

The Factors influencing on the Interpersonal Caring Behavior of Clinical Nurses in COVID-19

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COVID-19 상황에서 임상간호사의 대인돌봄행위에 영향을 미치는 요인

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Abstract This study aimed to identify the influence of caring character and knowledge of COVID-19 on interpersonal caring behavior of clinical nurses. The subjects were nurses working at one tertiary hospital in Seoul and two general hospitals in Gyeonggi province. The data were collected from October 15 to November 5, 2021. A total of 130 nurses participated in the online survey. The collected data were analyzed by performing stepwise multiple linear regression using SPSS/Win 27.0. As a result, the factors affecting the interpersonal caring behavior of clinical nurses were caring character ($\beta=.50$, $p<.001$), age ($\beta=-.24$, $p=.002$), and job satisfaction ($\beta=.16$, $p=.040$), and they explained 36.0% of caring behavior ($F=24.49$, $p<.001$). Therefore, it is necessary to improve caring character and job satisfaction to enhance the interpersonal caring behavior of clinical nurses. More efforts of the hospital should be made to provide caring character building education and to increase job satisfaction of clinical nurses.

Key Words : Caring, Nurses, Nurse-Patient Relations, COVID 19, Job satisfaction

요약 본 연구는 임상간호사의 돌봄인성과 코로나19에 대한 지식이 대인돌봄행위에 미치는 영향을 확인하고자 시도되었다. 연구대상은 서울시의 1개 상급종합병원과 경기도 내의 2개 종합병원에서 근무하는 간호사였으며, 자료수집 기간은 2021년 10월15일부터 11월 5일까지였다. 총 130명의 간호사가 온라인 설문에 참여하였다. 수집된 자료는 SPSS/Win 27.0을 이용하여 단계적 다중 선형 회귀분석을 실시하여 분석하였다. 연구결과, 임상간호사의 대인돌봄행위에 영향을 미치는 요인은 돌봄인성($\beta=.50$, $p<.001$), 나이($\beta=-.24$, $p=.002$), 직업만족도($\beta=.16$, $p=.040$)였으며 이들은 대인돌봄행위의 36.0%를 설명하였다($F=24.49$, $p<.001$). 이를 통해 임상간호사의 대인돌봄행위를 향상시키기 위해서 돌봄인성과 직업만족도의 향상이 필요함을 알 수 있었다. 간호사의 돌봄인성 함양교육과 직무만족도 향상을 위한 병원의 노력이 필요하다.

주제어 : 돌봄, 간호사, 간호사-환자 관계, 코로나19, 직업만족도

1. Introduction

1.1 Need for research

The novel infectious disease COVID-19 has been steadily increasing since the first patient

had identified in Korea in January 2020. until the recent spread of the new corona omicron. Nurses are performing various roles from screening clinics to intensive care units. Nurses, who account for the largest portion of the

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medical workforce, are exposed to the risk of infection for a long time by performing direct nursing that corresponds to close contact, such as sample collection, intravenous therapy, and tracheal inhalation, for suspected and confirmed patients[1]. The COVID-19 infectious disease is a social disaster. Disasters arise from the uncertainty of risk, which causes negative emotions such as worry, anger, anxiety, embarrassment, and confusion[2]. It was reported that both the general public and nurses complained of a lot of negative emotions about anxiety in the COVID-19 situation[3].

In nursing, caring is a life experience that strengthens the treatment process through nurturing interpersonal relationships through interaction and communication between the nurse and the subject, who express concern and interest for the purpose of protection[4]. Interpersonal care is implemented through direct and indirect interactions between the nurse and the subject as a result of various and subtle actions. Therefore, When the patient's needs and openness to care, professional maturity and moral standards of nurses are preceded and implemented, the mental health of nurses and patients is increased, and the physical health of patients is also improved [5].

Interpersonal caring behavior refers to the fact that when caring is present in human interaction, it promotes specific behaviors in all situations. Caring character is a desirable quality that nursing students and nurses should have[6], and it is a way of expressing the nurse's love and care for patients[7]. Caring character is an individual's internalized values expressed through consistent behavior. Caring Character includes eight factors: patient respect, empathy, integrity, courage, dedication, professional attitude, professional ethics, and identity[8]. A well-formed caring character in college life

leads to a nurse's caring character, which serves as a factor in improving the quality of nursing service and reducing the turnover rate of nurses[9].

In addition, if the knowledge of the patient's condition is insufficient, incorrect or insufficient nursing performance may occur[10], a high level of nursing knowledge contributes to successful nursing and disease management. However, the effect of COVID-19 knowledge on interpersonal caring behavior have not been explored so far.

Therefore it is necessary to study the influence of knowledge and caring character on interpersonal caring behavior under COVID-19 pandemic. The results of the study could be used as basic data for the development of educational courses and programs to produce nurses with high competency who can care for patients with novel infectious diseases in the future.

1.2. Purpose of the research

The purpose of this study is to identify factors that affect clinical nurses' interpersonal caring behavior. Specific purposes are as follows.

Identify the differences in interpersonal caring behavior according to the general characteristics of the subject. Identify the level of caring character, knowledge of COVID-19, and interpersonal caring behavior. Identify the correlation between the caring character, knowledge of COVID-19, and interpersonal caring behavior. Identify the factors affecting interpersonal caring behavior.

2. Research method

2.1 Research design

This study is a descriptive study to identify the impact of caring character and knowledge of COVID-19 on interpersonal caring behavior.

2.2 Study subjects

The subjects of this study are nurses currently taking care of patients in clinical practice. With the G*Power 3.1.9.7 program, a sample was calculated based on a significance level of .05, an effect size of .15 [11], a power of .90, and the number of independent variables of 5, resulting in 116 people. Because the effect size calculated from a previous study [11] on the effect on interpersonal caring behavior was .14, so the effect size of this study was set to .15 (median effect size). Considering the dropout rate of 10%, 128 people were calculated. 130 people participated and all data were used for analysis.

2.3 Data collection

The data collection period was from October 15, 2021 to November 5, 2021. For the survey, one tertiary general hospital in Seoul and two general hospitals in the Gyeonggi region were conveniently extracted. The contents of the recruitment notice were sent to each hospital by e-mail, and the recruitment notice containing the online consent form and a link to the survey was posted using the online bulletin board in the hospital, and participants were encouraged to participate voluntarily. When the subject accessed online survey link, the survey began with the explanation about research purpose, method, expected time required for the survey, compensation, and voluntary consent. It took about 15 minutes to finish the survey.

2.4 Research tool

2.4.1 Caring character

Caring character was measured using the tool developed by Kim[8]. The caring character originally developed for nursing students was slightly modified for nurses. Question number 16, 23, and 28 were adjusted respectively as

follows. No. 16 'I am building my belief in nursing while studying.' has been changed to 'I am building my belief in nursing while practicing.'. No. 23 'I'm proud that I will become a nurse.' was changed into 'I'm proud that I am a nurse', and No. 28 'I think my usual words and behaviors are suitable as a preliminary nurse.' into 'I think my usual words and behaviors are suitable as a nurse'. It consists of 51 items: 15 items of respect for patients, 9 items of empathy, 8 items of sincerity, 3 items of courage, 3 items of dedication, 4 items of professional attitude, 3 items of professional ethics, and 3 items of identity. It is composed of a 5-point Likert scale, and a higher score means a higher caring character. In the study of Kim[8], The reliability of the tool, Cronbach's α , was .97 in the study of Kim and was .97 in this study as well.

2.4.2 Knowledge of COVID-19

For the knowledge of COVID-19, the tool developed by Yoon[12] was used. It was based on the 6th edition of the Coronavirus Infectious Disease-19 Response Guidelines presented by the Korea Centers for Disease Control and Prevention on February 20, 2020. This tool has a total of 23 items, and by answering 'yes' or 'no' to each question, 1 point is given if correct, and 0 point given if incorrect. So the score ranges from 0 to 23.

The higher the score, the higher the knowledge of COVID-19.

2.4.3 Interpersonal caring behavior

The interpersonal caring behavior was measured using the tool developed by Yoon[12]. It is used in a previous study by Kim and Lee[13]. The Interpersonal caring behavior consisted of a total of 50 questions on a 5-point likert scale. It consisted of a total of 10

concepts: listening, comforting, sharing, participating, accepting, forgiving, hoping, complimenting, noticing, and companionship. The higher the score, the higher the interpersonal caring behavior score. The reliability of the tool was .92 at the time of development and .98 in this study.

2.5 Data analysis

The collected data were analyzed using the SPSS/WIN 27.0 program.

The general characteristics of the subjects were calculated as frequency and percentages, and the average and standard deviation of caring character, knowledge of COVID-19, and interpersonal caring behavior were calculated. Differences in interpersonal caring behavior according to general characteristics were analyzed with an independent t-test. Interpersonal caring behavior according to gender and education level did not show the normal distribution, therefore, the differences in interpersonal caring behavior by gender were analyzed using Mann-Whitney U test, and differences in interpersonal caring behavior according to education level were analyzed using Kruskal-Wallis test. The correlation between caring character, knowledge of COVID-19, and interpersonal caring behavior was identified through Pearson correlation coefficient, and factors affecting interpersonal caring behavior were identified through stepwise multiple linear regression.

2.6 Ethical considerations

This study was conducted after obtaining approval from the University Bioethics Review Committee to which one of the researchers belongs to (BUIRB-202108-HR-027). Before the online questionnaires starts, participants were

asked to agree and participate voluntarily in the survey. It was specified that the collected data would be stored in the researcher's computer with a lock, and disposed in 3 years after the completion of the study. A drink coupon worth 5,000 won was provided to the study participants.

3. Research results

3.1 Interpersonal Caring Behaviors by General characteristics

Table 1 below shows the results of general characteristics and Interpersonal caring behavior. A total of 130 subjects, the average age was 30.72 years, 122 participants were women (93.8%), and 105(80.8%) were single. As for educational background, 97(74.6%) graduated from university (bachelor's), and the mean of working experience was about 7 years. As for hospitals, 100(76.9%) were general hospitals, 99(76.2%) were staff nurses, and 74(56.9%) nurses were atheist. The mean of job satisfaction and the intention to care for COVID-19 patients was 6.64, and 6.22 respectively.

Interpersonal caring behavior was significantly higher in nurses under 30 years of age than in nurses over 30 ($t=2.36$, $p=.021$). Nurses with less than 5 years of experience showed higher interpersonal caring behavior than nurses with more than 5 years of experience ($t=2.73$, $p=.007$), Nurses with a high job satisfaction score of 7 or higher were significantly higher than those with a score of 6 or lower ($t=-3.04$, $p=.003$), Nurses with a high intention to care for COVID-19 patients with a score of 7 or higher were higher than those with a score of 6 or lower ($t=3.21$, $p=.002$).

Table 1. Interpersonal Caring Behaviors by General Characteristics

(N=130)

Characteristics	Categories	n(%)	Interpersonal caring behavior	
			Mean±SD	T or F or Z(p)
Age(year)	≤30	86(66.2)	4.08±0.58	2.36(.021)
	>30	44(33.8)	3.76±0.79	
	Mean±SD	30.72±(7.56)		
Gender	Men	8(6.2)	4.31±0.46	-1.55(.122)
	Women	122(93.8)	3.94±0.68	
Marital status	Single	105(80.8)	3.99±0.66	1.01(.316)
	Married	25(19.2)	3.84±0.70	
Education level	Associate's degree	13(10.0)	4.08±0.73	0.23(.607)
	Bachelor's degree	97(74.6)	3.95±0.70	
	Graduate school	20(15.4)	3.93±0.67	
Working period(year)	Less than 5	70(53.8)	4.11±0.58	2.73(.007)
	5 or more	60(46.2)	3.79±0.73	
	Mean±SD	7.01±6.40		
Hospital	General hospital	100(76.9)	3.92±0.70	-1.29(.200)
	Tertiary general hospital	30(23.1)	4.10±0.56	
Position	Staff nurse	99(76.2)	3.99±0.61	1.01(.313)
	Manager	31(23.8)	3.85±0.85	
Religion	Yes	56(43.1)	3.92±0.74	0.62(.539)
	No	74(56.9)	3.99±0.62	
Job satisfaction	Mean±SD	6.64±1.97		-3.04(.003)
	1~6 point	59(45.4)	3.77±0.53	
	7~10 point	71(54.6)	4.12±0.74	
Intention to care for COVID-19 patient	Mean±SD	6.22±1.97		-3.21(.002)
	1~6	69(53.1)	3.79±0.68	
	7~10	61(46.9)	4.16±0.62	

3.2 The level of caring character, knowledge of COVID-19, and interpersonal caring behavior

The results of the level of caring character, knowledge of COVID-19, and interpersonal caring behavior are shown in Table 2. In this study, the average caring character of the subjects was 4.05±0.67. Respect for patients (4.15±0.53) and empathy (4.15±0.56) were the highest, followed by commitment (3.49±0.80), and identity (3.85±0.78) in order. Knowledge of COVID-19 was 14.30±1.56. The level of interpersonal caring behavior was 3.96±0.67. Noticing (3.99±0.67) was the highest and participating (3.48±0.82) was the lowest.

Table 2. The Levels of Caring-character, knowledge of COVID-19, Interpersonal Caring behavior (N=130)

Variables	Categories	M±SD	range
Caring character	Patient respect	4.15±0.53	1-5
	Compassion	4.15±0.56	
	Sincerity	4.09±0.56	
	Courage	4.03±0.68	
	Commitment	3.49±0.80	
	Professional attitude	4.08±0.62	
	Professional ethics	4.14±0.65	
	Identity	3.85±0.78	
	Total	4.05±0.66	
Knowledge of COVID-19		14.30±1.56	1-23
Interpersonal caring behavior	Noticing	3.99±0.67	1-5
	Participating	3.48±0.82	
	Sharing	3.71±0.79	
	Active listening	3.88±0.75	
	Companionship	3.85±0.76	
	Complementing	3.78±0.81	1-5
	Comforting	3.94±0.70	
	Hoping	3.69±0.90	
	Forgiving	3.91±0.69	
	Accepting	3.91±0.72	
	Total	3.96±0.67	

3.3 Correlation between caring character, knowledge of COVID-19, interpersonal caring behavior

The correlation results are shown in Table 3 below. There was a moderate positive correlation between caring character and interpersonal caring behavior ($r=.56, p<.001$). Knowledge of COVID-19 did not show a significant correlation with caring character and interpersonal caring behavior.

Table 3. Correlation Coefficients of Caring character, Knowledge of COVID-19, and Interpersonal Caring Behavior

Variables	Caring character	Knowledge of COVID-19	Interpersonal Caring behavior
	r(p)	r(p)	r(p)
Caring character	1		
Knowledge of COVID-19	-.16	1	
Interpersonal caring behavior	.56** (.001)	-.08	1

3.4 Factors affecting interpersonal caring behavior

In order to identify factors affecting the interpersonal caring behavior of clinical nurses, age ($\leq 30=0$), work experience ($\leq 5=0$), job satisfaction ($\leq 6=0$), intention to care for COVID-19 patients ($\leq 6=0$), which were converted into dummy variables, and caring character were independent variable. Stepwise multiple regression analysis was performed. As a result of the correlation analysis, none of the variables showed a correlation coefficient of 0.8 or higher, and all variables had a tolerance of 0.87 to 0.95, which was 0.1 or higher, and a Variation Inflation Factor (VIF) value of 1.05 to 1.15, which was less than the standard value of 10. It was found that there was no problem of multicollinearity. As a result of multiple regression analysis, the factors affecting the interpersonal caring behavior of clinical nurses were caring character, age, and job satisfaction.

And these variables accounted for 36.0% of caring behavior ($F=24.49, p<.001$). Interpersonal caring character was the biggest influencing factor ($\beta=.50, p<.001$). Table 4 shows the results of a stepwise multiple regression analysis.

Table 4. Factors Influencing Interpersonal Care Behavior

Variables	B	S.E.	β	t	p	tolerance	VIF
Constant				5.55	<.001		
Caring character	.51	.08	.50	6.63	<.001	.90	1.11
Age†	-.33	.10	-.24	-3.23	.002	.95	1.05
Job satisfaction†	.21	.10	.16	2.08	.040	.87	1.15
Durbin-Watson= 2.07 R ² =.37, Adj.R ² =.36, F=24.49, p<.001							

† dummy variable: age ($\leq 30=0$), job satisfaction ($\leq 6=0$); Adj. R²=adjusted R² SE=standard error.

4. Discussion and Conclusion

4.1 Discussion

This study was conducted to understand caring character of clinical nurses, their knowledge of the COVID-19, and the degree of interpersonal caring behavior, and to analyze their effect on interpersonal caring behavior. Based on the results of the study, we would like to discuss as follows.

The study confirmed that the caring character, age, and job satisfaction were factors that had a significant influence on interpersonal caring behavior under COVID-19 pandemic. The knowledge of COVID-19 was not an influencing factor of interpersonal caring behavior. However, there is a report that increasing knowledge related to COVID-19 can indirectly affect caring behavior[14].

The level of interpersonal caring behavior in this study was 3.96 points, but in the study of Choi [15] using the same tools, the parental caring behavior from the student's point of view was 3.67 points, which was lower than in this study. This is thought to be due to the results of

the study of Choi[15] measuring parental caring behavior from the student's point of view. Therefore, since the caring behavior in this study is the nurse's subjective caring behavior, it is considered to be necessary to measure and compare the nurse's caring behavior from the patient's point of view. Also, in the study of Han & Kim[11] conducted with nurses, caring behavior was scored with a score of 3.57, which was different from this study. This is considered to be a difference in nursing work between university hospital and medium-sized hospitals, and repeated research is needed to confirm the care behavior for each hospital level in the future.

In the sub-domain of interpersonal caring behavior, noticing was the highest with 3.99 points, and participating was the lowest with 3.49 points. This result showed similar results to the previous study[16] that showed professional knowledge and skills, confidence, respect, and bond in the order of care in the subdomain of caring behavior. In the study of Choi[15], bonding is an caring behavior of sympathetic while participating together, and it can be said that the nurse stands on the side of the patient rather than asserts professionalism. The reason for the low caring behavior in this area is considered to be that it is difficult for the nurse to perform the act of always being with the patient in a busy clinical setting. Busy clinical settings have high job stress due to working period, organizational system, lack of job autonomy and have a negative correlation with interpersonal caring behavior[11]. It is thought that it is necessary to prepare a program for nurses to promote bonding with patients through participation and empathy in clinical settings.

As a result of regression analysis, caring character, age, and job satisfaction were

influencing factors on interpersonal caring behavior. Among these variables, caring character was found to be the most influential variable. The 'patient respect' in the subdomain of caring character was the highest mean score with 4.15, which was similar to the studies of Cho & Kim[17] and Kim[8]. This means providing nursing care while respecting the patient's values and beliefs while maintaining good manners and etiquette[12]. In the study of Cho & Kim[17], the higher the caring character, the higher the clinical performance. As a result of Kim & Choi[16], they reported that the higher the caring character, the higher the interpersonal caring behavior. In addition, caring character showed differences in experiences of receiving caring character education[18], it is necessary to develop and apply a caring character education program to nurses.

The results of the study that interpersonal caring behavior was lower with increasing age showed different results from previous studies that nurses with higher experience had a positive effect on caring behavior[16] by increasing their self-confidence as their knowledge, skills, and attitude toward their work increased[19]. It is considered that the number of study subjects is greater for those under 30 than for those over 30, and there is not enough theoretical evidence that career necessarily increases with increasing age. Therefore, i think it is necessary to repeat the study by adding the career variable in the future.

The result that job satisfaction affects caring behavior was found to be a positive correlation variable for job satisfaction and social support in a study[20] applying Kim's human care theory. Also, in the study of Cho & Kim[17], the higher the caring character, the higher the

clinical performance ability, and it was consistent with the results that clinical performance had a significant difference according to job satisfaction[21]. As such, in previous studies, caring personality also affects job satisfaction, and nurses' caring behavior showed a significant positive correlation with empathy capacity, professional self-concept, and nursing work environment[22-24]. It is necessary to search for institutional and educational strategies that can increase job satisfaction in connection with the results of the aforementioned caring character influencing interpersonal caring behavior.

4.2 Conclusion

This study was conducted to understand the level of caring character, knowledge of COVID-19, and the interpersonal caring behavior of clinical nurses, and influencing factors on interpersonal caring behavior. Caring character and job satisfaction were the influencing factor on interpersonal caring behavior. Therefore, it is necessary to improve the caring character and their job satisfaction of nurses.

There is a limitation in generalizing this result because the convenience sampling was used in this study, repeated studies with expanded study subjects are required in the future. In addition, the caring character instrument was slightly modified to be used for nurse and was applied directly to the subjects without considering content validity index from experts. Finally, additional research including various factors that may affect interpersonal caring behavior will be needed, and intervention studies to improve caring behavior is necessary to be developed.

REFERENCES

- [1] I. S. Jang, S. J. Lee, A. R. Song & Y. J. Kim. (2018). Influence of Resilience and Anger Expression Style on Nursing Work Performance in Emergency Nurses. *Korean Journal of Occupational Health Nursing*, 27(4), 247-256. DOI : 10.5807/kjohn.2018.27.4.247
- [2] F. O. Adeola. (2000). Endangered community, enduring people: Toxic contamination, health, and adaptive responses in a local context. *Journal of Environment and Behavior*, 32(2), 209-249. DOI : 10.1177/00139160021972504
- [3] E. L. Sohn & S. J. Han. (2020). Understanding risk-perception of COVID-19 and preventive behaviors between public and nurses based on a semantic network analysis: Based on Risk communication. *The Journal of Health & Social Science*, 55(5), 5-30. DOI : 10.14367/kjhep.2021.38.1.25
- [4] J. Watson. (2008). *Nursing: The philosophy and science of caring (Revised ed.)*. Boulder, Colorado : University Press of Colorado Publishing.
- [5] D. Finfgeld-Connett. (2007). Meta-synthesis of caring in nursing. *Journal of Clinical Nursing*, 16, 196-204. DOI : 10.1111/j.1365-2702.2006.01824.
- [6] J. H. Park, (2013). Need of Character Education in Nursing Education. *Journal of the Korean Data Analysis Society*, 15(6), 3321-3332.
- [7] S. K. Lee, S. N. Park & S. H. Jeong. (2012). Nursing Core Competencies Needed in the Fields of Nursing Practice for Graduates in Nursing. *Journal of Korean Academy of Nursing Administration*, 18(4), 460-473. DOI : 10.11111/jkana.2012.18.4.460
- [8] M, H. Kim, (2018). *Development and validation of a scale for assessing caring-character of nursing students*. Master's thesis, Kunkuk University, Seoul.
- [9] M. H. Nam & Y. C. Kwon, (2012), The relationship between better life index, nursing performance and intents to leave among hospital nurses. *Journal of Digital Convergence*, 10(9), 417-427
- [10] S. C. McMillan, M. Tittle, S. Hagan, J. Laughlin & R. Tabler. (2000). *Knowledge and attitudes of nurses in veterans hospitals about pain management in patients with cancer*. Paper presented at the Oncology nursing forum. Seoul.

- [11] J. A. Han. & M. J. Kim. (2016). The Convergence Study of Interpersonal Caring Behaviors on Anger, Job Stress and Social Support in Nurses. *Journal of the Korea Convergence Society*, 7(3), 87-98.
DOI : 10.15207/JKCS.2016.7.3.087
- [12] S. R. Yoon. (2020). Correlations between nurses' knowledge of COVID-19 and infection control compliance, resilience, and psychosocial well-being. Master's thesis, Chung-Ang University, Seoul.
- [13] S. H. Kim & S. Lee. (2017). Effects of an Interpersonal Caring Music Activity Program on Loneliness, Self-esteem, and the Stress Response in Children of Single-parent Families. *Journal of the Korea contents association*, 17(4), 219-228.
DOI : 10.5392/JKCA2017.17.04219
- [14] H. J. Park, & M. H. Park, (2021). Factors Influencing the Intention of Nursing for Patients with Corona Virus Disease 19. ISSN 2765-2998 *Journal of Korean Soc Nurs Ethics*. 1(2), 19-30.
DOI : 10.51462/jksne.2021.1.2.19
- [15] S. Y. Choi. (2016). *Influence of parents' interpersonal caring behaviors and smart phone use level on school life adaptation of upper elementary students*. Master's thesis, Dankook University, Cheonan.
- [16] N. Y. Kim & H. R. Choi. (2021). The Effect of Perceived Patient and Family Centered Care on Nurses' Caring Behavior in Intensive Care Units. *Journal of Korean Biological Nursing Science*. 23(3). 208-216.
DOI : 10.7586/jkbns.2021.23.3.208
- [17] M. H Cho & W. G. Kim. (2021). The Effect of Caring-character, Communication Ability and Problem Solving Ability on Clinical Competence of Nursing Students. *Journal of Learner Centered Curriculum and Instruction*. 21(21), 329-339.
DOI : 10.22251/jlcci.2021.21.21.329
- [18] Y. E. Chun & H. Y. Hwang. (2020). A study on the influence of Caring character on Satisfaction of Clinical Practice and Self-efficacy of Clinical Practice in Nursing Student. *Asia-pacific Journal of Multimedia Services Convergent with Art, Humanities, and Sociology*. 10(1), 43-54.
- [19] Y. M. Ahn, K. S. Jang & H. Y. Park. (2018). Effects of compassion competence, professional self-concept, and nursing practice environment on caring behaviors of clinical nurses in a tertiary hospital. *Journal of Korean Soc Health Serv Manag*, 2(4), 17-30.
DOI : 10.12811/kshsm.2018.12.4.017
- [20] H. Y. Kim. (2020). Analysis of Korean Nursing Studies Applied in Interpersonal Caring Theory. *The Korean journal of fundamentals of nursing*, 27(2), 116-128.
DOI : 10.7739/jkafn.2020.27.2.116
- [21] J. J. Yang. (2020). The Effect of Communication Ability, Problem Solving Ability, and Self-Directed Learning Ability on Clinical Competence of Nursing Students. *journal of korea society for wellness*, 15(4), 217-228.
DOI : 10.21097/ksw.2020.11.15.4.217
- [22] M. H. Nam & H. O. Kim. (2018). Effect of Personality and Resilience on Satisfaction with Major in Nursing Students. *journal of Korean Acad Nurs Adm.*, 24(4), 298-306.
DOI : 10.11111/jkana.2018.24.4.298
- [23] S. M. Nam, J. S. Park & E. J. Shin. (2019). Factors Influencing Character of Nursing Students. *Journal of the Korea Academia Industrial cooperation Societ*. 20(8), 56-65.
DOI : 10.5762/KAIS.2019.20.8.56
- [24] M. Y. An, G. S. Jang & H. Y. Park. (2018). *Factors affecting the caring behavior of nurses in one tertiary general hospital*. Korean Society of Nursing Science Conference, 303-303.

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