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Research Paper

Correlational Study Between Intolerance of Uncertainty and Anxiety among Uninfected Young Adults During Covid-19 Pandemic

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ABSTRACT

With the onset of the coronavirus pandemic, the term self-quarantine emerged where citizens made an effort to curb the rapid spread of the virus in the country by staying home. Long durations of quarantine, fears of infection, inadequate supplies and information during the period of quarantine were each associated with poor mental health and wellbeing suggesting fear of uncertainty (Brooks.et.all, 2020). This study aimed at understanding the relationship between anxiety and intolerance of uncertainty among young adults of Bangalore during the COVID-19 pandemic with the help of Intolerance of Uncertainty Scale (IUS-12) and Beck Anxiety Inventory. The data obtained from a sample of 50 men and 50 women was statistically analysed with Pearson product moment correlation and 't' test using SPSS-20. The results indicated that there was a significant moderate positive correlation between intolerance to uncertainty and anxiety ($p<0.01$). Women reported higher levels of intolerance to uncertainty ($p<0.05$) and anxiety ($p<0.05$). The implications of the study could help in strengthening the use of the variables as trans-diagnostic features for each other and aid in literature with respect to mental health care especially while dealing with an impending rife crisis.

Keywords: *Anxiety, Intolerance of uncertainty, COVID-19, crisis, quarantine*

A nxiety is a mental health condition coupled with agitated bodily responses towards the anticipation of events, which are often strong enough to interfere and disturb one's routine. The factors underlying anxiety could vary from one person to another depending on various contexts like age, ethnicity, cultural background etc. People with high levels of anxiety frequently have intense, excessive and persistent worry and fear about everyday situations. 'The psychological effects of quarantining a city', states that quarantine is said to result in the onset of anxiety which has a potential to have implications on physiological health. The article also highlights that the surges of even low risk patients to a disease, is often precipitated by high levels of anxiety. (Rubin & Wessely, 2020)

Intolerance of uncertainty is defined as "a cognitive bias that affects how a person perceives, interprets, and responds to uncertain situations on a cognitive, emotional, and behavioural level. The extent to which an individual tolerates uncertainty is noted to be modifiable such

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that treatments and therapies can keep this as a focal point and be tailored so as to cater to individual needs and coping abilities. Anxiety in anticipation of future uncertainty is proven to have partially mediated the relationship between neuroticism and symptoms of generalized anxiety disorder and obsessive-compulsive disorder (McEvoy & Mahoney, 2012).

Intolerance of uncertainty is found to be an indicator of mental health problems with regard to cognitive and behavioural reactions to COVID-19 pandemic (Bavolar, et.all 2023). Anxiety and Intolerance of uncertainty are noted to be important individual factors in determining the risk for eating disorders (Scharmer, et al., 2020). Apart from eating disorders, intolerance of uncertainty mediated the relationship between neuroticism and symptoms related to various anxiety disorders and depression in a treatment seeking sample. It was found that anxiety in anticipation of future uncertainty partially mediated the relationship between neuroticism and symptoms of generalized anxiety disorder and obsessive-compulsive disorder (McEvoy & Mahoney 2012). On examining the incremental specificity of anxiety sensitivity and intolerance of uncertainty on a medically healthy sample of adults it was found that both the variables contributed to the concurrent prediction of health anxiety (Fergus & Bardeen, 2013).

Besides health oriented consequences, intolerance of uncertainty is also confirmed to have behavioural consequences. Higher levels of intolerance of uncertainty were associated with a tendency to select the immediately available but less valuable rewards, thereby demonstrating the role of intolerance of uncertainty in the hindrance in decision making (Luhmann, Ishida & Hajcak, 2011). A study which assessed the combined effects of fear of anxious responding and intolerance of uncertainty (a factor already linked to pathological worry) on level of worry by grouping participants according to their tolerance for uncertainty, it was found that participants whose fear of anxiety was increased showed higher levels of worry compared to participants whose fear of anxiety was decreased (Buhr & Dugas 2008).

A qualitative research during the SARS outbreak shows that home quarantine experience followed a trajectory of stages beginning before quarantine and ending after quarantine; despite individual differences, common themes of uncertainty, isolation, and coping seemed to intersect the data (Cava, et al., 2005). Research suggests that those affected by quarantine are likely to report distress due to fear and risk perceptions and this distress can be amplified in the face of unclear information and communication that is common in the initial period of disease outbreaks (Johal, 2005).

METHODOLOGY

Objectives
- To study the correlation between the levels of intolerance of uncertainty and anxiety in young adults who have not tested positive during the COVID-19 pandemic.
- To explore gender differences with respect to levels of anxiety and intolerance of uncertainty.

Hypotheses
- H1 - There is a significant positive correlation between the levels of intolerance of uncertainty and anxiety amongst uninfected young adults during the COVID-19 pandemic.

- H2 – There is a significant difference between men and women with respect to level of anxiety.
- H3 - There is a significant difference between men and women with respect to level of Intolerance to uncertainty.

Sample

The sample of 100 young adults [Males (N=50), Females (N=50)], belong to the age range of 20-25. Purposive sampling was used. Individuals tested positive for COVID-19 are not included in the sample.

Instruments

Two measures were used in this study,
- **Intolerance of Uncertainty Scale – Short Form (IUS-12):** The Intolerance of Uncertainty Scale - Short Form (IUS-12) has a strong correlation with the original scale, rs = .94 to .96 and Internal consistency- α = .85 (Carleton, ;Norton, et al., 2007; Khawaja & Yu, 2010). The construct of the tool is continuous with a five point likert scale for all 12 items and is interpreted based on the total score.
- **Beck Anxiety Inventory:** Beck Anxiety Inventory has an internal consistency of (Cronbach's a = 0.92) and Test-retest reliability (1 week) = 0.75 (Beck, Epstein, Brown, & Steer, 1988). It is a continuous self-report measure with 21 items and is interpreted based on the total score.

Procedure

For this study, participants were selected based on the criteria of age provided they were not infected by COVID-19 virus. On giving consent for participation, the participants were presented with the Beck Anxiety Inventory with 21 items. Once they completed responding to the same, a break of 10 minutes was given after which they were presented with the Intolerance of Uncertainty Scale – Short Form. On receiving the responses, the data was analysed using SPSS 20.

Analysis

Since the data was found to be normally distributed, parametric statistics were calculated for both correlation and gender difference.

Table 1: Correlation between Anxiety and Intolerance of Uncertainty

Variable	Mean	Correlation co-efficient	Significance value
Anxiety	18.00	.583**	0.003
Intolerance of uncertainty	36.48		

**significant at 0.01 level (2-tailed)

From Table 1, it can be seen that the group has a mean score of 18 of Beck's Anxiety Inventory which indicates a low level of anxiety experienced by young adults. The mean score of Intolerance of uncertainty was 36.48 which indicate an average level of intolerance of Uncertainty experienced by young adults during the COVID-19 pandemic.

Table 1 also shows the correlation co-efficient on Pearson's product moment correlation between the levels of anxiety and Intolerance of uncertainty, demonstrating a significant moderate positive relationship between the two variables (r=0.583; p<0.01). Thus, the

hypothesis which states that there is a significant positive correlation between the levels of intolerance of uncertainty and anxiety amongst uninfected young adults during the COVID-19 pandemic is validated for the sample.

Table 2: showing the gender differences within the group with respect to anxiety.

Gender	Mean	Mean Difference	t value	df	Significance level	Levene's test
Male	13.52	-8.96	-5.136*	98	0.02	.459
Female	22.48					

* Significance at 0.05 level

Table 2 shows the comparison between males and females with respect to levels of anxiety, with homogeneity of variance assumed (Levene's = 0.459). The mean difference between the two groups was found to be -8.96 and the t value was -5.136 which is significant at 95% confidence level (p<0.05) indicating that there exists a statistically significant difference between males and females in terms of levels of anxiety experienced with females (M=22.48) experiencing higher anxiety compared to males (M=13.52). Thus proving the hypothesis which states that there is a significant difference between men and women with respect to level of anxiety.

Table 3: showing the gender differences within the group with respect to Intolerance to uncertainty.

Gender	Mean	Mean Difference	t value	df	Significance level	Levene's test
Male	35.10	-2.76	-2.076*	98	0.04	.067
Female	37.86					

* Significance at 0.05 level

Table 3 shows the comparison between males and females with respect to levels of Intolerance of Uncertainty, with homogeneity of variance assumed (Levene's =0.067). The mean difference between the two groups was found to be -2.76 and the t value was -2.076 which is significant at 95% confidence level (p<0.05) indicating that there exists a statistically significant difference between males and females in terms of levels of Intolerance of Uncertainty experienced with females (M=37.86) experiencing higher Intolerance of Uncertainty as compared to males (M=35.10), thereby proving the hypothesis which states that there is a significant difference between men and women with respect to level of Intolerance of Uncertainty.

RESULTS AND DISCUSSION

The results of this study have shown us that there exists a statistically significant moderately positive correlation between anxiety and intolerance of uncertainty among uninfected young adults during covid-19 pandemic. This finding is similar to researches conducted earlier which have found a positive relationship among intolerance of uncertainty, anxiety, depression and stress with fear of COVID-19 through correlation analysis (Korkmaz & Ercan, 2021).

On comparing the levels of intolerance of uncertainty between males and females, the study found that females showed higher levels of intolerance of uncertainty. The study also

compared males and females with respect to experiencing levels of anxiety and found that females experienced more anxiety than males. Prior research have also demonstrated that women show a higher incidence of having intolerance of uncertainty, anxiety along with stress and depression (Delabrida et. all, 2020).

CONCLUSION

The results of this study stresses on the necessity to identify ways to foster resilience among people who are intolerant to uncertainty for the nature of crisis situations are significantly uncertain and inevitable. The differences in gender with regard to anxiety and intolerance of uncertainty can be explored further taking into account biopsychosocial aspects. The study can be extended with respect to exploring suitable therapeutic models specifically for a global emergency in the health sector in future.

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