

Article

The Structural Relationship among Career-Related Mentoring, Ambiguity Tolerance, and Job Search Effort and Behavior of Korean College Students

Yangyi Kwon ¹, Jhong Yun (Joy) Kim ^{2,*} and Andrew Keane ³ 

¹ Department of Education, Hongik University, 94 Wausan-ro, Sangsu-dong, Mapo-gu, Seoul 04066, Korea; yangyi2@hanmail.net

² BK21FOUR Group of Education, Korea University, 145 Anam-ro, Anam-dong, Seongbuk-gu, Seoul 02841, Korea

³ Department of Hotel Tourism, Incheon Jaeneung University, 78 Jaeneung-ro, Songnim dong, Incheon 22573, Korea; andrewkeane1@gmail.com

* Correspondence: joycello@hanmail.net

Received: 13 September 2020; Accepted: 22 October 2020; Published: 24 October 2020



Abstract: Although a substantial body of mentoring research has been conducted on students attending four-year colleges, the interplay of career-related mentoring, ambiguity tolerance, and job search effort and behavior has not been seriously investigated. Therefore, we examined the relationship between career-related mentoring and ambiguity tolerance, as well as job search effort and behavior, for the purpose of understanding how to better assist undergraduate college students achieve preliminary job search success. Data were collected via pencil surveys administered to 300 undergraduate students selected by purposive sampling from four colleges in Seoul, Korea. Correlation analysis and covariance structure analysis were conducted to examine the relationships between variables. A Sobel test was also conducted to check the mediation effect of the model. Results were consistent with our hypotheses and showed that there was a significant, indirect, positive effect of career-related mentoring on job search effort and behavior, mediated through ambiguity tolerance. Our study contributes to career-related mentoring and job search research by providing empirical evidence supporting the results. It has implications for universities, mentoring program design, and career guidance professionals.

Keywords: career-related mentoring; job search effort; job search behavior; ambiguity tolerance

1. Introduction

Job searching is an important part of life, and individuals often seek new career opportunities as opposed to being unemployed [1]. Undergraduate university students, aged approximately 18–25, are still in the process of completing their education and preparing themselves for entering the job market. They are not only students but also job seekers. According to Arnett [2], adults in this age group search for jobs requiring substantial preliminary experience, as they see knowledge about their future role as essential for a life-long career. Due to increasingly competitive job markets, college students must begin preliminary job searching much earlier than was previously necessary [3]. If students fail to devote adequate time and effort to their job search, they are less likely to find satisfying employment [4]. The difficulties young job seekers experience are somewhat mitigated when they are encouraged to be proactive and set goals [5]. As such, young adults today spend more time preparing for jobs than in previous generations [6]. This engagement with the job search process is stimulated through mentoring and psychosocial support [7].

Despite greater time dedicated to preparing for jobs, young job seekers recognize that there are numerous barriers to employment that impede their ability to meet career goals, and they often do not possess clear and unequivocal information related to their future careers [8,9]. However, job searching by students can be improved through the social support received from people perceived as important to the individual [10]. Career-related mentoring may make it possible for undergraduate university students emerging into adulthood to gather useful information about jobs and prepare themselves for future workplaces, as was observed in individuals who had similar experiences [11].

For these reasons, the formation of a long-term relationship with people who have either experienced similar career patterns or possess useful job-related information is an increasingly important intervention. These support interventions can be viewed as providing a holistic mentoring experience to students [12]. The mentoring process is increasingly studied by researchers because of its professional and personal impact on mentees [13,14]. However, previous studies on career-related mentoring were mainly conducted in the workplace. Furthermore, many evaluative studies on the effects of student mentoring are related to student outcomes, including academic achievement and persistence in college, and are not based on validated questionnaires [15,16].

As a result of the competitive job market situation in Korea, the ambiguity tolerance of college students is becoming more important. Since lots of Korean students had only aimed at studying to enter a good university, they may not have developed the necessary skills and attributes to endure the ambiguity surrounding their immediate futures during the career-finding period. Ambiguity aversion negatively predicts job search self-efficacy [17]. Ambiguity tolerance, on the other hand, has been shown to have a negative relationship with career indecision, as mediated by career decision-making self-efficacy [9]. Ambiguity tolerance has also been shown to moderate the relationship between complex decision-making and self-efficacy [18]. Furthermore, young adults seeking full-time employment often find the complexity of the process confusing. As they are unable to rely on personal experience to navigate the situation, they may have to make decisions based on advice and information received from their support system of peers, parents, and counselors [19]. Therefore, students who have high levels of ambiguity tolerance may be better suited to completing the job search process successfully.

Little is known about the direct relationship between career-related mentoring and job search effort and behavior. In addition, research on the direct and indirect effects of mentoring, ambiguity tolerance, and job search effort and behavior is limited. However, some studies have shown that mentoring can help resolve ambiguous situations and ambiguity tolerance has a positive effect on continuing job search-related efforts [18,20]. Furthermore, when mediated by career self-efficacy, mentor career support is positively related to career planning and job search intentions, and negatively related to self-defeating job search behavior in college students [21]. If career-related mentoring increases the level of ambiguity tolerance and allows ambiguity tolerance to increase job search effort and behavior levels, the development of a mentoring program that focuses on increasing students' ambiguity tolerance should be facilitated. If there is a strong direct effect between career-related mentoring and job search effort and behavior, increasing the number of mentoring sessions should be considered.

Accordingly, the purpose of this study is to examine not only the effects of mentoring but also the role of ambiguity tolerance in the relationship between career-related mentoring and job search effort and behavior. Thus, the results of this study will provide implications for future research and practice related to college students' mentoring.

2. Theoretical Background

2.1. Mentoring, Ambiguity Tolerance, and Job Search Effort and Behavior

Mentoring has been identified as an effective, supportive process for the communication of ideas from someone who is deemed to have more knowledge and experience to one who is deemed to have less [22]. Importantly, for this study, the motivation and focus for learning come from the learner, as opposed to more traditional learning environments where the expert dictates the terms of learning [23].

Equally important is the emphasis on the relationship between mentor and mentee, and the use of the process as an impetus for personal reflection [24]. Theoretical and empirical papers have provided a better understanding of the motivations and benefits derived from mentoring that are closely related to individuals' career planning and development [25–28]. According to Crisp [29], college student mentoring consists of four subcategories: psychological and emotional support, degree and career support, academic subject knowledge support, and the existence of a role model.

Soelberg's job search and choice model proposed that potential jobs can be considered during several stages of investigation and information collection [30]. One's success in the job search is related to the sources used to obtain information about job vacancies and the intensity of following up on this information [31]. Thus, mentoring helps motivate students to look for job information and exert effort in the job search [32]. In fact, according to Nora and Crisp [12], college students perceive mentoring as psychological and emotional support, so mentoring is a way for students to adjust to vocational ideals by providing them with situational cues for the job market. Job searching is a long autonomous process of identifying valuable job information and is characterized by the need to self-motivate, persevere, and cope with uncertainty and rejection [33]. Therefore, the process is typically viewed as self-regulated and enables individuals to guide their goal-directed activities over time, regardless of changing environments [34–37]. As the mentoring process requires the participation of self-motivated learners [23], it could be conducive to developing these competencies in job searchers.

Job search effort refers to the subjectively felt cognitive, emotional, and behavioral investments made in job searching, and assesses the extent to which individuals engage in the search [1]. That is, measures of job search effort assess the general amount of energy and time devoted to job searching [38]. In contrast, job search behavior refers to the frequency with which individuals engage in specific activities to acquire knowledge and information about job-market alternatives [38,39]. Blau [40], however, mentions three types of job searching: preparatory job search behavior, active job search behavior, and general effort job search. These three aspects are considered to be subcategories of the *job search* variable and are analogous to the definitions of job search effort and job search behavior outlined in this paragraph. In the interest of clarity, we chose to name this variable *job search effort and behavior* as it is more representative of the subcategories it contains.

Acknowledging the unique characteristics of job searching as a dynamic, recursive, and self-regulatory process predicted by motivation [34], the theoretical framework of Bandura's social cognitive theory of self-regulation is useful as a basis for understanding the relationship between mentoring and job search effort and behavior [41]. Social cognitive theory is composed of three elements: behavioral, cognitive or personal, and environmental factors. These factors interact to play a critical role in one's motivation, learning, and self-regulation [42,43]. Self-regulation refers to the processes individuals employ that are systematically oriented toward attaining goals [44]. From this perspective, instruction, feedback, and social interaction contribute to the environmental factors that help individuals work toward their goals [43]. As mentors provide protégés with psychological and material support in the pursuit of their objectives [45], they are well-positioned to serve as role models and guide students to set career goals. Showing greater consideration for students' careers should increase their sense of control over such activities and career-related beliefs [27]. Thus, as a result of mentoring, students who believe they can successfully manage their careers ought to engage in greater career planning than students who do not [46]. On this basis, we propose the following hypothesis:

Hypothesis 1 (H1). *Mentoring will be positively related to job search effort and behavior.*

For most individuals, the job search process is rarely considered enjoyable [35]. According to Xu and Tracey [9], with the increasing complexity of the vocational world in the 21st century, ambiguity in information is especially salient in career decision-making. In a complex and unpredictable job market, job seekers must control and adjust their thoughts and actions, and deal with rejection and

disappointment [21,36]. Through self-regulation, individuals are more able to operate effectively in stressful conditions [47]. Thus, self-regulation helps to initiate and maintain planned activities.

A lot of time and effort is needed to identify valuable and unambiguous information in a job search [48]. One functional way of handling informational ambiguity could be building preference and tolerance, and limiting aversion for ambiguity [9]. Ambiguity tolerance is defined as the way individuals perceive and respond to ambiguous situations or stimuli characterized by an array of unfamiliar, complex, or inconsistent clues [49]. It is an important characteristic of the career decision-making process [9]. The term ambiguity is often used interchangeably with the term uncertainty [18], and tolerance of uncertainty is a valuable skill to be acquired from the mentoring process [50].

According to Conner [20], students reported that they had more understanding of the ambiguity of career directions after mentoring. Mentoring is also an effective learning process for college students to understand the job market, compromise, and adjust their vocational ideals [21]. Therefore, students' tolerance for ambiguous situations varies according to their personal perception of these situations. This could be positively influenced by mentoring, as students are typically expected to interact with a mentor to receive useful information and relieve tensions related to unpredictable situations. As such, we propose the following hypothesis:

Hypothesis 2 (H2). *Mentoring will be positively related to ambiguity tolerance.*

According to Van Hooft, Wanberg, and Hoyer [35], self-regulation includes regulation not only of behavior but also of cognition and emotions. Self-regulation is especially needed in extreme conditions when individuals must withstand emotional pressure and find compromises in a relationship by maintaining a positive attitude [47]. Within social cognitive theory, self-efficacy refers to the verbal persuasion and observing of models that successfully help to increase efficacy beliefs and performance of a specific task [51]. A negative relationship has been shown between job search self-efficacy and ambiguity aversion in career decision-making [17]. Although independent constructs, Xu and Tracey [9] found a moderate negative correlation between ambiguity aversion and ambiguity tolerance in college students' career-related decision-making. This suggests that as an individual's tolerance for ambiguity increases, they may be better equipped to deal with the complex, uncertain situations they face when searching for a job.

As mentioned earlier, the ability to tolerate ambiguity is an important skill in the job search process [52]. Likewise, ambiguity tolerance is closely related to a self-regulatory framework [47,53]. In career-related mentoring, self-efficacy is important and, according to Lane and Klenke [53], ambiguity tolerance is important to the formation of self-efficacy as task complexity increases. In fact, in a highly complex task, students with a higher tolerance for ambiguity reported higher self-efficacy [18]. Individuals with high ambiguity tolerance may seek out uncertain tasks, enjoy them, and persist despite initial failures [18]. Finally, Teoh and Foo [54] discovered that ambiguity tolerance was related to self-perceived performance. Also, people who perceived ambiguity as most threatening did not use all available information in making decisions [55]. In terms of job searching, this view suggests that individuals with little ambiguity tolerance are more likely to experience stress, react prematurely, and judge themselves as being less capable to search for jobs [49]. On this basis, we propose the following hypothesis:

Hypothesis 3 (H3). *Ambiguity tolerance will be positively related to job search effort and behavior.*

2.2. The Mediating Role of Ambiguity Tolerance between Mentoring and Job Search Effort and Behavior

Finally, we aim to examine if college students' ambiguity tolerance mediates between mentoring and job search effort and behavior in order to develop a greater understanding of the factors that may facilitate greater job search success for students. Related to this, the career exploration process is exhibited as a component of monitoring and an adjustment of vocational choice [56]. Elsewhere,

the mediating role of ambiguity tolerance could be considered to be an aspect of self-reactiveness; an element of social cognitive theory that encompasses motivation for future action, self-monitoring of environmental conditions, and self-regulatory processes that link thought to action [41]. In addition, Gottfredson's [48] theory of circumscription and compromise can be applied to the proposition that the adjustment of vocational aspiration is related to helping students transition from school to work by providing them with information based on reality [57]. In this regard, when mentoring is considered as an environmental factor in Bandura's [42] social cognitive theory, it may have a positive effect on ambiguity tolerance as an aspect of self-reactiveness.

Adjustment to reality occurs largely as a process of learning, such as from mentoring, before entering the job market and is the process of compromising between the self and reality [48]. Specifically, Gottfredson [48] views *self-creation* as an important factor when young people are making plans to enter the job market. Self-creation refers to an individual's capacity for increasingly self-directed development with regard to their future careers. By promoting self-agency, people in positions of influence can help students to more readily prepare for a job search. Bandura [58] views self-efficacy as the single most important mechanism of agency. As individuals with a higher tolerance for ambiguity report higher self-efficacy when confronted with complex decisions [18], this suggests that mentors can assist students with timely, thoughtful insight about the job market. Mentors could help increase students' ambiguity tolerance and self-efficacy by stimulating them to consider all surrounding environments and setting and pursuing goals. Individuals with higher self-efficacy exert greater effort on a task and are more persistent, which is of benefit in the job search process [59].

Although there is no existing study on the mediating role of ambiguity tolerance in the relationship between mentoring and job search effort and behavior, both social cognitive theory and circumscription and compromise theory suggest that college students with high ambiguity tolerance "may perceive ambiguous situations or information as desirable and interesting" [9] (p.2). Zikic and Saks [60] found that career resources were positively correlated with job search self-efficacy which, elsewhere, has been shown to be positively affected by ambiguity tolerance in complex tasks and decision-making [18]. In this case, career resources provide job searchers with a broader pool of knowledge about the job search process and include counseling and advice, which is often provided by mentors. The authors placed emphasis on the job searchers as active agents [60]. Therefore, exerting effort in job searching is logical and the relationship between mentoring and job search effort and behavior may be mediated by ambiguity tolerance. See Figure A1. On this basis, we propose the following hypothesis:

Hypothesis 4 (H4). *Ambiguity tolerance will mediate the relationship between mentoring and job search effort and behavior.*

3. Methods

3.1. Participants and Procedure

The research was conducted for four weeks starting on 2 September 2015. Data were gathered from pencil surveys administered to 300 undergraduate students enrolled at four-year colleges in Seoul, Korea. Purposive sampling was implemented to select participants of four colleges that executed mentoring programs. Two of the colleges operated formal mentoring programs, and the other two had policies that strongly recommended mentoring experiences for students. Through the university's career center, the mentoring program matched alumni and university students based on the students' career interests. Of the 300, 50 surveys were deemed invalid or void due to errors in completion or being marked as having no mentoring experience. This left a total of 250 completed samples to be used for analysis.

3.2. Measures

The instruments of this study were obtained from previous studies. The scale range was from 1 (strongly disagree) to 5 (strongly agree). To examine the adequacy of the scales, inter-correlations were taken.

3.2.1. Career-Related Mentoring

In this study, the wording of Crisp's [29] 25-item College Student Mentoring Scale (CSMS) was modified to fit the career-related mentoring received by Korean college students from mentors. Finally, 18 items were used to measure career-related mentoring (see Appendix B). CSMS was employed since it was validated for representative samples of undergraduate students attending a four-year college, and was widely accepted and employed in several studies [15,61,62]. Participants responded with their opinions about their mentors and their behaviors during mentoring.

3.2.2. Ambiguity Tolerance

16 items previously developed by Xu and Tracey [9] were used for the study. Participants provided responses estimating their tolerance related to job searching and decision ambiguity. Sample items include "I enjoy tackling complex career decision-making tasks" and "I am tolerant of the potential difference between my perception and the reality of a career".

3.2.3. Job Search Effort and Behavior

A total of 14 items were used to measure job search effort and behavior. We used four items previously developed for evaluation of the job search effort [40]. Participants were asked to estimate their job search effort through items such as "I put in enough time to find a job" and "I make an effort to find a job". We also used 10 items previously developed to evaluate preparatory job search behavior and active job search behavior [40]. Items include "Read the help wanted/classified ads in a newspaper, journal, or professional association", "Prepared/revised your resume", "Sent your resumes to potential employers", and "Filled out a job application".

3.3. Analyses

The data collected in this study were analyzed using the Statistical Package for the Social Sciences (SPSS) 21.0 and AMOS 20.0 programs. First, a validity check of each variable was executed. Second, the reliability of independent variables, dependent variables, and mediating variables was verified by checking Cronbach's α value. Third, correlation analysis was conducted to check the relationships between variables. Fourth, covariance structure analysis was conducted to examine the fitness of the research model and check the relationships between variables. Fifth, a Sobel test was conducted to check the mediation effect of the model.

4. Results

Means, standard deviations, Cronbach's α , and correlations of the study variables are shown in Table A1. All Cronbach's α values are over 0.6, and most of the variables in the model have a direct relationship to each other.

We conducted a confirmatory factor analysis to check for a common method variance among the variables in our study. The result showed that this research model with four factors of career-related mentoring variables, three factors of ambiguity tolerance, and three factors of job search effort and behavior provides a good fit to the data ($\chi^2 = 57.2^{**}$, degrees of freedom (df) = 32, Comparative Fit Index (CFI) = 0.971, Tucker-Lewis Index (TLI) = 0.950, Root Mean Square Error of Approximation (RMSEA) = 0.056).

The results of the structural equation modeling analysis are presented below. The model fit indices are presented in Table A2. Our hypothesized model (partial mediation model) fits the data

well: $\chi^2 = 57.15$, $p < 0.01$, comparative fit index = 0.971, standardized root-mean-square error of approximation = 0.056, meeting the goodness-of-fit criteria suggested by Hu and Bentler [63]. Table A2 shows the fit statistics for the alternative models testing for full mediation. The alternative full mediation model also shows good model fit: $\chi^2 = 57.88$, $p < 0.01$, comparative fit index = 0.971, standardized root-mean-square error of approximation = 0.055. However, the full mediation model failed to display a significantly improved fit to the data, ($\Delta\chi^2 = 0.73$, $\Delta df = 1$) in comparison with the partial mediation model. Other indices did not show evidence of a big difference in model fit between the partial and full mediation models. Thus, partial mediation is the better model to examine our research.

The standardized path estimates are presented in Table A3. Hypothesis 2 ($r = 0.413$, $p < 0.001$) and Hypothesis 3 ($r = 0.573$, $p < 0.01$) are supported. Since mentoring is not significantly related to job search effort and behavior variance, Hypothesis 1 failed to gain support.

To test Hypothesis 4, the model comparison between partial mediation and full mediation presented in Table A3 was executed. The standardized path estimates of our hypothesized model partial mediation revealed that the indirect effect from mentoring to job search effort and behavior is 2.2 times larger than the direct effect between mentoring and job search effort and behavior. See Table A3.

In addition, the Sobel test was executed to confirm the mediating effect of the partial mediation model. The z value of our hypothesized model is 2.655 ($p < 0.01$). Since the z value is greater than 1.97, the mediating effect of this model is significant.

5. Discussion

To understand how to better assist undergraduate college students in achieving preliminary job search success, we examined the structural relationships among career-related mentoring, ambiguity tolerance, and job search effort and behavior. Our study contributes to mentoring research by providing empirical evidence that career-related mentoring impacts positively on students' ambiguity tolerance. According to Ashford [64], individuals seek feedback on important issues and in new and uncertain situations. That is, faced with increased stress and uncertainty, individuals are likely to place added value on the psychosocial aspects of mentoring, as it helps individuals deal with these negative issues [65]. Although ambiguity tolerance has not been a central construct in mentoring and job searching, there have been findings of an association between the two [20,50,66].

In addition, there was an indirect, significant, positive effect of career-related mentoring on job search effort and behavior through ambiguity tolerance. Ambiguity tolerance mediated between career-related mentoring and job search effort and behavior, which in turn indirectly influenced job search effort and behavior. According to Lazarus and Folkman [67], social support can help individuals cope with and adapt to stressful situations such as a job search. Adaptable individuals have a high tolerance for uncertainty and ambiguity [68]. Such ambiguity tolerance generally supports career decision situations and may also prevent feelings of paralysis during times of turbulence [9,69]. This implies that social support from mentoring plays an important role in motivating students to endure ambiguous situations. These students tend to be expending more effort on their job search. Self-regulation encompasses the systematic processes that individuals utilize to achieve their goals [44]. In this case, mentoring contributes to increased ambiguity tolerance which students intentionally try to build or self-regulate. This, in turn, benefits their job search. Thus, the mediational effect of ambiguity tolerance could be explained by self-regulation theory, which considers individual regulation of emotions [70]. Our results are also consistent with findings by Renn et al. [21] that mentor career support predicts career planning, job search intentions, and self-defeating job search behavior. Although our results supported findings that mentoring is positively related to ambiguity tolerance and helps students to give more thought to their job [20], the results contrast with research that found mentoring is positively and directly related to job search effort and behavior [32].

In contrast to our hypothesis, the direct influence of mentoring on job search effort and behavior was not revealed, probably because the participants in this study are neither university graduates nor

unemployed job seekers. Although 31% of the respondents were fourth-year students approaching graduation, the rest of the students were current college students who had no need to find jobs immediately. According to Bao and Luo [71], actual job search effort and behavior does not necessarily occur even when individuals have high levels of behavioral intentions to change. In this regard, Saks and Ashforth [72] argued that the job prospects of university students are likely to be better than for mature unemployed job seekers. This can be interpreted to mean that fourth-year college students currently taking classes are not faced with immediate graduation. Therefore, even though they participate in mentoring sessions, they do not necessarily proceed with job searching immediately.

Another possibility for why there is no significant link between career-related mentoring and job search effort and behavior is that job search effort and behavior are a prerequisite, not for deciding a career, but for exploring. This leaves space to investigate the relationships among ambiguity tolerance, job search effort and behavior, and career decisions. Alternatively, the unique educational environment in Korea could explain the lack of a significant link. Most Korean students only focus on entering a high-ranking university when they are teenagers. After entering university, they are faced with the new, unfamiliar challenge of job searching, which could cause frustration. Therefore, it is necessary to build ambiguity tolerance through career-related mentoring and restoring self-confidence. As a result, college students might be better equipped to undertake activities related to their job search. Thus, additional studies are needed to examine the reason why the results are not consistent over time and whether the results in this study stem from contextual differences or other factors.

Our findings provide not only empirical evidence about the role of mentoring as an important antecedent of student ambiguity tolerance but also important implications for future student job search processes and college student mentoring research and practice. By examining the mediation effect of student ambiguity tolerance, our study links theoretical constructs in the career-related mentoring and job search effort and behavior studies to previously unexplored student ambiguity tolerance. It also addresses the need for careful examination of its explanatory power to develop better theoretical frameworks for career-related mentoring and job search effort and behavior.

5.1. Theoretical Implications

Social cognitive theory of self-regulation [70] was used as a framework to link career-related mentoring and job search effort and behavior, and to examine the mediating role of ambiguity tolerance that was unreported in previous studies. We specifically selected ambiguity tolerance because it provides psychological resources for self-regulated behavior, which research suggests may be predicted by mentoring [20,36,47,50]. Our study extends the extant literature by establishing empirical evidence of a link between mentoring and ambiguity tolerance. It also provides an incentive to investigate possible new theoretical frameworks between mentoring theories and self-regulation theories that attempt to explain the mechanism through which mentoring can help students develop their ambiguity tolerance.

5.2. Practical Implications

In addition to the effect of mentoring, our study highlighted the importance of ambiguity tolerance by examining its mediational role as a powerful explanatory factor. To our knowledge, our study is the first to link mentoring to student ambiguity tolerance, which might be regarded as one of the most important competencies related to job search activities in tough economic times. In the face of a dim economic outlook, mentoring might be used to increase tolerance for ambiguity during long job searches. Practically, we can provide universities with mentoring intervention options to improve students' job search effort and behavior by demonstrating that career-related mentoring is directly and positively related to students' ambiguity tolerance. Specifically, career counselors in universities should identify the benefits of mentoring and develop mentoring programs.

Finally, career-related mentoring is an important intervention for college students [21] to better understand the environment and situation of the job market. Thus, mentors who work for companies that provide genuine information about available jobs and job searching should be recruited. This

means that mentors' expertise should be aligned with their proteges' career aspirations. In addition, mentors can explain the job market situation to students, so the careful selection of mentors is critical to whether the process is successful or not. University members in charge of planning mentoring programs should be concerned about whether the selected mentor can have a positive influence on a student's career and future.

6. Limitations and Future Directions

This study has some limitations. First, the survey samples were cross-sectional in nature. Longitudinal designs will be needed in the future to examine the results of the study. Second, the study results did not reveal that career-related mentoring was directly and positively related to job search effort and behavior, suggesting that the data from students who are not approaching graduation may not reflect recent university graduates' experiences in the job market. Therefore, future research is needed using samples drawn from either only university or college students approaching graduation, or recent graduates. Third, we did not consider different types of mentoring. Additional research could expand our model by comparing formal and informal mentoring.

Despite these limitations, this study is the first to examine not only the effects of career-related mentoring on ambiguity tolerance, job search effort and behavior, but also the mediating role of ambiguity tolerance between mentoring and job search effort and behavior. Career counselors in universities may use this study's results to strengthen students' ambiguity tolerance by providing effective career mentoring programs. It seems practical for researchers to identify and let faculty members and university career counselors know that job searching for emerging adults involves difficult processes of collecting useful information about the self and the job market, as well as using that information to identify an appropriate vocational choice.

Finally, the results of the study should be generalized to mature and older job seekers only with caution. As the participants in this study are college students, its findings might apply only to students who are currently enrolled in four-year colleges. Future research will be needed to examine samples from university graduates and mature job seekers.

Author Contributions: Y.K. (Conceptualization, formal analysis, investigation, resources, data curation, writing—original draft preparation, visualization, project administration); J.Y.K. (methodology, software, validation, formal analysis, investigation, resources, data curation, writing—review & editing, visualization, project administration); A.K. (writing – review & editing, visualization, project administration). All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Table A1. Number, Means, Standard Deviations, Cronbach’s α , Correlations, and Reliabilities of Study Variables.

Variable	N	M	SD	Cronbach’s α	1	2	3	4	5	6	7	8	9	10
1. Mentoring: Psychological and Emotional Support	249	3.60	0.68	0.671	-									
2. Mentoring: Degree and Career Support	249	3.63	0.54	0.697	0.47 **	-								
3. Mentoring: Academic Subject Knowledge Support	249	3.62	0.63	0.617	0.49 **	0.51 **	-							
4. Mentoring: Existence of a Role Model	249	3.66	0.68	0.756	0.71 **	0.56 **	0.56 **	-						
5. Ambiguity Tolerance: Preference	245	3.88	0.57	0.802	0.27 **	0.29 **	0.37 **	0.31 **	-					
6. Ambiguity Tolerance: Tolerance	249	3.42	0.59	0.724	0.25 **	0.35 **	0.25 **	0.25 **	0.47 **	-				
7. Ambiguity Tolerance: Aversion	246	3.09	0.73	0.775	0.08	-0.10	-0.14 *	-0.12	-0.15 *	-0.09	-			
8. Job Search Effort and Behavior: Job Search Effort	248	3.04	0.93	0.939	0.12	0.12	0.23 **	0.07	0.17 *	0.20 **	-0.05	-		
9. Job Search Effort and Behavior: Preparatory Job Search Behavior	248	3.38	0.74	0.749	0.20 **	0.19 **	0.28 **	0.23 **	0.26 **	0.23 **	-0.11	0.65 **	-	
10. Job Search Effort and Behavior: Active Job Search Behavior	246	2.87	0.80	0.718	0.12	0.16 *	0.21 **	0.12	0.28 **	0.28 **	-0.06	0.62 **	0.74 **	-

* $p < 0.05$, ** $p < 0.01$. (N = Subjects, M = Mean).

Table A2. Goodness-of-Fit Indexes for Structural Equation Model.

Model	χ^2 (df)	$\Delta\chi^2$ (Δ df)	CFI	TLI	RMSEA	NFI	RFI
Partial Mediation	57.15(32) **	0.73(1)	0.971	0.950	0.056	0.938	0.893
Full Mediation	57.88(33) **		0.971	0.952	0.055	0.937	0.895

** $p < 0.01$. (CFI = Comparative Fit Index; TLI = Tucker-Lewis Index; RMSEA = Root Mean Square Error of Approximation; NFI = Normed Fit Index; RFI = Relative Fit Index).

Table A3. The Path Estimates and the Effect Decompositions of Research Model.

Paths	Standardized Path Estimates	C.R.	
H1: Mentoring -> Job Search Effort and Behavior	0.106	0.873	
H2: Mentoring -> Ambiguity Tolerance	0.413	5.812 ***	
H3: Ambiguity Tolerance -> Job Search Effort and Behavior	0.573	2.983 **	
Paths	Total Effect	Direct Effect	Indirect Effect
H4: Mentoring -> Ambiguity Tolerance -> Job Search Effort and Behavior	0.267	0.083	0.184

** $p < 0.01$, *** $p < 0.001$. (H = Hypothesis; C.R. = Critical Ratio).

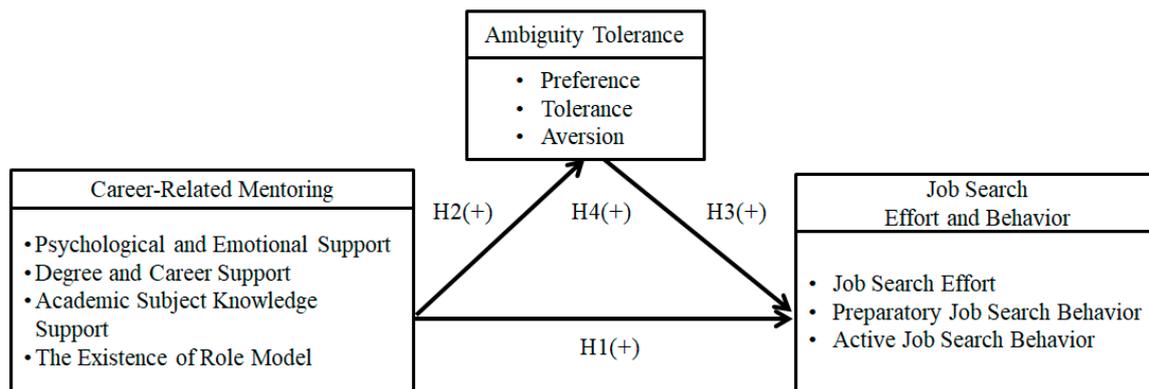


Figure A1. Research Model.

Appendix B

Job Search Support Mentoring Questionnaire

My Mentor ●●●

(strongly agree = 5, agree = 4, neutral = 3, disagree = 2, strongly disagree = 1)

1. helps me work toward achieving my job search aspirations
2. helps me realistically examine my degree or certificate options
3. helps me perform to the best of my abilities
4. encourages me to consider career opportunities beyond my current plans
5. provides ongoing support about the work I do for my job search
6. gives me emotional support
7. encourages me to talk about problems I am having
8. serves as a model for how to be successful
9. helps me to consider the sacrifices associated with my choice
10. expresses confidence in my ability to succeed
11. encourages me to use him or her as a sounding board to explore what I want
12. shares personal examples of difficulties they have had to overcome
13. questions my assumptions by guiding me through a realistic appraisal of my skills
14. provides practical suggestions

I ●●●

(strongly agree = 5, agree = 4, neutral = 3, disagree = 2, strongly disagree = 1)

15. look up to my mentor regarding a variety of issues
16. admire my mentor
17. want to copy my mentor's behaviors as they relate to job searching
18. can talk openly with my mentor about personal issues

References

1. Hoye, G. Job search behavior as a multidimensional construct: A review of different job search behaviors and sources. In *Oxford Handbook of Job Loss and Job Search*; Klehe, U.C., van Hooft, E.A.J., Eds.; Oxford University Press: New York, NY, USA, 2013; in press.
2. Arnett, J. Emerging adulthood: A theory of development from the late teens through twenties. *Am. Psychol.* **2000**, *55*, 469–480. [[CrossRef](#)]

3. Van der Klaauw, B.; Van Vuuren, A.; Berkhout, P.H. *Labor Market Prospects, Search Intensity and the Transition from College to Work*; Working Paper; IFAU-Institute for Labour Market Policy Evaluation: Uppsala, Sweden, 2004.
4. Saks, A.; Ashforth, B. Is job search related to employment quality? It all depends on the fit. *J. Appl. Psychol.* **2002**, *87*, 646. [[CrossRef](#)]
5. Liu, S.; Huang, J.L.; Wang, M. Effectiveness of job search interventions: A meta-analytic review. *Psychol. Bull.* **2014**, *140*, 1009. [[CrossRef](#)]
6. Hayford, S.; Furstenberg, F., Jr. Delayed adulthood, delayed desistance? Trends in the age distribution of problem behaviors. *J. Res. Adolesc.* **2008**, *18*, 285–304. [[CrossRef](#)] [[PubMed](#)]
7. Kao, K.; Hsu, H.; Rogers, A.; Lin, M.; Lee, H.; Lian, R. I See My Future: Linking Mentoring, Future Work Selves, Achievement Orientation to Job Search Behaviors. *J. Career Dev.* **2020**, *2020*, 1–20. [[CrossRef](#)]
8. Swanson, J.; Tokar, D. College students' perceptions of barriers to career development. *J. Vocat. Behav.* **1991**, *38*, 92–106. [[CrossRef](#)]
9. Xu, H.; Tracey, T. Career decision ambiguity tolerance scale: Construction and initial validations. *J. Vocat. Behav.* **2015**, *88*, 1–9. [[CrossRef](#)]
10. Lim, R. Job Search Behaviors of Graduating College Seniors: A Test of the Social Cognitive Model of Career Self-Management. Ph.D. Thesis, University of Maryland, College Park, MD, USA, 2014.
11. Lin, Y.J. Job Search Self-Efficacy of East Asian International Graduate Students. Ph.D. Thesis, University of Missouri-Columbia, Columbia, MO, USA, 2008. Unpublished.
12. Nora, A.; Crisp, G. Mentoring students: Conceptualizing and validating the multi-dimensions of a support system. *J. Coll. Retent. Res. Theory Pract.* **2007**, *9*, 337–356. [[CrossRef](#)]
13. Day, R.; Allen, T. The relationship between career motivation and self-efficacy with protégé career success. *J. Vocat. Behav.* **2004**, *64*, 72–91. [[CrossRef](#)]
14. Grima, F.; Paille, P.; Mejia, J.; Prud'homme, L. Exploring the benefits of mentoring activities for the mentor. *Career Dev. Int.* **2014**, *19*, 469–490. [[CrossRef](#)]
15. Crisp, G.; Cruz, A. Confirmatory factor analysis of a measure of "Mentoring" among undergraduate students attending a Hispanic serving institution. *J. Hisp. High. Educ.* **2010**, *9*, 232–244. [[CrossRef](#)]
16. Frei, E.; Stamm, M.; Buddeberg-Fischer, B. Mentoring programs for medical students—A review of the PubMed literature 2000–2008. *BMC Med Educ.* **2010**, *10*, 1–14. [[CrossRef](#)] [[PubMed](#)]
17. Xu, H.; Adams, P. Ambiguity aversion in career decision-making: Its longitudinal prediction for college career outcomes. *J. Couns. Psychol.* **2020**, *67*, 232. [[CrossRef](#)] [[PubMed](#)]
18. Endres, M.; Chowdhury, S.; Milner, M. Ambiguity tolerance and accurate assessment of self-efficacy in a complex decision task. *J. Manag. Organ.* **2009**, *15*, 31–46. [[CrossRef](#)]
19. Steffy, B.D.; Shaw, K.N.; Noe, A.W. Antecedents and consequences of job search behaviors. *J. Vocat. Behav.* **1989**, *35*, 254–269. [[CrossRef](#)]
20. Conner, K. Expectations and Experiences of Undergraduate Students Who Participated in an Alumni Mentoring Program. Ph.D. Thesis, University of San Francisco, San Francisco, CA, USA, 2015. Unpublished.
21. Renn, R.; Steinbauer, R.; Taylor, R.; Detwiler, D. School-to-work transition: Mentor career support and student career planning, job search intentions, and self-defeating job search behavior. *J. Vocat. Behav.* **2014**, *85*, 422–432. [[CrossRef](#)]
22. Bozeman, B.; Feeney, M. Toward a useful theory of mentoring: A conceptual analysis and critique. *Adm. Soc.* **2007**, *39*, 719–739. [[CrossRef](#)]
23. Emerson, D. New directions for teaching and learning. Mentoring as Metaphor: An Opportunity for Innovation and Renewal. *New Dir. Teach. Learn.* **2001**, *85*, 7–13. [[CrossRef](#)]
24. Roberts, A. Mentoring revisited: A phenomenological reading of the literature. *Mentor. Tutoring* **2004**, *8*, 145–170. [[CrossRef](#)]
25. Allen, T. Mentoring relationships from the perspective of the mentor. In *The Handbook of Mentoring at Work: Theory, Research, and Practice*; Ragins, B.R., Kram, K.E., Eds.; Sage: Los Angeles, CA, USA, 2007; pp. 123–147.
26. Eby, L.; Lockwood, A. Proteges and mentor's reactions to participating in formal programs: A qualitative investigation. *J. Vocat. Behav.* **2005**, *67*, 441–458. [[CrossRef](#)]
27. Kram, K. *Mentoring at Work: Developmental Relationships in Organizational Life*; University Press of America: Lanham, MD, USA, 1988.

28. Murphy, W. From e-mentoring to blended mentoring: Increasing students' developmental initiation and mentors' satisfaction. *Acad. Manag. Learn. Educ.* **2011**, *10*, 606–622. [[CrossRef](#)]
29. Crisp, G. Conceptualization and initial validation of the College Student Mentoring Scale (CSMS). *J. Coll. Stud. Dev.* **2009**, *50*, 177–194. [[CrossRef](#)]
30. Power, D.J.; Aldag, R.J. Soelberg's Job Search and Choice Model: A Clarification, Review, and Critique. *Acad. Manag. Rev.* **1985**, *10*, 48–58. [[CrossRef](#)]
31. Schwab, D.; Rynes, S.; Aldag, R. Theories and research on job search choice. *Res. Pers. Hum. Resour. Manag.* **1987**, *5*, 129–166.
32. Lacy, M.; Copeland, A.J. The Role of Mentorship Programs in LIS Education and in Professional Development. *J. Educ. Libr. Inf. Sci.* **2013**, *54*, 135–146.
33. Wanberg, C.R.; Zhu, J.; Van Hooft, E.A. The job search grind: Perceived progress, self-reactions, and self-regulation of search effort. *Acad. Manag. J.* **2010**, *53*, 788–807. [[CrossRef](#)]
34. Kanfer, R.; Wanberg, C.; Kantrowitz, T. Job search and employment: A personality-motivational analysis and meta-analytic review. *J. Appl. Psychol.* **2001**, *86*, 837–855. [[CrossRef](#)]
35. Van Hooft, E.; Wanberg, C.; Hoyer, G. Moving beyond job search quantity: Towards a conceptualization and self-regulatory framework of job search quality. *Organ. Psychol. Rev.* **2012**, *3*, 3–40. [[CrossRef](#)]
36. Wanberg, C. The individual experience of unemployment. *Annu. Rev. Psychol.* **2012**, *63*, 369–396. [[CrossRef](#)]
37. Wanberg, C.; Glomb, T.; Song, Z.; Sorenson, S. Job search persistence during unemployment: A 10-wave longitudinal study. *J. Appl. Psychol.* **2005**, *90*, 411–430. [[CrossRef](#)]
38. Brown, D.; Cober, R.; Kane, K.; Levy, P.; Shalhoop, J. Proactive personality and the successful job search: A field investigation with college graduates. *J. Appl. Psychol.* **2006**, *91*, 717–726. [[CrossRef](#)]
39. Bretz, R.; Boudreau, J.; Judge, T. Job search behavior of employed managers. *Pers. Psychol.* **1994**, *47*, 275–302. [[CrossRef](#)]
40. Blau, G. Further exploring the relationship between job search and voluntary individual turnover. *Pers. Psychol.* **1993**, *46*, 213–330. [[CrossRef](#)]
41. Bandura, A. Social cognitive theory: An agentic perspective. *Annu. Rev. Psychol.* **2001**, *52*, 1–16. [[CrossRef](#)] [[PubMed](#)]
42. Bandura, A. The explanatory and predictive scope of self-efficacy theory. *J. Soc. Clin. Psychol.* **1986**, *4*, 359–373. [[CrossRef](#)]
43. Schunk, D.H.; DiBenedetto, M.K. Motivation and social cognitive theory. *Contemp. Educ. Psychol.* **2020**, *60*, 101832. [[CrossRef](#)]
44. Zimmerman, B.J. Attaining self-regulation: A social cognitive perspective. In *Handbook of Self-Regulation*; Academic Press: Cambridge, MA, USA, 2000; pp. 13–39.
45. Eby, L.T.; Rhodes, J.E.; Allen, T.D. *Definition and evolution of mentoring. The Blackwell Handbook of Mentoring: A Multiple Perspectives Approach*; Blackwell Publishing: Hoboken, NJ, USA, 2007; pp. 7–20.
46. Kossek, E.; Roberts, K.; Fisher, S.; Demarr, B. Career self-management: A quasi-experimental assessment of the effects of a training intervention. *Pers. Psychol.* **1998**, *51*, 935–960. [[CrossRef](#)]
47. Dolgova, O.; Ivaniuk, M.; Tukayev, S. Psychological resources air force pilots use for self-regulation. *Aviation* **2013**, *17*, 30–32. [[CrossRef](#)]
48. Gottfredson, L. Gottfredson's theory of circumscription and compromise. In *Career Choice and Development*; Brown, D., Associates, Eds.; Jossey-Bass: San Francisco, CA, USA, 2002; pp. 85–148.
49. Furnham, A.; Ribchester, T. Tolerance of ambiguity: A review of the concept, its measurement and applications. *Curr. Psychol.* **1995**, *14*, 179–199. [[CrossRef](#)]
50. Murray, M. *Beyond the Myths and Magic of Mentoring: How to Facilitate an Effective Mentoring Program*; Jossey-Bass Publishers: San Francisco, CA, USA, 1991.
51. Bandura, A. *Self-Efficacy: The Exercise of Control*, 2nd ed.; W.H. Freeman and Company: New York, NY, USA, 1998.
52. Xu, H.; Tracey, T. Ambiguity tolerance with career indecision: An examination of the mediation effect of career decision-making self-efficacy. *J. Career Assess.* **2014**, *22*, 1–12. [[CrossRef](#)]
53. Lane, M.; Klenke, K. The ambiguity tolerance interface: A modified social cognitive model for leading under uncertainty. *J. Leadersh. Organ. Stud.* **2004**, *10*, 69–81. [[CrossRef](#)]

54. Teoh, H.Y.; Foo, S.L. Moderating effects of tolerance for ambiguity and risktaking propensity on the role conflict-perceived performance relationship: Evidence from singaporean entrepreneurs. *J. Bus. Ventur.* **1997**, *12*, 67–81. [[CrossRef](#)]
55. Ortega, D.; Weinstein, K. Cognitive simplicity in the Type A ‘coronary prone’ pattern. *Cogn. Ther. Res.* **1988**, *12*, 81–87. [[CrossRef](#)]
56. Sampson, J.; Lenz, J.; Reardon, R.; Peterson, G. A cognitive information processing approach to employment problem solving and decision making. *Career Dev. Q.* **1999**, *48*, 3–18. [[CrossRef](#)]
57. Heckhausen, J.; Tomasik, M. Get an apprenticeship before school is out: How German adolescents adjust vocational aspirations when getting close to a developmental deadline. *J. Vocat. Behav.* **2002**, *60*, 199–219. [[CrossRef](#)]
58. Bandura, A. *Self-Efficacy: The Foundation of Agency. Control of Human Behavior, Mental Processes, and Consciousness: Essays in Honor of the 60th Birthday of August Flammer*; Psychology Press: East Sussex, UK, 2000; pp. 16–30.
59. Stajkovic, A.; Luthans, F. Self-efficacy and work-related performance: A meta-analysis. *Psychol. Bull.* **1998**, *124*, 240. [[CrossRef](#)]
60. Zikic, J.; Saks, A.M. Job search and social cognitive theory: The role of career-relevant activities. *J. Vocat. Behav.* **2009**, *74*, 117–127. [[CrossRef](#)]
61. Baier, S. The Role of Academic Factors, Self-Efficacy, Mentoring Relationships, and Learning Communities in Persistence and Academic Success of Freshmen College Students. Wayne State University Dissertations. Paper 870. 2014. Available online: http://digitalcommons.wayne.edu/cgi/viewcontent.cgi?article=1869&context=oa_dissertations (accessed on 30 September 2020).
62. Henry, J.; Bruland, H.; Sano-Franchini, J. Course-embedded mentoring for first-year students. Melding academic subject report with role modeling, psycho-social support and goal setting-TA. *Int. J. Scholarsh. Teach. Learn.* **2011**, *5*, 1–22.
63. Hu, L.; Bentler, P. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Struct. Equ. Model.* **1999**, *6*, 1–55. [[CrossRef](#)]
64. Ashford, S. Feedback-Seeking in Individual Adaptation: A Resource Perspective. *Acad. Manag. J.* **1986**, *29*, 465–487.
65. Dougherty, T.W.; Dreher, G.F. Mentoring and Career Outcomes: Conceptual and Methodological Issues in an Emerging Literature. In *The Handbook of Mentoring at Work: Theory, Research, and Practice*; Ragins, B.R., Kram, K.E., Eds.; Sage Publications, Inc.: Los Angeles, CA, USA, 2007; pp. 51–93.
66. Mullen, E. Framing the mentoring relationship as an information exchange. *Hum. Resour. Manag. Rev.* **1994**, *4*, 257–281. [[CrossRef](#)]
67. Lazarus, R.; Folkman, S. *Stress, Appraisal and Coping*; Springer: New York, NY, USA, 1984.
68. O’Connell, D.; McNeely, E.; Hall, D. Unpacking personal adaptability at work. *J. Leadersh. Organ. Stud.* **2008**, *14*, 248–259. [[CrossRef](#)]
69. McArdle, S.; Waters, L.; Briscoe, J.; Hall, D. Employability during unemployment: Adaptability, career identity and human and social capital. *J. Vocat. Behav.* **2007**, *71*, 247–264. [[CrossRef](#)]
70. Bandura, A. Social cognitive theory of self-regulation. *Organ. Behav. Hum. Decis. Process.* **1991**, *50*, 248–287. [[CrossRef](#)]
71. Bao, Z.; Luo, P. How college students’ job search self-efficacy and clarity affect job search activities. *Soc. Behav. Personal.* **2015**, *43*, 39–52. [[CrossRef](#)]
72. Saks, A.; Ashforth, B. Effects of individual differences and job search behaviors on the employment status of recent university graduates. *J. Vocat. Behav.* **1999**, *54*, 335–349. [[CrossRef](#)]

Publisher’s Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).