of Nursing Care Documentation In Hospital : A Literature Review). *Jurnal Ilmu Kesehatan*, 9(1), 12–20.

Vázquez-Calatayud, M., Errasti-Ibarrondo, B., & Choperena, A. (2021). Nurses' Continuing Professional Development: A Systematic Literature Review. *Nurse Education In Practice*, 50, 102963. <Https://Doi.Org/Https://Doi.Org/10.1016/J.Nepr.2020.102963>.