

The Effect of New Nurse's Peer Satisfaction and Educational Satisfaction on Clinical Performance

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Abstract

Background/Objectives: The purpose of this study was to analysis the effects of peer satisfaction and educational satisfaction to nurses' clinical performance.

Methods/Statistical analysis: The subjects of this study were 162 nurses who understood the purpose of the study and agreed to voluntarily participate in the study. The collected data were analyzed using Pearson's correlation coefficients and hierarchical multiple regression analysis using the IBM SPSS 25.0 program.

Findings: The results showed that peer satisfaction and education satisfaction were significant factors, and their explanatory power was 27.5% ($F = 6.08$, $p < .001$).

Improvements/Applications: In order to improve the clinical performance of new nurses, education programs considering the impact factors are needed. This study can be used as the evidence.

Keywords: *clinical performance, peer satisfaction, educational satisfaction, nurse, regression*

Introduction

Nursing is becoming more complex and the severity of patients is increasing with the increase in the elderly population. As a result, nurses are required to have a high level of abilities required for patient care. The acquisition of new nurses' fast and stable clinical performances ensures the safety of patient care, increases satisfaction, and lowers turnover to stabilize the organization^[1]. However, some nurses, particularly new nurses, were reported lack of clinical performance^[2]. New nurses have a difficult time not only because they need to improve their clinical performance, but also because they have to adapt to their organizations. Critical thinking^[3,4], working conditions^[5], and experience as a nursing college student^[6] were found to be factors affecting a nurse's clinical performance in previous studies. Nurses' critical thinking skills enable them to pinpoint the patient's problem and provide nursing care for the problem. The physical and human environment

of the nurse's organization affects the nurse's work efficiency. Moreover, number of studies described factors that influence new nurses' clinical performance. In previous studies, social support^[7], interpersonal relationship^[8], problem solving ability^[9] were found to be an influencing factors, considering similar variables related to this study.

Social support, in particular, plays an important role in fostering professionals who can function independently and support nursing in their different roles and ultimately increase the organizational adaptability of new nurses. As with social support, new nurses learn about interpersonal skills in the clinical setting and try to form natural relationships. Problem solving skills are the ability to identify and solve problems that patients have in common with critical thinking.

The clinical performance of graduated new nurses depends not only on academic skills at school, but also on education and preparation for job skills in the field^[10]. And in Korea, the nursing education certification evaluation is used to confirm the overall evaluation of nursing education and the degree of achievement of learning outcomes. The aim of this course is to ensure

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that they are able to play a role as new nurses for the 4th grade students who are about to graduate.

Through many years of continuous evaluation, it is expected that the quality of nursing education and the basic ability of new nurses will be improved. However, the evaluation of the difference between these results and the new nurse's ability in actual clinical practice is still somewhat insufficient. Therefore, there are evaluation difficulties in the part of how these training programs can actually help care for patients. It can be a reasonable evaluation method to verify how helpful the training content has been to patient care through the satisfaction assessment of trained nurses. The relationship with peers is also important because nursing performs patient care while interacting with other professions. As well as communicating with colleagues, support from colleagues is relevant to the performance of nurses^[11].

In addition, after graduating, he becomes a new nurse and acquires knowledge and practical skills that are more suitable for the field through training conducted at the clinical site. However, little has been done about how satisfied new nurses are in the various levels and contents of education provided. For this reason, satisfaction with education can be relatively neglected because new nurses place the highest priority on acquiring knowledge and acquiring practical skills. However, educational satisfaction is likely to influence how much more educated people can focus on the content of education, which may affect the future image of education. Nurses are professions with high demands for continuous education in clinical settings, regardless of position. We must continue to learn new nursing techniques that change from evidence to relatively simple ability to learn new diagnoses and equipment. Therefore, in professional nurses, education is a very important element of capacity building and satisfaction with such education is related to the effectiveness of education and should not be overlooked.

Yet, not enough is known about how peer satisfaction and educational satisfaction impacts clinical performance. Therefore, although few of the existing studies have been found, we want to identify the impact of education satisfaction and peer satisfaction on clinical performance, which is considered to be important factors in the clinical performance of nurses.

Thus, the purpose of this study was to describe the influencing factor to clinical performance in hospital staff new registered nurses.

Method

This study is a descriptive correlation study to identify the effect of new nurses' peer satisfaction and educational satisfaction on clinical performance.

The subjects of this study were 162 nurses who understood the purpose of the study and agreed to voluntarily participate in the study. The number of subjects in this study is calculated by $G * Power$ ver. 3.1.9.2. Program. As a result of multiple regression analysis, the minimum number of samples required was 153 with a mean effect size of .15, significance level .05, power of .95, and 7 variables.

The tools used in the study were clinical performance, peer satisfaction, and educational satisfaction measurement tools.

The clinical performance measurement tool was modified and supplemented by Kim^[12], which was developed by the Korea Nursing Evaluation Institute^[13]. With a four-point Likert scale of 21 total questions, the range of scores is 21-84, and the higher the score, the better the nursing performance. At the time of tool development, the Cronbach's α was .91, and in this study it was .94.

Peer satisfaction was measured using a three-point scale in paragraph 1 consisting of satisfied, average, dissatisfied.

The education satisfaction level measured the tools developed by Lowery^[14] and translated by Lee^[15]. As a five-point Likert scale with a total of 14 questions, the higher the score, the higher the degree of satisfaction with the exercise leader and overall practice. At the time of tool development, the Cronbach's α was .96, and in this study it was .96.

Data were collected about participants' age, gender, Work Department, Working Period, Working department Training Period, Hope Department, Hospital Practice Experience, Residence, Work Satisfaction, Peer Satisfaction, Hospital Satisfaction, Department Movement Experience, matching nurse's image, subjective health awareness.

Weights were assigned through the IBM SPSS 25.0 program to generate a composite sample plan file and analyzed. The significance level was set to .05.

The subjects' characteristics and the factors were calculated using actual numbers and weighted percentages, and χ^2 -test was used to compare groups. Pearson's correlation coefficients and hierarchical multiple regression were used to determine the factors that influence to clinical performance.

Results

1. General characteristics of the subjects

Clinical performance was significantly different according to gender ($p = .018$) and job satisfaction ($p < .001$), Peer satisfaction ($p < .001$), hospital satisfaction ($p < .001$), nurse image compliance ($p < .001$), subjective health ($p = .001$) (Table 1).

2. Correlation between peer satisfaction, educational satisfaction, and clinical performance

The results of analyses show that correlations between clinical performance and educational satisfaction are significant positive correlation ($r = .23$, $p = .011$), between clinical performance and peer satisfaction are significant negative correlation ($r = -.30$, $p < .001$) (Table 2).

3.3 Influencing factors of clinical performance

Multiple regression analysis was performed using clinical performance as a dependent variable to identify the explanation ability of factors affecting clinical performance.

In order to confirm the explanatory power of factors affecting clinical performance, the clinical performance was used as a dependent variable, and the primary independent variables of gender, job satisfaction, hospital satisfaction, matching nurse image, and subjective health awareness, which showed differences in general characteristics of subjects. As a variable, secondary regression analysis was performed by additionally inputting peer satisfaction and education satisfaction. The regression showed that the Durbin-Watson statistic was 1.62, indicating no autocorrelation. Tolerance limits of .620-.935 and .558-.921 were all 0.1 or higher, and the dispersion expansion factors of 1.069-1.640 and 1.085-1.793 were all below 10, indicating no multicollinearity.

In the first analysis, as shown in Table 3, work satisfaction was a significant factor and the explanatory power was 22.2% $F = 6.10$, $p < .001$. The second analysis also showed that work satisfaction and education satisfaction were significant factors, and their explanatory power was 27.5% ($F = 6.08$, $p < .001$).

Table 1. General Characteristics & Differences in Clinical Performance to the General Characteristics of Subjects n=162

Characteristics	Categories	n(%)	M(SD)	Clinical performance	
				M±SD	t/F(p)/ Scheffe
Age (yr)			25.1(1.25)	73.72(10.52)	1.76(.087)
Gender	Male	9(5.6)		81.77(9.69)	2.39(.018)
	Female	153(94.4)		73.25(10.40)	
Working department	Internal medicine	46(28.4)		72.08(10.33)	0.80(.449)
	Surgery	47(29.0)		74.63(11.06)	
	others	69(42.6)		74.20(10.29)	
Working period(month)	≤ 6	75(46.3)	6.32(2.85)	72.20(10.65)	-1.72(.086)
	>7	87(53.7)		75.04(10.28)	
Training period (week)	≤ 4	62(38.3)		74.35(10.80)	0.59(.552)
	>5	100(61.7)		73.34(10.37)	
Desired department	Yes	95(58.6)		73.07(10.63)	-0.66(.508)
	No	67(41.4)		74.18(10.47)	

Cont... Table 1. General Characteristics & Differences in Clinical Performance to the General Characteristics of Subjects n=162

Hospital practice experience	Yes	59(36.4)		73.33(10.10)	-0.36(.723)
	No	103(63.6)		73.95(10.79)	
Residence	Home	50(30.9)		74.98(10.84)	1.10(.313)
	Others	112(69.1)		73.16(10.37)	
Work satisfaction	Satisfied ^a	67(41.4)		78.85(10.71)	16.16(<.001) a>b,c
	Average ^b	77(47.5)		69.93(8.34)	
	Dissatisfied ^c	18(11.1)		70.88(10.68)	
Peer satisfaction	Satisfied ^a	127(78.7)		75.29(10.37)	8.35(<.001) a>b,c
	Average ^b	31(19.1)		69.03(9.14)	
	Dissatisfied ^c	4(2.5)		60.50(4.43)	
Hospital satisfaction	Satisfied ^a	68(42.0)		77.95(10.81)	10.63(<.001) a>b,c
	Average ^b	68(42.0)		70.50(8.93)	
	Dissatisfied ^c	26(16.0)		71.11(10.07)	
Department movement experience	Yes	17(10.5)		74.26(10.72)	0.23(.816)
	No	145(89.5)		73.66(10.53)	
Nurse image consistent	Consistent ^a	48(29.6)		79.0(9.80)	11.40(<.001) a>b,c
	Medium ^b	79(48.8)		72.65(10.83)	
	Inconsistent ^c	35(21.6)		68.91(7.50)	
Subjective health	Good	39(24.1)		79.12(11.86)	7.74(.001)
	Average	86(53.1)		72.55(8.63)	
	Poor	37(22.8)		70.75(11.23)	

Table 2. Correlation of Variables**(n=162)**

Variables	Clinical performance r(p)	Educational Satisfaction r(p)
Clinical performance	1	
Educational Satisfaction	.23(.010)	1
Peer Satisfaction	-.30(<.001)	-.23(.011)

Table 3. Influencing Factors of Clinical Performance

n=162

Variables		β	t	p
1	Work satisfaction (ref: normal) Satisfied	.263	2.97	.003
Adj.R ² = .222, F(p) = 6.10(<.001)				
2	Educational Satisfaction	.219	-3.9	.003
	Work satisfaction (ref: normal) Satisfied	-.104	2.80	.006
Adj.R ² = .275, F(p) = 6.08(<.001)				

Discussion

This study produced new knowledge that general characteristics, peer satisfaction, and education satisfaction influencing on the clinical performance of new nurses in the following sections, we discuss our findings compared with previous research findings. And we identify limitations.

As expected, the positive correlation between clinical performance and education satisfaction was supported.

Training for new nurses is an essential part of reducing the turnover of new nurses^[16], increasing satisfaction and increasing the productivity of nursing organizations^[17].

In the previous study, the more educated and experienced nurses had fewer drug failures, and the less patient fall down accident^[18]. These findings provide a practical evidence that goes beyond the vague expectations or expectations that nurses' education improves the quality of patient care. In other words, the actual number of medication errors and the number of patients fall of the subjects were examined and objectively showed that the more education, the less these mistakes were made and the quality of patient care improved.

Previous studies have shown that differences in satisfaction with education and willingness to participate have an impact on the effectiveness of education. However, it is pointed out that if such educational satisfaction is high, the effect of education is high and the factors that increase the educational satisfaction are highly related to race, grade, and

individual's disposition^[19]. However, as mentioned above, educational satisfaction is influenced by various factors such as personal disposition and race. How this subjective judgment can be objectively assessed is very important to secure the basis for understanding the exact phenomenon in the future. The tools used in this study were also reliable, which can be seen as a result of confirming the relationship between satisfaction and clinical performance.

In addition, in the same context as this study, if the organization's career development support, including education, is satisfactory, the turnover rate of nurses will be lowered, and the nurse's capacity will be strengthened as time goes by, and clinical performance will be improved. However, satisfaction is subjective judgment, which may lead to inaccurate interpretation. Therefore, there is a need for repeated research by using different satisfaction evaluation tools.

In this study, researchers found that clinical performance and education satisfaction were correlated and clinical performance and peer satisfaction were negatively correlated. (r= -.30, p <.001) However, previous studies have reported that the higher the peer support of new nurses, the higher the clinical performance^[20]. In addition, high peer support influences job satisfaction, thus increasing job satisfaction^[21]. The support of colleagues and supervisors is important factor to help new nurses adapt to the clinical field, and since clinical adaptation is directly related to their job ability, the support improves the new nurse's ability. Existing studies have shown that active support from co-workers and supervisors is a factor that helps new nurses cope with the situation and work well^[22]. Since new nurses

may feel uncertainty and loneliness, it is important to reliably adapt to the hospital system in order to work effectively in hospitals^[23]. Peer support and support can enhance clinical performance and eliminate isolation^[24]. The negative correlation between peer satisfaction and clinical performance in this study is different from previous studies. It seems that the research tool showed a difference in that it was a three-point scale of a single question. In addition, this study was aimed at new nurses in a hospital, and the diversity of organizational culture was excluded. In addition, it is necessary to confirm the difference between peer support used in previous studies and peer satisfaction in this study. It may be necessary to confirm this part as not all support may lead to satisfaction. Therefore, further research is needed because the findings that peer support is associated with peer satisfaction could not be found.

Conclusion

There was a significant correlation between peer satisfaction and educational satisfaction with clinical performance. And explanatory power was also significant. Based on the results, it has been found that there is a need to increase peer satisfaction and educational satisfaction in order to enhance the clinical performance of nurses, which should be considered in the development of strategies and interventions.

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Source of Funding: Self

Conflict of Interest: There is no conflict of interest

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