

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

Gokuladas V K^{1*}

ABSTRACT

The outbreak of the current pandemic has created a considerable amount of uncertainty among people across the globe. Fear and anxiety about a new disease could result in strong emotional changes in children and adults alike. The main aim of this study is to examine the relationship between Big-Five Factors (Extraversion, Conscientiousness, Agreeableness, Neuroticism, & Openness) and Intolerance of Uncertainty among Middle Adulthood categories of people from the Southern part of India. 203 responses from the Middle Adulthood category of people residing in the southern states of India in respect of their Big-Five Factors and Intolerance of Uncertainty (IU) have been analyzed through Correlation, Anova, and Regression analyses. It has been identified in this study that while Extroversion was significantly negatively predicted IU, other dimensions of Big-Five Factors except Agreeableness had also positively predicted IU. It was also found that demographic variables such as Gender, Occupational Status, and educational qualification did not have a considerable impact on the relationship between Big-Five Factors and IU. The findings of this study have far-reaching implications for the organizations to chalk out different strategies to enhance the competitiveness of human resources during the current pandemic period.

Keywords: *Big-Five Factors, Intolerance of Uncertainty, Middle Adulthood, Pandemic period*

Uncertainty has always been part of human experiences. There could be uncertainties in every walk of life. There can be times when these uncertainties remain tolerable or even become pleasurable depending upon the experience of the individual. Since we cannot avoid the uncertainty in our experience of life, there is a need to develop tolerance of uncertainty in everyday life to cope up with challenges. The ability of individuals to cope with such uncertainty will differ from one another depending upon so many factors, of which the personality of the individual may play a vital role. Among various psychological disorders, anxiety-related disorders are the largest contributors to mental illness (Whiteford et al., 2013; World Health Organization, 2013). There are so many factors such as demographic factors, geographic transitions, population growth, etc., that contribute to psychological disorders (Whiteford, Ferrari, Degenhardt, Feigin, & Vos, 2015).

¹Assistant Education Advisor, Board of Directors, Indian Schools in Oman, Muscat, Sultanate of Oman

*Corresponding Author

Received: May 19, 2021; Revision Received: July 22, 2021; Accepted: August 04, 2021

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

Psychological disorders pose a considerable burden to humanity as it affects physical well-being also (Katon, 2011). Therefore, finding out those factors that potentially influence the Intolerance of Uncertainty will help alleviate the ill-effects of psychological disorders.

Almlund et al. (2011) argue that in comparison to cognitive ability, personality traits are responsive to parental behavior, investments in education, and policy interventions making personality change a possibility well into adulthood. At the same time, empirical studies that attempt to quantify the economic returns to personality often assume that adults' personality traits are fixed (Heineck & Anger, 2010; Mueller & Plug, 2006; Nyhus & Pons, 2005). It has been generally agreed upon through the outcome of various studies (McCrae & Costa, 1986; McCrae & John, 1992; Block, 1995) that the structure of the personality traits generally encompassed by five distinctive dimensions of personality named Neuroticism, Extraversion, Openness, Conscientiousness, and Agreeableness. While Extraversion denotes the level of sociability and enthusiasm, Agreeableness corresponds to the level of friendliness and kindness, Conscientiousness refers to the level of organization and work ethic, Neuroticism denotes calmness and tranquility and Openness refers to creativity and curiosity. These are the dimensions of personality, not types of personalities in the sense that a particular personality is a combination of each of these dimensions wherein some of these dimensions may be dominant while others may not.

On the other hand, the behavioral aspects of people are also influenced by their perceptions. Feeling such as happiness, sadness, fear, anxiety, respect, etc., are part of human reactions to certain conditions. Of these, Anxiety appears to be of greater researcher interest to social psychologists. Fear and anxiety are two sides of the same coin wherein the former is a protective response to a current, identifiable threat and the latter is a response to a potential threat that may or may not occur at some point in the future (Barlow, 2002). While fear can be exemplified through the perception of being attacked by a harmful animal, anxiety can be the result of a feeling of that animal might attack at some point in time at someplace (Asmundson, Vlaeyen, & Crombez, 2004). Fear is generally accompanied by strong psychological reactions such as the increase in blood pressure, the tension in muscles, etc., and Anxiety generally results in weak physiological reactions (McNeil & Vowles, 2004).

Intolerance of Uncertainty has been defined as the tendency for an individual to consider the possibility of a negative event occurring as unacceptable and threatening, irrespective of the probability of its occurrence. It is a dispositional trait that reflects an underlying fear of the unknown. As such, it can be considered as the basic component of pathological anxiety (Carleton, Sharpe, & Asmundson, 2007). IU has been identified to be associated with a variety of anxiety-related disorders (Brown et al., 2017; Carleton, 2012; Hong & Cheung, 2015). IU is therefore considered as a diagnostic tool for identifying potential targets for the treatment of psychological disorders (Carleton, 2012; Dugas & Robichaud, 2007) since it has validity and reliability across the community and clinical populations (Carleton, 2016). The concept of worry represents an outgrowth of the more broadly-defined construct of anxiety, which is seen as a facet of the personality super factor of neuroticism (Matthews, 2004). People with high Intolerance of Uncertainty tend to worry more when anxious than when calm (Buhr and Dugas, 2009).

The outbreak of the current pandemic has created a considerable amount of uncertainty among people across the globe. Fear and anxiety about a new disease could result in strong emotional changes in children and adults alike. Moreover, the precautionary measures of

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

getting isolated from social life could, in turn, result in higher levels of stress and anxiety. With the increase in loss of jobs and dear ones, this pandemic could result in unimaginable trauma, especially for the working-class society. World Health Organization recognized that it is challenging to adapt to the new realities of working from home, temporary unemployment, home-schooling of children, and lack of physical contact with other family members, friends, and colleagues coupled with the fear of contracting the virus. Given the above, it is felt that the driving force behind coping with the current unprecedented situation could be the strength of the personality of the individual. It is, therefore, felt that by exploring this dimension, there could be evidence to pinpoint as to which factor of personality enables the individuals to overcome these trying times. The main aim of this study is to examine the relationship between Big Five indicators (Extraversion, Conscientiousness, Agreeableness, Neuroticism, & Openness) and Intolerance of Uncertainty among Middle Adulthood categories of people from the Southern part of India.

REVIEW OF RELATED LITERATURE

Big-Five Factors

Specht, Egloff, & Schmukle, (2011) identified through a study conducted among 14,718 German adults that personality changes throughout the life span, but with more pronounced changes in young and old ages, and that this change is partly attributable to social demands and experiences. In a longitudinal study conducted among 137 Swedish people, it was concluded that personality traits became increasingly stable with age and personalities are fairly stable across this portion of the life span (Wängqvist et al., 2015). Cobb-Clark et al., (2011) observed that average personality changes are small and do not vary substantially across age groups over four years and that intra-individual personality change is generally unrelated to experiencing adverse life events. In a study among young adults, Pusch et al., (2019) identified that age differences should be considered even in specific life stages to advance the understanding of personality development as emerging adults showed greater change and diversity in change than young adults.

Hill & Allemand (2011) observed that grateful and forgiving adults reported greater well-being in adulthood and these effects are not moderated by age, gender, or marital status. On the other hand, it was identified that personality types were highly consistent across gender, age, and time (Specht, Luhmann, & Geiser, 2014). Ercan (2017) observed among 392 undergraduate students that conscientiousness, neuroticism, and extroversion were the most predictors of the resilience of the participants. Hill et al., (2012) identified that initial levels of social well-being correlated positively with Extroversion, agreeableness, conscientiousness, emotional stability, and openness. Soto (2015) indicated that higher levels of subjective well-being were associated with higher levels of Extroversion, Agreeableness, and Conscientiousness, and with lower levels of Neuroticism. It was also identified that individuals who were initially extraverted, agreeable, conscientious, and emotionally stable subsequently increased in well-being, and individuals with high initial levels of well-being subsequently became more agreeable, conscientious, emotionally stable, and introverted. A notable identification regarding personality is that personality matured from childhood to young adulthood with disruptions during adolescence (Luan et al., 2017).

Wortman, Lucas, & Donnellan, (2012) observed that while Extroversion, Neuroticism, and Openness declined over the life span, Agreeableness that increased among young cohorts, was stable among middle-aged cohorts, and declined among the oldest old. In a study conducted among graduate students, it was revealed that while Openness to experience,

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

Extroversion, and Emotional stability was negatively associated with the supervisory ratings of Interpersonal performance, Openness to Experience was found positively associated with interpersonal performance (Barrick, Parks, & Mount, 2005). Srivastava et al., (2003) found that while Conscientiousness and Agreeableness increased throughout early and middle adulthood at varying rates, Neuroticism declined among women but did not change among men. It was also identified that effortful strategies mediate the association between Conscientiousness and academic performance which is highlighting the importance of examining mediating processes between personality and outcomes (Corker, Oswald, & Donnellan, 2012).

Intolerance of Uncertainty

Intolerance of uncertainty is the feeling of an individual to consider the possibility of a negative event occurring as unacceptable whether such an event may happen or not. Intolerance of Uncertainty has been measured through a scale which is known as the Intolerance of Uncertainty Scale (IUS). This was initially consisting of 27 items which got reduced to a psychometrically stable 12-item two-factor version of the IUS (Carleton et al., 2007). Boelen (2010) identified that two-factor components of Intolerance of Uncertainty i.e., Prospective Anxiety and Inhibitory Anxiety were found to be mediating the relationship between negative affectivity with worry and social anxiety. It was also revealed that IU was specifically related to worry and social anxiety, but not depression. It was also found that the two-factor model of Intolerance of Uncertainty is reliable and valid in establishing Intolerance of Uncertainty as a trans-diagnostic maintaining factor (McEvoy and Mahoney, 2011). Chen & Hong (2010) observed that daily hassles increased anxiety symptoms among individuals with high Intolerance of Uncertainty but not those with low scores on Intolerance of Uncertainty. The findings of the study carried out by DeYoung et al., (2020) mapped the interpersonal traits within the Big Five and support the integration of the Big Five with models of interpersonal behavior and trait affiliation.

Rosen and Knäuper (2009) identified that Individuals high on the Intolerance of Uncertainty (IU) and situational uncertainty (SU) condition worried most due to uncertainty compared to people in the low IU and low SU condition. Buhr and Dugas (2009) observed that participants whose fear of anxiety was increased showed higher levels of worry compared to participants whose fear of anxiety was decreased and identified that increased fear of anxiety along with intolerance for uncertainty led to the highest levels of worry. Similarly, Khawaja and McMahan (2011) identified that Intolerance of uncertainty was related to generalized anxiety disorder, social phobia, and obsessive-compulsive symptoms, but not depressive symptoms. Intolerance of uncertainty, compared with meta-worry, appeared as a stronger predictor of social phobia symptoms. Participants in a study who are diagnosed with an anxiety disorder or depression reported significantly and substantially higher Intolerance of Uncertainty scores (Carleton et al., 2012).

Fetzner et al., (2014) concluded that intolerance of uncertainty relates differentially to posttraumatic stress disorder symptom clusters and inhibitory intolerance of uncertainty appears to be the main component of the relationship. Dugas, Gosselin, & Ladouceur (2001) identified that intolerance of uncertainty was highly related to worry, moderately related to obsessions/compulsions, and weakly related to panic sensations among university students. Hampson et al., (2016) suggested that higher levels of childhood Conscientiousness may prevent subsequent health decline decades later through self-regulatory processes involving the acquisition of lifelong healthful behavior patterns and higher educational

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

attainment. McEvoy and Mahoney (2012) identified through a study among 328 treatment-seeking participants that Intolerance of Uncertainty was significantly associated with neuroticism as well as with symptoms of social phobia, panic disorder and agoraphobia, obsessive-compulsive disorder, generalized anxiety disorder, and depression. Sučević and Ana Kurtović (2019) identified that panic could be predicted by neuroticism, conscientiousness, and psychological concerns whereas worry could be predicted by neuroticism, prospective and inhibitory intolerance of uncertainty.

Given the above discussions, the following hypotheses have been proposed in this study.

- H1a:** There will be a significant relationship between Extraversion and Intolerance of Uncertainty among Middle Adulthood categories of people in the Southern part of India.
- H1b:** There will be a significant relationship between Conscientiousness and Intolerance of Uncertainty among Middle Adulthood categories of people in the Southern part of India.
- H1c:** There will be a significant relationship between Agreeableness and Intolerance of Uncertainty among Middle Adulthood categories of people in the Southern part of India.
- H1d:** There will be a significant relationship between Neuroticism and the Intolerance of Uncertainty Middle Adulthood categories of people in the Southern part of India.
- H1e:** There will be a significant relationship between Openness and Intolerance of Uncertainty among Middle Adulthood categories of people in the Southern part of India.

Influence of demographic variables on the relationship between Big-Five Factors and Intolerance of Uncertainty

It has also been observed that in the later years of life, individuals become happier (high on Agreeableness and low on Neuroticism), more self-content and self-centered (low on Extroversion and Openness), more satisfied with what they have achieved (low on Conscientious, Openness, and Extraversion), and less preoccupied with productivity (Marsh et al., 2012). Caspi, Roberts, & Shiner, (2005) observed that people become more dominant, agreeable, conscientious, and emotionally stable as the psychology maturity of the individual progresses from adolescence to middle age. Lucas, Le, & Dyrenforth, (2008) observed that Extraversion and Openness tend to decrease and Agreeableness and Conscientiousness tend to increase with the increase in age. Srivastava et al. (2003) also observed that an increase in age correspondingly enhances Conscientiousness and Agreeableness with a marginal decrease in Neuroticism and Openness and with no differences for Extraversion.

At the same time, it is of great importance to understand that there has been an alarming growth in anxiety disorder issues with modern-day life. Irrespective of the age or gender differences, this has been identified as one of the social concerns of many countries across the world (Kessler et al., 2005). Originally thought to be specific to generalized anxiety disorder, recent research has demonstrated that Intolerance of Uncertainty could be applied to many facets of psychological diagnostics (Carleton et al., 2014). A study of gender differences in 55 nations using the Big Five Inventory found that women tended to be somewhat higher than men in neuroticism, extraversion, agreeableness, and conscientiousness (Feingold, 1994). The difference in neuroticism was the most prominent and consistent, with significant differences found in 49 of the 55 nations surveyed. Gender

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

differences in personality traits are largest in prosperous, healthy, and more gender-egalitarian cultures. A plausible explanation for this is that activities of women in individualistic, egalitarian countries are more likely to be attributed to their personality, rather than being attributed to ascribed gender roles within collectivist, traditional countries (Costa, Terracciano, & McCrae, 2001). Differences in the magnitude of sex differences between more or less developed world regions were due to differences between men, not women, in these respective regions. This means men in highly developed world regions were less neurotic, extraverted, conscientious and agreeable compared to men in less developed world regions. Women, on the other hand, tended not to differ in personality traits across regions (Schmitt et al., 2008).

Vries, Vries, & Born (2010) revealed that academic criteria may be predicted with greater accuracy by focusing on the narrow traits of Conscientiousness and Honesty-Humility/Integrity. It was identified that Industriousness and Perfectionism, different facets of Conscientiousness showed a significantly stronger prediction of absenteeism and cognitive test scores as compared to BFI Conscientiousness (MacCann, Duckworth & Roberts, 2009). Hong (2013) found that Intolerance to uncertainty along with other social-cognitive vulnerabilities fully mediated between dispositional traits like Neuroticism and Conscientiousness. Shropshire, Menard, & Sweeney (2017) observed that indicate that uncertainty and personality could be used to identify potential problems. Fisher, Gonzalez, & Malizio, (2015) concluded that the more insecurely attached and less extroverted were the women, the greater their level of Intolerance of Uncertainty. It was identified that women had higher scores for all Big Five factors except for Openness and that these gender differences were consistent over the entire life span (Marsh, Nagengast, & Morin, 2013).

As such, the following hypotheses have also been formulated in this study.

H2a: There will be significant gender differences in Extraversion, Conscientiousness, Agreeableness, Neuroticism, & Openness and Intolerance of Uncertainty among Middle Adulthood categories of people in the Southern part of India.

H2b: There will be significant differences in Extraversion, Conscientiousness, Agreeableness, Neuroticism, & Openness and Intolerance of Uncertainty among Middle Adulthood categories of people in the Southern part of India.

H2c: There will be significant differences in Extraversion, Conscientiousness, Agreeableness, Neuroticism, & Openness and Intolerance of Uncertainty among Middle Adulthood categories of people in the Southern part of India concerning their educational qualifications.

METHODOLOGY

Research Design

This study is focused on the relationship between Big Five factors and Intolerance of Uncertainty in the light of demographic variables. Therefore, a Correlational research design is being followed in this study. Through this research design, we will be able to discover relationships among these variables and to allow the prediction of future events from present knowledge about the relationship among these variables. Also, the effect of variables under this study has already been identified through statistically significant constructs by questionnaire methods, this research is also carried out as a quantitative study whereby research variables are statistically analyzed by using numbers to explain the relationship.

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

Middle adulthood is a period during which individuals get the opportunity to enjoy their success in their profession, closely-knit family and social life. It is the period that is characterized by competence, maturity, responsibility and stability. Middle adulthood is the time of adequate concerns to one's health, future of their children, looking after aged parents and appropriate usage of leisure time and plans for old age. Therefore, this period, spanning from 40 to 60 years of age, poses multiple challenges to the individual which could evoke a more worrisome course of activities. This research study thus takes into account all five dimensions of the Five-Factor Model and Intolerance of Uncertainty as research variables apart from other demographic variables of this category of age-group in this study.

Sample

The target population under this study is the middle-aged population residing in the Southern part of India. It is one such area in the country that has a metro lifestyle and highly literate people. The sample is being selected to represent the population in such a way that the result of the study could be generalized for drawing inferences on the population. It is deemed appropriate to carry out non-probability sampling mainly because of the vastness of the population residing here. We used the convenience sampling method for collecting the data since it was difficult to approach the respondents personally due to the current situation owing to Covid-19. The respondents residing in the district were approached through the electronic medium with the help of Google forms which was appropriate to adhere to the civil norms as well as to the comfort of the respondents. More than 1000 respondents were approached to fill out the self-administered questionnaire prepared to collect pertinent data. Though we received 435 responses, many of the responses were duplicates in nature which were deleted with the identification of IP addresses. Finally, we identified 203 responses from the Middle Adulthood category of people residing in the southern states of India that have been used in this study for further analysis.

Tools

There are two sets of variables being analyzed in this study i.e., the Personality traits and Intolerance of Uncertainty. To understand the Personality traits, we relied upon the Big-Five Factors for which the Short form of Big Five Inventory -2 – BFI 2S developed and validated by Soto and John (2017) has been used. As far as the Intolerance of Uncertainty is concerned, we used the Short version of the Intolerance of Uncertainty Scale developed and validated by Carleton et al., (2007). The details of these research tools have been mentioned in the succeeding paragraphs.

- 1. Short form of Big Five Inventory -2 – BFI 2 S (Soto and John, 2017):** The short form of Big Five Inventory -2 (BFI 2-S) is a 30-item self-report questionnaire. The respondent has to rate each item on a 5-point Likert-scale ranging from 1 (strongly disagree) to 5 (Strongly agree). The scale is designed to assess the individual differences in all five dimensions of the Big Five Inventory i.e., Extraversion, Conscientiousness, Agreeableness, Neuroticism, and Openness. This form is the abbreviated version with most of the full measure's reliability, especially at each dimension level. Therefore, this form is proved to be useful for assessing personality traits in research contexts where due to pressing concerns about assessment time or respondent fatigue it would be difficult to obtain honest responses. Alpha reliabilities of the BFI-2-S domain scales averaged 0.77 or 0.78 in each sample (total range = 0.73–0.83) and these scales' retest reliabilities averaged 0.76 (Soto and John, 2017).

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

- 2. Short version of the Intolerance of Uncertainty Scale (Carleton et al., 2007):** The short version of the Intolerance of Uncertainty Scale explains that a two-factor solution of an abbreviated 12-item Intolerance of Uncertainty scale fit the data well. One of the two factors, ‘Prospective Anxiety’, consisted of seven items that concern anxiety related to future events whereas the other factor, ‘Inhibitory Anxiety’ consisted of five items that concern uncertainty inhibiting action or experience. Items are scored on a Likert scale ranging from 1 (not at all characteristic of me) to 5 (entirely characteristic of me). The internal consistency for all 12 items in this tool has been reported as excellent ($\alpha = .91$), with Prospective Anxiety (having seven items, $\alpha = .85$) and Inhibitory Anxiety (having five items, $\alpha = .85$) (Carleton et al., 2007).
- 3. Demographic details:** Along with the above instructions, demographic details of the respondents such as gender, employment status, and educational qualification have also been collected for understanding the interplay of these items on the relationship between the research variables.

Analysis

Demographic descriptive

To explore the influence of demographic variables on the research variables, we have collected demographic details of the participants such as their gender, educational qualification, and working status whether they are employed or unemployed. In this study, we would be exploring whether these demographic variables have influenced the relationship between Big-Five Factors and Intolerance of Uncertainty.

Of the 203 participants, 89 are females and 114 are males which for 43.8% and 56.2% respectively. In this study, we are focusing only on the middle adulthood category of people i.e., 41 years to 60 years. We found only 11.3% of this category of respondents were unemployed with more than 88% of them are employed/having their livelihood. We also tried to identify how these respondents varied in their educational qualifications. Kerala, being a highly literate state in India, we could observe that all the respondents are either graduate or above with more than 58% of the respondents have educational qualifications above graduation. The details of the demographics of the respondents are summarized in Table 1.

Table 1. Demographic Profiles

Measure	Items	Frequency	Percent
Gender	Female	89	43.8
	Male	114	56.2
Working status	Unemployed	23	11.3
	Employed	180	88.7
Educational Qualification	Graduate	85	41.9
	Post Graduate	95	46.8
	Doctorate	23	11.3

Descriptive Statistics

Descriptive analysis of variables under this study has revealed that the respondents have scored above average level in respect of research variables such as Extroversion (2.970),

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

Agreeableness (3.448), Conscientiousness (3.374), and Openness to experience (2.594). However, the respondents have a relatively low mean score on Neuroticism (1.714) which shows that feelings such as anxiety, worry, fear, anger, frustration, envy, jealousy, guilt, depressed mood, and loneliness are of lower order among the respondents in this study. However, the Intolerance of Uncertainty mean-score among the respondents was also observed to be above average (2.987). This could be probably due to the reason that this study is conducted when the pandemic was at its peak and therefore, the situational pressure could have contributed to a higher mean score of respondents as far as the Intolerance of Uncertainty is concerned. The details of descriptive statistics are given in Table 2.

Table 2. Descriptive Statistics

<i>N</i> = 203	Mean	Std. Deviation
Extroversion	2.970	.801
Agreeableness	3.448	.645
Conscientiousness	3.374	.619
Neuroticism	1.714	.794
Openness	2.594	.765
Intolerance of Uncertainty	2.987	.713

Reliability

Cronbach's Alpha Reliability analysis has been carried out in respect of all 42 items (6 items each for Extraversion, Agreeableness, Conscientiousness, Neuroticism, & Openness, and 12 items for Intolerance of Ambiguity) that confirmed the coefficient of .727 for these items. According to Cortina (1993), this range of co-efficient is a high level of acceptance as far as the reliability is concerned.

Correlation Analysis

To understand the relationship between various research variables in this study, we have carried out correlation analysis in respect of Extroversion, Agreeableness, Conscientiousness, Neuroticism, Openness, and Intolerance of Uncertainty. Certain significant relationships have been observed through this correlation analysis. A moderate and significant relationship has been observed between Agreeableness and Conscientiousness ($r = .46, p < .000$). This significant relationship denotes that efficient and organized way of dealing expected out of the people who are high on Conscientiousness is also in line with the qualities such as warm, friendly, and tactful nature of people who also score high on the Agreeableness dimension of personality.

Another significant relationship with moderate strength has been observed between Neuroticism and Intolerance of Uncertainty ($r = .44, p < .000$) which indicates that people with negative-affects such as anger, anxiety, self-consciousness, irritability, emotional instability, and depression as a result of their high score on Neuroticism are more likely to be intolerant of uncertain situations and are likely to react negatively on an emotional, cognitive, and behavioral level to uncertain situations and events. Another interesting significant relationship has been observed between Neuroticism and the Intolerance of Uncertainty ($r = .44, p < .000$) in this study which shows that a person having a high score in Neuroticism is more likely to be worried and disturbed about the uncertainty of events.

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

However, moderate strength of the significant negative relationship has been observed between Conscientiousness & Neuroticism ($r = -.34, p < .000$). This indicates that people who are willing to do a task well and to take obligations to others seriously as a result of higher orientation towards Conscientiousness are less likely to show symptoms such as worry, fear, anger, frustration, envy, jealousy, guilt, etc., the hallmarks of Neuroticism. A similar negative significant correlation has been observed between Extroversion and Intolerance of Uncertainty ($r = -.32, p < .000$) which shows that people with high energy and outgoing personality are less likely to be worried about the uncertainty of any events that may or may not occur in future. Yet another significant positive relationship has been observed between Agreeableness and Extroversion ($r = .30, p < .000$) that clearly shows that people who score high on the Agreeableness dimension of personality are more likely to outgoing and socially oriented persons. The Openness dimension of the respondents in this did not have any significant relationship with the rest of the research variables. The details of the Correlation analysis are given in Table-3.

Table 3. Correlation Analysis

	Extro	Agree	Conscie	Neuro	Open
Agree	.304**				
Conscie	.258**	.456**			
Neuro	-.229**	-.202**	-.342**		
Open	.097	.035	.043	-.003	
IU	-.316**	-.110	-.041	.439**	.111

Regression Analysis

To get further insight into these relationships, regression analyses were performed to test the hypotheses proposed in this study. We conducted a regression model with Intolerance of Uncertainty as the dependent variable and all five dimensions of Big Five Factors as the independent variables. As determined in the ANOVA, there is a statistically significant difference between these variables in predicting the dependent variable i.e., ($F(5, 197) = 15.760, p = .000$).

It was observed that except for Agreeableness, all other dimensions of Big Five Factors i.e., Extroversion, Conscientiousness, Neuroticism, and Openness significantly predicted the Intolerance of Uncertainty. It was found that Extroversion significantly negatively predicted Intolerance of Uncertainty ($\beta = -.25, p < .000$) indicating that the higher the Extroversion, the lesser will be the Intolerance of Uncertainty. Therefore, *H1a* which stated that there will be a significant relationship between Extraversion and Intolerance of Uncertainty among Middle Adulthood categories of people in the Southern part of India has been supported in this study.

However, Agreeableness is the only dimension that appeared to be non-significant in predicting the Intolerance of Uncertainty. As identified by various studies (Marsh et al., 2012; Lucas, Le, & Dyrenforth, 2008; Srivastava et al., 2003) that Agreeableness tend to increase with the increase in age, it is reasonable to assume that people will become happier and self-contented with their journey in life. Since the respondents are from the middle adulthood category, this dimension could still be at a growing stage because of the urge to achieve success among them. As such, the *H1c* which stated that there will be a significant

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

relationship between Agreeableness and Intolerance of Uncertainty among Middle Adulthood categories of people in the Southern part of India is not supported in this study.

On the other hand, dimensions such as Neuroticism, Conscientiousness, and Openness positively predicted the Intolerance of Uncertainty ($\beta = .43$, $\beta = .21$ and $\beta = .13$ respectively, $p < .000$). This shows that the greater the scores on dimensions such as Neuroticism, Conscientiousness, and Openness, the higher the Intolerance of Uncertainty among the respondents. Yet, the striking difference among these dimensions is that Neuroticism had the better predictability of the Intolerance of Uncertainty as compared to the other two dimensions. As such, hypotheses *H1b*, *H1d*, and *H1e* which stated that Conscientiousness, Neuroticism, and Openness respectively will have a significant relationship with Intolerance of Uncertainty are supported in this study. The details of these analyses are as given in Tables 4 & 5 respectively.

Table 4. ANOVA for Research variables

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	29.360	5	5.872	15.760	.000 ^a
	Residual	73.401	197	.373		
	Total	102.761	202			

- a. Predictors: (Constant), Openness, Neuroticism, Agreeableness, Extroversion, Conscientiousness
 b. Dependent Variable: Intolerance of Uncertainty

Table 5. Regression analysis between Big Five Factors and Intolerance of Uncertainty

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.788	.465		3.849	.000
	Extroversion	-.253	.061	-.268	-4.135	.000
	Agreeableness	-.031	.075	-.029	-.420	.675
	Conscientiousness	.205	.079	.185	2.609	.010
	Neuroticism	.428	.064	.435	6.706	.000
	Openness	.127	.058	.131	2.168	.031

- a. Dependent Variable: Intolerance of Uncertainty

ANOVA

Another section of the analyses in this study deals with the influence of demographic variables on the research variables. For this purpose, we had collected data from the respondents in respect of their gender, educational qualifications, and employment status whether they are employed or not. In this direction, first, we carried out ANOVA in respect of Gender as given in Table 6. It was observed that except for Neuroticism, Gender did not have a statistically significant relationship with any of the research variables. As far as Neuroticism is concerned, males are found to be more vulnerable to Intolerance of Uncertainty as compared to female respondents in this study. This finding is in line with the observations of Feingold, (1994) that women tend to score high on Neuroticism as compared

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

to men. In this case, we accept the null hypothesis that there is no significant relationship among research variables as far as the influence of Gender is concerned. Therefore, *H2a* which stated that there will be significant gender differences in Extraversion, Conscientiousness, Agreeableness, Neuroticism, & Openness and Intolerance of Uncertainty among Middle Adulthood categories of people is **not fully supported** in this study.

Table 6. Gender on Relationship between Big Five Factors and Intolerance of Uncertainty

		Sum of Squares	df	Mean Square	F	Sig.
Extroversion	Between Groups	.011	1	.011	.019	.892
	Within Groups	115.420	201	.574		
	Total	115.431	202			
Agreeableness	Between Groups	.816	1	.816	1.879	.172
	Within Groups	87.266	201	.434		
	Total	88.082	202			
Conscientiousness	Between Groups	.517	1	.517	1.251	.265
	Within Groups	83.113	201	.413		
	Total	83.630	202			
Neuroticism	Between Groups	4.968	1	4.968	9.850	.002
	Within Groups	101.368	201	.504		
	Total	106.336	202			
Openness	Between Groups	.023	1	.023	.042	.838
	Within Groups	110.228	201	.548		
	Total	110.251	202			
Intolerance of Uncertainty	Between Groups	.023	1	.023	.045	.832
	Within Groups	102.738	201	.511		
	Total	102.761	202			

Secondly, we carried out ANOVA in respect of the influence of the employment status of the respondents whether they are employed or not on the relationship between the research variables. It was observed that except on Extroversion and Neuroticism, there is no statistically significant difference between the groups. Therefore, *H2b* which stated that there will be significant differences in Extraversion, Conscientiousness, Agreeableness, Neuroticism, & Openness and Intolerance of Uncertainty among Middle Adulthood categories of people concerning their employment status is **not fully supported** in this study. The details of this analysis are as given in Table 7.

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

Table 7. Employment Status on Relationship between Big Five Factors and Intolerance of Uncertainty

		Sum of Squares	df	Mean Square	F	Sig.
Extroversion	Between Groups	3.845	1	3.845	6.926	.009
	Within Groups	111.586	201	.555		
	Total	115.431	202			
Agreeableness	Between Groups	.119	1	.119	.272	.603
	Within Groups	87.963	201	.438		
	Total	88.082	202			
Conscientiousness	Between Groups	.006	1	.006	.016	.901
	Within Groups	83.624	201	.416		
	Total	83.630	202			
Neuroticism	Between Groups	3.378	1	3.378	6.595	.011
	Within Groups	102.958	201	.512		
	Total	106.336	202			
Openness	Between Groups	.000	1	.000	.000	.985
	Within Groups	110.250	201	.549		
	Total	110.251	202			
Intolerance of Uncertainty	Between Groups	.765	1	.765	1.508	.221
	Within Groups	101.996	201	.507		
	Total	102.761	202			

In this direction, thirdly, we attempted to identify whether there is any statistically significant difference between the group as far as the Educational qualifications of the respondents and research variables are concerned. It was found that this demographic variable did not have any influence on the research variables and therefore, it is assumed that there is no statistically significant difference between the groups when it is controlled for the Educational Qualification of the respondents. As such, the *H2c* which stated that there will be significant differences in Extraversion, Conscientiousness, Agreeableness, Neuroticism, & Openness and Intolerance of Uncertainty among Middle Adulthood categories of people concerning their educational qualifications is **not supported** in this study. The details of this analysis are given in Table 8.

**Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood
Category of People in The Southern India During Pandemic Period**

Table 8. Educational Qualification on Relationship between Big Five Factors and Intolerance of Uncertainty

		Sum of Squares	df	Mean Square	F	Sig.
Extroversion	Between Groups	.842	2	.421	.735	.481
	Within Groups	114.588	200	.573		
	Total	115.431	202			
Agreeableness	Between Groups	.366	2	.183	.417	.660
	Within Groups	87.717	200	.439		
	Total	88.082	202			
Conscientiousness	Between Groups	.527	2	.264	.635	.531
	Within Groups	83.103	200	.416		
	Total	83.630	202			
Neuroticism	Between Groups	.389	2	.195	.367	.693
	Within Groups	105.947	200	.530		
	Total	106.336	202			
Openness	Between Groups	.367	2	.184	.334	.716
	Within Groups	109.883	200	.549		
	Total	110.251	202			
Intolerance of Uncertainty	Between Groups	.158	2	.079	.154	.858
	Within Groups	102.603	200	.513		
	Total	102.761	202			

In view of the above findings, the predictive model of hypothesized relationships among variables is as given in Fig 1.

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

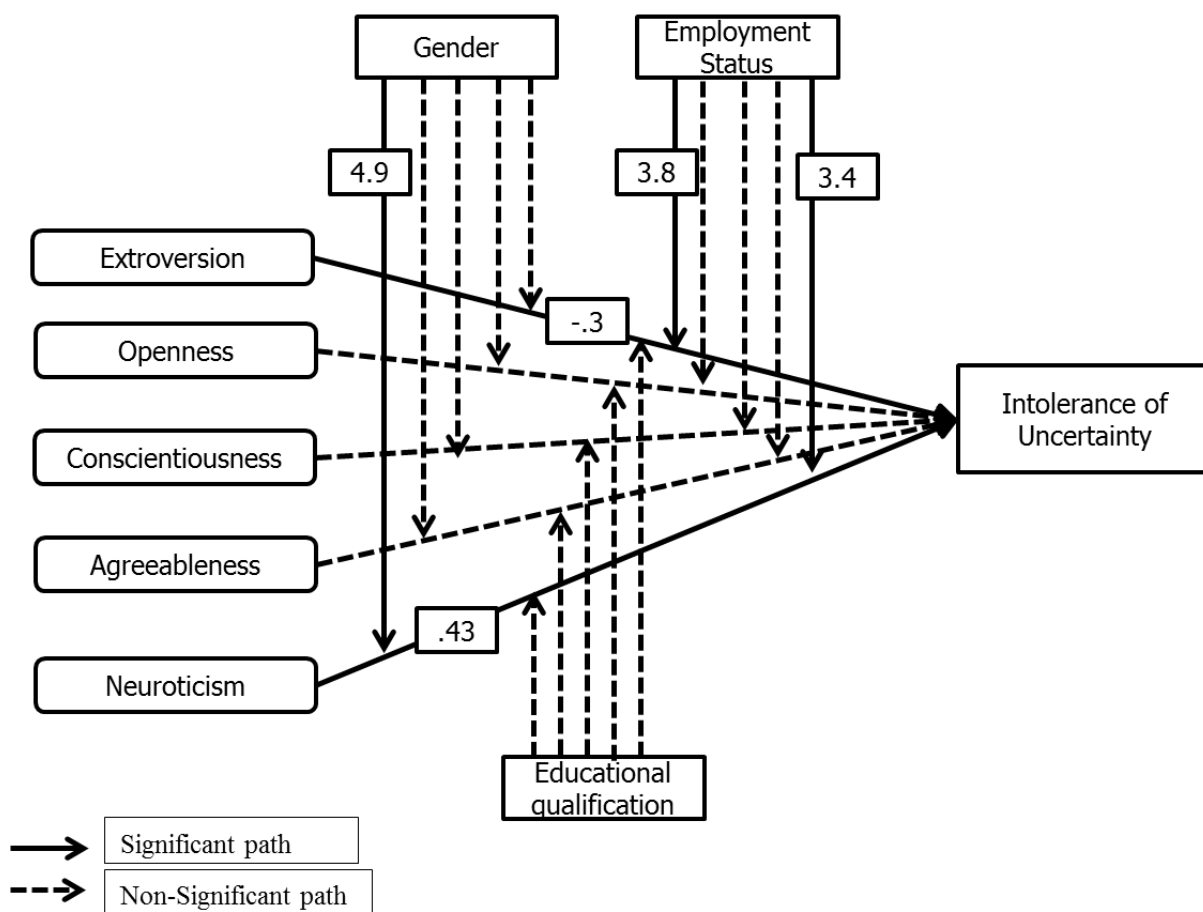


Fig 1. Relationship among variables

DISCUSSION & SUGGESTIONS

One of the major conclusions of this study is the positive relationship between Neuroticism and Intolerance of Uncertainty. Neuroticism is generally characterized by feelings of anger, anxiety, self-consciousness, irritability, emotional instability, depression, etc. which are generally categorized as negative-affects of an individual as identified by Watson & Clark (1992) and Magnus et al., (1993). Similarly, the fear or worry of an individual about the possible ill-effects of a future event irrespective of the probability of its occurrence is termed as Intolerance of Uncertainty. Through Correlation and Regression analyses, this study revealed the positive statistically significant relationship between Neuroticism and the Intolerance of Uncertainty. Past research conducted by McEvoy and Mahoney (2012), Sučević and Ana Kurtović (2019), Bigdeli, Abdollahpour, & Hosseini (2013), etc., have univocally reiterated the predictability of Neuroticism which has been upheld by this study also. Therefore, we shall conclude that any person having higher scores in the Neuroticism dimension of Big-Five Factors is more likely to have higher levels of Intolerance for uncertainty.

Another conclusion in this study is the establishment of a negative relationship between Extroversion and Intolerance of Uncertainty. Extroversion is characterized by the ability to exert one's interest and energies towards other people and things around us. People high on this dimension of personality are more likely to enjoy being with people, participating in social gatherings, and are full of energy. Such a category of people would be possessing

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

increased well-being as identified by Soto (2015). As such, it is likely to have a negative relationship with Intolerance of Uncertainty which commonly arises out of negative well-being. This finding is in line with previous research by Magnus et al., (1993) and Fisher (2015) which concluded that Extroversion has a negative relationship with the Intolerance of Uncertainty.

Other personality dimensions such as Conscientiousness, Agreeableness, and Openness to Experiences were found to be statistically insignificant in predicting Intolerance of Uncertainty in this study through Correlation and Regression analysis. Possible reasons why these personality dimensions did not have a statistically significant influence on the dependent variable could be the current turmoil arisen out of the outbreak of the pandemic. In this situation, there is a likelihood that extreme dimensions such as Extroversion and Neuroticism could be more prevalent than dimension such as Agreeableness (with facets such as Trust, Straightforwardness, Altruism, Compliance, Modesty, and Tender-Mindedness) and Conscientiousness (with facets such as Competence, Order, Dutifulness, Achievement Striving, Self-Discipline, and Deliberation) as identified by Costa et al., (1991). Openness to experience which is characterized by the ability of an individual to be open to new aesthetic, cultural, or intellectual experiences could also be irrelevant to most of the people across the world wherein work-from-home has become the order of the day due to lockdowns prevailing in different parts of the world. Moreover, Sučević and Ana Kurtović (2019) identified that Conscientiousness could predict panic not anxiety must have also contributed to the irrelevance of this dimension in predicting Intolerance of Uncertainty.

Demographic variables such as Gender, Education Qualification, and Employment status were considered in this study for analyzing their effect on the relationship of Big-Five Factors and Intolerance of Uncertainty. However, this study revealed that none of these demographic variables had any influence on these research variables except that on the Neuroticism in which males were found to be more susceptible to this dimension as compared to their female counterparts. This finding is in line with the past research carried out by Srivastava et al., (2003) which found that Neuroticism declines with the age among women. As far as the Employment status is concerned, it was revealed in this study that those who are extroverted are more likely to be in the employed category. However, the educational qualifications of the respondents did not in any way influence the relationship among research variables. These findings lead to the fact that demographic variables do not play a major role in influencing the relationship between Big-Five Factors and Intolerance of Uncertainty.

Implications of the findings

There are several implications of the outcome of this study. Since more than 88% of the respondents in this study are from the employed category, the implications of this study have a far-reaching effect on the organizational initiatives to make their employees the best in the industry.

First, this pandemic has been the first of its kind for the adulthood category being studied in this research. As such, during this pandemic, it is more likely that they are likely to be uncertain about the future. However, it has been explored during this study whether the personality traits of the individuals do influence the level of intolerance of uncertainty arising out of such unforeseen situations. With the lockdown prevailed for many months, many persons belonging to this category had to sit at home secluded from their social life.

Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period

Since more than 88% of the respondents in this study are employed, the finding in this study that extroverted people are more likely to have less Intolerance of Uncertainty is of greater relevance to organizations that can take measures to ensure that people working in their organizations are relatively maintaining a higher level of interaction with each other. Measures such as frequent get-together, greater team-work, enhanced autonomy at the workplace, etc., will help the employees to become more active at the workplace and thus develop positive-affects in their personality.

Another important implication of this study is that organizations should treat their employees alike as far as making work-life more enriching. The findings of this study that the demographic variable such as Gender and Educational qualification do not have differentiation as far as the personality dimensions or the intolerance of uncertainty is concerned. Therefore, there is a need to apply equal treatment to all employees alike irrespective of their gender or educational qualification. Even though women tend to score higher on the personality dimensions (Marsh, Nagengast, & Morin, 2012), it was identified earlier that they could maintain a higher level of tolerance of uncertainty only if they possess higher levels of extroversion and security feeling. Therefore, the findings of this study these demographic variables hardly play any important role on the intolerance of uncertainty, the organizations may develop those strategies that could be inclusive of all categories of employees.

Limitations of the current study

The responses were collected through electronic media due to the pandemic and social distancing cautions. Although it was ensured that the people approached for their responses were belonging to the middle adulthood category, it was difficult to assess genuineness of the responses collected. As such, the findings of this could not be generalized since a detailed study involving more number of samples might throw further insight into the relationship between personality and intolerance of uncertainty.

Scope for further studies

This study was carried out among the middle adulthood category of people in a specific district. A detailed study involving adolescents, early adulthood, and late adulthood category of people is likely to provide further input into the varying degree of personality traits among different age-groups and their ability to cope up with the intolerance of uncertainty. There could be many other demographic variables such as marital status, number of dependents in the family, category of employment, area of residence etc., which could provide further insight into the interaction between personality dimensions and intolerance of uncertainty. Therefore, a detailed study by collecting such details would further enhance the knowledge in this area.

REFERENCES

- Amlund, M., Duckworth, A. L., Heckman, J., & Kautz, T. (2011). Personality psychology and economics. In *Handbook of the Economics of Education* (Vol. 4, pp. 1-181). Elsevier.
- Asmundson, G.J.S., Vlaeyen, J.W.S., Crombez, G. (2004) *Understanding and Treating Fear of Pain*, Oxford University Press.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. *Personnel psychology*, 44(1), 1-26.
- Barrick, M. R., Parks, L., & Mount, M. K. (2005). Self-monitoring as a moderator of the

**Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood
Category of People in The Southern India During Pandemic Period**

- relationships between personality traits and performance. *Personnel Psychology*, 58(3), 745-767.
- Barlow DH. (2002) *Anxiety and its disorders: the nature and treatment of anxiety and panic*. New York: Guilford Press.
- Barry, B., & Stewart, G. L. (1997). Composition, process, and performance in self-managed groups: The role of personality. *Journal of Applied psychology*, 82(1), 62.
- Berenbaum, H., Thompson, R. J., & Bredemeier, K. (2007). Perceived threat: Exploring its association with worry and its hypothesized antecedents. *Behaviour Research and Therapy*, 45(10), 2473-2482.
- Bigdeli, I., Abdollahpour, A., & Makvand Hosseini, S. (2014). *Personality-cognitive correlates of social phobia: Mediator role of intolerance of uncertainty*. 17-25.
- Block, J. (1995). A contrarian view of the five-factor approach to personality description. *Psychological bulletin*, 117(2), 187.
- Boelen, P. (2010). Intolerance of uncertainty and emotional distress following the death of a loved one. *Anxiety, Stress, & Coping*, 23(4), 471-478.
- Brown, M., Robinson, L., Campione, G. C., Wuensch, K., Hildebrandt, T., & Micali, N. (2017). Intolerance of uncertainty in eating disorders: A systematic review and meta-analysis. *European Eating Disorders Review*, 25(5), 329-343.
- Buhr, K., & Dugas, M. J. (2009). The role of fear of anxiety and intolerance of uncertainty in worry: An experimental manipulation. *Behaviour Research and Therapy*, 47(3), 215-223.
- Caspi, A., Roberts, B. W., & Shiner, R. L. (2005). Personality development: Stability and change. *Annu. Rev. Psychol.*, 56, 453-484.
- Carleton, R. N., Mulvogue, M. K., Thibodeau, M. A., McCabe, R. E., Antony, M. M., & Asmundson, G. J. (2012). Increasingly certain about uncertainty: Intolerance of uncertainty across anxiety and depression. *Journal of anxiety disorders*, 26(3), 468-479.
- Carleton, R. N. (2016). Fear of the unknown: One fear to rule them all?. *Journal of anxiety disorders*, 41, 5-21.
- Carleton, R. N., Norton, M. P. J., & Asmundson, G. J. (2007). Fearing the unknown: A short version of the Intolerance of Uncertainty Scale. *Journal of anxiety disorders*, 21(1), 105-117.
- Carleton, R. N., Thibodeau, M. A., Weeks, J. W., Teale Sapach, M. J., McEvoy, P. M., Horswill, S. C., & Heimberg, R. G. (2014). Comparing short forms of the Social Interaction Anxiety Scale and the Social Phobia Scale. *Psychological assessment*, 26(4), 1116.
- Chen, C. Y., & Hong, R. Y. (2010). Intolerance of uncertainty moderates the relation between negative life events and anxiety. *Personality and Individual Differences*, 49(1), 49-53.
- Cobb-Clark, Deborah A.; Schurer, Stefanie (2011) : The stability of big-five personality traits, IZA Discussion Papers, No. 5943, Institute for the Study of Labor (IZA), Bonn, <http://nbn-resolving.de/urn:nbn:de:101:1-201109288861>
- Corker, K. S., Oswald, F. L., & Donnellan, M. B. (2012). Conscientiousness in the classroom: A 28 process explanation. *Journal of Personality*, 80, 995–1028. doi:10.1111/j.1467-6494.2011.00750.x
- Costa Jr, P. T., McCrae, R. R., & Dye, D. A. (1991). Facet scales for agreeableness and conscientiousness: A revision of the NEO Personality Inventory. *Personality and individual Differences*, 12(9), 887-898.
- Costa Jr, P. T., & McCrae, R. R. (1992). Reply to Eysenck. *Personality and individual*

**Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood
Category of People in The Southern India During Pandemic Period**

- differences*, 13(8), 861-865.
- Costa Jr, P. T., Terracciano, A., & McCrae, R. R. (2001). Gender differences in personality traits across cultures: robust and surprising findings. *Journal of personality and social psychology*, 81(2), 322.
- De Raad, B., & Schouwenburg, H. C. (1996). Personality in learning and education: A review. *European Journal of personality*, 10(5), 303-336.
- DeYoung, C. G., Chmielewski, M., Clark, L. A., Condon, D. M., Kotov, R., Krueger, R. F., Donald, R., & HiTOP Normal Personality Workgroup. (2020). The distinction between symptoms and traits in the Hierarchical Taxonomy of Psychopathology (HiTOP). *Journal of Personality*.
- Dugas, M. J., Gosselin, P., & Ladouceur, R. (2001). Intolerance of uncertainty and worry: Investigating specificity in a nonclinical sample. *Cognitive therapy and Research*, 25(5), 551-558.
- Dugas, M. J., Gagnon, F., Ladouceur, R., & Freeston, M. H. (1998). Generalized anxiety disorder: A preliminary test of a conceptual model. *Behaviour research and therapy*, 36(2), 215-226.
- Dugas, M. J., Savard, P., Gaudet, A., Turcotte, J., Laugesen, N., Robichaud, M., Francis, K., & Koerner, N. (2007). Can the components of a cognitive model predict the severity of generalized anxiety disorder?. *Behavior therapy*, 38(2), 169-178.
- Emmons, R. A., Diener, E. D., & Larsen, R. J. (1985). Choice of situations and congruence models of interactionism. *Personality and individual differences*, 6(6), 693-702.
- Ercan, H. (2017). The relationship between resilience and the big five personality traits in emerging adulthood. *Eurasian Journal of Educational Research*, 17(70), 83-103.
- Feingold A. (1994). Gender differences in personality: a meta-analysis. *Psychol. Bull.* 116, 429-456.
- Feingold, V. (1996). *U.S. Patent No. 5,494,484*. Washington, DC: U.S. Patent and Trademark Office.
- Fetzner, M. G., Horswill, S. C., Boelen, P. A., & Carleton, R. N. (2013). Intolerance of uncertainty and PTSD symptoms: Exploring the construct relationship in a community sample with a heterogeneous trauma history. *Cognitive Therapy and Research*, 37(4), 725-734.
- Fisher, M., Gonzalez, M., & Malizio, J. (2015). Eating disorders in adolescents: how does the DSM-5 change the diagnosis?. *International journal of adolescent medicine and health*, 27(4), 437-441.
- Greco, V., & Roger, D. (2001). Coping with uncertainty: The construction and validation of a new measure. *Personality and individual differences*, 31(4), 519-534.
- Hampson, S. E., Edmonds, G. W., Barckley, M., Goldberg, L. R., Dubanoski, J. P., & Hillier, T. A. (2016). A Big Five approach to self-regulation: Personality traits and health trajectories in the Hawaii longitudinal study of personality and health. *Psychology, health & medicine*, 21(2), 152-162.
- Heineck, G., & Anger, S. (2010). The returns to cognitive abilities and personality traits in Germany. *Labour economics*, 17(3), 535-546.
- Heydayati, M., Dugas, M. J., Buhr, K., & Francis, K. (2003, November). The relationship between intolerance of uncertainty and the interpretation of ambiguous and unambiguous information. In Poster presented at the Annual Convention of the Association for Advancement of Behaviour Therapy, Boston, MA.
- Hill, P. L., & Allemand, M. (2011). Gratitude, forgivingness, and well-being in adulthood:

**Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood
Category of People in The Southern India During Pandemic Period**

- Tests of moderation and incremental prediction. *The Journal of Positive Psychology*, 6(5), 397-407.
- Hill, P. L., Turiano, N. A., Mroczek, D. K., & Roberts, B. W. (2012). Examining concurrent and longitudinal relations between personality traits and social well-being in adulthood. *Social Psychological and Personality Science*, 3(6), 698-705.
- Hirsh, J. B., & Inzlicht, M. (2008). The devil you know: Neuroticism predicts neural response to uncertainty. *Psychological science*, 19(10), 962-967.
- Hong, R. Y. (2013). From dispositional traits to psychopathological symptoms: Social-cognitive vulnerabilities as intervening mechanisms. *Journal of Psychopathology and Behavioral Assessment*, 35(4), 407-420.
- Hong, R. Y., & Cheung, M. W. L. (2015). The structure of cognitive vulnerabilities to depression and anxiety: Evidence for a common core etiologic process based on a meta-analytic review. *Clinical Psychological Science*, 3(6), 892-912.
- Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct?. *Journal of personality and social psychology*, 83(3), 693.
- Katon, W. J. (2011). Epidemiology and treatment of depression in patients with chronic medical illness. *Dialogues in clinical neuroscience*, 13(1), 7.
- Kessler, R. C., Ruscio, A. M., Shear, K., & Wittchen, H. U. (2009). Epidemiology of anxiety disorders. In *Behavioral neurobiology of anxiety and its treatment* (pp. 21-35). Springer, Berlin, Heidelberg.
- Khawaja, N. G., & McMahon, J. (2011). The relationship of meta-worry and intolerance of uncertainty with pathological worry, anxiety, and depression. *Behaviour Change*, 28(4), 165-180.
- Laugesen, N., Dugas, M. J., & Bukowski, W. M. (2003). Understanding adolescent worry: The application of a cognitive model. *Journal of abnormal child psychology*, 31(1), 55-64.
- Luan, Z., Hutteman, R., Denissen, J. J., Asendorpf, J. B., & van Aken, M. A. (2017). Do you see my growth? Two longitudinal studies on personality development from childhood to young adulthood from multiple perspectives. *Journal of Research in Personality*, 67, 44-60.
- Lucas, R. E., Le, K., & Dyrenforth, P. S. (2008). Explaining the extraversion/positive affect relation: Sociability cannot account for extraverts' greater happiness. *Journal of personality*, 76(3), 385-414.
- MacCann, C., Duckworth, A. L., & Roberts, R. D. (2009). Empirical identification of the major facets of conscientiousness. *Learning and Individual Differences*, 19(4), 451-458.
- Magnus, K., Diener, E., Fujita, F., & Pavot, W. (1993). Extraversion and neuroticism as predictors of objective life events: A longitudinal analysis. *Journal of personality and social psychology*, 65(5), 1046.
- Marsh, H. W., Nagengast, B., & Morin, A. J. (2013). Measurement invariance of big-five factors over the life span: ESEM tests of gender, age, plasticity, maturity, and la dolce vita effects. *Developmental psychology*, 49(6), 1194.
- Matthews, G. (2004). *Neuroticism from the top down: Psychophysiology and negative emotionality*. On the psychobiology of personality: Essays in honor of Marvin Zuckerman, 249-266.
- Matthews, G., Emo, A. K., Funke, G., Zeidner, M., Roberts, R. D., Costa Jr, P. T., & Schulze, R. (2006). Emotional intelligence, personality, and task-induced stress. *Journal of Experimental Psychology: Applied*, 12(2), 96.

**Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood
Category of People in The Southern India During Pandemic Period**

- McCrae, R. R., & Costa Jr, P. T. (1986). Personality, coping, and coping effectiveness in an adult sample. *Journal of personality*, 54(2), 385-404.
- McCrae, R. R., & Costa, P. T. Jr (1990). *Personality in adulthood*. New York: Guilford.
- McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of personality*, 60(2), 175-215.
- McCrae, R. R., & John, O. P. (1992). An introduction to the five-factor model and its applications. *Journal of personality*, 60(2), 175-215.
- McEvoy, P. M., & Mahoney, A. E. (2011). Achieving certainty about the structure of intolerance of uncertainty in a treatment-seeking sample with anxiety and depression. *Journal of Anxiety Disorders*, 25(1), 112-122.
- McEvoy, P. M., & Mahoney, A. E. (2012). To be sure, to be sure: Intolerance of uncertainty mediates symptoms of various anxiety disorders and depression. *Behavior therapy*, 43(3), 533-545.
- McNeil, D. W., & Vowles, K. E. (2004). Assessment of fear and anxiety associated with pain: conceptualization, methods, and measures. *Understanding and treating fear of pain*, 189-211.
- Mueller, G., & Plug, E. (2006). Estimating the effect of personality on male and female earnings. *ILR Review*, 60(1), 3-22.
- Nyhus, E. K., & Pons, E. (2005). The effects of personality on earnings. *Journal of Economic Psychology*, 26(3), 363-384.
- Organ, D. W., & Lingl, A. (1995). Personality, satisfaction, and organizational citizenship behavior. *The journal of social psychology*, 135(3), 339-350.
- Pusch, S., Mund, M., Hagemeyer, B., Finn, C., & Wrzus, C. (2019). Personality development in emerging and young adulthood: A study of age differences. *European Journal of Personality*, 33(3), 245-263.
- Pushkar, D., Basevitz, P., Conway, M., Mason, S., & Chaikelson, J. (2003). Emergent values and the experience of aging. *Journal of Adult Development*, 10(4), 249-259.
- Rosen, N. O., & Knäuper, B. (2009). A little uncertainty goes a long way: Do situational uncertainty and individual differences in intolerance of uncertainty interact to increase information-seeking, but also worry. *Health Communication*, 24, 228-238.
- Schmitt, D. P., Realo, A., Voracek, M., & Allik, J. (2008). Why can't a man be more like a woman? Sex differences in Big Five personality traits across 55 cultures. *Journal of personality and social psychology*, 94(1), 168.
- Shropshire, J., Menard, P., & Sweeney, B. (2017). Uncertainty, personality, and attitudes toward DevOps.
- Soto, C. J. (2015). Is happiness good for your personality? Concurrent and prospective relations of the big five with subjective well-being. *Journal of personality*, 83(1), 45-55.
- Soto, C. J., & John, O. P. (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of personality and social psychology*, 113(1), 117.
- Specht, J., Egloff, B., & Schmukle, S. C. (2011). Stability and change of personality across the life course: the impact of age and major life events on mean-level and rank-order stability of the Big Five. *Journal of personality and social psychology*, 101(4), 862.
- Specht, J., Luhmann, M., & Geiser, C. (2014). On the consistency of personality types across adulthood: Latent profile analyses in two large-scale panel studies. *Journal of personality and social psychology*, 107(3), 540.
- Srivastava, S., John, O. P., Gosling, S. D., & Potter, J. (2003). Development of

**Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood
Category of People in The Southern India During Pandemic Period**

- personality in early and middle adulthood: Set like plaster or persistent change?. *Journal of personality and social psychology*, 84(5), 1041.
- Stewart, F.W. (1996). The ability of individuals with psychoactive substance use disorders to escape detection by the Personality Assessment Inventory. *Psychological Assessment*, 8(1), 60.
- Sučević, M., & Kurtović, A. (2019). Kognitivna osjetljivost na anksioznost: Most između ličnosti i simptoma. *Psihologijske teme*, 28(2), 419-440.
- Suarez-Morales, L., & Lopez, B. (2009). The impact of acculturative stress and daily hassles on pre-adolescent psychological adjustment: Examining anxiety symptoms. *The Journal of Primary Prevention*, 30(3-4), 335-349.
- Suárez-Pellicioni, M., Núñez-Peña, M. I., & Colomé, À. (2016). Math anxiety: A review of its cognitive consequences, psychophysiological correlates, and brain bases. *Cognitive, Affective, & Behavioral Neuroscience*, 16(1), 3-22.
- Tolin, D. F., Woods, C. M., & Abramowitz, J. S. (2003). Relationship between obsessive beliefs and obsessive-compulsive symptoms. *Cognitive Therapy and Research*, 27(6), 657-669.
- Vries, A., Vries, R. E., & Born, M. P. (2011). Broad versus narrow traits: Conscientiousness and Honesty-Humility as predictors of academic criteria. *European Journal of Personality*, 25(5), 336-348.
- Wängqvist, M., Lamb, M. E., Frisén, A., & Hwang, C. P. (2015). Child and adolescent predictors of personality in early adulthood. *Child development*, 86(4), 1253-1261.
- Watson, D., & Clark, L. A. (1992). On traits and temperament: General and specific factors of emotional experience and their relation to the five-factor model. *Journal of personality*, 60(2), 441-476.
- Watson, D., & Hubbard, B. (1996). Adaptational style and dispositional structure: Coping in the context of the Five-Factor model. *Journal of personality*, 64(4), 737-774.
- Whiteford, H. A., Degenhardt, L., Rehm, J., Baxter, A. J., Ferrari, A. J., Erskine, H. E., Charlson, F.J., & Vos, T. (2013). Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *The lancet*, 382(9904), 1575-1586.
- Whiteford, H. A., Ferrari, A. J., Degenhardt, L., Feigin, V., & Vos, T. (2015). The global burden of mental, neurological and substance use disorders: an analysis from the Global Burden of Disease Study 2010. *PloS one*, 10(2), e0116820.
- World Health Organization. (2013). *Building back better: sustainable mental health care after emergencies*. World Health Organization. Available at info:xhwtxmK6GvIJ:scholar.google.com/
- Wortman, J., Lucas, R. E., & Donnellan, M. B. (2012). Stability and change in the Big Five personality domains: Evidence from a longitudinal study of Australians. *Psychology and aging*, 27(4), 867.

Acknowledgement

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

Conflict of Interest

The author(s) declared no conflict of interest.

**Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood
Category of People in The Southern India During Pandemic Period**

How to cite this article: Gokuladas V K (2021). Predictability of Big-Five Factors on Intolerance of Uncertainty: A Case from Middle Adulthood Category of People in The Southern India During Pandemic Period. *International Journal of Indian Psychology*, 9(3), 441-463. DIP:18.01.046.20210903, DOI:10.25215/0903.046