

## THE EFFECT OF IMPLEMENTING THE PRIMARY METHOD OF THE PROFESSIONAL NURSING PRACTICE MODEL ON THE PERFORMANCE OF INPATIENT NURSES

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### ABSTRACT

**Background:** The Primary Method of The Professional Nursing Practice Model (MPKP) is a nursing practice design that is in accordance with the principles of modern management science. The implementation of MPKP method used is a modification of primary nursing MPKP developed in many hospitals is currently also developed in RSI Pati with the aim of improving nurse performance in providing services. Nursing care services as a form of professional service is one of the determining factors for the good or bad quality and image of the hospital. **Objective:** This study aimed to analyze the effect of the application of the professional nursing practice model (MPKP) primary method on the performance of inpatient nurses RSI Pati. **Method:** This type of research is a quasi-experimental study with a pretest-posttest design with a control group. The sample used inpatient nurses who met the inclusion and exclusion criteria were 44 respondents, the sampling technique was total sampling. Research instruments: observation sheets and nurse performance questionnaires. Data analysis used statistical tests Paired-Samples T Test and Independent-Samples T Test. **Results:** Based on the results of statistical tests using the Mann Whitney test, it showed that in the intervention group and the control group, a p value of 0.032 < 0.05 was obtained. **Conclusion:** The implementation of the Professional Nursing Practice Model (MPKP) using the primary method has a significant impact on the performance of nurses in the inpatient ward at Pati Islamic This study recommends strengthening training and mentoring for nurses in implementing the primary model of MPKP to improve the professional responsibility and performance of nurses in inpatient wards.

**Keywords:** Nurse performance primary method; Nursing practice model; Performance inpatient nurses

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### INTRODUCTION

A hospital is a health service facility that provides comprehensive individual health services through promotive, preventive, curative, rehabilitative and/or palliative health services by providing inpatient, outpatient and emergency services. (UU Kesehatan no 17 tahun 2023). Hospital service standards are guidelines that must be followed in overall health services in hospitals where the quality of nursing services must be managed well because nursing services, especially in inpatient installations, can be an indicator of the quality of hospital services (Tejanagara et al., 2022).

Nurse performance is influenced by individual variables, psychological variables, and organizational variables. Individual variables consist of abilities and skills, psychological variables consist of perceptions, attitudes, personality, and motivation, and organizational

variables consist of resources, leadership, rewards, structure, and work design (Lobo et al., n.d.). The implementation of the MPKP in patient care is crucial because it demonstrates how nurses can provide excellent patient care. The MPKP supports the belief in the importance of superior patient care based on partnerships between nurses, physicians, patients, families, and the community. The implementation of the MPKP can also enhance collaboration across healthcare teams, enabling the MPKP to integrate nursing practice across the system. The Professional Nursing Practice Model (MPKP) provides professional nurses with the opportunity to exercise autonomy in planning, implementing, and evaluating nursing care provided to clients. The chosen model should enhance nurse performance, rather than increasing workload and frustration (Nursalam, 2015).

The results of the initial survey in June 2023 showed that the nursing care method resulted in dissatisfaction of nurses and patients. Where nurses were unable to provide comprehensive nursing care because they did piecemeal work, so that nurses did not master the patient's problems as a whole. In addition, several patients said that nurses did not pay attention to nurse complaints, some patients did not receive their personal hygiene needs served, fluid balances were not measured, and the patient environment was not managed properly (patient sprays were sometimes not changed), EWS documentation did not match the patient's condition, so that some patients were not detected when they experienced a decrease in consciousness, resulting in delays in providing emergency treatment. Patient spiritual care, which was the focus of this year's program, also could not run optimally.

Due to efficiency of personnel, the nursing care method used is the functional method, where each nurse in one room only carries out one or two types of nursing interventions, for example in 1 shift there are 2-3 nurses, 1 nurse carries out injections for all patients in the room, and one nurse carries out wound care, while 1 nurse, usually the team leader, is tasked with preparing and accompanying the doctor's visit and documenting it in the patient's medical record.

The role of nurses in providing healthcare services within a hospital is often used by hospital clients as a measure of the hospital's overall service. Caring is a product of culture, values, experience, and interpersonal relationships. Caring actions are beneficial in providing physical care and attending to emotions to increase patient safety and security. Furthermore, caring also considers individual self-esteem. This means that in carrying out nursing practice, nurses must always respect clients by accepting their strengths and weaknesses so they can provide appropriate healthcare. The assessment of a nurse's performance can be seen from the nurse's caring behavior. By implementing the primary MPKP method, it is hoped that nurses' performance will be better, of higher quality and in accordance with the established service standards and improve the

hospital's. This study aimed to analyze the effect of the application of the professional nursing practice model (MPKP) primary method on the performance of inpatient nurses RSI Pati.

## METHOD

This type of research is a quasi-experimental with a pretest-posttest design with a control group. The respondent population was 44 respondents. The sampling technique was total sampling. The sample used was inpatient nurses who met the inclusion criteria: Nurses who were willing to be respondents, had a minimum of 1 year of work experience, worked in the inpatient ward, and had a minimum D-3 degree in Nursing. Exclusion criteria: Nurses who refused to be respondents, Nurses on leave (maternity, assignment, study leave), Nurses who held managerial positions. Data collection was carried out on June 1, 2024. The study was conducted in December 2024-January 2025. Research instruments: observation sheets and nurse performance questionnaires.

The data collection process in this study began with the researcher's observation of the phenomenon of the application of MPKP to the performance of inpatient nurses at the Pati Islamic Hospital. The results of the researcher's observations found a phenomenon which then the researcher submitted the title of the thesis proposal to the Supervisor and obtained approval from The instrument uses a nurse performance questionnaire and MPKP SOP. The supervisor to begin with the preparation of the proposal, then the researcher submitted a permit letter for taking a preliminary study at the Pati Islamic Hospital for initial data collection in June 2024. Then the researcher calculated the required sample from the population. The data sources used in this study were obtained through direct observation by the researcher about the application of MPKP to the performance of inpatient nurses at the Pati Islamic Hospital and the results of interviews with inpatient nurses. Data processing steps, consisting of: editing, coding, tabulating, entry, clearing . Data analysis: statistical tests Paired-Samples T Test and Independent-Samples T. This research has passed the ethical test from the Ethics Committee

of Karya Husada University Semarang with the number: 079/KEP/UNKAHA/SLE/III/2025.

## RESULTS

**Table 1.** Respondent Characteristics

Respondent Characteristic	Intervention group		Control group	
	F	(%)	F	(%)
<b>Gender</b>				
Male	5	22,7	10	45,5
Female	17	77,3	12	54,5
<b>Age</b>				
Early Adulthood (18-40)	16	72,7	17	77,3
Middle adulthood (41-59)	6	27,3	5	27,7
<b>Education</b>				
D3 Nursing	4	18,2	10	45,5
S1 Nursing	1	4,5	1	4,5
Nursing Profession	17	77,3	11	50
<b>Length of work</b>				
<1 tahun	2	9,1	4	18,2
1-5 tahun	9	40,9	7	31,8
>5 tahun	11	50	11	50
<b>Nurse Station</b>				
RI 1	9	41		
RI 2			11	50
RI 3			11	50
RI 4	13	59		

Table 1 shows that there were 5 male respondents (22.7%) in the intervention group and 10 in the control group (45.5%). Meanwhile, there were 17 female respondents (77.3%) in the intervention group and 12 in the control group (54.5%). There were 16 early adulthood respondents (72.7%), 6 middle adulthood respondents (27.3%). Meanwhile, there were 17 early adulthood respondents (77.3%), 5 middle adulthood respondents (27.7%). The last education

of the intervention group was D3 Nursing 4 people (18.2%), S1 Nursing 1 (4.5%), and 17 nursing professions (77.3%). While the last education in the control group was D3 Nursing 10 people (45.5%), S1 Nursing 1 person (4.5%), and Nursing profession 11 people (50%). Length of work in the intervention group <1 year 2 people (9.1%), 1-5 years 9 people (40.9%), and >5 years 11 people (50%). While in the control group length of work <1 year 4 people (18.2%), 1-5 years 7 people (31.8%), and >5 years as many as 11 people (50%). Work room in the intervention group RI 1 9 people (41%) and RI 4 13 people (59%). While in the control group RI 2 13 people (59.1%), and RI 3 11 people (50%).

**Table 2** Description of Nurse Performance Before and After Implementation of MPKP in the Intervention Group and Control Group

Nurse Performance	Intervention group				Control group			
	Pre Test		Post Test		Pre Test		Post Test	
	F	(%)	F	(%)	F	(%)	F	(%)
Tidak baik	3	13,6	0	0	9	40,9	9	40,9
Kurang baik	7	31,8	4	18,2	12	54,5	11	50
Baik	12	54,5	18	81,8	1	4,5	2	9,1
Total	22	100	22	100	22	100	22	100

Table 2 shows that in the intervention group, the Pre Test showed that 3 respondents (13.6%) had poor performance, 7 respondents (31.8%) had poor performance, 12 respondents (54.5%) had good performance, while in the Post Test, the results showed that 4 respondents (18.2%) had poor performance, 18 respondents (81.8%) had good performance, while in the control group, the results showed that 9 respondents (40.9%) had poor performance, 12 respondents (54.5%) had poor performance, 1 respondent (4.5%) had good performance, while in the Post Test, the results showed that 9 respondents (40.9%) had poor performance, 11 respondents (50%) had poor performance, 2 respondents (9.1%) had good performance.

**Table 3.** Differences in Nurse Performance Before and After in the Intervention Group and Control Group

Category	Intervention Group				Control group				P-Value
	PreTest		Post Test		PreTest		Post Test		
	F	%	F	%	F	%	F	%	
Not Good	3	6,8			9	40,9	9	40,9	0,029
Less Good	7	15,9	4	18,2	12	54,5	11	50	
Good	12	27,3	18	81,8	1	4,5	2	9,1	
Total	22	100	22	100	22	100	22	100	

Based on the results of statistical tests using the Wilcoxon test in table 3, it shows that there is a significant difference in nurse performance before and after the implementation of the professional nursing practice model (MPKP) with a p value of 0.029. There is an effect of the application of the primary method of the professional nursing practice model (MPKP) on the performance of nurses at RSI Pati in the intervention group, and there is no significant difference in the control group with a p-value of 0.763. There is no effect of the application of the professional nursing practice model (MPKP) on the performance of nurses at RSI Pati in the control group.

**Table 4.** The Effect of the Primary MPKP Method on Nurse Performance in th Intervention Group & the Control Group

Category	(F)	%	(F)	%	P-Value
Not Good			9	40,9	0,032
Less Good	4	18,2	11	50	
Good	18	81,8	2	9,1	
Total	22	100	22	100	

Based on the results of statistical tests using the Mann Whitney test in Table 4., it shows that there is a significant influence on the performance of nurses in the intervention group and the control group (p value 0.032 < 0.05) the application of the Professional Nursing Practice Model (MPKP) Primary Method is more effective

in improving the performance of nurses at RSI Pati.

**Table 5.** Results of Multivariate Analysis of Differences in Nurse Performance in the Intervention Group and the Control Group

Variabel	Esti Mate	Std. Error	Wald	p-value	OR (Exp(B))	95% CI OR (Lower-Upper)
(Intervensi vs Kontrol)	3.760	0.896	17.619	0.000	43.0	7.42 – 248.0
PRETEST = 1	0.859	0.951	0.815	0.367	0.42	0.07 – 2.73
PRETEST = 2	0.337	0.738	0.209	0.648	1.40	0.33 – 5.95

Note: OR is calculated as  $Exp(\text{Estimate})$ ; CI is calculated from  $Exp(\text{Lower}-\text{Upper Bound})$

The analysis results showed table 5 that the implementation of MPKP had a significant effect on improving nurse performance (Estimate = 3,760,  $p < 0.001$ ). The odds ratio value of 43.0 (95% CI: 7.42 – 248.0) indicated that nurses who participated in the implementation of MPKP had approximately 43 times higher chances of achieving a better performance category compared to the control group. Meanwhile, the pretest score did not show a significant effect on post-test performance p value 0.648 ( $p > 0.05$ ). This indicates that the success of performance improvement is more determined by the MPKP intervention than the difference in initial conditions (pretest).

## DISCUSSION

### 1. Respondent characteristics

Respondent characteristics were analyzed, including gender, age, highest level of education, length of service, and room distribution. Ministry of Health data and national analysis demonstrate that the proportion of female healthcare workers is very large, with national figures indicating a percentage of female healthcare workers reaching 70% and above. In terms of age, the majority of respondents were in the early adulthood group (18–40 years old). This condition indicates that the active nursing staff at RSI Pati in this study were in the productive

age range. Nursing literature shows that nurses of productive age tend to adapt quickly to training interventions and have higher learning motivation than older age groups.

Regarding the last education, the difference in the composition of this education is methodologically and substantively relevant: Professional Nursing education (professional program after undergraduate) structurally provides more clinical competence strengthening and professional independence compared to the D3 level. The policy of the director of RSI Pati is that all nurses are required to have a Nursing education, and currently all nurses with a D3 education are in the process of pursuing professional Nursing education (Raghunathan et al., 2022).

The relatively long work experience in most samples provides internal validity: experienced nurses typically have more mature technical and non-technical skills. The relationship between length of service and the quality of nursing task performance—both in terms of clinical skills and occupational well-being—so that work experience of  $\geq 5$  years is often associated with increased clinical practice competence (Muthiah et al., 2022).

Nursing staff from Rooms RI-1 and RI-4 (50% each) were recruited, while the control group was recruited from Rooms RI-2 and RI-3 (50% each). This sampling demonstrated workplace stratification, ensuring that work environment factors. In conclusion, respondents at RSI Pati were predominantly female, of productive age, with a nursing professional education (especially in the intervention group), and with  $>5$  years of work experience

## 2. Description of Nurse Performance Before and After Implementation of MPKP in the Intervention Group and Control Group

The results above show that the majority of nurses in the intervention pretest group had good performance, namely 12 respondents (54.5%), while the majority of post-intervention respondents also had good performance, namely 18 respondents

(81.8%). The work motivation possessed by nurses, both internal and external, is able to create an attitude that encourages nurses to provide the best service so that in doing maximum work, motivated nurses will provide maximum service to patients (Setiawati, 2024).

The performance of nurses in the control group showed that the majority of nurses in the pretest control group performed poorly, with 12 respondents (54.5%), while the majority of posttest intervention respondents also performed well, with 11 respondents (50%). Furthermore, according to (Pujianto & Hapsari, 2021), poor nurse performance can be caused by complaints of nurses' feelings of dissatisfaction, an unpleasant work environment, and excessive responsibility, which are causes of burnout syndrome. The consequences that can arise are very large and have a big impact on the quality of nursing care services for patients in hospitals.

## 3. The Effect of the Primary MPKP Method on Nurse Performance in the Intervention Group and Control Group

From the results of the study, the intervention pretest group had good performance, namely 12 respondents (54.5%), while the majority of intervention posttest respondents also had good performance, namely 18 respondents (81.8%), there was an increase of 27.3% in the intervention group. This study is in line with the results of research conducted by (Yunita & Rabithah, 2021) using the One Groups Pretest-Posttest Design research design, the p-value was obtained at  $0.000 < \alpha (0.05)$ . MPKP is very helpful for respondents in carrying out their duties as nurses and providing more optimal services to patients being treated, the process of implementing nursing care becomes more focused, MPKP can be used as a guideline for providing nursing care and the scope and objectives of providing nursing care are clearer (Bannepadang et al., 2023).

An evidence-based Professional Practice Model (PPM) can serve as a unified framework for nurses in their practice, thus improving quality and patient safety. Similarly, (Bloemhof et al., 2021), found that implementing a PPM was associated with improvements in the work environment, nurse satisfaction, and quality of care. An evaluation of the MPKP at Jayapura Hospital indicates that its implementation is at a developing stage. However, training, monitoring, and recognition of professional practice remain suboptimal, resulting in a less than optimal impact on performance (Mendrofa1 et al., 2025).

Furthermore, research (Yulia et al., 2024) identified that MPKP implementation is influenced by factors such as job satisfaction, work culture, workload, supervision, and work experience. All of these factors were shown to be significantly related to nurse performance. This suggests that in addition to the practice model, work environment conditions and managerial support also determine the success of MPKP implementation (Abdelaliem et al., 2025).

The implementation of the MPKP has a significant impact on nurse performance. The success of MPKP implementation is not only determined by the structural application of the model, but also supported by factors such as the work environment, leadership, implementation strategies, and nurse job satisfaction. Therefore, hospitals need to ensure that the implementation of the MPKP is carried out comprehensively, involving aspects of training, coaching, monitoring, and creating a supportive work culture. Thus, the MPKP not only serves as a conceptual framework but also has the potential to have a real impact on improving the quality of nursing care and nurse performance on an ongoing basis. The results of this study imply that the implementation of the primary model of MPKP plays an important role in improving the performance of nurses in inpatient wards by increasing individual responsibility, team coordination, and the quality of nursing services provided to patients.

This study still has limitations in terms of the number of respondents and the variables studied. Therefore, future research is recommended to involve a larger sample, use a longitudinal design, and consider other factors that may influence nurse performance. Data were obtained based on respondents' perceptions through questionnaires, thus potentially subjectivizing nurse performance assessments.

## CONCLUSION

There is a significant influence of the primary method of MPKP on nurse performance. This study recommends strengthening training and mentoring for nurses in implementing the primary model of MPKP to improve the professional responsibility and performance of nurses in inpatient wards.

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