The Mediation of Worry about Career between Career Indecision and Career Search Behavior in South Korean College Students

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Abstract

Background/Objectives: This study intended to explore the mediating role of worry about career in the influence of career indecision on career search behavior in South Korean college students. Methods/Statistical Analysis: Three hundred and twenty-five students attending Sun Moon University responded the questionnaire for this study. To measure Career indecision, KCII (Korean Career Indecision Inventory) was used. The researchers have made the Korean version of 11-items measures using 'The Penn State Worry Questionnaire' to measure Worry about Career and to measure Career search behavior, we used 16-items of Career Search Behavior Scale of Choi. Findings: We tested the relationships among the overall constructs and among the sub-factors using Mplus 7.0. Firstly, the result on the relationships among the overall constructs showed the positive direct influence of Career Indecision on Worry about career, the positive direct influence of Worry about Career on Career Search Behavior, the negative direct influence of Career Indecision on Career Search Behavior. Furthermore, the indirect effect (Career Indecision → Worry about Career → Career Search Behavior) was also significant. Next, the result on the relationships among the sub-factors showed as follows: Indecisiveness influenced Information-Seeking and Advice-Seeking with the mediation of Worry about Career. Lack of Necessity Recognition influenced all of three sub-factors of Career Search Behavior negatively with the mediation of Worry about Career. Lack of Self-Identity had a positive effect on Self-Seeking but a negative effect on Advice-Seeking with the mediation of Worry about Career. Finally, External Barrier had a positive effect on Information-Seeking and Advice-Seeking with the mediation of Worry about Career. Improvements/Applications: This study will contribute the theoretical and practical development of research, education, and counseling of career guidance.

Keywords: Career Indecision, Career Search Behavior, South Korea, Worry about Career, Worry Anxiety

1. Introduction

Among college students, finding their first job is an important matter directly related to his or her lifetime career. Thus, active career search behavior is necessary to achieve quality results of job hunting. A number of preceding researches on youth employment and unemployment, however, focus on the negative effect of employment or unemployment on their personal psychological and physical well-being. In other words, previous researches are somewhat neglectful of the process of college students’ career search behavior, variables related to such behavior, and effects of such variables.

A number of college students in Korea can be found in a state of career indecision at the beginning of and even during their college lives. Thinking about it simply, it is reasonable to expect that when one's career has yet to be decided, he or she should conduct career search behavior more actively in order to find a solution. In reality, however, many do just the opposite: Despite having no concrete career plans, few actively practice career search behavior. Except a small number of researches that exhibit

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this reality, very few studies touch on the relationship between career indecision and career search behavior. Even if some examine the relationship, they do not clarify the relation between specific factors of career indecision and those of career search behavior. Thus, this study aims to clarify the relationship between sub-factors of career indecision and those of career search behavior.

In addition, the fact that many college students in South Korea, with regards to career indecision, are worried about their careers while not being very active in career search behavior also needs to be taken into consideration. This means that worry about career may affect career search behavior. While there have been researches on career anxiety, no research has touched on the worry about career in relation with career search behavior. Hence, this study examines whether worry about career functions as a mediator in the relationship between career indecision and career search behavior.

2. Career Indecision

Career indecision is one of the important topics to discuss in the areas of career counseling and vocational psychology. In general, ‘career decision’ would mean to a college student that he or she decided on their first regular job after graduating from college, and that what and how to prepare for it has been decided. In contrast, ‘career indecision’ would mean that for some reason, a decision on one’s career to move to the next step in their current position has not been decided yet. Researchers have presented various definitions on career indecision while keeping in mind the possible reasons why job seekers have come to that status – career decision or career indecision.

First of all, among lifelong development, characters, and abilities, what caused career indecision needs to be discussed. In this regard, developmental indecision means that persons of career indecision have yet to decide their careers as the decision-making step is delayed as they intend to collect more information on themselves and jobs. In contrast, those suffering from chronic indecision are inherently hesitant in making a career decision due to their lack of resolve. From this perspective, career indecision may be defined as ‘inability to select behaviors necessary to prepare and begin an individual’s specific career and to engage in that process actively’. However, some scholars object to defining career indecision merely as inability, rather defining it as ‘a state that one neither wants to, nor is able to, nor is ready to make a decision regarding his or her education or career’.

Since it is difficult to understand the cause of career indecision comprehensively only from the above-mentioned perspectives, efforts have been put forth to clarify complex and multidimensional causes for better understanding of the state of career indecision. For instance, In suggested KCII (Korean Career Indecision Inventory) which consists of 5 factors based on the scale of Lack of Career Information, Lack of Self-Identity, Indecisiveness, Lack of Necessity Recognition, and External Barrier. The researchers conceptualized these sub-factors as follows: Lack of Career Information indicates that one is ignorant of what kind of job is promising or knowledge and abilities that are required for a certain job. Lack of Self-Identity indicates that one is ignorant of his or her own aptitude or interest. Indecisiveness indicates that one’s passive and hesitant individuality causes the state of career indecision. Lack of Necessity Recognition indicates the lack of understanding towards why a selection or decision on a job is important, which leads to career indecision. External Barrier indicates that one is in the state of career indecision due to opposition from the important persons in their life including parents.

The term, ‘career’, comprehensively includes an individual’s lifetime vocational development and related aspects in that process. In other words, it includes all job-related activities in the course of one’s life as well as career-related activities and positions. However, college students tend to focus on selecting the first regular job when it comes to career. Thus, this study defines career indecision as ‘a state where, for various reasons, an individual does not make a decision on his or her first job to pursue’.

3. Career Indecision and Worry about Career

The most general definition of ‘worry’ is a series of thoughts and images that are related to negative emotions and are hard to be controlled. In this perspective, major causes of worry include possible future events that are likely to bring about various uncertain, negative results. In focused on problems that stem from worry, viewing worry as similar to fear that induces an intrusive way of thinking, which considers the situation to be threatening. They also viewed worry as a flow of negative thoughts and images that occur simultaneously with or as a result of fear. In contrast, defines worry as a mental process of problem-solving to effectively prevent and cope with traumatic future events. Nonetheless, Davey points out
that worry may lead to cognitive errors and pathological worry as normal worry for problem-solving is disturbed by personal character traits or situational characteristics. In view of this definition, worry about career may be defined as a series of thoughts and images that are related to negative emotions and relatively uncontrollable in this specific area of career.

Worry tends to result from a recognized lack of control over future events rather than events that have already occurred\textsuperscript{14}. In the face of critical decisions that may affect their future lives, college students would ask themselves countless questions on whether they could find a job that suits their interests, aptitudes, and characteristics, whether they could find a job that they want, and whether they would be satisfied with the selected job. Such uncertainty of their future job makes college students worried. Those who have many worries tend to show cognitive distortion in the process of assessing external threats, fail to exercise proper control in that process, and thus show cognitive avoidance rather than trying to solve the problem\textsuperscript{14}. Since a high level of worry is in a negative relation with cognitive, emotional, and behaviorist abilities to solve problems\textsuperscript{14}, worry over career is of great importance to college graduates who have to make a choice about their future jobs. As such, the topic of career is one of the major causes of worry to college students. However, regarding the topic of career, and more specifically, regarding career indecision or career search behavior, there have been few researches on the role of general worry or worry about career\textsuperscript{15}.

As a matter of fact, it is anxiety that is a psychological phenomenon that is frequently mentioned in the context of future uncertainty. For this reason, it is anxiety rather than worry that is a variable frequently referred to in relation with career decision or indecision. Preceding researches clarify the close relationship between career indecision and career anxiety. For instance, anxiety is a mediator between stress and physical health\textsuperscript{16}. Students who have decided their careers show a lower level of career anxiety than those who have not made a decision yet\textsuperscript{12}. Career anxiety is connected with damage to one’s career capabilities\textsuperscript{14}, hinders decision-making abilities\textsuperscript{12}, and function as a mediator of career indecision\textsuperscript{18,20} according to researches. In addition, college students who suffer from career indecision experience a high level of anxiety, but students with a clear sense of purpose showed a low level of anxiety in an analysis of significant factors in one’s life\textsuperscript{21}. Many researchers, however, also clarify that worry and anxiety are conceptually different\textsuperscript{22,23}. Anxiety is a general concept that covers physical senses, cognition, and behaviorist elements while worry is more cognition-focused since it is a specific anxiety of future events\textsuperscript{2}. In other words, while worry is closely related to negative, intrusive cognition, anxiety is rather related to physical reactions accompanied by negative emotions\textsuperscript{23}. In view of such differences, worry may be viewed as a more appropriate criterion variable than anxiety in relation to career indecision although there have been few researches on this aspect.

However, sub-factors of career indecision do not seem to be in a uniform relationship with worry about career. Among the 5 factors presented by\textsuperscript{2}, Lack of Career Information, Lack of Self-Identity, Lack of Necessity Recognition, and External Barrier indicate the lack of information necessary for decision-making. Accordingly, career indecision is expected to increase the level of worry. In contrast, indecisiveness may be related with cognitive styles of combining information rather than mere wealth or lack of information. Thus, career indecision due to indecisiveness is expected to have a negative effect on worry about career.

4. The Influence of Career Indecision and Worry about Career on Career Search Behavior

Among college students, career search behavior seems to be likened to job-seeking behavior for their first regular occupation after graduation. Thus, career search behavior would mean various cognitive and behaviorist activities to find, prepare for, and adapt to a job or to collect information on individuals and environments involved in that process\textsuperscript{22}. In\textsuperscript{22} built up a foundation for many researches on job-seeking behavior conducted thereafter. Such researches, however, focused merely on the effects of specific personal or social factors on career search intensity. According to these researches, for instance, as the level of self-esteem and financial needs was high\textsuperscript{25} and the social support for employment and sincerity was significant\textsuperscript{25}, the intensity of career search behavior was relatively high accordingly. These researches are of significance in that they clarified how to improve career search intensity among people, but there are few researches that examine how decision-making it affects people’s job-seeking behavior.
5. Method

5.1 Participants

Three hundred and twenty-five college students in the middle area of South Korea responded a questionnaire. After they listened to explanation about the contents of the questionnaire and agreed whether or not to participate, the following questions were given. Responses to the questionnaire were self-report type. Distribution of the participants was as follows: 111 first-year students (34.2%), the 103 second-year (31.7%), the 87 third-year (26.8%), the 24 fourth-year (7.4%), 151 male students (46.5%), 170 female students (52.3%), the lowest age 18, the highest age 29, the mean age 20.9.

5.2 Measures

5.2.1 Career Indecision

Korean Career Indecision Inventory (KCII) of was used for measure of Career Indecision. It has 22 items and 5 sub-factors (Lack of Career Information, Lack of Self-Identity, Indecisiveness, Lack of Necessity Recognition, External Barriers), and was measured by 7 point Likert scale (1 = extremely disagree, 7 = extremely agree).

5.2.2 Worry about Career

We cannot find any scales to measure Worry about Career. So we exploited Penn State Worry Questionnaire (PSWQ, 16 items) and made the scales to measure it. We took the way to add ‘career’ to all of each item of PSWQ. It was measured by 7 point Likert scale (1 = extremely disagree, 7 = extremely agree).

5.2.3 Career Search Behavior

This study adopts the career search behavior index of, which has two sub-factors - self-exploration and environmental exploration. This index was originally designed to examine how often college students practiced certain behavior of selecting or deciding a career for the last 6 months. The researchers of this study, however, viewed that it would be more appropriate to present some of its items as ‘yes or no’ questions rather than Likert items. For example, college students would visit companies or institutions in their areas of interests. However, such activities would not be frequently repeated during a period of 6 months; rather, just once or twice over 6 months or throughout their college life. It may be inappropriate to apply the Likert scale to such activity. In this study, therefore, a preliminary survey was conducted to select activities that could be repeated often among students, and 16 final items were selected. Different from the original scale, the revised version asked how often that activity was repeated for the last 12 months rather than 6 months. For these items, 7-point Likert scale (1 = not at all, 7 = very often) was applied.

6. Result

6.1 Validation of Scales

Career Indecision and Career Search Behavior were composed of multidimensional scales, so we needed to check the conceptual structures of those. PSWQ has a single dimension originally, and we measured Worry about Career by applying PSWQ to the career context. So, we needed to check whether new scales have single or multi factors. Therefore, we conducted principal axis factor analysis with Varimax rotation to Career Indecision,
Worry about Career, and Career Search Behavior. The number of factors was decided by Scree test, eigen value, and the size of factor loading.

After factor analysis of Career Indecision, one item (“I have difficulty in pursuing my career because of emphasis on academic cliques and age”) was eliminated from following analysis. Factor structure of Career Indecision in this study was similar to the original scale\(^7\). Explained variance of each factor from total variance, credibility coefficient (Cronbach’s \(\alpha\)), M, and SD were as follows: Lack of Career Information 32.2%, \(\alpha=.87\), M=3.705, SD=1.258; Indecisiveness 7.3%, \(\alpha=.84\), M=3.7, SD=1.322; Lack of Necessity Recognition 6.4%, \(\alpha=.77\), M=2.64, SD=1.172; Lack of Self-Identity 5.8%, \(\alpha=.86\), M=3.58, SD=1.513; External Barrier 3.5%, \(\alpha=.66\), M=2.572, SD=1.187. The statistics of overall Career Indecision was \(\alpha=.90\), M=3.322, SD=.923.

In this study, the scale on Worry about Career was made with 18-item of PSWQ \(^8\). However, the factor analysis of this scale showed 10-item of a single factor was appropriate. As it happened, all of the reverse-scored items of the original PSWQ scales were eliminated. Total variance of the single factor was 51.4% and Cronbach’s \(\alpha\) was .91, M was .840, and SD was 1.207.

Factor analysis of Career Search Behavior showed three-factor structure was appropriate. The original scale has two factors: Self-Exploration and Environmental Exploration\(^9\). However, result of this study showed it was appropriate to divide Self-Exploration into two parts (Self-Seeking and Advice-Seeking). Total variance of three factors was 48.2%, explained variance and credibility coefficients of each factor were as follows: Information-seeking 30.4%, \(\alpha=.87\), M=3.3, SD=1.178; Self-seeking 13.3%, \(\alpha=.77\), M=4.527, SD=1.259; Advice-seeking 4.5%, \(\alpha=.75\), M=3.697, SD=1.49. The statistics of overall Career Search Behavior was \(\alpha=.86\), M=3.68, and SD=.967.

### 6.2 The Relationships among Overall Constructs

The relationships among overall constructs were tested with Mplus 7.0. Model fitness indexes were as follows: \(\chi^2(\text{df}=25)=125.279\) (\(p<.001\)), RMSEA=.111, CFI=.863, TLI=.802, SRMR=.068. As a result, the hypothetical research model appeared to be acceptable. All of path coefficients among constructs were significant as shown in the Table 1.

The regression of Worry about Career onto Career Indecision yielded a statistically significant model,

| Path | B    | SE   | \(\beta\) | t    |
|------|------|------|-----------|------|
| CarIndec → WaC | 0.575 | 0.071 | 0.44       | 8.153*** |
| WaC → CarSB | 0.234 | 0.05  | 0.292      | 4.693*** |
| CarIndec → CarSB | –0.386 | 0.067 | –0.368     | –5.758*** |
| CarIndec → WaC → CarSB | 0.135 | 0.033 | 0.128      | 4.090*** |

CarIndec = Career Indecision; WaC=Worry about Career; CarSB = Career Search Behavior

\(*** p < .000\)

F(1, 323) = 77.479, \(p<.001\), with the predictors accounting for 19.3% of the variance. And Career Indecision and Worry about Career accounted for a combined 12.7% of the variance in Career Search Behavior, F(2, 322) = 23.266, \(p<.001\).

### 6.3 The Relationships among Sub-factors

With Mplus 7.0, we examined the influences of each factor of Career Indecision and Worry about Career on each factor of Career Search Behavior. The interest of the research was to examine the mediating role of Worry about Career between Career Indecision and Career Search Behavior. Table 2 is the result of the direct path among each sub-factor. As you can see in the result, four sub-factors (except Lack of Career Information) of Career Indecision influenced Worry about Career significantly. Indecisiveness, Lack of Self-Identity, and External Barrier positively predicted Worry about Career, but Lack of Necessity Recognition negatively predicted. The sub-factors of Career Indecision accounted for a combined 33.8% of the variance in Worry about Career, F(5, 319) = 32.559, \(p<.001\). All of the influence of Worry about Career on three factors of Career Search Behavior was significantly positive.

Meanwhile, the direct predictions of sub-factors of Career Indecision on each factor of Career Search Behavior were as follows. On Information-Seeking, Lack of Career Information (path coefficient = –.278) and Lack of Self-Identity (–.182) had negative influence, but External Barrier (.151) had positive influence. On Self-Seeking, only Lack of Self-Identity (–.267) had negative influence. A close look at the significant direct paths of each factor among Career Indecision and Career Search Behavior revealed the rest paths except for ‘External Barrier → Information-Seeking’ path have had negative influence.

Table 3 is the results of the indirect paths through Worry about Career from sub-factors of Career Indecision to sub-factors of Career Search Behavior. Indecisiveness
Table 2. The direct relationships among sub-factors

| Path            | B   | SE  | β    | T   |
|-----------------|-----|-----|------|-----|
| LCInfo → InfoSeek | -0.26 | 0.069 | -0.278 | -3.775*** |
| Indec           | 0.012 | 0.067 | 0.013 | 0.177 |
| LNR             | -0.006 | 0.062 | -0.006 | -0.093 |
| LSIden          | -0.142 | 0.066 | -0.182 | -2.163* |
| EB              | 0.15 | 0.061 | 0.151 | 2.478* |
| LCInfo → SelfSeek | -0.066 | 0.078 | -0.066 | -0.847 |
| Indec           | -0.026 | 0.073 | -0.028 | -0.357 |
| LNR             | -0.073 | 0.07 | -0.068 | -1.043 |
| LSIden          | -0.223 | 0.058 | -0.267 | -3.814*** |
| EB              | -0.004 | 0.056 | -0.004 | -0.074 |
| LCInfo → AdvSeek | 0.001 | 0.099 | 0.001 | 0.014 |
| Indec           | -0.184 | 0.08 |  -0.163 | -2.293* |
| LNR             | 0.136 | 0.084 | 0.107 | 1.63 |
| LSIden          | -0.145 | 0.074 | -0.148 | -1.952* |
| EB              | -0.074 | 0.076 | -0.059 | -0.966 |
| LCInfo → WaC    | 0.127 | 0.071 | 0.132 | 1.796 |
| Indec           | 0.295 | 0.067 | 0.323 | 4.437* |
| LNR             | -0.265 | 0.056 | -0.257 | -4.697* |
| LSIden          | 0.134 | 0.057 | 0.168 | 2.350* |
| EB              | 0.218 | 0.049 | 0.214 | 4.488*** |
| WaC → InfoSeek  | 0.193 | 0.066 | 0.198 | 2.913** |
| SelfSeek        | 0.341 | 0.077 | 0.327 | 4.445*** |
| AdvSeek         | 0.228 | 0.094 | 0.185 | 2.434* |

LCInfo = Lack of Career Information; LSIden = Lack of Self-Identity; Indec=Indecisiveness; LNR=Lack of Necessity Recognition; EB = External Barrier; InfoSeek = Information–Seeking; SelfSeek = Self–Seeking; AdvSeek = Advice–Seeking.

*p < .05, ** p < .01, *** p < .001

(path coefficient = .64), Lack of Necessity Recognition (–.051), and External Barrier (.042) had an indirect influence on Information-Seeking with the mediation of Worry about Career. Lack of Necessity Recognition (–.084) and Lack of Self-Identity (.055) had an indirect influence on Self-Seeking with the mediation of Worry about Career. Finally, Indecisiveness (.06), Lack of Necessity Recognition (–.048), and External Barrier (.04) had an indirect influence on Advice-Seeking with the mediation of Worry about Career.

Finally, Worry about Career and the sub-factors of Career Indecision accounted for a combined 15.1% of the variance in Information-Seeking, F(6, 318) = 9.387, p < .001, a combined 14.9% of the variance in Self-Seeking, F(6, 318) = 9.258, p < .001, a combined 5.3% of the variance in Advice-Seeking, F(6, 318) = 2.967, p < .01.

7. Conclusion

In South Korea, many college students are in a state of career indecision after attending a college and don’t seem to do career search behavior intensively while attending a college. For college students, career decision would be synonymous to get a regular job after graduating college. So career search behavior is very important issue for college students. Considering simply, it is expected that being a state of career indecision will engender intensive career search behavior. But the reality doesn’t seem to be the case. Nevertheless, they are fairly worrying about their future career. Therefore, we, in this study, wanted to explore how career indecision influences career search behavior on a mediating role of worry about career.

Responses of college students located in the middle area of South Korea was analyzed. The following direct influence relationships among overall constructs were positive and significant: Career Indecision on Worry about Career, Worry about Career on Career search behavior. And as expected, the direct influence of Career Indecision on Career Search Behavior was negatively significant. Also, Worry about Career played a role of mediation in
the prediction of Career Indecision on Career Search Behavior. This implies that worrying about career would rather be effective to enhance career search behavior. However, this implication needs to be examined in detail according to sub-factors of Career Indecision and Career Search Behavior.

Specifically, Indecisiveness of a sub-factor of Career Indecision influenced Information-Seeking and Advice-Seeking with the mediation of Worry about Career. Or, if the reason of Career Indecision is for indecisive character or cognitive style of him/herself, this finding means that (s)he will increase Information-Seeking about external environment and Advice-seeking about the opinion and judgment of other people.

Lack of necessity cognition influenced all of three sub-factors of Career Search Behavior negatively with the mediation of Worry about Career. Or, if students are lack of cognition whether having a job is necessary or important in life, this means that worrying about career doesn't engender strong Career Search Behavior.

Lack of Self-Identity positively influenced Self-Seeking with the mediation of Worry about Career, but is not related to Advice-Seeking. This means that a person may be in the state of Career Indecision for Lack of Self-Identity, but realize at least that s/he has a problem in clarity of his/her self-identity and where he/she needs to find what kind of information to get clarity of that. Advice-Seeking is asking judgment of other people but not decision-making. This doesn't leave judgment of other people with his/her problem of self-identity. Rather, this means that the person tries to make his/her own decision by consulting other people and increasing the quantity or quality of information about him/herself rather than relies on another's decision-making.

External barriers have influenced Information-Seeking and Advice-Seeking through Worry about Career. In a sense, Career Indecision from External Barriers may not be in a state of indecision. It is because the person knows that many barriers obstruct pursuing his/her decision. The findings of this study mean that in this case of External Barriers, the necessity is the information to overcome disturbance or the active judgment of other people.

This study has several limitations: First is the issue of the scales used to measure. In this study, we applied the scale (PSWQ) on general worry within the limit of career to measure Worry about Career. Or, we simply added ‘career’ to each item of PSWQ. This demands the production of the more sophisticated scale to measure Worry about career. Another issue of the scale is also related to Career search behavior. This study only used a part from Choi’s scale to measure Career Search Behavior. This also demands the making of the better scale to measure Career Search Behavior which centers on behaviors that college students conduct frequently and repeatedly. Second, the sampling issue is one of limitations of this study. The respondents of this study were limited to college students in the field of social science and humanity of a college in the middle area of South Korea. Future study needs to include the respondents in another academic fields or regions of South Korea.

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