

THE EFFECT OF CONTINUING PROFESSIONAL DEVELOPMENT (CPD) ON NURSES' SELF-EFFICACY IN HOSPITAL

Ari Wibowo^{1,2*}, Arum Setyaningsih³, Rihmaningtyas⁴

¹Emergency Department, RSUP dr. Soeradji Tirtonegoro Klaten, Jalan KRT. dr. Soeradji Tirtonegoro No 1, Tegalyoso, Klaten Selatan, Klaten, Jawa Tengah 57424, Indonesia

²Faculty of Nursing, Universitas Indonesia. Jl. Lingkar, Pondok Cina, Kecamatan Beji, Depok, Jawa Barat 16424, Indonesia

³Pediatric Health Installation, RSUP dr. Soeradji Tirtonegoro Klaten, Jalan KRT. dr. Soeradji Tirtonegoro No 1, Tegalyoso, Klaten Selatan, Klaten, Jawa Tengah 57424, Indonesia

⁴Intensive Care Unit, RSUP dr. Soeradji Tirtonegoro Klaten, Jalan KRT. dr. Soeradji Tirtonegoro No 1, Tegalyoso, Klaten Selatan, Klaten, Jawa Tengah 57424, Indonesia

*alamat3mail@gmail.com

ABSTRACT

Continuous Professional Nursing Development (“CPD”) is defined as a professional development process, including various activities carried out by a person in their capacity as a nurse practitioner, in order to maintain and improve their professionalism as a nurse according to established competency standards. Nurse self-efficacy is an assessment of the nurse's ability to carry out a certain level of performance, carry out a performance at a certain level. The implementation of CPD at dr. Soeradji Tirtonegoro Klaten Hospital is not yet optimum. The CPD achievement of each nurse is not in accordance with the proportion of CPD activities that refer to the PPNI CPD Guidelines. The implementation of monitoring and evaluation has also not run optimally. The implementation of evaluation is still limited to the number of credits from each nurse and there is no evaluation of the level of self-confidence or competence after the CPD activities are carried out level of confidence or competence after the CPD activities are carried out. The purpose of this study was to determine the effect of Continuing Professional Development on the self-efficacy of nurses at dr. Soeradji Tirtonegoro Klaten Hospital. The type of research used is quantitative research. The population in this study amounted to 449 nurses with a sample of 174 people. The sampling technique used was the Slovin formula. While the measuring instrument used is a ratio scale and data analysis techniques using one tail correlation test and linear regression. The results obtained median score of professional practice 53.00; continuing education 24.00; community service 30.00; and self-efficacy of hospital nurses 38.00. Spearman's test showed there was a significant positive relationship between professional practice and nurse self-efficacy with a p value of 0.001; continuing education and self-efficacy with a p value of 0.001; and community service and self-efficacy with a p value of 0.001. Continuing Professional Development (CPD) affects Hospital Nurses' Self-Efficacy.

Keywords: community service; continuing education; continuing professional development; professional practice; self-efficacy

INTRODUCTION

Continuous Professional Development ("CPD") for nurses is a professional development process that includes various activities carried out by a nurse that aims to maintain and improve his professionalism as a nurse according to established competency standards (PPNI CPD Guidelines, 2016). Activities can be in the form of experience providing nursing care (professional practice), attending scientific meetings including education/training and seminars, conducting research or publishing scientific papers, and community service. Gillies (2000) revealed that nurse development based on nursing needs can improve the quality of nursing services. Zwel (2000) states that competence is influenced by several factors, one of which is self-confidence. Self-confidence in the nurse is called self-efficacy. Bandura in Anwar (2009) states that various factors that influence self-efficacy include culture, the nature of the task at hand, external incentives, the status or role of the individual, and information about self-ability.

Nurses in maintaining their quality adhere to competency standards which are the minimum ability limits in the form of knowledge, skills, and professional behavior, which must be mastered and possessed by

an individual to be able to carry out their professional activities to the community independently made by health professional organizations. Furthermore, it can be said that CPD activities consisting of professional practice, continuing education, development of science and technology and community service have a positive impact on improving the competence of a nurse. The lack of maximum implementation of evaluation and monitoring of CPD indicates that the implementation of CPD is not yet known to what extent in influencing nurses' self-efficacy and competence. The purpose of this study was to determine the effect of Continuing Professional Development (CPD) on the level of self-efficacy of nurses in hospitals.

METHOD

This study is a quantitative study with a correlational research design with a cross sectional method that aims to determine the relationship of Continuing Professional Development (CPD) to the level of nurse self-efficacy at dr. Soeradji Tirtonegoro Klaten Hospital. The cross-sectional approach is one type of research that emphasizes the time of measurement or observation of data on independent (Continuing Professional Development) and dependent (nurse self-efficacy) variables simultaneously without any follow-up during post-measurement data.

The population in this study amounted to 449 nurses who worked in the Lily Ward, Melati 1st till Melati 4th Ward, Dahlia 2nd till Dahlia 5th Ward and Edelweiss Ward. The sample of this study is part of the number and characteristics of the population of nurses who work at dr. Soeradji Tirtonegoro Hospital and have had experience working at the hospital for at least 1 year. The inclusion criteria of this study were: 1) Actively working at the hospital (not on leave or study permit or study assignment). 2) Nurses who work in the inpatient room. 3) Nurses who have more than 1 year of service. 4) Nurses who are willing to participate in the study. Exclusion criteria in this study are: 1) Nurses who served other than in inpatient room, 2) Newly graduated nurses (fresh graduated) 3) Nurses who have a working period of 0 years or <1 year. So that a total of 308 nurses were obtained who fit the inclusion criteria. Then this study used a quota sampling method, which is a sampling technique by determining a number of sample members by quatum or ration. The formula used to calculate the sample size is to use the Slovin formula with a leeway of 5% and obtained a sample of 174 nurses.

The research was conducted using 3 instruments, namely Instruments A, B and C. Instrument A in this study contains the characteristics of the respondents. Respondent characteristics in this study include respondent code, respondent initials, age, gender, education. Instrument B in this study is a Continuing Professional Development Questionnaire which consists of variables of professional practice, continuing education and community service. This questionnaire uses a Likert scale with alternative answers always with a score of "4", often with a score of "3", sometimes a score of "2", rarely a score of "1" and never with a score of "0". Instrument C in this study is the General Self-Efficacy Scale (KGSC) Questionnaire. This questionnaire uses a scale. This scale is a measurement of an individual's assessment of his competence to perform a task, achieve a goal, and produce something. According to the KGSC scale there are 13 questions. Each item observed is given 5 levels of score (Likert scale) between 0 (zero present) to 4 (severe). Determination of general self-efficacy by adding up the score values and items 1-13 with the results: High = score 46-65, Medium = score 24 - 45, Low = score 13-23.

Univariate data analysis was conducted to obtain an overview of the frequency distribution of respondents. This analysis was used to obtain an overview of each independent variable and the dependent variable. Bivariate analysis used in this study using the Spearman one tail test to determine the existence of a relationship, the strength of the relationship, and the direction of the relationship between variables. The error rate (α value) is set at 0.05 with a confidence level of 95%, if $p \leq 0.05$ then

it can be said that there is a meaningful relationship between the two variables so that H1 is accepted, whereas if $p > \alpha$ then there is no meaningful relationship between the two variables then H1 is rejected. Multivariate analysis used in this study using multivariate linear regression. Multivariate Linear Regression is a regression with a model consisting of more than one dependent variable and between dependent variables are correlated. Data were analyzed using SPSS version 25 software.

This study has received ethical approval from the Health Research Ethics Commission as known as Komisi Etik Penelitian Kesehatan (KEPK) of RSUD dr. Moewardi Surakarta Number 1.768/IX/HREC/2023. At the sampling stage, written consent was obtained from the respondents (nurses) participating in the study. Potential respondent nurses were assured that participation in the study was completely voluntary, and nurses were free to discontinue participation at any time

RESULT AND DISCUSSION

Table 1.

Frequency Distribution of Respondent Characteristics of Nurses in the Inpatient Installation (n=174)

Respondent Characteristics	Median	Mean	Min.	Max.	Frequency (f)	(%)
Age (years)	38,00	38,80	25	58	-	-
Gender	Male	-	-	-	35	20,1
	Female	-	-	-	139	79,9
Tenure	1 – 5 years	-	-	-	34	19,5
	6 – 10 years	-	-	-	21	12,1
	11 – 15 yeras	-	-	-	59	33,9
	>15 years	-	-	-	60	34,5
Education	DIII of Nursing	-	-	-	88	50,6
	DIV of Nursing	-	-	-	6	3,4
	DIV/S1 of Nursing	-	-	-	80	46,0

The characteristics of the respondents studied in this study are summarized in Table 1. A total of 174 nurses with an average age of 38 years where the youngest age is 25 years and the highest age is 58 years. While the description of the characteristics of respondents based on the dominant gender is female at 79.9% (139 respondents), has a working period of > 15 years as many as 60 respondents, and the level of education DIII Nursing at 50.6%. The mean scores of CPD and self-efficacy (table 2) based on respondent characteristics. The table shows that female respondents had the highest mean scores on two variables: professional practice and self-efficacy. Respondents with >15 years of service had the lowest mean score on the continuing education variable. Meanwhile, respondents with undergraduate professional education had the lowest mean scores on all four variables.

Table 2.

Mean Scores f CPD And Self-Efficacy Based on Respondent Characteristics (n=174)

Variable	N	Professional Practice	Continuing Education	Community Service	Self-efficacy
Gender					
Male	35	52,11	26,11	30,63	37,37
Female	139	52,25	23,98	27,68	37,73
Tenure					
1 – 5 yeras	34	50,56	23,79	23,65	37,18
6 – 10 years	21	52,57	23,62	25,38	37,24
11 – 15 years	59	52,25	25,07	27,97	38,31
>15 years	60	53,00	24,38	32,22	37,48
Education					
DIII of Nursing	88	53,08	24,52	29,84	38,23
DIV of Nursing	6	53,00	23,67	30,50	36,17
DIV/S1 of Nursing	80	51,21	24,34	26,39	37,15

The results of the one tail Spearman correlation test (Table 3) show that professional practice has the highest minimum-maximum value compared to other variables, namely 39-64. This shows that the value of respondents' professional practices varies the most compared to the values for other variables with the lowest value of 39 and the highest value of 64. Furthermore, the significance value between continuing education and self-efficacy with a value of 0.000 ($p < 0.05$) means that H_a is accepted while the correlation coefficient of 0.306 means that there is a positive relationship pattern with a weak relationship level. Community service and self-efficacy with a p value of 0.000 ($p < 0.05$) indicates that there is a positive relationship between community service and self-efficacy. The strength of the relationship between the two variables is included in the weak category with a correlation coefficient (r) of 0.310, which means that community service affects self-efficacy by 31.0% and 69.0% is influenced by other factors.

The results of the linear regression multivariate analysis test (Table 4) show that the regression coefficient value of professional practice is 0.322 with a positive value, indicating that as professional practice increases, self-efficacy tends to increase. The significance value of professional practice is 0.003 (< 0.05), so professional practice has a significant effect on self-efficacy. The regression coefficient value of continuing education is 0.318, which is positive, indicating that as continuing education increases, self-efficacy tends to increase. The significance value of continuing education is 0.019 (< 0.05), so continuing education has a significant effect on self-efficacy. The regression coefficient value of community service is 0.100, which is positive, indicating that as community service increases, self-efficacy tends to increase. The significance value of community service is 0.016 (< 0.005), so community service has a significant effect on self-efficacy.

Table 3.
 Frequency Distribution And One Tail Spearman Correlation Test (n=174)

	Median	Mean (SD)	Min-Max	P value	r
Professional Practice	53,00	52,22 (4,631)	39-64	0,001	0,360
Continuing Education	24,00	24,41 (3,581)	17-36	0,001	0,306
Community Service	30,00	28,28 (11,366)	0-48	0,001	0,310
Self-efficacy	38,00	37,66 (6,346)	21-52		

Table 4.
 Multivariate Analysis of Linear Regression of Continuing Professional Development (CPD) On Hospital Nurses' Self-Efficacy (n=174)

Variabel	Unstandardized Coefficients		Standardized Coefficients	t	Sig. (p-value)
	B	Std. Error	Beta		
Professional Practice	0,322	0,106	0,235	3,042	0,003
Continuing Education	0,318	0,135	0,179	2,363	0,019
Community Service	0,100	0,041	0,180	2,441	0,016

a. *Dependent Variable:* Self-efficacy

b. *Predictors:* (Constant), Community Service, Continuing Education, Professional Practice

This study aims to determine the effect of Continuing Professional Development on the self-efficacy of nurses at dr. Soeradji Tirtonegoro Klaten Hospital. Continuous Nursing Development (CLD) is defined as a professional development process, including various activities carried out by a person in their capacity as a nurse practitioner, in order to maintain and improve their professionalism as a nurse according to established competency standards. Nurse self-efficacy is an assessment of a nurse's ability to carry out a certain level of performance.

The research involved 174 nurse respondents who were registered in the inpatient service of Dr. Soeradji Tirtonegoro Klaten General Hospital. The characteristics of 174 respondents studied in this study were age, gender, length of service, and education level. The mean age of the respondents was 38 years where the youngest age was 25 years and the highest age was 58 years. While the description of the characteristics of respondents based on gender, length of service, and level of education. Based on the characteristics of the research respondents, it can be seen that out of 174 respondents, the dominant gender is female at 79.9% (139 respondents), has a work period of > 15 years as many as 60 respondents, and the level of education DIII Nursing at 50.6%.

Continuous Nursing Development in PPNI (2016) is a professional development process, including various activities carried out by a person in his capacity as a nurse practitioner, in order to maintain and improve his professionalism as a nurse according to established competency standards. Continuous Nursing Development activities can include experience in providing nursing care, attending education/training, writing articles, conducting research, publishing scientific papers and community service. Continuous Nursing Development is needed to keep up with the times in terms of knowledge, skills and technology to ensure continuous competence in work. Self-efficacy in nurses is very important to survive the obstacles of the development of the health world and to face problems in various situations. Self-efficacy is one of the factors that can influence a person in dealing with problems. Self-efficacy helps shape nurses' self-confidence so as to increase motivation and positive emotions while carrying out tasks (Suhamdani et al, 2020).

The results state that the regression coefficient value of professional practice is positive, indicating that professional practice increases, then self-efficacy tends to increase. The significance value of professional practice is 0.003 (<0.005) indicating that professional practice has a significant effect on self-efficacy. This is in line with the statement that self-efficacy can reduce fear of failure, readiness to carry out activities, increase aspirations and improve problem solving and analytical thinking skills (Prestiana & Purbadini, 2012). This study also states that the regression coefficient value of continuing education is positive, indicating that as continuing education increases, self-efficacy tends to increase. The significance value of continuing education is 0.019 (<0.005), so professional practice has a significant effect on self-efficacy. The formation of self-efficacy is very important to how humans behave in certain situations depending on the mutual relationship that influences each other between the environment and cognitive conditions, especially cognitive factors related to beliefs about being able or not to perform satisfactory actions.

Participation in community empowerment through forms of social activities, providing counseling, disaster management, actively involved in professional development, working group members of professional activities, participating as professional servants per year, and working in Remote Areas Border Islands (PPNI, 2016). The results showed that the regression coefficient value of community service is positive, indicating that as community service increases, self-efficacy tends to increase. The significance value of community service is 0.016 (<0.005), so professional practice has a significant effect on self-efficacy. This is in line with Wahyudi (2016) that there is a relationship between community service in increasing the competence of PPNI nurses in Bangkalan Regency.

Based on the results of the study, it shows that Continuing Nursing Development has a significant effect on the self-efficacy of nurses at dr. Soeradji Tirtonegoro Klaten Hospital. Good self-confidence reflects that nurses are ready and able to solve all problems in accordance with their goals. However, in the implementation of nursing care, nurses can experience burnout or work stress due to the high workload they have so that nurses will experience a decrease in motivation which can reduce the level of

performance productivity and affect the level of professionalism of hospital nurses. This shows that increasing professionalism can be carried out, one of which is by increasing nurses confidence or self-efficacy.

Implication and limitations

The results of this study can provide an overview to the hospital regarding professional practice, continuing education, community service and self-efficacy of nurses and the positive relationship between them so that nurses can be motivated to improve their competence even better. This research is inseparable from limitations. In this study, the independent variables did not involve all forms of Continuing Professional Development (CPD). The form of Continuing Professional Development (CPD) that did not become an independent variable was Knowledge Development. This study only covers the Inpatient Installation which consists of 10 rooms, including the Melati Ward, Dahlia Ward, Edelweiss Ward and Lily Ward. In addition, researchers cannot deny that there are other variables related to the level of efficacy, so future researchers are expected to pay more attention to other variables besides Continues Professional Development (CPD) which are related to the level of nurse self-efficacy.

CONCLUSION

The results showed that Continuing Professional Development (CPD) had a significant effect on the self-efficacy of nurses at dr. Soeradji Tirtonegoro Klaten Hospital with a significance value of professional practice of 0.003 (<0.005). The higher the professional practice, continuing education and community service, the higher the level of nurse self-efficacy

ACKNOWLEDGMENTS

The researcher would like to thank the Work Team and the Training, Research and Development Installation of dr. Soeradji Tirtonegoro Klaten Hospital for providing research grant funds during this study.

REFERENCES

- Abdullah, S.M. (2019). *Social Cognitive Theory: A Bandura Thought Review Published in 1982-2012*. Retrieved from <https://doi.org/10.24167/psidim.v18i1.1708>
- Anwar, A. (2009). *The Relationship between Self Efficacy and Public Speaking Anxiety in Students of the Faculty of Psychology, University of North Sumatra*, Thesis, Faculty of Psychology, University of North Sumatra, Medan.
- Bandura. (1997). *Self-Efficacy: The Exercise of Control*. W.H Freeman and Company: New York.
- Dahlan, S. (2014). *Statistik Untuk Kedokteran dan Kesehatan Edisi 6*. Salemba Medika : Jakarta.
- PPNI. (2016). *Perubahan Pedoman Pengembangan Keperawatan Berkelanjutan Perawat Indonesia*. DPP PPNI: Jakarta.
- Gillies, D. A. (2000). *Manajemen Keperawatan : Sebagai Pendekatan Sistem*. IAPKP: Bandung.
- Katsikitis, M., McAliister, M., Sharman, R., Raith, L., Byrne, A.F., Prialux, R. (2013). *Continuing Professional Development in Nursing in Australia: Current Awareness, Practice, and Future Directions*, *Contemporary Nurse*, 45(1): 33 – 45.
- Kemendes RI. (2010). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 340 Tentang Klasifikasi Rumah Sakit*. Kementerian Kesehatan Republik Indonesia: Jakarta.

- Kemenkes R.I. (2003). *Permenkes Nomor 49 Tentang Komite Keperawatan Rumah Sakit*, Kementerian Kesehatan Republik Indonesia: Jakarta.
- Potter dan Perry. (2005). *Buku Ajar: Fundamental Keperawatan*. EGC: Jakarta.
- Puspitaningrum, Ike et al. (2018). Methods for Identifying Nurses' Continuing Professional Development (CPD) Needs. *Journal of Nursing and Public Health Cendekia Utama* 7(1):62.
- Rifah, Neny et al. (2022). Theory of Planned Behaviour to Analyze Nurses Behavior in Continuing Professional Development. *Journal of Health Science*, e-ISSN: 2723-6927 Vol. 3 No.3, March 2022.
- Suparno, Wawancara dengan penulis, 30 Maret 2022.
- Tarigan, H., & Lumban Gaol, A. (2019). The Relationship of Continuing Education with Nurse Competence. *Journal of Nursing and Physiotherapy (JKF)*, 1(2), 7-12. <https://doi.org/10.35451/jkf.v1i2.139>
- Vati, J. (2013). *Principles and Practice of Nursing Management and Administration for BSc and MSc Nursing*. Jaypee Brothers Medical Publisher: India.
- Wahyudi, R. (2016). The Relationship between the Implementation of Professional Practice Policies, Continuing Education, Professional Development of Science, and Community Service in Efforts to Extend Nurse Registration with Increased Competence of PPNI Nurses in Bangkalan Regency. *DIA, Journal of Public Administration*, 14 (1): 43-54.
- Wildani, A. (2019). The Relationship Between Nurse Self-Efficacy and Nurse Professionalism in the Emergency Room of Hospitals in Jember Regency. *Jember: Faculty of Nursing, University of Jember*.
- Zwell, Michael. (2000). *Creating a Culture of Competence*. John Wiley Sons Inc: New York.

