



Relationship between Intolerance of Uncertainty, Career Decision Ambiguity Tolerance, and Resilience among University Students

Diksha Wadhwa, *Department of Psychology, Lovely Professional University, India.*

wadhwadiksha539@gmail.com

Abstract: Rapid increase in technology, including integration of Artificial Intelligence (AI) into the workforce, have contributed to the growing career uncertainty among university students. Such ambiguity has been associated with adverse psychological outcomes including heightened levels of stress and anxiety. The uncertainty in career - decision making process may negatively affect students' overall well-being by an increase in emotional distress and reduce effective coping. There have been many studies exploring the effect of intolerance of uncertainty on the lives of students in relation to anxiety and resilience. However, with limited research examining the relationship among intolerance of uncertainty, resilience and career decision ambiguity tolerance, the novelty of this study is to explore that relationship among university students. A total of 80 university students participated in the study and completed the Intolerance of Uncertainty Scale (IUS-12); Brief Resilience Scale (BRS); and Career Decision Ambiguity Tolerance Scale (CDAT). The findings revealed a significant positive relationship between Resilience and Preference, (a sub- dimension of Career Decision Ambiguity Tolerance). Thus, it is suggested that high resilience in students makes them more willing to engage in ambiguous career situations. But, since there is no significant association between intolerance of uncertainty, resilience and career decision ambiguity tolerance, separate strategies may be needed to address the need of resilience in students' life and also focusing on the general discomfort with uncertainty and building.

Keywords: *Intolerance of Uncertainty, Career Decision Ambiguity Tolerance, Resilience, University students*

1. Introduction

The rapid increase in uncertainty among young adults in the context of their career making is due to the accumulating rate of unemployment all over the world. University students are facing growing ambiguity in career decision-making due to development in technology, which in turn changes labor market demands, economic instability and evolving economic employment opportunities. The vagueness of the future even after spending years on studying with no reliable outcome is now becoming one of the leading causes of stress and anxiety of an uncertain future. Students are indulging themselves in various paths that might lead to career development, but the ambiguity of the career decisions is becoming intolerable. The ability to cope with stressful situations and still be able to recover from adversity is a strength not all students possess.

Resilience is the ability to cope effectively from challenging life experiences and bouncing back positively, as confirmed by the study conducted by Pidgeon et al. (2014), revealing that students with high levels of resilience had lower levels of psychological distress in comparison to students with low levels of resilience. Intolerance of uncertainty is a behavioral, emotional and cognitive response to unknown situations, a tendency to view situations with unknown clues as stressful and unacceptable. Intolerance of uncertainty has been thoroughly studied in relation to anxiety and emotional distress. Carleton et al. (2012) revealed that individuals with anxiety disorders and depression reported substantially higher levels of Intolerance of uncertainty, serving as an important transdiagnostic feature. Recent research has also begun to understand its part in career decision-making, where uncertainty is an ingrained factor in choosing and pursuing occupational goals.

1.1 *Intolerance of Uncertainty*

Intolerance of Uncertainty (IU) is, at its core, “aversion towards unpredictable situations” (Carleton, 2012). This fear has the tendency to have a significant impact on mental health. Wang et al. (2023) conducted a study on 1049 college freshmen during COVID-19 pandemic, which showed that there was a negative impact of high levels of IU on mental health and it positively correlated with anxiety. Remarkable, it was observed that resilience played the role of a moderating factor in this relationship, cushioning the impact of negative coping styles on anxiety. Geçgin and Sahranç (2017), studied 426 undergraduates and reported that students with low psychological well-being had higher levels of IU, with protective parental attitudes like authoritarian parenting style to be associated with high IU than democratic parenting styles. These findings suggest that

IU thus acts as a vulnerable factor that has a compelling impact on well-being but also whose effect can be controlled with other strengths.

1.2 Resilience

Resilience is defined as the “ability to bounce back from stressful situations” (Smith et al., 2008), “how easily you recover from adversity” (Hermann et al., 2011), to effectively deal with challenges. People with high resilience are better able to handle the distress of uncertain situations (Wang et al., 2023). Further studies supported this that higher resilience was associated with lower burnout, and mostly individuals with high resilience can cope with stress effectively. This directly connects resilience to uncertainty of tolerance as it equips them to manage the stress of unfamiliarity of the situations. Yıldırım and Tanrıverdi (2020) further added that resilience predicted life satisfaction mediated between social support and life satisfaction, effectively proving its role as a psychological resource that works against various stressors.

Thus, resilience helps individuals navigate ambiguity in general, likely extending the tolerance in career decision making, a domain highly marked by ambivalence.

1.3 Career Decision Ambiguity Tolerance

Career decision ambiguity tolerance (CDAT) refers to “how individuals evaluate and respond to unfamiliar situations within the process of career decision making” (Xu and Tracey, 2015). Budner (1962) had originally defined ambiguity tolerance as the ability to respond to unfamiliar situations, a definition that CDAT adapts in career decision making. Xu and Tracey (2017), in a three-wave longitudinal study, found that lower career indecision is predicted by higher CDAT, highlighting its adaptive nature. More recently, another study on 200 college students by Sumathi and Seethalakshmy (2026) found that students with higher emotional intelligence had higher tolerance towards ambiguity in the career making process.

Taken together, intolerance of uncertainty may act as an extensive burden that makes the whole career decision making process difficult to go through, while resilience serves as a protective source that helps overcome discomfort of uncertainty, thereby supporting greater career decision ambiguity tolerance. Resilient individuals may be better at sitting with unknowingness of their career choices without feeling overwhelmed, leading to better well-being and less indecisions. This proposed interplay between intolerance of uncertainty, resilience, and career decision ambiguity tolerance summons further studies, especially among student populations maneuvering through tough career choices.

2. Purpose

The purpose is to study the relationship between intolerance of uncertainty, career decision ambiguity and resilience among university students.

3. Hypotheses

H₁: There will be a significant relationship between Intolerance of Uncertainty and Career Decision Ambiguity Tolerance.

H₂: There will be a significant relationship between Resilience and Career Decision Ambiguity Tolerance.

H₃: There will be a significant relationship between Intolerance of Uncertainty and Resilience.

4. Methodology

4.1 Sample

A total sample of 80 young adults in the age of 20 to 27 years was collected from various universities across the city of Jalandhar. The sample consisted of 75% females and 25% males. Participants were recruited through random sampling and google forms were shared.

Inclusion Criteria

1. Participants aged 20-27
2. Participants currently studying in a university.

Exclusion Criteria

1. Participants with pre-existing psychological conditions.

4.2 Measures

The Intolerance of Uncertainty- Short Scale developed by (Carleton, Norton, and Asmundson, 2007) was used to measure intolerance of uncertainty among university students. The scale consisted of 12 items, divided into two subscales a) Prospective anxiety and b) inhibitory anxiety and included response rate as Not at all characteristic of me(1), A little characteristic of me (2), Somewhat characteristic of me(3), Very characteristic of me(4), Entirely characteristic of me(5). Higher scores indicate higher tolerance towards uncertainty (Vadivel et al. (2022).

The Brief Resilience Scale developed by (Smith et al., 2008) was used to measure resilience among university students. The scale consisted of 6 items and included response rate as

Strongly disagree(1), Disagree(2), Neutral(3), Agree(4) and strongly agree(5). The BRS demonstrates good reliability, and its validity has been established through extensive use in previous research.

The Career Decision Ambiguity Tolerance Scale developed by (Xu, and Tracey 2015) was used to measure individuals' responses to ambiguous information in career decision making with three subscales- Preference, Tolerance, and Aversion among university students. The scale consisted of 18 items including response rate Strongly disagree(1), Slightly agree(2), Agree(3), Neutral(4), Disagree(5), Slightly disagree(6) and strongly agree(7).

4.3 Procedure

Before each participant filled the question, they were informed that their responses will be entirely confidential and they were only used for research purposes. Voluntary consent was taken from them. They were asked to answer all the questions honestly based on their daily life experience. The authenticity, independence and completeness of all answers were also emphasized. Participants were informed that they could withdraw at any time without any consequences, and only those who provided consent were included in the study. Once the responses were collected, the data was carefully checked for completeness, accuracy, and any repetitive response patterns. Finally, the data were organized and prepared for statistical analysis in the line with the objectives of the study.

4.4 Statistical Analysis

Descriptive statistics were first used to summarize the data and give a clear picture of participants' scores on Intolerance of Uncertainty, Resilience and Career Decision Ambiguity Tolerance. Measures such as mean and standard deviation helped in understanding the average scores and how much the scores varied and distributed. To study the relationship between intolerance of uncertainty, resilience and career decision ambiguity tolerance, Pearson correlation analysis was carried out to test the hypotheses and to see how strongly the variables were related.

4.5 Ethical Considerations

1. Informed Consent: Participants were informed about the purpose, procedure, duration and nature of the study. Consent was obtained before participation.
2. Voluntary Participation: Participants came voluntarily. They were told that they could withdraw from the study anytime without negative consequences.

3. Confidentiality and Anonymity: Participants' identities and responses were kept confidential. Data was coded to protect personal information.

5. Results

Table 1: *N, Mean and Standard Deviation*

Descriptives								
Descriptives	Prospective anxiety	Inhibitory anxiety	Intolerance of uncertainty	Preference	Tolerance	Aversion	Career Decision Ambiguity Tolerance	Resilience
N	80	80	80	80	80	80	80	80
Mean	20.5	13.1	33.6	32.1	26.1	23.5	81.8	19.2
Standard deviation	5.61	4.07	9.09	7.19	8.36	8.85	18.7	2.35

Table 2: *Correlation among Variables*

Correlation Matrix								
Correlation Matrix	Prospective anxiety	Inhibitory anxiety	Intolerance of uncertainty	Preference	Tolerance	Aversion	Career Decision Ambiguity Tolerance	Resilience
Prospective anxiety	—							
Inhibitory anxiety	0.758 ***	—						
Intolerance of uncertainty	0.956 ***	0.915 ***	—					
Preference	-0.090	-0.339 **	-0.207	—				
Tolerance	-0.155	-0.311 **	-0.235 *	0.639 ***	—			
Aversion	0.295 **	0.243 *	0.291 **	0.257 *	0.279 *	—		
Career Decision Ambiguity Tolerance	0.036	-0.154	-0.047	0.791 ***	0.824 ***	0.696 ***	—	
Resilience	-0.000	-0.217	-0.097	0.335 **	0.185	-0.040	0.193	—

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

6. Discussion of Results

The present study examined the relationship between Intolerance of Uncertainty, career decision ambiguity tolerance and resilience among 80 university students. *Table 1* of descriptive statistics indicated that students reported moderate levels of Intolerance of Uncertainty (M=33.6, SD= 9.09), relatively high Career Decision Ambiguity Tolerance (M=81.8, SD=18.7), and Resilience scores were also moderate (M= 19.2, SD= 2.35). The patterns suggested that while some students face difficulty with uncertain situations, they also acquire a reasonable capacity to tolerate vagueness in career decision-making.

Table 2 revealed correlational analysis with several patterns. As expected, subscales of both Intolerance of Uncertainty with Prospective anxiety and Inhibitory Anxiety as well as Career

Decision Ambiguity Tolerance with Preference and Tolerance, had high internal consistencies with their subscales respectively. A key significant positive relationship was found between Resilience and Preference, a subscale of CDAT ($r = 0.33$, $p < .05$).

Preference in this context refers to the individual's willingness towards seeking unfamiliar career choices, being curious about ones' identity, and positive outlook towards the uncertainty faced during the career decision-making process rather than a certain path (Park, et al., 2019). Their ability to bounce back from obstacles may enable them to view those obstacles as opportunities towards self-exploration, allowing them to approach unknown career situations with more confidence. Thus, suggesting that students with high resilience tend to desire clear career paths with lack of any unknown clues. This interpretation is aligned with the conceptual framework of CDAT, in which there was a positive association between Preference and Career adaptability and Career decision-making self-efficacy, all the while Aversion, referring to the ability to avoid ambiguous situations because it leads to frustration and anxiety, was associated with Career indecision.

However, resilience did not significantly correlate with Career Decision Ambiguity Tolerance as a whole construct, its positive correlation with Preference as a dimension indicated that resilience played a rather complex and silent role than a direct protective factor against uncertainty. It specifically related to the exploratory aspect of Career decision ambiguity tolerance. The lack of any significant relationship between Intolerance of uncertainty and Resilience is also noteworthy in itself, contradicting the previous study conducted by Cooke, Doust and Steele (2013) on general practice registrars claiming a significantly negative relationship between resilience and intolerance of uncertainty. Another remarkable finding is lack of relationship between intolerance of uncertainty and career decision ambiguity tolerance. This suggested that although these two variables are connected theoretically, yet it did not prove out in practical means. All the findings thus offer that all the hypotheses have been rejected.

7. Limitations

The above discussion focuses on the interplay between Intolerance of uncertainty, Resilience and Career decision ambiguity tolerance, but there are still few deficiencies. First of all, the sample size ($N = 80$), is relatively small, which does not represent the significant population. Additionally, such a small sample has limited the statistical power to detect smaller effects.

Secondly, the study relied on self-reported measures which are subjective to social desirability bias. Thirdly, the cross-sectional correlation design does not uncover all the causal relationships between the variables. Thus, future research should employ longitudinal design with larger samples for better understanding these relationships.

8. Conclusion

This study explored the interrelationships between Intolerance of uncertainty, Career decision ambiguity tolerance and resilience among university students. The findings indicated a significant positive relationship between Resilience and Preference, a sub-dimension of CDAT. The lack of a significant association between Intolerance of Uncertainty and Career Decision Ambiguity Tolerance suggests that Career decision ambiguity tolerance and Intolerance of uncertainty may seem connected but are distinct constructs, both requiring potential support in student's life. While the study is limited by its small sample, it contributes to the growing understanding of how personality and cognitive factors shape university students' career decision making processes.

These findings offer preliminary insights for university counselling services. Interventions aimed at strengthening resilience may help students to approach different career situations, regardless of clues being known or unknown, with curiosity and confidence. Career ambiguity may often be never eliminated, but with high resilience, it may help students navigate it more effectively. However, the absence of direct association between resilience and intolerance of uncertainty suggests that separate strategies be applied to address the general discomfort faced by the students.

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