

The effects of career barrier and faculty–student interaction on career decision level by college students

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Abstract

The purpose of this study was to identify career barriers, faculty-student interaction, and factors that affect the level of career decision-making among university students. The questionnaire was self-reported, and the URL was sent via text message to students who agreed to participate after reading the purpose and necessity of the study. The students read the instructions, voluntarily agreed to participate, and completed the survey in a self-completion format. The results showed that the mean of psychological career barriers was 3.07, environmental career barriers was 2.80, faculty-student interaction was 3.92, and career decision level was 2.74. The factors that showed significant differences in career decision level were gender, department, major satisfaction, college life satisfaction, and major choice. Psychological barriers ($r=-.652$, $p<.001$) and environmental barriers ($r=-.601$, $p<.001$) were significantly negatively correlated, and faculty-student interaction ($r=.220$, $p<.01$) was significantly positively correlated. The influencing factors of career decision level were psychological career barriers ($\beta=-.387$, $p<.001$) and environmental career barriers ($\beta=-.252$, $p=.002$). The conclusion of this study is that in order to increase the career decision level of college students, it is necessary to provide systematic management through counseling management and programs where quality interaction between professors and students can occur.

Keywords: Career barrier, Faculty-student interaction, Career decision level, College students

1. INTRODUCTION

1.1 Need for research

The enrolment rate in higher education is increasing every year, but the dropout rate is also increasing for various reasons, such as inadequate college life, aptitude problems and transfer to other universities [1, 2, 3]. Due to the education system centered on entrance exams, students are facing difficulties in making career

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decisions as they are forced to choose a major without actually having the experience and knowledge necessary to make a career decision [1]. In addition, career decisions are even more difficult as they recognize that choosing a career directly affects the quality and direction of their lives, which can have a great impact on their social position, economic situation, and values in the future [2].

As the school-age population continues to decline, colleges and universities face fierce competition. The increase in dropout rates is a double burden for those already struggling with a shortage of new students [3]. Therefore, efforts to reduce the dropout rate of college students and to improve employment rates by facilitating better career choices should be prioritized. To do this, it is necessary to have an understanding of the different variables that have an impact on career decisions.

College is considered to be very important because it is the time to explore majors, understand aptitudes, explore areas of interest, and improve necessary job skills before entering the workforce [4]. Career barriers are psychological and environmental factors that make an individual's career development process difficult, and psychological barriers are viewed as internal factors and environmental barriers as external factors [5]. Psychological career barriers include personality problems and lack of self-confidence, while environmental career barriers can be seen as processes such as imbalances in school education and labor market and a decrease in jobs for young people [6]. Psychological barriers are defined as obstacles in deciding on a job or career path [5] and are important variables that affect an individual's interest, motivation, and goal selection in the career selection process [7]. Psychological issues can lead to exaggerated or underestimated perceptions of barriers, and challenges to barriers can lead to anxiety, while environmental issues such as inadequate support systems and socio-structural discrimination can lead to barriers [5]. These career barriers often make the process of career decision-making and career choice difficult, and can lead to low self-efficacy in career pursuits [5]. People have many relationships in their lives, such as peer relationships, parent-child relationships, seniority and juniority relationships, and so on, and they are influenced by many interactions. In universities, the interactions between faculty and students have a great deal of influence on university life [8].

Before college, students received educational activities, counseling, and life guidance from their homeroom teachers, but college students, who are adults, interact mainly through regular counseling sessions or specific class periods, so faculty-student interaction is not as easy as before [9].

However, the interaction between faculty and students during college life can be considered a very important factor because it not only improves the academic performance of college students, but also promotes career and personal growth [8]. Career decision level is described as the state of feeling intrinsically confident and comfortable with one's chosen career path and no longer having reasons to remain undecided [10], which means that one has a clear understanding of the career or path one wants to pursue and has precise reasons and convictions for making the decision [11]. It can be defined as a state of having the ability to decide on a major and future career that suits the individual's characteristics, beyond simply deciding or not deciding on a career [11]. Therefore, it is important to lead to a high level of career decision-making, which is the ability to choose a career that suits the individual.

Thus, the purpose of this study was the analysis of the impact of career barriers and faculty-student interactions on college students' career choice levels, and strategies for improving knowledge style and career choice levels for establishing the concept of college students' pre-employment career.

1.2 Purpose of the study

The purpose of this study is to identify the career barriers, faculty-student interaction, and influencing factors on the career decision level of college students, and the specific objectives are as follows.

First, to identify the degree of career barriers, faculty-student interaction, and career decision level of the research subjects.

Second, to check the differences in career decision level according to the general characteristics of the subjects.

Third, to check the correlation between career barriers, faculty-student interaction, and career decision level of the subjects.

Fourth, to identify the influencing factors of career decision level of the subjects.

2. METHOD

2.1 Study Design

This study is a descriptive survey research to identify the career barriers of college students and the influence of faculty-student interaction on their career decision level using a structured questionnaire.

2.2 Research subjects

This study was conducted for 15 days from March 27, 2024 to April 11, 2024, and the subjects were third and fourth year university students in G and D cities. The questionnaire consisted of a self-report questionnaire, and the URL of the online survey was sent via text message. Participants were recruited by random sampling, and only students who read and agreed to the purpose and necessity of the study were recruited. It was announced that the purpose and purpose of the study, confidentiality of personal information and data responding to the questionnaire, anonymity were guaranteed, and that there were no disadvantages, including refusal or abandonment, and that the choice could be made autonomously. The student who received the text read the explanation, arbitrarily agreed to the questionnaire, and then responded to the questionnaire in a self-written manner. The sample size was calculated using the G*Power 3.1 program for hierarchical regression analysis with a significance level (α) of .05, a power ($1-\beta$) of .95, and a moderate effect size of .15 for 11 predictor variables, resulting in 178 eligible respondents and 179 descriptive results.

2.3 Research Instrument

The questionnaire of this study is composed of 7 general characteristics questions, 30 career barriers, 18 faculty-student interaction questions, and 18 career decision levels based on previous studies.

1) Career barriers

Career barriers were divided into psychological and environmental career barriers, and the Career Barriers Test developed by Kim [12] was used to measure them, with a total of 30 questions. Psychological career barriers consisted of 17 questions and environmental career barriers consisted of 13 questions on a 5-point Likert scale. In Lee's [13] study using Kim's [12] scale, the overall reliability Cronbach's α for psychological career barriers was .92, and the overall reliability Cronbach's α for environmental career barriers was .80. In this study, the Cronbach's α for psychological barriers was .91 and the Cronbach's α for environmental barriers was .81.

2) Faculty-Student Interaction

The faculty-student interaction scale was based on the teacher-student relationship scale developed by Fisher (2001) based on Wubbels et al's [14] theory of teacher-student interaction and Han's [16] instrument, which was modified and supplemented with Chi et al's [15] questionnaire. The instrument consisted of an 18-item Likert 5-point scale, and Cronbach's α in Chi et al.'s study [15] was .98, while Cronbach's α for each sub-factor in Han's study ranged from .91 to .92. In this study, Cronbach's α was .93.

3) Career Decision Level

The Career Decision Level Measurement Tool was used by Kim et al [6], who modified and supplemented the Career Undecidedness Test developed by Osipow et al [17] to check the career decision level of counseling majors. The instrument consisted of a total of 18 items on a 5-point Likert scale, and the Cronbach's α of Ko's [18] study was .86, the Cronbach's α of Lee's [13] study was .90, and the Cronbach's α of this study was .87.

2.4 Analysis Method

The data collected were analyzed using IBM SPSS version 25.0 statistical program, and the general characteristics, career barriers, faculty-student interaction, and career decision level of the research subjects were analyzed by descriptive statistics, and the career barriers, faculty-student interaction, and career decision level according to the general characteristics were analyzed by t-test and ANOVA, and the post-hoc test was Scheffé test, and the correlation between career barriers, faculty-student interaction, and career decision level was analyzed by Pearson's correlation coefficient, and the factors affecting career decision level were analyzed by hierarchical regression analysis.

3. Result

1. General characteristics of the subjects

The general characteristics of the participants in this study include: 32.4% (58) were male and 67.6% (121) were female, and 78.8% (141) were in first and second grade and 21.2% (38) were in third and fourth grade. In terms of age, 68.7% (123) were 20-21 years old, 19.0% (34) were 22-23 years old, 9.1% (18) were 24-25 years old, and 2.3% (4) were 26 years old or older. In terms of major, 43.0% (77) were health-related and 57.0% (102) were non-health-related. In terms of satisfaction with their majors, 74.3% (133) responded as "satisfied or above" and 25.7% (46) responded as "fair or below." In terms of satisfaction with school life, 70.4% (123) responded as "satisfied or above" and 29.6% (53) responded as "fair or below. In terms of major choice, 89.9% (161 students) chose 'voluntary choice' and 10.1% (18 students) chose 'other choice' Table 1.

Table 1. General characteristics and independent variables (N=179)

Characteristics	Category	N(%)
Gender	Male	58(32.4%)
	Female	121(67.6%)
Grade	Junior	141(78.8%)
	Senior	38(21.2%)
Age(year)	20-21	123(68.7%)
	22-23	34(19.0%)
	24-25	18(9.1%)
	26≤	4(2.3%)
Department	Health department	77(43.0%)
	Non-Health Department	102(57.0%)
Major satisfaction	≤Generally Satisfaction	133(74.3%)
	≥Fairly satisfaction	46(25.7%)
University life satisfaction	≤Generally Satisfaction	126(70.4%)
	≥Fairly satisfaction	53(29.6%)
Major Selection	Arbitrary	161(89.9%)
	Involuntary	18(10.1%)

2. Career barriers, faculty-student interaction and career decision level of the study subjects

The mean score of psychological career barriers was 3.07 (\pm .78), the mean score of environmental career

barriers was 2.80 (\pm .65), the mean score of faculty-student interaction was 3.92 (\pm .59), and the mean score of career decision level was 3.25 (\pm .82) Table 2.

Table 2. The mean and standard deviation of career barrier, faculty-student interaction and career decision level (N=179)

Variable	M \pm SD
Psychological career barrier	3.07 \pm 0.78
Environmental career barrier	2.80 \pm 0.65
Faculty-student interaction	3.92 \pm 0.59
Career decision level	3.25 \pm 0.82

3. Differences in Career Decision Level by General Characteristics

The differences in career decision level according to the general characteristics of the study subjects were found to be different according to gender ($t=2.910$, $p=.004$), departmental affiliation ($t=2.967$, $p=.003$), major satisfaction ($t=-7.309$, $p<.001$), school life satisfaction ($t=-4.929$, $p<.001$), and major choice ($t=3.309$, $p=.030$). Males compared to females, health majors compared to non-health majors, 'satisfied or above' compared to 'below average' in major satisfaction, and 'satisfied or above' compared to 'below average' in school life satisfaction had significantly higher career decision levels than 'other' in major selection Table 3.

Table 3. Career decision level according to general characteristics (N=179)

Characteristics	Category	N	M \pm SD	t or F	p
Gender	Male	58	3.58 \pm 0.82	2.910	.004
	Female	121	3.13 \pm 0.79		
Grade	Junior	141	3.20 \pm 0.82	-1.545	.124
	Senior	38	3.43 \pm 0.81		
	20-21	123	3.22 \pm 0.80		
Age(Year)	22-23	34	3.21 \pm 0.93	.835	.476
	24-25	18	3.54 \pm 0.67		
	26 \leq	4	3.29 \pm 0.99		
Department	Health Department	77	3.45 \pm 0.86	2.967	.003
	Non-Health Department	102	3.09 \pm 0.75		
Major satisfaction	\geq Fairly satisfaction	133	4.61 \pm 0.49	17.747	<.001
	\leq Generally Satisfaction	46	2.50 \pm 0.75		
University life satisfaction	\geq Fairly satisfaction	126	4.52 \pm 0.50	19.552	<.001
	\leq Generally Satisfaction	53	2.53 \pm 0.66		

Major selection	Arbitrary	161	3.31±0.81	3.309	.030
	Involuntary	18	2.66±0.63		

4. Relationship between psychological career barriers, environmental career barriers, and faculty-student interaction and career decision level

The study subjects' career decision level was significantly inversely related to psychological career barriers ($r=-.652$, $p<.001$) and environmental career barriers ($r=-.601$, $p<.001$), and significantly positively related to faculty-student interaction ($r=.220$, $p<.01$) Table 4.

Table 4. Correlation between psychological career barrier, environmental career barrier, faculty-student interaction and career decision level (N=179)

Variable	Psychological career barrier	Environmental career barrier	Faculty-student interaction	Career decision level
Psychological career barrier	1			
Environmental career barrier	.733***	1		
Faculty-student interaction	-.329***	-.305***	1	
Career decision level	-.652***	-.601***	.220**	1

5. Factors affecting career decision level

Before the regression analysis, the multicollinearity of the study variables was checked, and the tolerance limits ranged from .420 to .989, which were above 0.1, and the variance inflation factor (VIF) ranged from 1.441 to 1.457, which were below the threshold of 10, indicating that there was no problem with multicollinearity. The Durbin-Watson is 1.914, which is close to 2, confirming the independence of neighboring error terms. The results of the hierarchical regression analysis to determine the career decision level of college students are shown in Table 5. In step 1, gender, affiliation, major satisfaction, school life satisfaction, and major choice, which showed significant differences in career decision level among general characteristics, were entered as independent variables. As a result, Model 1 was a statistically significant regression ($F=14.678$, $p<.001$), explaining 27% of the variance in career decision level. Gender, departmental affiliation, major satisfaction, school life satisfaction, and major choice were the influencing factors of career decision level. In Model 2, the effects of psychological career barriers, environmental career barriers, and faculty-student interaction on career decision level were analyzed by adding psychological career barriers, environmental career barriers, and faculty-student interaction. The explanatory power of Model 2 increased to 50%, and the model fit was significant ($F=27.752$, $p<.001$). Psychological career barriers ($\beta=-.387$, $p<.001$) and environmental career barriers ($\beta=-.252$, $p=.002$) were the influential factors of career decision level Table 5.

Table 5. Factor influencing career decision level (N=179)

Model	Model 1				Model 2			
	B	β	t	p	B	β	t	p
(Constant)	2.933		17.878	<.001	5.315		11.810	<.001
Gender								
Female	-.306	-.174	-2.719	.007	-.195	-.111	-2.073	.040

Department (ref: Health department)								
Non health department	-.1876	-.106	-1.629	.105	.129	.078	1.215	.226
Major satisfaction (ref: Fairly satisfaction)								
Generally Satisfaction	.678	.361	4.623	<.001	.482	.257	3.825	<.001
University life satisfaction (ref: Fairly satisfaction)								
Generally Satisfaction	.212	.118	1.581	.116	.021	.011	.179	.858
Major selection (ref: Arbitrary)								
Involuntary	-.256	-.094	-1.398	.164	-.004	-.001	-.024	.981
Psychological career barrier					-.407	-.387	-4.791	<.001
Environmental career barrier					-.318	-.252	-3.138	.002
Faculty-student Interaction					-.060	-.043	-.676	.500
R ²		.298					.529	
Adjusted R ²		.278					.507	
F		14.678***					27.752***	

4. Discussion

This study attempted to identify the degree of career barriers, faculty-student interaction, and career decision-making among college students and to investigate the effects of career barriers and faculty-student interaction on career decision-making.

The average score of psychological career barriers among the study participants was 3.07, and the average score of environmental career barriers was 2.80, which was similar to the results of a previous study conducted on counseling major students [13]. It is believed that it is difficult for counseling majors to navigate their careers due to the rapidly changing world of work [19].

The mean score of faculty-student interaction was 3.92, which was lower than the previous study of nursing students [20]. It can be inferred that the study subjects who participated in this study mainly consisted of freshmen and influenced the results, and in previous studies [20], the faculty-student interaction is more likely to occur through college life for a longer period of time as the study subjects are in the second grade. In addition, the rate of securing full-time faculty members may be higher than other health-related majors because nursing colleges are subject to nursing accreditation evaluation, and there may be more faculty-student interactions because major courses start in the second year and there are many practical courses.

The mean score of career decision level was 3.25, which was lower than previous studies [2, 21]. Compared to the two previous studies, the proportion of health majors in this study was higher, and it was predicted that the level of career decision-making would be higher due to the professional specialization of health majors compared to non-health majors, but the results were somewhat different from the expectations, suggesting that a repeat study is needed.

There were significant differences in career decision levels based on gender, academic discipline, major satisfaction, college life satisfaction, and major choice when examining differences in career decision levels

based on general characteristics. Male students, students in health-related disciplines, students with high satisfaction with their major and college life, and students who chose their major voluntarily showed higher career decision levels. This is similar to findings of previous studies [22, 23, 24, 25]. In the case of male students, it is believed that having military experience influences many factors in their career decisions. In the case of health majors, the career path is clear due to the acquisition of licenses and qualifications through national examinations, and as a result, career worries and stress about employment are low [23], which seems to be higher in health majors compared to non-health majors. Major - It is believed that high satisfaction with university life may have increased the level of career decision making because it positively affects immersion in major studies.

In terms of major selection, the subjects who chose their majors voluntarily showed higher career decision levels, consistent with Park et al's [25] study of nursing students. This is because subjects who chose their majors based on their own aptitudes are more committed to their studies than those whose majors were chosen by their parents or school teachers, and they are more proactive in designing their future.

The results of this study showed that the subjects' career decision level was significantly negatively related to psychological career barriers and environmental career barriers, and positively related to faculty-student interaction. This was similar to previous studies [13, 26, 27]. The higher the psychological and environmental career barriers, the lower the faculty-student interaction. It is believed that in order to improve college adjustment, the closeness between students and faculty should be high, and that adjustment to college life can reduce career barriers. It is believed that career barriers may have brought a lot of confusion and confrontation to the career maturation process that students go through to make beliefs and judgments about their career, and finally negatively affected the level of career decision.

If the faculty-student interaction was high, the level of career decision-making was high, which was contrary to previous studies on security college students [28]. Since the difference according to the specificity of the study subject's major studies cannot be excluded, repeated studies that expand the subject seem necessary.

The influencing factors of career decision level were psychological career barriers, major satisfaction, environmental career barriers, and gender. In the case of career barriers, high career barriers, such as not knowing the career that suits their aptitude, low ability to analyze what they need to prepare for their career, and not knowing where to get information about their career, may have played an important role in lowering their career decision level. This is consistent with previous research [29]. In addition, if major satisfaction was high, it would have acted as an important variable in increasing the level of career decision making by actively immersing in the major and maximizing academic ability. This was consistent with findings from previous studies [30].

Based on the above results, to increase the career decision level of college students, it is necessary to reduce career barriers and increase major satisfaction. This can be achieved by utilizing professional career counselors to provide regular career counseling, helping students explore their desired career paths. Additionally, offering certification courses necessary for their careers, career-related special lectures, and other preparatory activities can enhance their readiness and instill confidence in overcoming psychological difficulties related to career decisions.

5. Conclusion

This study attempted to identify the correlation between career barriers, faculty-student interaction, and career decision level among college students and to examine the effects of career barriers and faculty-student interaction on career decision level.

The results showed that career decision level was significantly inversely related to psychological career barriers and environmental career barriers and significantly positively related to faculty-student interaction, and the influencing factors of career decision level were psychological career barriers, major satisfaction, environmental career barriers, and gender. Therefore, using professional career counselors to reduce career barriers and increase major satisfaction, and systematic management such as conducting job camps and

employability programs to improve career design and employability are necessary to improve students' career decision-making.

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