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Research Paper

Anxiety, Stress and Emotional Regulation Among Adults During Covid-19

Susanna Thapa[1]*

ABSTRACT

The purpose of the present study was to assess the relationship between Stress, Anxiety and Emotional Regulation among Adults during Covid-19. The sample consisted of 106 participants from Bangalore and Siliguri, India. The Perceived Stress Scale (PSS-10) (1983), The Beck Anxiety Inventory (BAI) (1988) and Difficulties in Emotion Regulation Scale (DERS) (2004) were used to gather the data. It was hypothesed that there would no significant relationship between stress and anxiety among adults during covid-19, there would no significant relationship between anxiety and emotional regulation among adults during covid-19 and there would no significant relationship between stress and emotional regulation among adults during covid-19. Pearson product moment correlation was used to analyze the data. The results of correlation showed that there was a positive relationship between the variables. The results obtained from the study have numerous implications; both in research and intervention. The study could be useful data to increase awareness about the intensity of mental distress among adults within the age group 18-40 years during covid-19.

Keywords: *Stress, Anxiety, Emotional Regulation, Covid-19*

The covid-19 pandemic has unwrapped a significant level of change on the different dimensions of the lifestyle of people around the globe. It has not only killed millions of people but also instilled an enormous amount of fear, stress, anxiety, where people are not able to regulate their emotions in a healthier manner. It has had an impact on various groups such as adults, care providers, and people with underlying health conditions.

Studying the psychological distress such as stress, anxiety and emotional regulation among the adults during Covid-19 in Bangalore and Siliguri, India is very essential in the current on-going pandemic where there seems to be an increased rate of depression and suicidal tendencies in adults due to Covid-19. Majority of the adult population has been badly infected and affected by Covid-19 leading to a higher number of psychological distress and emotional imbalances. Adding to the pressure of working from home, lockdown and even online mode of education has affected the psychological state of the individuals tremendously in this pandemic.

[1]Research Scholar, Dept. of Psychology, Kristu Jayanti College (Autonomous), Bangalore, India
*Corresponding Author

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It has had some major negative effects on adults belonging to various professions, where they were seen having major issues with regulating their emotions and coping with their day-to-day activities in many cases and scenarios it would even meet the threshold for clinical relevance.

Stress

Stress is when the individual is unable to cope with the emotional and mental pressure very little or no control over the entire situation. Stress is the nonspecific response of the body to any demand (Selye,1936). Stress is a biological reaction to a probable dangerous situation which may be encountered by the individuals. Coming across stress suddenly, the brain tends to and also feels overwhelmed. Stress is the biological way or response to comply with pressure (Fink, 2010). It can be triggered in many situations such as when the individual experiences something new, unexpected or when the individual feels they may have overflowed the body with adrenaline and cortisol which makes the heart rate increased and sends blood to muscles and vital organs which in return makes the individual energized and their level of awareness heightens (Pearlin et al., 1981).

Anxiety

Anxiety is a combination of feelings such as uneasiness, fear, and even worry. It is an emotion where tensed and nervous feelings thoughts, and some unwanted physical changes can be witnessed in the individual. Anxiety is described as a subjective of apprehension, tension, or uneasiness that could be internal or external (Diagnostic and Statistical Manual of Mental Disorders, 1980).

Emotional regulation

Emotional regulation is an action which can be conscious or unconscious in nature. It has the potential to change the valence and intensity of a current emotional experience, as well as future emotional experiences in a person. Emotion regulation is an individual's ability to effectively manage and respond to emotional experiences that he/she experiences due to various different factors (Cisler et al., 2010).

Emotional regulation is a way in which humans control their emotions, when and how they experience and express them. Emotional regulation can be automatic or regulated, conscious or unconscious, and it can happen at any moment during the emotion-producing process (Gross, 1998, p. 275).

REVIEW OF LITERATURE

Huang, et al. (2020) conducted a study with an aim to estimate GAD, depressive symptoms, and sleep quality among the people of China.The findings of the study revealed that the overall prevalence of GAD was shown to be more prevalent in younger persons than in elderly people.

Wang, et al. (2020) conducted a study on the impact of stress, anxiety, and depression during this pandemic among the people of China. The findings of the study revealed that in the initial survey, moderate to severe stress was found among anxiety and depression. No significant changes were noticed in prevalence in the second round ($p > 0.05$).

Cao, et al. (2020) conducted a study to estimate the prevalence of anxiety during this pandemic among the people of China.The findings of the study revealed that severe anxiety was experienced by very less number, moderate anxiety by a moderate number, and mild

anxiety by maximum number in college students. Living in a city, having parents, and having a consistent income have all been demonstrated to be protective factors against anxiety.

Etxebarria, et al. (2020) conducted a study to estimate the level of depression, anxiety, and stress in the general population of Spain. The findings of the study revealed that Depression was seen more in females than males.

Verma and Mishra (2020) conducted a study on the prevalence of depression, anxiety, and stress in the general population of India. The findings of the study revealed that in total, 25% had moderate to severe depression, 28% anxiety and 11.6% stress.

Lei, et al. (2020) conducted a study to find out the rate of depression and anxiety between affected and non-affected people of China. The findings of the study revealed Depression and anxiety were found to be less respectively in unaffected people. While depression and anxiety were found to be more in persons who had a family member, acquaintance, relative, or neighbour develop the illness, respectively.

Ahmed, et al. (2020) conducted a study to estimate the prevalence of depression, anxiety, hazardous drinking, and poor mental well-being due to lockdown among the people of China. The findings of the study revealed the participants had different levels of depression and suffered from various degrees of anxiousness from mild to severe. Hazardous drinking increased ,harmful drinking increased and alcohol dependency also increased. Mental well-being was found to be lower of the population.

Ali et al. (2011) investigated the link between emotional intelligence and its components and anxiety symptoms. It was a descriptive study and correlational research study. The findings of the study revealed that there was a significant reverse relationship between the general scores of emotional intelligence and anxiety symptoms. It was concluded that emotional intelligence is reversely related to symptoms of anxiety.

Fernandes et al. (2021) conducted a study on The Mediating Effects of Self- Esteem on Anxiety and Emotion Regulation. According to the study, it aimed to examine the relationship between state and trait anxiety, self-esteem, and emotion regulation strategies: reappraisal and suppression. Trait and state anxiety were found to predict suppression, reappraisal, and internalising issues, as well as being associated to reaction inhibition. Low self- esteem was discovered to be a key mediator in the relationship between anxiety and suppression. These findings, taken together, reveal particular links between emotion regulation and anxiety, underscoring the importance of self-esteem in young people.

Zarintaj, et al. (2020) conducted a study on Stress, Anxiety, and Depression. During the COVID-19 pandemic in Zanjan, Iran, the study examined the level of stress, anxiety, and depression among healthcare workers. The finding of this study says that there was a significant relationship between gender and variables of depression, anxiety, and stress. Stress was also found to have an inverse connection with educational level and age.

Jiang et al. (2020) study was conducted on Exposure, post-traumatic stress symptom, and emotional regulation. The results in the study stated that women and individuals with responsibilities in addition with concerns for other individuals were more vulnerable to PTS

symptoms and they had in three latent classes, expression inhibition and less cognitive reappraisal were seen.

METHODOLOGY

The present study has attempted to assess the relationship between anxiety, stress and emotional regulation among adults during covid-19 in India.

Objectives of The Study

1. To assess the relationship between stress and anxiety among adults during covid-19.
2. To assess the relationship between anxiety and emotional regulation among adults during covid-19.
3. To assess the relationship between stress and emotional regulation among adults during covid-19.

Hypotheses

Ho1 There is no significant relationship between stress and anxiety among adults during covid-19.

Ho2 There is no significant relationship between anxiety and emotional regulation among adults during covid-19.

Ho3 There is no significant relationship between stress and emotional regulation among adults during covid-19.

Sample

The sample of the study consist of 106 emerging adults from Bangalore and Siliguri in India, which include 68 females and 38 males participants. A non-probability sampling method was employed to collect the desired sample size using convenience sampling technique. A total of 106 interested volunteers, of the age group 18-40, participated in the study.

Instruments

Three measures were used in this study,

1. **The Perceived Stress Scale (PSS-10) by Cohen, Kamarck, and Mermelstein (1983):** The Perceived Stress Scale (PSS-10) is a classic stress assessment instrument by Sheldon Cohen, Kamarck, and Mermelstein in 1983. This scale is rated on a fourpoint Likert scale which is used for measuring the perception of stress. It's a metric for how stressful certain situations in one's life are regarded. The Perceived Stress Scale (PSS-10) is a 10-item scale that measures stress perception. PSS scores are obtained by reversing responses (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) to the four items mentioned (items 4, 5, 7, & 8) and then add up all of the scale items. A higher score in PSS indicates greater stress and lower score indicate lower stress. PSS is widely used to assess stress with good reliability (a=0.82) and validity.
2. **The Beck Anxiety Inventory (BAI) by Beck (1988):** Beck Anxiety Inventory is 21 item scale with a Likert scale ranging from 0 to 3 was developed by Beck in 1988. Beck Anxiety Inventory (BAI) is a self-report questionnaire, with items ranging from – 0 (Not at all), 1= (Mildly), 2=(Moderately), 3= (Severely) with Cronbach's alpha value is.92, test-retest (1week) reliability is .75. In adults and adolescents, the Beck Anxiety Inventory is used to assess the intensity of anxiety. A higher score in BAI indicates severe level of anxiety and lower score indicates minimal level of anxiety.
3. **Difficulties In Emotion Regulation Scale (DERS) by Grats and Roemer (2004):** The DERS (Gratz and Roemer, 2004) is a 36-item self-report questionnaire that assesses six

aspects of emotion regulation. It is a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always). Items are rated on a scale of 1 ("almost never [0–10%]") to 5 ("almost always [91–100%]"). Higher scores suggest that emotion management is more challenging. The DERS has been discovered to have high test-retest reliability (ρI = .88, p < .01), as well as sufficient conceptual and predictive validity (Gratz & Roemer, 2004; Gratz & Tull, 2010)

Procedure

A non probability sampling method was employed to collect the desired sample size using convenience sampling technique. A total of 106 interested volunteers, of the age group 18-40, participated in the study. The data was collected through using Google forms where each participant was provided with an informed consent form before filling the demographic details. The participants were given assurance based on the ethical guidelines of this study as well.

It was claimed that violation of normality would not likely to jeopardize scientific findings (Hsu; Feldt, 1969; Lumney ,1970). The data obtained in psychological investigations rarely, if ever meet the requirement of normally distributed data (Micceri, 1989; Wilcox, 2012 a,b; Keselman et al., 2013). Therefore, normality was not tested and the data was analysed using parametric test.

RESULTS AND DISCUSSION

The data was scored, tabulated, and descriptive statistics were calculated on the collected data. With the help of inferential statistics, the outcomes or results were then interpreted hypothesis-wise. The following are the findings, which are presented and discussed.

Table 1 Descriptive statistics for Stress, Anxiety and Emotional Regulation

Variables	Gender	N	Mean	SD
Stress	Male	38	21.95	4.159
	Female	68	23.15	5.224
Anxiety	Male	38	21.13	15.485
	Female	68	20.15	14.413
Emotion	Male	38	102.16	23.043
Regulation	Female	68	102.85	22.572

Table 1 indicates the results of descriptive statistics of the study. A total sample size of 106 adults were surveyed, out of which 38 were males and 68 were females who participated in the survey. All these participants belonged to the age range of 18 to 40 years. As indicated in the table, the mean for stress for males was 21.95 and the standard deviation was 4.159. The mean for stress for females was 23.15 and the standard deviation was 5.224. The mean for anxiety for males was 21.13 and the standard deviation was 15.485. The mean for anxiety for females was 20.15 and the standard deviation was 14.413. The mean for emotional regulation for males was 102.16 and the standard deviation was 23.043. The mean for emotional regulation for females was 102.85 and the standard deviation was 22.572.

Table 2 Pearson's correlation test between Stress, Anxiety and Emotional regulation

Variables	Stress	Anxiety	Emotional Regulation
Stress	-	.478**	.420**
Anxiety	.478**	-	.564**
Emotional Regulation	.420**	.564**	-

*Note. N=106. **Correlation is significant at the 0.01 level (2- tailed).*

Table 2 shows the correlation done between the three variables, Stress, Anxiety and Emotional regulation using the Pearson's product moment. According to the table, the correlation value obtained for 106 sample between stress and anxiety is .47, which is significant at 0.01 level. This data indicates that there is a significant positive correlation between stress and anxiety among adults during covid19. The correlation obtained for 106 sample between anxiety and emotional regulation is .56, which again is significant at 0.01 level. This result indicates that there is a significant positive correlation between anxiety and emotional regulation among adults during covid-19. The correlation obtained for 106 sample between stress and emotional regulation is .42, which again is significant at 0.01 level. This result indicates that there is a significant positive correlation between stress and emotional regulation among adults during covid-19.

CONCLUSION

The study was conducted to find the relationship between stress and anxiety and emotional regulation and also between stress and emotional regulation among adults during covid-19 from Bangalore and Siliguri, India. It was hypothesized that there would be no significant relationship between stress and anxiety among adults during covid-19. This hypothesis was rejected. The correlation value obtained for 106 sample between stress and anxiety is .47, which is significant at 0.01 level. This data indicates that there is a significant positive correlation between stress and anxiety among adults during covid-19. The finding is in with line with previous research studies namely by (Stanton et al., 2020) The finding of this study stated younger individuals (18–45 years) had significantly higher depression, anxiety, and stress scores compared to their older counterparts. The findings of this study revealed that in the initial survey, moderate to severe stress was found among 8.1%, anxiety 28.8%, and depression 16.5% (Wang et al., 2020). That also supports the results that there is a significant relationship between stress and anxiety among adults during covid-19.

It was hypothesized that there would be no significant relationship between anxiety and emotional regulation among adults during covid-19. This hypothesis was rejected. The correlation value obtained for 106 sample between anxiety and emotional regulation is .56, which again is significant at 0.01 level. This result indicates that there is a significant positive correlation between anxiety and emotional regulation among adults during covid-19. The finding is in with line with previous research studies namely by (Lei et al., 2020) The findings of the study revealed Depression and anxiety were found to be 8.3% and 14.6% respectively in unaffected people. While depression and anxiety were found in 12.9 and 22.4 percent of persons who had a family member, acquaintance, relative, or neighbour develop the illness, respectively. (Fernandes et al., 2021) Trait and state anxiety were found to predict suppression, reappraisal, and internalising issues, as well as being associated to reaction inhibition. Low self-esteem was discovered to be a key mediator in the relationship between anxiety and suppression. These findings, taken together, reveal particular links between emotion regulation and anxiety. That also supports the results that there is a significant relationship between anxiety and emotional regulation among adults during covid-19.

It was hypothesized that there would be no significant relationship between stress and emotional regulation among adults during covid-19. This hypothesis was rejected.The correlation value obtained for 106 sample between stress and emotional regulation was .42,which again is significant at 0.01 level. This result indicates that there is a significant positive correlation between stress and emotional regulation among adults during covid-19. The finding is in with line with previous research studies namely (Tyra et al ., 2020) The

finding of this study stated that results demonstrated cognitive reappraisal and expressive suppression were not individually predictive of acute stress but there was a significant interaction of suppression by reappraisal. There was also evidence that suppression was connected with acute stress in a negative way only when reappraisal levels were high. These findings add to the growing body of evidence that there is a temporal link between emotion regulation and stress. That also supports the results that there is a significant relationship between stress and emotional regulation among adults during covid-19.

The data indicated that there is positive relationship between all the variables, that is between stress and anxiety, anxiety and emotional regulation and also between stress and emotional regulation. Thus, the study shows that as the stress level increases similarly anxiety will increase, as the anxiety level will increase similarly emotional regulation will increase and as stress will increase emotional regulation will also increase, they will move in the same direction.

Limitations

- The size of the sample of the current study is less when it is compared to the population of adults in Bangalore and Siliguri, India.
- The sample was restricted to individuals only from Bangalore and Siliguri and participants from all over India werenot included.
- The sample also consisted more individuals from the Urban area, influenced by the urbanized pattern of experiencing mentaldistress in an urban setting.

Suggestions for future study

- To include all the genders to have more representative sample.
- Further studies can also focus on the influencing factors of the variables and opt for unstructured questionnaires to collect data to derive a better conclusion on the status of these variables in the population.

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Conflict of Interest

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