Jae eun LIM, Yunmi KIM, Jaemo AN, Sangwoo YU, Jisu YUN, Dayoung LEE, Yewon LEE, Minjeong LIM, Gyuri JEONG, Heekyung JU / Korean Journal of Food & Health Convergence 9 (3), pp.19-25

ISSN: 2586-7342 © 2023 KODISA KJFHC website: http://acoms.kisti.re.kr/kjfhc doi: http://dx.doi.org/10.13106/kjfhc.2023.vol9.no3.19.

Impact of Nursing Students' Knowledge, Moral Sensitivity, and Behavioral Beliefs on the Nursing Intention of COVID-19 Patients

Jae eun LIM¹, Yunmi KIM², Jaemo AN³, Sangwoo YU⁴, Jisu YUN⁵, Dayoung LEE⁶, Yewon LEE⁷, Minjeong LIM⁸, Gyuri JEONG⁹, Heekyung JUNG¹⁰

Received: June 01, 2023. Revised: June 14, 2023. Accepted: July 04, 2023.

Abstract

This study is a descriptive survey research to identify factors affecting the nursing intention of nursing college students who will nurse COVID-19 patients. This study was analyzed through convenience sampling for freshmen, sophomore, junior, senior attending the Department of Nursing at E University in Gyeonggi-do from May 17 to August 11, 2022. As a result, it was found that the intention to care for COVID-19 patients increased by 20% every time the knowledge score on COVID-19 increased by 1 point. If the average score for each item in the moral sensitivity question increased by 1 point, the nursing intention increased significantly by 5.21 times, and it was found that the nursing intention for COVID-19 patients increased by 1 point. Based on the results of this study, it was confirmed that the higher the knowledge, moral sensitivity, and behavioral beliefs of nursing students, the higher the intention to care for new infectious disease patients. Based on the results of this study, it was confirmed that It is necessary to develop and apply educational and psychological intervention programs and integrated nursing ethics programs.

Keywords : COVID-19 Patients, Nursing Students, Moral Sensitivity, Behavioral Beliefs

Major Classification Code : Health general, Health other

1. Introduction

Coronavirus (hereafter COVID-19) was introduced in

- ² Corresponding Author Professor, Dept. of Nursing, Eulji University, Korea, Tel: +82-31-740-7183, Email: kvunm@eulii.ac.kr
- ³ Co-Author B.S. Student, Dept. of Nursing, Eulji University, Korea, Email: mabub2878@naver.com
- ⁴ Co-Author B.S. Student, Dept. of Nursing, Eulji University, Korea, Email: sangwy1201@gmail.com
- ⁵Co-Author, Dept. of Nursing, Eulji University, Korea, Email: jisoo1234a@naver.com
- ⁶ Co-Author B.S. Student, Dept. of Nursing, Eulji University, Korea, Email: dlekdud0607@naver.com

Korea in January 2020 and confirmed cases began to occur. On March 17, 2022, the daily number of COVID-19 confirmed patients in Korea peaked at an all-time high of

- ⁷ Co-Author B.S. Student, Dept. of Nursing, Eulji University, Korea, Email: dpdnjs629@naver.com
- ⁸ Co-Author B.S. Student, Dept. of Nursing, Eulji University, Korea, Email: dlaalswjd99@naver.com
- ⁹ Co-Author B.S. Student, Dept. of Nursing, Eulji University, Korea, Email: jgl5164@naver.com
- 10 Co-Author B.S. Student, Dept. of Nursing, Eulji University, Korea, Email: jennyzang@naver.com

© Copyright: The Author(s) This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (http://Creativecommons.org/licenses/by-nc/4.0/) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

¹ First Author B.S. Student, Dept. of Nursing, Eulji University, Korea. Email: jel0825@naver.com

621,147 and 429 deaths, and as of Tuesday, September 27, the number of confirmed patients and deaths was 39,425 and 26, but the COVID-19 epidemic continues.

73.5 % of nurses who cared for COVID-19 patients at medical institutions were infected with COVID-19, which is the highest among all medical personnel. Through the pandemic, nurses are having a hard time physically, mentally, and psychologically due to a great deal of work and fear and anxiety about infection. Nursing college students continued to feel fear and anxiety about COVID-19 infection during in-school and clinical practice in a pandemic situation (Hwang & Lee, 2020. When nursing college students work as nurses in the future, they are likely to face a situation in which they have to care for patients with new infectious diseases (Park et al., 2021).

The willingness to voluntarily care for patients is called nursing intention, and nursing intention has a positive correlation with behavioral beliefs (Moon & Park, 2021). Nursing intentions of nurses trained in infection control for COVID-19 were reported to be high (Kyung & Shin, 2021), which suggests that nurses' nursing intentions for COVID-19 patients are related to knowledge. In addition, in previous studies, it is said that the moral sensitivity of nurses is related to patient nursing intention (Moon & Park, 2021).

As COVID-19 continues, many related studies are being conducted, but this study will be attempted from the recognition of the problem that there have been no studies dealing with nursing provider's knowledge, moral sensitivity, behavioral beliefs, and nursing intention. This study aims to understand how nursing college students' knowledge, moral sensitivity, and behavioral beliefs affect the nursing intention of COVID-19 infected patients.

2. Literature Review

In the case of infectious diseases such as COVID-19, correct knowledge of the disease makes it possible to protect oneself and others by enabling preventive health behavior (Kim et al., 2021). In a recent study of nursing students on COVID-19, it was proved that knowledge and nursing intention had a positive correlation (Hwang & Lee, 2020).

Nursing students often experience moral conflict in various situations (Choi et al., 2016) and it is necessary to increase the moral sensitivity of nursing students to determine the right behavior and priority in moral conflict situations (Bae, 2015). In a study by Kim et al. (2021) on first-year nursing students, it was reported that the moral sensitivity of nursing students acts as a significant influence factor on bio-medical ethics awareness and human-centered care.

It was found that nursing college students had a positive correlation between nursing intentions and behavioral beliefs of patients with new infectious diseases (Park, 2021). According to a study by Kyung and Shin (2021), it has been reported that nurses have a positive behavioral belief in the nursing performance of COVID-19 infected patients, which affects the nursing intention of COVID-19.

These findings make it possible to establish a hypothesis that nursing students' knowledge, moral sensitivity, and behavioral beliefs will affect nursing intentions.

3. Research Methods and Materials

3.1. Collection of Research Subjects and Data

This study was conveniently sampled from first, second, third, and fourth graders attending the Department of Nursing at E University in Gyeonggi-do from May 17, 2022 to August 11, 2022. 197 people were calculated when the sample size of this study was set to perform multiple regression analysis with a significance level of 0.05, an effect size of 0.15 and a power of 0.95, using G*power 3.1.4, and the minimum number of subjects was 217 considering the dropout rate of 10%. In the study, a total of 276 people were surveyed, and 257 copies were analyzed, excluding 19 people with insufficient responses.

3.2. Research Tools

3.2.1. Knowledge

Knowledge of COVID-19 was measured using tools that modified and supplemented COVID-19 information and response guidelines by Kim et al. (2021) and nursing students' knowledge questions about MERS used by the Korea Centers for Disease Control and Prevention. This tool has a total of 20 questions and a total of 20 points, and the higher the score, the higher the knowledge. In the study of Kim et al. (2021), the final content validity (CVI) was .98.

3.2.2. Moral Sensitivity

The measurement of moral sensitivity was modified and supplemented by Yu (2021) in the Korean version with the approval of the author. In the study of Yu (2021), the reliability of the tool was Cronbach's α =. 82, and in this study, the reliability of the tool was Cronbach's α =.80.

3.2.3. Behavioral beliefs

Measurement of behavioral beliefs was measured using tools modified and supplemented by Lee (2018). The higher the score, the more positive the behavioral beliefs in the nursing of patients with new infectious diseases is. In the Jae eun LIM, Yunmi KIM, Jaemo AN, Sangwoo YU, Jisu YUN, Dayoung LEE, Yewon LEE, Minjeong LIM, Gyuri JEONG, Heekyung JU / Korean Journal of Food & Health Convergence 9 (3), pp.19-25

Lee (2018) study, the reliability of the tool was Cronbach α =.80, and in this study, the reliability of the tool was Cronbach's α =.78.

3.2.4. Nursing intentions

The measurement of nursing intention was measured using tools modified and supplemented by Shi et al. (2020). You can respond with 'I agree,' 'I don't know,' 'I disagree.' And 'I agree.' was classified as 'I have the will to care' and the rest was classified as 'I have no will to care'.

3.3. Data Analysis

The collected data was analyzed using the SPSS WIN 28 .0 Program. The subject's general characteristics, knowledge, moral sensitivity, and behavioral beliefs used descriptive statistics, and the differences in COVID-19 knowledge, moral sensitivity, and behavioral beliefs according to the subject's general characteristics used Independent t-test and One-way ANOVA, and Duncan for post-analysis. As for the difference in nursing intention according to general characteristics, a chi-square test was conducted, multiple logistic regression analysis was used to check the variables affecting the subject's nursing intention, and the suitability was verified using the Hosmer-Lemeshow test.

4. Results and Discussion

4.1. General Characteristics

The general characteristics of nursing college students are shown in <Table 1> . The subjects were 69 (26.8%) in the first grade, 65 (25.3%) in the second grade, 54 (21.0%) in the third grade, and 69 (26.8%) in the fourth grade. The proportion of women was high with 36 males (14.0%) and 221 females (86.0%). 183 students (71.2%) had no religion and 107 (41.6%) had hospitalization experience. There are 157 (61.1%) students who are family members or confirmed to be infected with COVID-19, and 107 (41.6%) students who are confirmed to be infected. The number of vaccinations was 40 (15.6%) for "0-2" and 217 (84.4%) for "three" .

Table 1: General characterist	ics of survey subjects
-------------------------------	------------------------

	(N=257)		
Distincti	N	%	
	First	69	26.8
School year	Second	65	25.3
School year	Third	54	21.0
	4th	69	26.8

Gender	Male	36	14.0
Gender	Female	221	86.0
Presence or	Yes	74	28.8
absence of religion	No	183	71.2
Hospitalization	Yes	107	41.6
experience	No	150	58.4
Confirmation of	Yes	157	61.1
family members	No	100	38.9
Confirmation of	Yes	107	41.6
identification	No	150	58.4
Number of	0 to 2 times	40	15.6
vaccinations	Three times	217	84.4

4.2. Knowledge of COVID-19, Behavioral beliefs, Moral sensitivity

Table 2 shows nursing college students ' knowledge, behavioral beliefs, and moral sensitivity to COVID-19. COVID-19 knowledge averaged 14.95 ± 1.97 points out of 20 points and moral sensitivity averaged 4.78 ± 0.47 points out of 7. Behavioral beliefs averaged 4.76 ± 0.57 points, close to the median value of 4.

 Table 2: Knowledge of COVID-19, Behavioral beliefs, and moral sensitivity

	(N=257)
Distinction (M±SD)	N(%)
Knowledge	14.95±1.97
Moral sensitivity	4.78±0.47
Behavioral beliefs	4.76±0.57

4.3. Correct answer rate for each knowledge item about COVID-19

As a result of measuring knowledge about COVID-19 in 20 items, the correct answer rate of "People infected with COVID-19 may have symptoms or may be asymptomatic" was the highest at 100.0%, and "COVID-19 can be diagnosed using PCR detection and virus separation" was the lowest at 0.4%.

 Table 3: Correct answer rate by COVID-19 knowledge measurement item

Item	(N=257) N(%)
1. The causative agent of COVID-19 is the SARS-CoV-2 virus.	110(42.8)
2. The name of the novel coronavirus infection disease is Coronavirus disease-2019 (abbreviated COVID-19).	218(84.8)

22 Jae eun LIM, Yunmi KIM, Jaemo AN, Sangwoo YU, Jisu YUN, Dayoung LEE, Yewon LEE, Minjeong LIM, Gyuri JEONG, Heekyung JU /Korean Journal of Food & Health Convergence 9 (3), pp.19-25

3. The main symptoms of COVID-19 are fever (37.5°C or higher), cough, and difficulty breathing.	249(96.9)
4. People infected with COVID-19 may have symptoms or may be asymptomatic.	257(100.0)
5. Patients with old age or underlying diseases are more likely to go severe or die.	252(98.1)
6. The incubation period for COVID-19 is 1 to 3 days.	161(62.6)
7. It is transmitted through close contact with a person infected with COVID-19.	188(73.2)
 People infected with COVID-19 are infected by touching their eyes, nose, or mouth with saliva droplets (droplets) on their hands or media. 	244(94.9)
9. Washing hands meticulously with soap in running water for more than 30 seconds can help prevent the spread of COVID-19.	253(98.4)
10. COVID-19 can be diagnosed using COVID- 19 gene (PCR) detection and virus separation.	1(0.4)
11. If fever or respiratory symptoms appear, visit a screening clinic first for medical treatment.	208(80.9)
12. COVID-19 is treated with antiviral drugs sold.	146(56.8)
13. Antibiotics are the first treatment for COVID- 19.	167(65.0)
14. Inpatient treatment for patients infected with COVID-19 shall be performed at a negative pressure isolation bed facility or a medical institution equipped with isolation facilities.	239(93.0)
15. Those who have fever or respiratory symptoms (cough, sore throat, etc.) within 14 days of visiting China are confirmed patients.	150(58.4)
16. A suspected patient has a fever or respiratory symptoms (cough, sore throat, etc.) within 14 days of close contact with a confirmed patient.	165(64.2)
17. If you have respiratory symptoms such as coughing, sneezing, phlegm, runny nose, and sore throat, you should wear a health mask (KF80 or higher).	213(82.9)
18. The high-risk groups that should not go to places where many people gather at the critical stage are senior citizens aged 65 or older, pregnant women, and chronically ill people.	228(88.7)
19. Avoiding physical contact such as shaking hands and keeping a 2m health distance is an intense social distancing.	215(83.7)
20. People with COVID-19 symptoms should refrain from contacting others for 14 days even if they are negative.	178(69.3)
=	

4.4. Comparison of knowledge, behavioral beliefs, and moral sensitivity

Table 4 shows the average comparison of knowledge, behavioral beliefs, and moral sensitivity to COVID-19 according to the general characteristics of nursing college students. There was no statistically significant difference in the average of knowledge and moral sensitivity according to general characteristics. The average score of behavioral beliefs by grade showed a significant difference (F=5.42, p=.001). In post-verification, the average score of 4.57 for the third grade was significantly lower than that of the first grade (4.78 points) and the fourth grade (4.95 points), and the second grade (4.68 points) was significantly lower than that of the fourth grade (4.95 points). It was confirmed that the family confirmed group's behavioral beliefs score was significantly higher than that of the group that did not (t=2.03, p=.043)

 Table 4: Average comparison of knowledge, behavioral beliefs, and moral sensitivity to COVID-19 according to general characteristics

 (hi=257)

							=257)
		Knowledge		Moral		Behavioral	
Distincti	Distinction		euge	sensitivity		beliefs	
Distriction		М	t/F	М	t/F	М	t/F
		±SD	(p)	±SD	(p)	±SD	(p)
	First ^a	14.62		4.74		4.78	
	FIISC	±1.89		±0.47		±0.47	542
	Second ^b	14.92		4.81		4.68	001)
School year	Second	±1.89	106	±0.49	047	±0.53	(c <a)< td=""></a)<>
School year	Third⁰	15.19	(367)	483	(703)	4.57	ba d
	minu	<u>+222</u>		±0.47		±0.60	u b≮d)
	4th ^d	15.12		4.77		4.95	baj
	401	±1.91		±0.47		±0.60	
	Male	15.36		4.71		4.63	
Gender	IVIAIC	±1.79	136	±0.40	-106	±0.58	- 1416
Gender	Female	14.88	(177)	4.80	(289)	4.78	(158)
		±1.99		±0.49		±0.56	
Presence or	Yes	14.96	009 (930)	4.79	007 (942)	4.78	082 (412)
absence of	162	±1.97		±0.46		±0.56	
religion	No	14.93		4.78		4.71	
Teligion	NU	±1.98		±0.51		±0.58	
Presence or	Yes	14.89		481		4.73	
absence of	163	±215	-042	<u>±0.</u> 48	058 (561)	±0.55	- 0564 (573)
hospitalization	No	14.99	(673)	4.77		4.77	
experience	NU	±1.83		<u>±0</u> 47		±0.58	μIJ
Confirmation	Yes	14.96		4.80		4.81	
of family	103	±206	061	±0.50	043	±0.58	203
members	No	14.94	(951)	4.77	(635)	4.67	(043)
members	NO	±1.83		<u>±0</u> 42		±0.53	
Confirmation	Yes	14.83		4.82		4.72	
of	103	±1.91	-081	<u>±0.48</u>	107	±0.57	-095
identification	No	15.03	(420)	4.76	(287)	4.79	(344)
achinoauon		±201		<u>±0</u> 47		±0.56	
	0 to 2	15.05		4.73	-083	4.66	
Number of	times.	±217	035	±0.36	0410	±0.58	-1.16
vaccinations	Three	14.93	(726)	4.80	()	4.77	(247)
	times	±1.93		±0.49	,	±0.57	

4.5. Comparison of nursing intentions for COVID-19

It was found that there was no statistically significant difference in the percentage of respondents who said they intended to care for COVID-19 patients according to the general characteristics of the analysis subjects (Table 5). Jae eun LIM, Yunmi KIM, Jaemo AN, Sangwoo YU, Jisu YUN, Dayoung LEE, Yewon LEE, Minjeong LIM, Gyuri JEONG, Heekyung JU / Korean Journal of Food & Health Convergence 9 (3), pp.19-25

					٩)	J=257)
Variab	le	Total (n,%)	Nursing intention s (n=181) (n,%)	No intentio n of nursing (n=76) (n,%)	X²	р
	First	69 (26.9)	52 (75.4)	17 (24.6)		
Ochardover	Secon d	65 (25.3)	44 (67.7)	21 (32.3)	4.1	.25
School year	Third	54 (21.0)	33 (61.1)	21 (38.9)	0	1
	4th	69 (26.9)	52 (75.4)	17 (24.6)		
Quadra	Male	36 (14.0)	27 (75.0)	9 (25.0)	0.4	.51
Gender	Femal e	221 (86.0)	154 (69.7)	67 (30.3)	2	7
Presence or	Yes	183 (71.2)	128 (69.9)	55 (30.1)	0.0 7	.79
absence of religion	No	74 (28.8)	53 (71.6)	21 (28.4)		0
Clinical	Yes	123 (47.9)	85 (69.1)	38 (30.9)	0.2	.65
practice experience	No	134 (52.1)	96 (71.6)	38 (28.4)	0	6
Hospitalizatio	Yes	107 (41.6)	79 (73.8)	28 (26.2)	1.0	.31
n experience	No	150 (58.4)	102 (68.0)	48 (32.0)	2	3
Confirmation	Yes	157 (61.1)	112 (71.3)	45 (28.7)	0.1	.68
of family members	No	100 (38.9)	69 (69.0)	31 (31.0)	6	9
Confirmation of	Yes	107 (41.6)	73 (68.2)	34 (31.8)	0.4	.51
of identification	No	150 (58.4)	108 (72.0)	42 (28.0)	3	3
Number of	0 to 2 times.	40 (15.6)	23 (57.5)	17 (42.5)	3.8	8 .05
vaccinations	Three times	217 (84.4)	158 (72.8)	59 (27.2)	0	1

 Table 5: Comparison of nursing intentions for COVID-19

 patients according to general characteristics

4.6. Comparison of knowledge, moral sensitivity, and behavioral beliefs according to COVID-19 patient care

Table 6 shows the results of comparing the average of knowledge, moral sensitivity, and behavioral beliefs about COVID-19 according to the subject's COVID-19 patient nursing intention. The average knowledge score of the group

with nursing intention was 15.18 points, which was significantly higher than the 14.39 points of the group who responded that they had no intention (t=2.97, p<.001). It was confirmed that the average score of moral sensitivity and behavioral beliefs of the group with the intention to care for COVID-19 patients was significantly higher than that of the group without intention, respectively.

 Table 6: Comparison of knowledge, moral sensitivity, and behavioral beliefs according to the nursing intention of COVID-19 patients

 (N=257)

	(
Variable	Total	Nursing intention (n=181) No intention of nursing (n=76)		t	p	
	M±SD	M±SD	M±SD			
Knowledge	14.95±1.97	15.18±1.83	14.39±2.17	2.97	<.001	
Moral sensitivity	4.78±0.47	4.88±0.47	4.55±0.41	5.47	<.001	
Behavioral beliefs	4.76±0.57	4.91±0.52	4.38±0.52	7.53	<.001	

4.7. Factors influencing the intention to care for COVID-19 patients

The results of a multiple logistic regression analysis with a response of 1 indicating that there is an intention to nurse in order to identify the factors affecting the study subjects' intention to care for COVID-19 is shown in Table 6. It was found that the intention to care for COVID-19 patients increased by 20% every time the knowledge score on COVID-19 increased by 1 point (OR=1.20, p=.034). If the average score for each item in the moral sensitivity question increased by 1 point, the nursing intention increased significantly by 5.21 times (OR=5.21, p<.001), and it was found that the nursing intention for COVID-19 patients increased significantly by 6.93 times each time the average score for each behavioral belief item increased by 1 point (OR=6.93, p<.001).

The multiple logistic regression equation applied in the study significantly predicted the factors influencing nursing students to care for COVID-19 patients ($\chi 2=83.32$, p<.001). According to the coefficient of determination of Nagelkerke R2, the explanatory power of the model was 38.9 %, the forecast for nursing students not intended to care for COVID-19 patients identified in the classification table was 59.2 %, the forecast for nursing students intended to care for COVID-19 patients 90.6% and 81.3 % overall. Hosmer–Lemeshow's fitness test showed no significant difference between the observed and predicted values, so the model was found to fit the data well ($\chi 2=8.46$, p=.389).

() 057)

						(N=257)
Variable		В	SE	р	OR	95%CI
Knowledg	e	0.18	0.09	.034	1.20	1.01- 1.42
Moral sensiti	vity	1.65	0.46	<.001	5.21	2.10- 12.89
Behavioral be	liefs	1.94	0.39	<.001	6.93	3.20- 14.97
	Second	- 0.17	0.47	.718	0.84	0.33- 2.13
School year (ref=First)	Third	- 0.76	0.51	.134	0.47	0.17- 1.26
	4th	- 0.32	0.48	.498	0.72	0.28- 1.84
Gender (ref=Male)	Female	- 0.90	0.53	.090	0.40	0.14- 1.15
Presence or absence of religion (ref=No)	Yes	0.40	0.37	.291	1.49	0.71- 3.10
Hospitalization experience (ref =Not present)	Yes	- 0.40	0.36	.263	0.67	0.33- 1.35
Confirmation of family members (ref=No)	Yes	- 0.01	0.38	.985	0.99	0.47- 2.08
Whether to confirm the identity (ref=Not present)	Yes	0.12	0.35	.737	1.13	0.56- 2.25
Number of vaccinations (ref=0-2 times)	Three times	0.87	0.46	.060	2.39	0.96- 5.91

Table 7: Factors influencing nursing intention

4.8. Discussion

This study was conducted to identify factors affecting the nursing intention of nursing college students to care for COVID-19 patients and to provide basic data to find educational methods to improve them.

In this study, nursing college students' knowledge score on COVID-19 averaged 14.95 out of 20. The knowledge score of COVID-19 confirmed in the study is slightly lower than 15.44 (20 out of 20) reported in a study measured with the same tool applied by Kim et al. (2021) for students enrolled in the Department of Nursing in Gyeonggi-do. In this study, the proportion of third and fourth graders with an average knowledge score of 15 or higher was 47.8%, but in a study by Kim et al. (2021), it was 52.1%. In other words, it is presumed that the different proportions of student composition by grade in the two studies led to the difference in average knowledge scores.

In the study, nursing college students' moral sensitivity to COVID-19 averaged 4.78 out of 7. This is slightly higher than the 4.62 points reported in a study by Yu (2021), who used the same tool as this study, on third and fourth graders who experienced clinical practice for more than a semester at two nursing colleges in metropolitan D.

In the results of the study, the behavioral beliefs of nursing college students averaged 4.76 out of 7. Compared to 0.01 points (range -3 to 3, 0 points), 4.75 points (7 points) confirmed in this study were found to be significantly higher than the median as a result of Lee (2018)'s study of nurses working at higher general hospitals and general hospitals.

As a result of comparing the average scores of COVID-19 knowledge, moral sensitivity, and behavioral beliefs according to general characteristics, it was confirmed that there was a statistically significant difference in behavioral beliefs of nursing college students depending on grade and family confirmation. The average score of behavioral beliefs of the third grade was significantly lower than that of the first and fourth grades, and the score of the second grade was lower than that of the fourth grade. In the case of fourth graders who have undergone clinical practice for more than three semesters in the COVID-19 situation, the belief that providing nursing to COVID-19 patients may have strengthened (Park & Lee, 2021) while observing the nursing situation. On the other hand, it is estimated that third graders who have just begun clinical practice are afraid to face COVID-19 patients while they are unfamiliar with the clinical nursing situation and lack confidence, and cause high stress, resulting in lower belief scores. If the difference between grades persists in repeated studies on the difference in behavioral beliefs by grade, further research is needed to determine the cause. The average score of behavioral beliefs in the student group with COVID-19 confirmed patients in the family was significantly higher than in the group that did not. This is presumed to have strengthened the belief that nursing COVID-19 patients while watching families infected with COVID-19 recover their health again will cure diseases and improve health levels of health.

In a multi-logistic regression analysis that analyzed the factors affecting the nursing intention of COVID-19 patients in nursing college students, it was found that the higher the knowledge, moral sensitivity, and behavioral beliefs of nursing students, the higher the likelihood of revealing nursing intention. In other words, it can be seen that in order for nurses to be willing to care for new infectious disease patients such as COVID-19, clear knowledge of newly encountered diseases, firm self-belief and correct moral values based on stable psychological status and self-efficacy.

5. Conclusions

Increasing nurses' intention to care for patients with new infectious diseases is ultimately directly related to national response and public health outcomes. In addition, nursing college students are future medical professionals who will soon move to the clinical field, so it is important to come up with measures to improve nursing intentions to an Jae eun LIM, Yunmi KIM, Jaemo AN, Sangwoo YU, Jisu YUN, Dayoung LEE, Yewon LEE, Minjeong LIM, Gyuri JEONG, Heekyung JU 25 / Korean Journal of Food & Health Convergence 9 (3), pp.19-25

appropriate level by positively changing nursing intentions from nursing college students.

Through the results of this study, it was confirmed that the higher the knowledge, moral sensitivity, and behavioral beliefs of nursing college students, the higher the intention to nurse patients with new infectious diseases. Therefore, it is proposed to develop and apply various educational programs and integrated nursing ethics programs to establish correct morality to improve the knowledge level of new infectious diseases of nursing students by providing clear information on new infectious diseases. In addition, it is proposed to develop a psychological intervention program that allows nursing college students to control psychological stress themselves to maintain a stable psychological state and improve confidence and self-efficacy in nursing intervention.

The limitation of this study is that, first, it is difficult to generalize the research results because one nursing university student was conducted as a research target. Therefore, it is suggested to further expand the number of samples of participating universities and conduct repeated studies in order to understand the nursing intention of nursing college students for new infectious diseases. Second, since this study is a cross-sectional survey study, it is difficult to determine the causal relationship between nursing knowledge, moral sensitivity, and behavioral beliefs that affect nursing intention. In the future, it will be necessary to select the survey subjects and conduct longitudinal studies by sampling stratified samples for nursing college students nationwide.

References

Bae, J. M. (2015). Establishment of public health ethics principles related to the disclosure of information to control the epidemic of infectious diseases in the 2015 MERS epidemic. *Korean Public Health Research*, 41(4), 15-20.

- Choi, J. R., Ko, I. S., & Lim, Y. Y. (2016). Factors affecting nursing students' performance of medical-related infection prevention. *Journal of the Korean Academy of Fundamentals of Nursing*, 23(2), 136-148.
- Hwang, S. J., & Lee, M. I. (2020). The effect of COVID-19 knowledge and anxiety perceived by nursing college students on the degree of performance of preventive behavior. *Journal* of Digital Convergence, 18 (12), 459-468.
- Kim, H. J., Chun, E. Y., & Yoo, J. H. (2021). A study on the relationship between nursing college students' knowledge and risk perception of COVID-19 and preventive health behavior. *Journal of the Korea Academic-Industrial cooperation Society*, 22(4), 246-254.
- Kyung, D. E., & Shin, Y. S. (2021). Factors influencing nurses' intention to care for COVID-19 infected patients. Journal of the Adult Nursing Society, 33(4), 376-386.
- Lee, J. Y. (2018). A factor influencing nursing intention to care for patients with new infectious diseases. (Doctorial dissertation, Ewha Womans University). Retrieved from https://dspace.ewha.ac.kr/handle/2015.oak/241075
- Moon, H. J., & Park, J. Y. (2021). Factors influencing the nursing intention of nurses at national and public hospitals for nursing patients with new infectious diseases. *Journal of the Korean Academy of Fundamentals of Nursing*, 28(1), 11-22.
- Park, S. J., Han, J. E., & Kwak, G. H. (2021). The Effects of Nursing College Students' COVID-19 Knowledge, Attitude, and Infection Prevention Behavior on the Nursing Intention of New Infectious Disease Patients. *Journal of the Korean Society* of Nursing Research, 5(1), 13-23.
- Park, Y. J., & Lee, S. R. (2021). Factors influencing the behavioral beliefs of nursing patients with COVID-19. *Journal of the Korea Academia-Industrial cooperation Society*, 22(2), 522-528.
- Shi, Y., Wang, J., Yang, Y., Wang, Z., Wang, G., Hashimoto, K., Zhang, K., & Liu, H. (2020). Knowledge and attitudes of medical staff in Chinese psychiatric hospitals regarding COVID-19. *Brain, behavior, & immunity - health, 4*, 100064.
- Yu, M. S. (2021). Effect of nursing college students' nursing professional intuition, moral sensitivity, and critical thinking tendency on moral courage. *Journal of Korean Academic Society of the Home Health Care Nursing*, 28(1), 26-35.