The Mediating Role of Intolerance of Uncertainty in the Effect of Job Finding Anxiety on Academic Resilience Among Sports Sciences Students

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Abstract

This study was conducted to examine the mediating role of intolerance of uncertainty in the effect of job search anxiety on academic Resilience among students in the Faculty of Sports Sciences. The research was designed within the framework of the correlational survey model, one of the quantitative research approaches, and a total of 340 students participated in the study, including 112 female and 228 male students. The Sports Sciences Students' Job Finding Anxiety Scale, Academic Resilience Scale, and Intolerance of Uncertainty Scale were used in the data collection process. Before proceeding to the analyses, missing data and outlier checks were performed on the data; normality assumptions and descriptive statistics were evaluated. To test the validity of the measurement model, confirmatory factor analysis (CFA) was performed using the AMOS 21 program, and the goodness-of-fit indices for the scales were examined. Pearson correlation analysis was applied to determine the relationships between variables; Bootstrap-based regression analyses were used to test mediating effects. In this context, analyses were conducted using SPSS 25 software and the PROCESS Macro (Model 4) developed by Hayes (2022). The findings revealed that there was no significant relationship between job search anxiety and academic resilience; however, there were positive and low-level significant relationships between intolerance of uncertainty and academic resilience, and between intolerance of uncertainty and job search anxiety. Finally, it was determined that intolerance of uncertainty played a mediating role in the effect of job search anxiety on academic resilience.

Introduction

Individuals striving to sustain their lives are engaged in a struggle to earn an income to meet their basic needs. Obvious financial difficulties transform the problem of finding employment into anxiety. It can be said that young people are the group most affected by job finding anxiety in society (Musayev & Akcan, 2022). Unemployment, which manifests itself as difficulty finding a job despite wanting to work, is a significant problem today. It is stated that difficulties experienced in finding employment during adulthood, particularly among university graduates who are unemployed, can negatively affect psychological well-being, increase economic hardship, and lead to various problems in social life (Dağlar, 2021).

The anxiety experienced by students when they begin their undergraduate education persists after graduation and is influenced by many factors throughout the education process. In the literature, anxiety is defined as an emotional state characterized by an individual's perception of a future event as sad, uncertain, and uncontrollable (Aba & Mete, 2018). Throughout their undergraduate education, students' anxiety levels are influenced by many factors, including the location of the education, income status, social relationships, and security (Dursun & Aytaç, 2009). While students experience anxiety about dormitory life and friendships when they first start university, this anxiety evolves into job finding anxiety, especially in the final stages of their university life (Turhan & Arslanboğa, 2022). In the literature, job finding anxiety is defined as the anxiety and expectation felt by an individual who struggles to find a job or is unable to find employment due to concerns about not having sufficient income to continue their life without problems (Özder et al., 2018). The job finding anxiety experienced by students can negatively affect their motivation and attitudes toward success in the academic process, and their ability to cope with this situation can be related to the concept of academic resilience.

Academic resilience is defined as a cognitive ability necessary to successfully prepare for and adapt to challenging conditions in an academic context (Romano et al., 2021). This concept has been expressed as an increase in the likelihood of success at school despite negative situations experienced during the education process (Mallick & Kaur, 2016; Wang et al., 1994). In this context, academic resilience is considered both a source of motivation that supports individuals in pursuing their academic and personal goals, and a structure that provides effective coping mechanisms for dealing with stress and tension arising in the university environment (Cassidy, 2016). While academic resilience reveals students' capacity to overcome difficulties, it can be said that it gains importance as a psychological factor that can influence this process (Shen et al., 2024). In this context, intolerance of uncertainty emerges as a critical variable in revealing students' responses to situations such as anxiety about the future and concerns about finding employment (Zhao et al., 2024).

Intolerance of uncertainty was first described in the literature by Frenkel as a personality trait (Grenier et al., 2005). Intolerance of uncertainty encompasses the negative emotions, thoughts, and behaviors individuals experience when faced with uncertainty (Birrell et al., 2011) and the difficulty in tolerating future uncertainty (Carleton, 2016). Students with low tolerance for uncertainty may experience difficulties with the unpredictable elements of the academic journey (Charbonnier et al., 2023). Given the increasing levels of anxiety and stress among students, identifying the impact of intolerance to uncertainty on satisfaction with academic life is considered a critical necessity for developing effective intervention strategies in this area (Brenneisen-Mayer et al., 2016; Mofatteh, 2020).

Reviewing the literature, job finding anxiety has been associated with intolerance of uncertainty (Acea-López et al., 2022; Arbona et al., 2021; Chen & Zeng, 2021; Zhao et al., 2024). Similarly, studies have examined the relationship between academic resilience and intolerance of uncertainty (Javed et al., 2025; Lee, 2019; Qiang et al., 2024), as well as the relationship between job finding anxiety and academic resilience (Kang & Choi, 2022; Najib et al., 2023; Tolentino et al., 2019). However, no study has been found to examine the mediating role of intolerance of uncertainty in the relationship between job finding anxiety and academic resilience. In this context, the present study contributes to the literature by proposing and testing a mediation model that explains the relationship between job finding anxiety, intolerance of uncertainty, and academic resilience. Furthermore, the findings are expected to provide insights into reducing sports science students' career-related anxieties, enhancing their academic resilience levels, and improving their ability to cope with uncertainty. In this respect, the study is expected to make a meaningful contribution to the relevant literature. The main objective of this research is to determine the mediating role of intolerance of uncertainty in the effect of job finding anxiety on academic resilience among sports science students.

Material and Method
Ethics Committee Permission
Ethical approval for this study was obtained from the Social and Human Sciences Research Ethics Committee of Aydın Adnan Menderes University on June 30, 2025 (Decision No. E-21315140-050.04-777447).

Research Model
In this study, a correlational survey model was preferred. This approach aims to reveal the common changes exhibited by multiple variables over time or simultaneously by examining their interactions with each other (Christensen et al., 2015). It is stated that determining mediating effects in research is important for developing the existing body of knowledge in research, adding unique value to the research, and fully explaining social reality (Gürbüz, 2021). The basic mediation model is described as "a path analysis to explain the process by which the independent variable affects the dependent variable" (MacKinnon et al., 2007). The model applied for the research questions is the Mediating Model. The mediating role of intolerance of uncertainty in the relationship between sports science students' job finding anxiety and academic resilience was examined (Hayes, 2022).
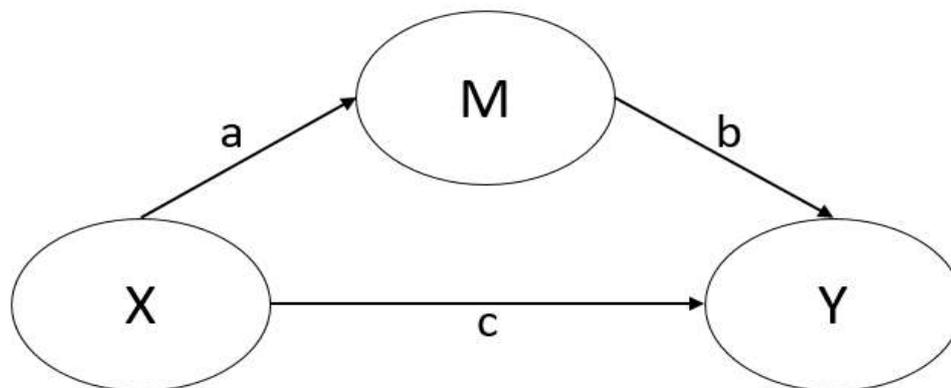

Figure 1. Research model

Research Group

The research group consisted of students from the Faculty of Sports Sciences at Aydın Adnan Menderes University. The sample size of the study was calculated using the G*Power 3.1.9.7 software. Since mediation analyses conducted based on Hayes' PROCESS Macro Model 4 rely on regression-based models, the power analysis was performed based on a multiple linear regression model with the maximum number of predictor variables. In the calculation, a medium effect size (f^2 = .15), a significance level of 5% (α = .05), and a statistical power of 95% (1−β = .95) were assumed. The analysis indicated that the minimum required sample size was 107. Considering the possibility of data loss, a sample larger than the minimum required size was targeted, and a total of 340 students who were accessible in the relevant faculty were reached using the convenience sampling method. In this method, data are obtained from the population in the fastest, easiest, and most economical way (Büyüköztürk et al., 2024). Table 1 presents the demographic characteristics of the participants.

Table 1. Demographic Characteristics of the Participants (n=340)

		F	**%**
Age 21.59 ± 1.98* (min:18-max:35)			
Gender	Female	112	32.9
	Male	228	67.1
Perceived Income Level	Low income	76	22.3
	Middle income	211	62.1
	High income	53	15.6
Department	Physical Education and Sports Teaching	35	10.3
	Coaching Education	43	12.7
	Recreation	114	33.5
	Sports Management	148	43.5
Class	1	36	10.6
	2	124	36.5
	3	100	29.4
	4	80	23.5
Type of education	First Teaching	161	47.4
	Secondary Education	179	52.6
	Total	340	100.0

Data Collection Tools

Sports Sciences Students' Job Finding Anxiety Scale: The scale developed by Aslan & Uğraş (2021) to determine students' job finding anxiety contains 8 statements. The scale is rated on a 5-point Likert scale. In the study, α was calculated as .95. In this study, α was determined as .91. In the scale development study, the goodness-of-fit values were found to be χ^2/df= 3.257, GFI = .95, AGFI = .91, RMSEA = .08, and CFI = .98. The values for this study are shown in Table 2.

Academic Resilience Scale: Developed by Martin & Marsh (2006) to determine participants' levels of academic resilience, the scale was adapted to Turkish culture by Kapıkıran (2012) and consists of 6 items and a single dimension. The scale is rated on a 7-point Likert scale. In the study, α = .86 was determined. In this study, α was found to be .87. In the adaptation study of the scale, goodness-of-fit values were found to be χ^2/df= 1.62, GFI = .98, AGFI = .95, SRMR = .0036, RMSEA = .068, and CFI = .98. The values for this study are shown in Table 2.

Intolerance of Uncertainty Scale (IUS-12): Developed by Carleton et al. (2007) to reveal students' levels of intolerance of uncertainty and adapted to Turkish culture by Sarıçam et al. (2014), the scale consists of 12 items and 2 dimensions. The scale dimensions are named "Forward-Looking Anxiety" and "Inhibitory Anxiety". The scale is rated on a 5-point Likert scale. In the study, α = .88 was calculated. In this study, Cronbach's Alpha internal consistency coefficient was calculated and determined to be α = .76. The goodness-of-fit values in the scale adaptation study were determined as: χ^2= 147.20, sd= 48, RMSEA=.073, CFI=.95, IFI=.95, GFI=.94, SRMR=.046. The values for this study are shown in Table 2.

Table 2. Confirmatory Factor Analysis Model Fit Results for the Study Scales

SEM Values	Job Finding Anxiety Scale	Academic Resilience Scale	Intolerance of Uncertainty Scale	Acceptable Values	Perfect Fit
χ^2/df	3.623	2.178	2.803	≤5	χ^2/df ≤ 3
RMSEA	.058	.059	.058	≤0.08	0 ≤ RMSEA ≤ 0.05
AGFI	.91	.95	.90	≥0.80	≥0.90
GFI	.95	.98	.94	≥0.85	0.95 ≤ GFI ≤ 1.00
CFI	.97	.99	.95	≥0.90	0.95 ≤ CFI ≤ 1.00
SRMR	.026	.024	.051	≤0.08	0≤SRMR≤0.05

Statistical Evaluation

The validity of the scales was tested using Confirmatory Factor Analysis (CFA). The fit index criteria for acceptable model fit were determined as χ^2/df ≤ 5, RMSEA ≤ .08, GFI ≥ .85, AGFI ≥ .80, CFI ≥ .90, and SRMR ≤ .08 (Hu & Bentler, 1999; Karagöz, 2016). The skewness and kurtosis coefficients were examined in the distribution of the data, and it was observed that the data were between ±2, and it was determined that the data were normally distributed (Leech et al., 2005). After confirming the factor structures of the scales through confirmatory analyses, the mediation model was tested using the PROCESS Macro developed by Hayes (2022). Within the scope of PROCESS Macro, regression-based path analysis was conducted and Model 4 was employed to examine the mediating role of intolerance of uncertainty (Hayes, 2022). In addition, the significance of the mediating effect was evaluated based on whether the values within the 95% confidence interval (CI) included zero. Preacher & Hayes (2008) and Hayes et al. (2017) state that the absence of zero within the confidence interval is sufficient evidence that the indirect effect is statistically significant. The results were reported using standardized path coefficients (β) and explained variance (R²) values. Confidence intervals for indirect effects were generated using 5,000 bootstrap samples at the 95% confidence level.

Findings

Table 3. Descriptive Findings Obtained within the Scope of the Scales

Variables	x̄	SD	Skewness	Kurtosis
Job Finding Anxiety	3.79	0.95	-.763	.184
Intolerance of Uncertainty	3.28	0.71	-.186	-.272
Academic Resilience	5.25	1.31	-.682	.366

Table 3 shows that participants' average scores on the Job Finding Anxiety Scale in Sports Science were 3.79 ± 0.95, on the Intolerance of Uncertainty Scale 3.28 ± 0.71, and on the Academic Resilience Scale 5.25 ± 1.31.

Table 4. Results Obtained From Pearson Correlation Analysis of Variables

Variable		1-	2-	3-
1- Job Finding Anxiety	**r**	1		
	p			
2- Intolerance of Uncertainty	**r**	.212**	1	
	p	.000		
3- Academic Resilience	**r**	-.032	.168**	1
	p	.551	.002	

**p<0.05

Table 4 shows that the relationship between "Academic Resilience" and "Job Finding Anxiety" (r = -.032; p >.05), "Academic Resilience" and "Intolerance of Uncertainty" (r = .168; p <.05), and between "Intolerance of Uncertainty" and "Job Finding Anxiety" (r = .212; p <.05).
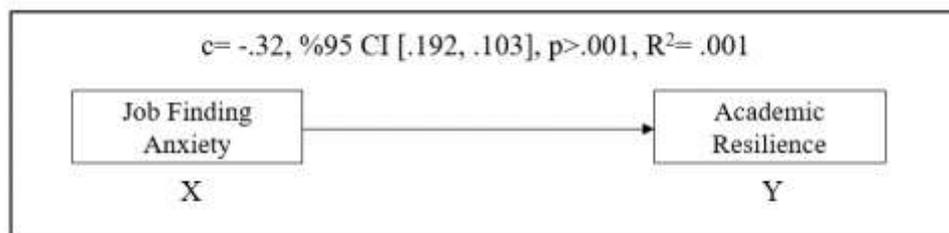

Figure 2. Results of the Total Effect Model

The analysis results show that in a model without "Intolerance of Uncertainty" (total effect), "Job Finding Anxiety" has a negative but insignificant effect on "Academic Resilience". "Job Finding Anxiety" explains approximately 0.1% of the variance in "Academic Resilience".
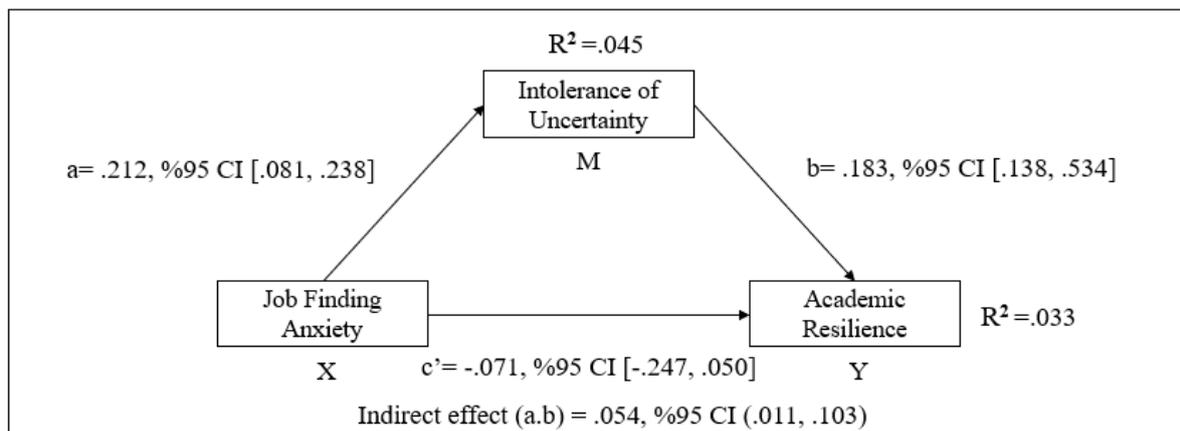

Figure 3. Findings of Bootstrap Regression Analysis with the Process Module

Job finding anxiety explains 4.5% of the variance in intolerance of uncertainty, while intolerance of uncertainty explains 3.3% of the variance in academic resilience. Job finding anxiety has a significant indirect effect on academic resilience behavior; therefore, these findings indicate that intolerance of uncertainty plays a mediating role in explaining the relationship between job finding anxiety and academic resilience. The results indicate that the effect of job finding anxiety on intolerance of uncertainty is positive and significant (β = .212; p < .001), while the effect of intolerance of uncertainty on academic resilience is also positive

and significant (β = .183; p < .001), and the direct effect of job finding anxiety on academic resilience is not significant (β = -.071; p = .194). The findings related to the established model show that the calculated confidence interval for the mediating effect does not include zero. This indicates that the mediating variable plays a statistically significant role in the relationship between the variables (β = .054; 95% CI = [.011, .103]).

Discussion and Conclusion

The purpose of this study is to reveal the mediating role of intolerance of uncertainty in the effect of job finding anxiety on academic resilience among sports science students. In this section, the findings obtained within the scope of the study are discussed within the framework of the relevant literature.

The results of the Pearson correlation analysis revealed a significant positive relationship between intolerance of uncertainty and academic resilience. These findings suggest that individuals with greater tolerance for uncertainty tend to demonstrate higher resilience when facing academic challenges, including heavy course loads, examination processes, technological adaptation issues, and instructional difficulties. Although a negative relationship was expected based on the research results, it can be said that the motivation brought about by intolerance, combined with the hasty attitude of the students included in the study towards uncertainty, provided them with positive academic outcomes, thus leading to academic success. The findings obtained are expressed with theoretical support. According to the arousal and performance theory developed by Yerkes & Dodson (1908), moderate levels of intolerance are indicated to be a determinant of high performance. In other words, it defends the principle that performance increases to an optimal point with mental arousal such as excitement. According to the challenge and threat model presented by Blascovich & Mendes (2000), it is stated that individuals perceive stressors as an opportunity for growth or high performance, leading to expectations of positive outcomes. In addition, Lazarus & Folkman's (1984) theory of stress and coping emphasizes the importance of cognitive evaluations in shaping emotional responses. In this context, it has been stated that if the individual perceives stress as a positive situation or a challenge to the existing situation rather than a threat, stress will increase motivation with intrinsic satisfaction. The results obtained theoretically are thought to explain the positive relationship between intolerance of uncertainty and academic resilience found in the research. Xu & Tracey (2014, 2015) found that higher tolerance for uncertainty is positively associated with career decision-making self-efficacy. However, studies in the literature also show that intolerance for uncertainty has negative effects on academic outcomes (Qiang et al., 2024). In addition Paszkowska-Rogacz's (2025) study found that the level of tolerance for uncertainty is an important predictor of career maturity. Kim et al., (2016) study also found that participants with high levels of tolerance for uncertainty had higher career decision self-efficacy levels than those with low levels. These results reveal that the participants included in the study experienced problems in adapting to academic difficulties due to their increased level of intolerance towards academically uncertain and unpredictable situations. The reason for the difference between the findings and the study is thought to be due to the different participants included in the study and the variability of the measurement tools used.

A low level of positive correlation was observed between job finding anxiety and "intolerance to uncertainty". In other words, it was concluded that as students' levels of "intolerance to uncertainty" increased, they experienced anxiety about finding a job. This situation can be explained by students experiencing anxiety about finding a job not knowing

how to plan for the future, losing their control mechanisms, and consequently having a reduced understanding of uncertainty. Some theories may offer a suitable perspective to explain the relationship between "intolerance of uncertainty" and anxiety about finding a job. According to Beck's (1979) "Cognitive Theory", while explaining concepts such as depression and anxiety that can affect daily life from a cognitive perspective, it also addresses subjective situations such as a negative approach to the future. According to the proposed model, individuals who have difficulty tolerating uncertainty may experience heightened anxiety stemming from concerns about their future employment prospects. From a theoretical perspective, this framework helps to interpret the positive association identified in the present study between intolerance of uncertainty and job-finding anxiety. Supporting this interpretation, Bozkur et al. (2020), reported "a positive yet modest relationship between intolerance of uncertainty and anxiety related to finding a job" after graduation. Andersen & Schwartz (1992) stated that undergraduate students' inability to tolerate uncertainty constitutes a risk factor for future hopelessness. Another study found a moderately significant relationship between university seniors' intolerance of uncertainty and their anxiety levels (Bıkmaz & Yağan, 2020). Zhou et al. (2022) found a positive relationship between intolerance of uncertainty and future anxiety. The results support the research. However, unlike this research result, Polat-Subaşı & Tozar-Şahin (2025) concluded in their study on young people that intolerance of uncertainty does not affect job finding behavior. Şahin (2022), on the other hand, determined that intolerance of uncertainty is a significant predictor of career future perception in a negative direction. This situation can be explained within the framework of the stress model developed by Lazarus & Folkman (1984), whereby individuals perceive the uncertainty they experience not as a stress factor but as a motivating force.

It has been determined that there is no significant relationship between job finding anxiety and academic resilience. This can be explained by the fact that the students included in the study progressed steadily throughout their academic lives, independent of their concerns about being employed in a particular field after graduation. It can also be explained by the fact that students have not yet faced the job finding process, so the concrete existence of job finding anxiety has not yet developed and is not considered a stress factor. The "Conservation of Resources Theory" proposed by Hobfoll in 1989 is associated with people continuing to protect their existing resources, protecting and minimizing losses, and striving to acquire new resources. In this context, when the results obtained are evaluated within the framework of conservation of resources theory, it can be associated with the tendency to protect existing resources (academic competence, academic motivation, success) even if the student perceives the process of finding a job in the future as a threat. Looking at "Self-Efficacy Theory (SET)", a subset of Bandura's "Social Cognitive Theory" (1986), it expresses the ideal that all individuals are competent and capable of success in achieving their goals as long as they have the necessary opportunities and self-efficacy. It also emphasizes the relative importance of personal and environmental factors in this process (Gallagher, 2012). In this context, when the results obtained are evaluated, it can be said that the concept of academic resilience, which refers to an individual's ability to remain strong in the face of academic challenges, will not affect the anxiety of finding a job, which can be perceived as an external threat. In other words, students' academic competence may not affect their belief in finding employment after graduation.

Within the scope of the research, Bootstrap-based regression analysis was applied to determine the mediating role of intolerance of uncertainty in the effect of job search anxiety on academic resilience. The analysis results showed that the 95% confidence interval for the

indirect effect did not include the zero value, and this finding revealed that intolerance of uncertainty is a significant mediating variable in this relationship. In other words, intolerance of uncertainty was found to have a mediating effect on the relationship between job finding anxiety and academic resilience. This can be explained by the fact that the job finding anxiety felt by students does not play a decisive role directly on academic resilience, but that the responses to uncertainties make the relationship between these two variables significant. On the other hand, analyses show that job finding anxiety has a positive effect on intolerance of uncertainty, intolerance of uncertainty has a positive effect on academic resilience, and job finding anxiety has no significant effect on academic resilience. The effect of job finding anxiety on intolerance of uncertainty can be explained by the fact that individuals who are highly anxious about future employment experience a decrease in their tolerance levels towards uncertainty. The effect of intolerance of uncertainty on academic resilience can be explained by students who remain more tolerant and calm in the face of uncertainty exhibiting a more stable attitude in the face of academic difficulties. The fact that the effect of job finding anxiety on academic resilience is insignificant reveals that job finding anxiety does not directly affect academic resilience; rather, this relationship is shaped through intolerance of uncertainty. The process of seeking and obtaining employment is often a difficult and stressful journey; it can turn into a process involving failure, disappointment, frustration, anxiety, depression, and great uncertainty (Keser & Kümbül-Güler, 2016). Intolerance of uncertainty is increasingly being considered a central concept in explaining differences in anxiety and worry levels that emerge in the context of individuals' responses to uncertain situations (Greco & Roger, 2001; Laugesen et al., 2003). It is stated that the uncertain, variable, and unpredictable conditions encountered, especially in the career process, create intense feelings of anxiety in individuals; this situation, in turn, causes perceptions of career future to be shaped in a more negative way (Pisarik et al., 2017). According to the studies by Chen & Zeng (2021) and Taha et al. (2014), intolerance of uncertainty may intensify job finding anxiety among university students. Soltanizadeh et al. (2023) found that students' levels of "intolerance to uncertainty" had an effect on academic procrastination. Sagone & Indiana (2023) expressed the importance of intolerance to uncertainty in decision-making processes with self-efficacy. Qiang et al. (2024) stated that intolerance of uncertainty affects academic burnout. Arbona et al. (2021) revealed that career choice interventions can be developed by focusing on coping with the uncertainty encountered in the career decision-making process.

This study aims to test the mediating role of "intolerance of uncertainty" in the effect of "job finding anxiety" on "academic resilience" and to develop an original model. The "Arousal and Performance Theory" developed by Yerkes & Dodson (1908), Bandura's Self-Efficacy Theory (1986), which is a subset of "Social Cognitive Theory", Beck's (1979) "Cognitive Theory", and Lazarus & Folkman's (1984) "Stress and Coping Theory" were used as a basis to comprehensively examine students' job finding anxiety, academic resilience, and intolerance of uncertainty. Overall, the results clarify the role of intolerance of uncertainty in shaping the relationship between job-finding anxiety and students' ability to sustain academic engagement. These results indicate that the attitudes of university students, representing a developmentally sensitive group, towards the uncertainties they experience in their academic lives are a significant determinant of their academic resilience and coping skills. During the university period, when feelings of uncertainty about the future are intensely experienced, students' tolerance of these uncertainties is crucial for maintaining their commitment to their academic goals. Based on this, it is recommended that career guidance training be provided to students at universities; it is believed that including specific information on tolerance and

coping strategies for dealing with uncertainties in the content of this training is important in terms of ensuring students' academic resilience and reducing their anxiety.

This study makes a methodologically robust contribution to the field by examining the mediating role of intolerance of uncertainty in understanding the relationship between job search anxiety and academic Resilience among university students in the field of sports science. The limited number of studies in the existing literature that examine these variables holistically within the same model highlights the original value of this study. The methodological structure of the research has been meticulously designed to support the reliability of the findings. The psychometric properties of the measurement tools used have been examined in detail; validity and reliability evidence has been obtained through confirmatory factor analysis. Determining the sample size based on power analyses and ensuring that the participant profile was demographically diverse are among the factors that increase the generalizability of the results. Furthermore, collecting the data face-to-face provided a significant advantage that reinforced the accuracy of the measurements and the reliability of the analysis results. The findings not only contribute to the theoretical literature by clarifying the relational structure between job search anxiety, academic resilience, and intolerance of uncertainty, but also serve as a guide for higher education practices and policies aimed at supporting university students' career development processes.

This study has some methodological limitations. The research was conducted with students enrolled in the Faculty of Sports Sciences at Aydın Adnan Menderes University. In this context, the findings may be limited in terms of generalizability to sports science students at other universities in terms of cultural and structural characteristics. When evaluated from a theoretical perspective, the correlational research design is insufficient to explain causal relationships between variables. Therefore, preferring experimental or longitudinal research designs in future studies may contribute to a clearer understanding of the causal mechanisms between variables. Furthermore, since participation in the study was voluntary, it should be considered that the personal characteristics of individuals not included in the study may differ. This situation can be considered another factor limiting the generalizability of the findings to the entire population.

The findings of this study reveal that the effect of job finding anxiety on academic resilience is shaped through intolerance of uncertainty. For educators examining the interaction between university students' job finding anxiety, academic resilience, and intolerance of uncertainty is important for designing effective interventions. Future studies would benefit from using mixed method designs, as this approach can offer a more layered and detailed view of how these variables interact. Including qualitative insights especially those based on students' personal experiences alongside quantitative findings can help clarify the underlying dynamics of these relational models. Overall, research that brings together mixed and experimental designs within multidisciplinary frameworks can play a key role in linking theoretical discussions in sports science to real-world practice. Such work has the potential to enrich both the academic literature and the practical fields it informs, leaving a more lasting impact.

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