
The Effect of Social Isolation and Self-Efficacy in Nursing Students on Career Identity in COVID-19

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Abstract

The purpose of this study is to investigate the effect of nursing students' social isolation and self-efficacy on career identity in the COVID-19 environment. The subject of this study were 204 nursing students in the 4th year of K University located in G province. Data collection was conducted using a Google form survey using a smartphone, and was conducted during the period from March 28 to April 8, 2022, during school attendance. For data analysis, t-test, ANOVA, correlation analysis and multiple regression analysis were used using SPSS/WIN 23.0. Factors affecting the subject's career identity were found to be major satisfaction ($t=4.01$, $p<.001$) and career institution decision ($t=2.13$, $p=.034$) in general characteristics. Also, social isolation ($t=-4.04$, $p<.001$) was found to be a factor influencing career identity, and there was a negative correlation between career identity and social isolation ($r=-.192$, $p=.006$). In conclusion, it is necessary for universities to make efforts to reduce students' sense of social isolation. It is necessary for universities to implement various programs for employment, to help them decide on a career institution, and to increase their satisfaction with their majors, thereby enhancing their sense of career identity.

Keywords: Social isolation, Self-efficacy, Career identity, Students

1. INTRODUCTION

From 2020, due to COVID-19 (Coronavirus Disease 2019), college students have been experiencing maladaptation to non-face-to-face classes and failure to gain special experiences in daily life, and this has resulted in anxiety about job preparation and uncertainty about the future appeared to increase (Hong, SH., 2021). In such an environment, nursing students were experiencing a lot of stress due to fear of infection and non-face-to-face classes, and they were experiencing social isolation due to changes in their daily life style (Lee, GC. et al., 2020). When viewed objectively, social isolation is the degree of separation and isolation from others, such as the size of social networks or ease of access. Also, subjectively, it is defined as the perceived quality level in relationships with others, such as feelings of loneliness (Vincenzi, H. et al., 1987, Kim, NK., 2021). Career identity is a self-identity related to the occupational field, and is a clear and stable blueprint for the individual's goals, interests, and abilities for the job (Holland, JL. et al., 1977, Jung, MS., 2015). In an infectious disease environment, nursing students' sense of social isolation had a negative effect on their career identity (Cho, JH. et al., 2021), and in a general environment, nursing students' self-efficacy had a positive effect on their career identity (Chae, MO., 2019).

Therefore, this study attempted to provide basic data to the university's employment promotion program by identifying the effects of nursing students' social isolation and self-efficacy on career identity in the COVID-19 environment.

The purpose of this study is a descriptive research study conducted to understand the effect of nursing students' sense of social isolation and self-efficacy on their career identity in the COVID-19 environment.

The specific purpose is as follows.

- The level of general characteristics, social isolation, self-efficacy, and career identity of the subject is identified.
- Identify differences in social isolation, self-efficacy, and career identity according to general characteristics.

- The correlation between social isolation, self-efficacy, and career identity is identified.
- Factors that affect the subject's career identity are identified.

2. MATERIALS AND METHODS

Research Subject

The subjects of this study are 4th year students of K Nursing College located in G province. The questionnaire was filled out in Google form, and after signing the research consent form using a smartphone, it was made to move on to the next questionnaire. There were a total of 390 students in the 4th grade, and the data of 204 students who responded to the final questionnaire were used for analysis. A small gift was given to students who completed the survey.

For the number of samples, G*Power 3.1.9.7 program was used. In the regression analysis, significance level (α) of .05, power ($1-\beta$) 90%, and median effect size of .15 were applied, and 9 predictors including independent and dependent variables were input to 162 was calculated to be necessary, and the number of samples in the study of 204 was found to be adequate.

Data Collection

The data collection was conducted during the period when students were going to school from March 28 to April 8, 2022. The questionnaire was made in Google form, and the research agreement was signed using a smartphone to proceed to the next questionnaire, and there was no information that could identify an individual. In the consent form, the purpose of the research and the process of disposal after using the questionnaire were explained, and upon completion of the questionnaire, a gift was given.

Data Analysis

SPSS 23.0 program was used to analyze the data, and frequency analysis was used to analyze the subjects' general characteristics and the level of social isolation, self-efficacy, and career identity. Differences in general characteristics, social isolation, self-efficacy, and career identity were analyzed using t-test and ANOVA, followed by a post-hoc test using the Scheffe analysis method. The relationship between social isolation, self-efficacy, and career identity was analyzed using Pearson's correlation coefficient, and factors affecting career identity were analyzed using multiple regression analysis.

Questionnaire

General Characteristics

The general characteristics of the subjects consisted of a total of 9 items: age, gender, family type, subjective health status, club activity, number of meals alone, grades, major satisfaction, and career organization decision.

Social Isolation

The sense of social isolation was used to measure subjective and objective sense of social isolation (Vincenzi, H. et al., 1987, Kim, NK., 2021). There are a total of 30 items, and the higher the score, the higher the sense of social isolation. In this study, Cronbach's α was .96.

Self-efficacy

A Korean general self-efficacy tool was used (Lee, YM. et al., 1994, Kim, SH., 2002). There are a total of 10 items, and the higher the score, the higher the sense of self-efficacy. In this study, Cronbach's α was .92.

Career Identity

For career identity, Kwon (Kwon, YH. et al, 2002) revised and supplemented 18 questions of the identity reduction scale, which is a subscale of the career situation test developed by Holland (Holland, JL. et al.,

1977), with 14 questions, and the tool used in Min's study(Min, JS., 2020) was used. In this study, Cronbach's α was .93.

3. RESULTS

General Characteristics of the Subject

The total number of subjects was 204, with an average age of 23.37 ± 5.96 years, 33 males (16.2%) and 171 females (83.8%)(Table. 1).

Table 1: General Characteristics of the Subject

(N=204)		
Characteristics	Categories	n(%) or M \pm SD
Age(year)		23.37 \pm 5.96
Gender	Male	33(16.2)
	Female	171(83.8)
Family type	Single parent family	24(11.8)
	Nuclear family	163(79.9)
	Extended family	17(8.3)
Health condition	Very Unhealthy	6(2.9)
	Unhealthy	60(29.4)
	Healthy	98(48.0)
	Very Healthy	40(19.6)
Club activity	Have no	68(33.3)
	Have	136(66.7)
Eat alone	Almost none	85(41.7)
	1-2times a week	48(23.5)
	3-4times a week	41(20.1)
	5 or more times a week	30(14.7)
Grades	2.5points or less	4(2.0)
	3.5points or less	73(35.8)
	4.5points or less	127(62.3)
Major satisfaction	Very dissatisfied	4(2.0)
	Dissatisfied	5(2.5)
	Moderate	47(23.0)
	Satisfied	105(51.5)
Career agency decision	Very satisfied	43(21.1)
	Undecided	82(40.2)
	Decided	122(59.8)

Degree of Social Isolation, Self-efficacy and Career Identity

The average level of social isolation of the subjects was 50.73 ± 18.69 points, the average level of self-efficacy was 31.54 ± 4.80 points, and the average level of career identity was 33.04 ± 8.44 points (Table 2).

Table 2: Degree of Social Isolation, Self-efficacy and Career Identity

(N=204)			
Variable	Min	Max	M±SD
Social isolation	30	120	50.73±18.69
Self-efficacy	19	40	31.54±4.80
Career identity	17	53	33.04±8.44

Social Isolation, Self-efficacy and Career Identity according to the General Characteristics of the Subject

As for the subjective health status, 'very unhealthy' students had a higher sense of social isolation (F=13.13, p<.001). .001) and the mean score of self-efficacy were the highest (F=3.16, p=.026). As for the subjective health status, the students with 'very unhealthy' had a higher sense of social isolation (F=13.13, p<.001), and on the contrary, the subjective health status was 'very healthy', and the students had a sense of career identity (F=6.96, p<.001) and self-efficacy were the highest (F=3.16, p=.026). In club activities, students who were 'have no' had higher average scores on social isolation than 'have' students =7.26, p=.008). As the number of eating alone increased, the average score of career identity (F=2.79, p=.041) was lower, and the score of social isolation was higher (F=7.60, p<.001). The higher the grade, the lower the sense of social isolation (F=19.20, p<.001), and the higher average scores for career identity (F=6.47, p=.002) and self-efficacy (F=4.68, p=.010). As for major satisfaction, the higher the degree of major satisfaction, the lower the average score for social isolation (F=5.58, p<.001), career identity (F=10.13, p<.001) and self-efficacy (F=5.46, p<.001).) was high. The average score of career identity (t=5.53, p=.031) was higher for 'decided' compared to 'undecided' for career institution decision (Table 3).

Table 3: Social Isolation, Self-efficacy and Career Identity according to the General Characteristics of the Subject

(N=204)						
Characteristics	Social isolation		Self-efficacy		Career identity	
	M±SD	t or F(p)	M±SD	t or F(p)	M±SD	t or F(p)
Gender						
Male	53.12±19.71	2.28 (.133)	30.76±4.94	1.03 (.859)	32.94±8.37	1.10 (.751)
Female	50.27±18.51		31.69±4.77		33.06±8.48	
Family type						
Single parent family	55.63±24.30	1.01 (.366)	32.04±5.47	1.51 (.224)	34.75±9.69	1.67 (.512)
Nuclear family	49.90±17.44		31.28±4.72		32.72±7.83	
Extended family	51.76±21.41		33.29±4.44		33.76±11.86	
Health condition						
Very Unhealthy	85.50±34.15 ^b	13.13 (<.001) a<b	32.50±6.31 ^a	3.16 (.026) a<b	29.63±8.69 ^a	6.96 (<.001) a<b
Unhealthy	55.52±19.48 ^a		30.73±4.81 ^a		34.04±7.72 ^a	
Healthy	49.07±16.03 ^a		31.17±4.56 ^a		32.55±8.29 ^a	
Very Healthy	42.40±12.47 ^a		33.50±4.74 ^b		44.50±7.63 ^b	
Club activity						
Have no	59.15±20.72	7.26 (.008)	30.09±4.52	3.19 (.075)	31.99±8.48	1.06 (.303)
Have	46.52±16.08		32.26±4.78		35.15±7.98	
Eat alone						
Almost none	45.16±16.18 ^a	7.60 (<.001)	32.01±4.17	1.50 (.677)	35.57±9.79 ^b	2.79 (.041)
1-2times a week	49.06±17.35 ^{a,b}		31.02±5.69		35.10±7.83 ^b	

3-4times a week	57.15±19.88 ^{b,c}	a<b<c	31.37±4.40		31.25±7.02 ^a	a<b
5 or more times a week	60.40±20.07 ^c		31.27±5.50		32.18±8.66 ^a	
Grades						
2.5points or less	101.50±22.38 ^b	19.20	30.19±4.73 ^a	4.68	32.21±8.60 ^a	6.47
3.5points or less	52.45±17.77 ^a	(<.001)	32.27±4.55 ^a	(.010)	33.74±7.53 ^a	(.002)
4.5points or less	48.14±16.74 ^a	a<b	33.00±9.05 ^{a,b}	a<b	46.75±7.22 ^b	a<b
Major satisfaction						
Very dissatisfied	78.50±33.04 ^c		29.77±5.07 ^a		29.02±8.48 ^a	
Dissatisfied	69.20±19.25 ^b	5.53	29.80±5.02 ^a	5.46	32.36±6.97 ^a	10.13
Moderate	55.38±18.94 ^{a,b}	(<.001)	30.25±7.41 ^a	(<.001)	35.96±6.70 ^{a,b}	(<.001)
Satisfied	47.40±15.02 ^a	a<b<c	31.40±4.22 ^a	a<b	43.80±6.26 ^b	a<b
Very satisfied	49.05±21.33 ^a		34.14±4.65 ^b		46.50±6.24 ^b	
Career agency decision						
Undecided	50.72±17.86	1.61	30.56±4.99	5.53	31.48±8.86	5.53
Decided	50.74±19.31	(.206)	32.20±4.57	(.865)	35.37±7.22	(.031)
a,b,c : Scheffé's test						

Relationship between Social Isolation, Self-efficacy and Career Identity

Career identity had a significant negative correlation with social isolation ($r=-.192$, $p=.006$) and a significant positive correlation with self-efficacy ($r=.379$, $p<.001$). Social isolation had a significant negative correlation with self-efficacy ($r=-.198$, $p=.005$) (Table 4).

Table 4: Relationship between Social Isolation, Self-efficacy and Career Identity

($N=204$)

Variable	Social isolation	Self-efficacy	Career identity
	$r(p)$	$r(p)$	$r(p)$
Social isolation	1		
Self-efficacy	-.198(.005)	1	
Career identity	-.192(.006)	.379(<.001)	1

Factors affecting the Career Identity of Subjects

As a result of multiple regression analysis, the tolerance of each variable ranged from 0.7 to 0.8, all of which were above 0.1, and all values of the Variance Inflation Factor (VIF) were lower than 10, so there was no problem with multicollinearity. The Durbin Watson value was 2.044, indicating that the errors were independent and there was no autocorrelation. Factors affecting the subject's career identity were major satisfaction ($t=4.01$, $p<.001$), career institution decision ($t=2.13$, $p=.034$), and social isolation ($t=-4.04$, $p<.001$). The regression model for the subject's career identity was found to be significant ($F=7.37$, $p<.001$) (Table 5).

Table 5: Factors affecting the Career Identity of Subjects

(N=204)

Variable	Career Identity					
	B	SE	β	t	p	VIF
(Constant)	42.17	5.63		7.11	<.001	
Social isolation	-0.13	0.03	-0.29	-4.04	<.001	1.422
Self-efficacy	0.52	0.12	0.02	0.45	.655	1.148
Health condition	0.38	0.75	0.03	0.49	.617	1.243
Club activity	0.24	1.19	0.01	0.20	.841	1.177
Eat alone	0.22	0.51	0.03	0.43	.665	1.170
Grades	0.24	1.51	0.03	0.23	.820	1.189
Major satisfaction	2.82	0.70	0.28	4.01	<.001	1.296
Career agency decision	2.42	1.14	0.14	2.13	.034	1.160
$R^2=.267$, $Adj.R^2=.236$, $F=7.37$, $p<.001$ Durbin-Watson=2.044						

4. DISCUSSION & CONCLUSION

This study investigated the effects of social isolation and self-efficacy on career identity of 4th grade nursing students in the COVID-19 environment. Differences in social isolation according to general characteristics were found to be subjective health status, eating alone, grades and major satisfaction. In the Corona 19 situation, nursing students have been spending more time at home without going to school due to non-face-to-face classes(Lee, GC. et al., 2020), and it seems that the number of times they eat alone naturally increases. According to the results of a study on Korean adults(Ahn, JH. et al., 2020), the risk of metabolic syndrome was increased when eating alone compared to those who ate together. As a result, the higher the sense of social isolation, the more they ate alone, and it seems that the subjective health status felt by the students also showed a difference. In addition, in the Corona 19 situation, the sense of social isolation of college students had a negative effect on the sense of belonging to the department, and this sense of belonging to the department was shown to have a positive effect on the academic continuity intention (Lee, HS. et al., 2021), and it was found that it had an effect on major satisfaction and grades. Explained.

Differences in self-efficacy according to general characteristics were found to be subjective health status, grades, and major satisfaction. This was the same result as(Chae, MO., 2019), which showed that the higher the self-efficacy, the better the health, the better the academic performance, and the higher the satisfaction with the major in the previous study(Chae, MO., 2019). Also, in this study(Chae, MO., 2019), self-efficacy was positively correlated with career identity. In this study, self-efficacy and career identity were also positively correlated. In this study, the group with high career identity had good subjective health status, high grades, and high major satisfaction. In addition, it was found that the group that decided on a career institution had a higher sense of career identity compared to the group that had not decided on the career institution. Factors affecting career identity were major satisfaction, career institution decision, and social isolation. In previous studies, career identity was found to have an effect on career organization decision (Jung, MS., 2015). In this study, career organization decision was also found to be an influencing factor on career identity, and social isolation had a negative effect on career identity. This is explained by the result that nursing students' sense of isolation in the Corona 19 situation increased students' depression and negatively affected their resilience (Cho, JH. et al., 2021).

Based on the above research results, I would like to suggest the following. First, the employment plan of students is a problem that all departments are concerned about. In order to reduce students' sense of isolation and increase their sense of career identity, it is necessary to expand the measurement to students from various departments. Second, this study is a conclusion measured by a nursing college at a time when COVID-19 is

prevalent. After Corona 19 is over, it is required to implement a program to increase the sense of career identity in a general environment by measuring more students.

5. ACKNOWLEDGEMENTS

Consent for Publication

The author read and aware of publishing the manuscript in Journal for ReAttach Therapy and Developmental Diversities

Data Availability Statement

The database generated and /or analysed during the current study are not publicly available due to privacy, but are available from the corresponding author on reasonable request.

Declarations

Author declare that all works are original and this manuscript has not been published in any other journal.

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