

COVID-19 Crisis and Emotion Regulation

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ABSTRACT

The primary objective of this research is to investigate the significance of emotion regulation to maintain the emotional balance during COVID-19 crisis. The convenience sampling technique has been used to collect a sample of 207 participants. The average age of participants were 22.75 years and SD 2.74. Descriptive statistics is being used to summarize the results, and inferential statistics such as the t-test, ANOVA, Pearson correlation coefficient have been employed to test the study's hypotheses. The study has revealed a sound factorial structure with $\chi^2(105) = 692.80$, $P \leq .000$, Determinant of R-matrix is .031, KMO = .760 and Communalities .55. The factor analysis established four key factors with eigenvalues greater than one accounting for more than 54.82% of the variance together. The four factors were (a) Awareness, (b) Belief, (c) Gratification and (d) Regulation. The global ER-COVID-19 scale has an alpha of .75, indicating that scale items have adequate internal consistency. The constructs or factors can also make an emotional balance in a traumatic situation or develop emotion well-being to face the daily emotional crisis. The study has explored a good construct validity, convergent validity and discrimination validity. An artificial neural network analysis has conformed a good model fit in this study. The study also explored a potential field for a new researcher to research other emotion regulation factors or constructs that could not be revealed in this study.

Keywords: COVID-19 Crisis; Emotion Regulation; Convenience Sampling; Factor Analysis; Emotion Well-Being.

Today, most of us have perceived world pandemics (COVID-19) as very new. Significant discomfort has been experienced throughout the world as a result of Covid 19 (Rehman U. 2020). Many countries across the globe have depleted their human, health, and economic resources to fight the new coronavirus disease known as COVID-19. (Kharshiing et al. 2020). While many diseases have plagued humans in recent years, the COVID-19 outbreak has resulted in one of the most extensive worldwide lockdowns in human history (Han et al., 2021). More than a third of the world's population has been placed under lockdown with limited mobility to prevent the transmission of the virus from spreading further (Kaplan et al., 2020). People have been instructed to keep a safe distance from others, wear a mask, and wash their hands regularly to prevent the spread of disease (Cheng et al., 2020). When there is an epidemic, individuals tend to be anxious about being infected with the virus/disease, resulting in worry, tension, sadness, etc. (Hall

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et al., 2008). Stress may be defined as a sense of mental and physical strain that develops as a result of any incident that affects our physiological and psychological well-being (Selye, 1956). During this particular time, it is critical to examine how individuals are concerned about being infected with COVID-19 and how this risk perception affects their behaviour (Paek & Hove., 2017). It has on their emotions whether or not it may lead to mental health issues in the future (Dryhurst et al., 2020; Ren et al., 2020). The emotional strain that has been experienced throughout the epidemic, increasing worry about its effect on mental health. (Burhamah et al., 2020; Planchuelo-Gomez et al., 2020).

Emotion can have a significant impact on people's day to day activities (Feldman & Freitas, 2021). "Regulating one's emotional experience influences subsequent behaviour and changes the outcomes of interpersonal interactions" (Tamir & Ford, 2012). "Emotions involve coordinated changes across experiential, behavioural, and physiological response domains" (Ekman & Davidson, 1994; Dan-Glauser, & Gross, 2013). Emotion rises when an individual face the situation and try to understand its relevance to the goal s/he has to achieve (Lazarus & Folkman, 1991). The positive mood is more optimistic, makes a good emotional bond with others, and is likely to help others (Isen & Levin, 1972; Isen, 1984). However, an individual may decrease negative emotion (Carver e al., 1996), and emotion regulation is a by-product of such action (Carver & Scheier, 1990). "Emotion regulation is central to psychological health, and several emotion-regulation strategies have been identified as beneficial" (Troy & Ford et al., 2017). Regulation of emotions in an attempt to manipulate ourselves and others' emotions (McRae & Gross, 2020). The ability to control emotions is essential for healthy functioning (Werner & Gross, 2009). Emotions is a phenomenon that takes place on several levels and expresses itself over time. (Gross, 2007). Cognitive reappraisal altering one's thoughts about a situation that expresses the emotion(Gross & Thompson, 2007). "Individuals who improve their cognitive reappraisal through training would reap the same benefits as those who naturally reappraise it is necessary to manipulate reappraisal skill and assess subsequent outcomes" (Ford & Mauss et al., 2014). Reappraisal is considered an efficient method for eliminating or amplifying emotions in general (Goldin et al., 2009).

Research on emotional regulation has become an essential aspect of both child and adult in psychological pursuits (Campos, et al., 1989; Gross, 1998). People with the potential of high-level self-control are more popular and experience a more positive outcome (Mischel, Shoda & Peake, 1988). Emotion regulation is all about organizing emotions and managing human behaviour(Elliott, Watson et al., 2003), attention control, meaning development, and expression control (Gross, 1998) . Emotion regulation strategies help individuals cope with the situation(Campos, Saarni, et al., 2007). Emotion regulation is an inseparable part of socialization which depends on the culture and the specific social context of the situation (Karim et al., 2014). The present study explores the importance of emotion regulation to forming an emotional balance during the COVID-19 crisis. The primary objective of this study is to explore the factors that played a leading role in regulating emotion during the COVID-19 crisis.

Theoretical background and hypothesis building

Gender and emotion regulation

Males are more easily enraged than females, even when positive emotions are present. In contrast, females react with more rumination and revealing in similar situations(Min'er & Dejun, 2001). The reappraisal protects male adolescents from the harmful effect of repression than female adolescents (Yeh, Bedford, et al., 2017). There is a clear and

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understandable association between the prevalence of depression and gender, but males are thrice more diagnosed with major depression than female (Hyde et al., 2008). So, with the help of the above studies, the researcher advances the following hypothesis.

H₁: A significant difference between males and females in emotion regulation during the covid-19 crisis.

Age and emotion regulation

Emotion regulation differs by age (Dannii, Carmen & David, 2011). Age and emotional regulation affect all aspects of performance (Silvers et al., 2012). Older people have shown more emotion and mature regulation in altering their feelings in comparison to younger people. (Carstensen et al., 2000; Lawton et al., 1992). Older persons recorded lower contra-hedonic motivation than younger (Livingstone & Isaacowitz., 2021). Occupational well-being is said to increase with age, likely arising from changes in emotion regulation abilities (Susanne & Darya, 2021). So, with the help of the above studies, the researcher advanced the following hypothesis.

H₂: Significant difference has been found between different age groups in emotion regulation during the covid-19 crisis.

Religion and emotion regulation

In religion, emotions are central (Allon, 2021). The people who have been practicing mindfulness are better at recognizing their emotions, have more effective emotional control and generally have a higher quality of life (Brown & Ryan, 2003). It is important to add an emotional regulation in a religious perspective because it highlights the different emotional responses (Gross, 2007). Religion influences a person's emotions for good or bad (Allon, 2021). Religiosity symbolizes varying degrees of participation in the religious culture (Allon, 2021). Religion to be consider as a coping mechanism for making sense of what we call feelings of sorrow, loss, despair, and failure.

H₃: Significant emotional self-regulation differences have been found among different religions during the Covid-19 crisis.

Students, education and emotion regulation

Students use various techniques to control their feelings and make strategies to cope with the different situations (Elizabeth & Allyson, 2015). Successful students manage their cognitive status and behaviour proactively and strategically (Zimmerman, 1986). The analysis of emotions in educational contexts can be associated with academic success (Pekrun & Linnenbrink-Garcia, 2012). Students use the collective regulation in addition to self-control (Järvenoja & Järvelä, 2009).

H₄: Significant difference in emotional self-regulation has been found among students of different educational qualifications during the Covid-19 crisis.

H₅: A significant correlation has been found between age, gender, religion and education.

METHODOLOGY

Participants

Total 207 samples were collected (m 141, f 66) for the study. The research is restricted intermediate to Ph.D students between 17 to 30 years of age, where the mean age is 22.75 years and S.D 2.74. The convenience sampling method was used to collect the samples required for the study (Insu Paek et al., 2021; Mariyam et al., 2020). The data was garnered via online Google form (Divyashri et al., 2020; John Martucci et al., 2020).

Tools

The primary objective of the ER-COVID-19 Scale is to measure emotional regulation based on individual responses to the COVID-19 crisis. Self-prepared questionnaires (21 items) were used to assess emotion regulation. The questionnaires represent the corresponding responses in cognitive, affective, and behavioural situations. As far as the practice of questionnaires and methodology is concerned, everything was based on the standard practice of questionnaires and methods (Anastasi, Anne,1982; Mellenbergh, Gideon,1989). The Likert Scale (5 points) has been applied to collect the participants' responses. The Scale ranges from 1-5 (strongly agree to strongly disagree), with higher scores suggesting greater compliance with the argument. Each item contributes to the global ER-COVID-19 score, which has a theoretical range of 21 to 105. The five-point Likert Scale is more comprehensible to increases the response rate (Babakus & Mangold, 1992; Devlin et al., 1993) and shows improved reliability (Remmers & Ewart, 1941; McKelvie, 1978)

Statistics

The principal component analysis was employed for the standardization of the ER-COVID-19 questionnaires. The study has tested the factor correlation for suitability by tracing statistical significance using Bartlett's test and confirmed the absence of undesirable co-linearity using the determinant factor (see table 3). The suitability of sampling adequacy was checked with the Kaiser-Meyer-Olkin test. The eigenvalue chart and a scree plot have been used to stretch out the factors or constructs. The factors with greater eigenvalues (>1) have chosen. Orthogonal-varimax rotation has been applied. To detect substantial loading on each variable, we used the minimum value of 0.40 (>.30, recommended by Filed, 2009). Parametric statistics like the t-test, ANOVA, and Pearson correlation coefficient have been used to investigate the comparison and interaction between variables. P <0.05 was chosen as the statistical significance standard. The study was carried out by using the statistical software program SPSS 20.0 (Chicago, IL) and jamovi(1.2.27 version)

RESULTS

Table 1: Descriptive statistics of demographic variables

Study variable	Category	M	SD	N	%
Gender	Male	45.10	8.68	141	68.10
	Female	46.65	7.77	66	31.90
Age	17 -22	45.65	7.93	95	45.90
	23-28	45.43	8.83	105	50.70
	29+	47.28	9.37	7	03.40
Religion	Hindu	43.09	7.86	91	44.00
	Muslim	47.35	8.12	91	44.00
	Cristian	47.73	9.01	15	07.20
	Others	49.20	10	10	04.80
Education	Intermediate	38.08	5.83	12	05.80
	Undergraduate	46.40	7.67	72	34.80
	Postgraduate	45.90	8.46	94	45.40
	PhD.	45.72	9.69	29	14.00

Hypotheses testing

Table 2: Hypotheses testing

	Demographic variables and its category	Result	Remark
H₁	Gender: Male, Female	t(205)=-1.232, P=.219	H ₁ not supported at .05 level
H₂	Age group:17-22, 23-28, 29+	F _{2,204} =.160, P=.852	H ₂ not supported at .05 level
H₃	Religion:Hindu, Muslim, Christian, Others	F _{3,203} =5.22, P=.002	H ₃ supported at .01 level
H₄	Education: Intermediate, UG, PG, PHD	F _{3,203} =3.5, P=.015	H ₄ supported at .05 level
H₅	Gender, Age, Religion and Education	r = .811, P < .001	Pearson coefficient showing a significant positive relationship between age and education only

Factor analysis

Table 3: Measurement model comparison of factor analysis

	Items	Determinant of R-matrix	KMO	Bartlett's Test	Communalities	Rotation sums of squared loadings	of of
Initial FA	21	.008	.760	$\chi^2(210)$ =945.06, P≤.000	.45	44.95	
Final FA	15	.031	.760	$\chi^2(105)$ =692.80, P≤.000	.55	54.82	

The initial factor analysis was applied to ER-COVID-19 questionnaires (21st items). The Kaiser-Meyer-Olkin satisfactorily checked the sampling adequacy for the analysis and found KMO= .76 ('good' according to the field, 2009; Kaiser, 1960). The suitability of factor analysis is shown by Bartlett's test of sphericity ($\chi^2 = 945.06$, df- 210, $p \leq 0.000$) (Field, 2013). The initial four-factor retention is accompanied by the total variance of 45.95 % represented respectively by 12.99, 11.89, 10.67 and 9.37%. The eigenvalues of four factors are as, Factor 1= 4.470, Factor 2=1.910, Factor 3= 1.551 and Factor 4=1.509 (Kaiser,1960). The commonality of some items (5,12,18,19,20, and 21) scores found less than .50 and got rejected (Field, 2013). After the initial rejection of six items, the researcher recomputed the principle components analysis with orthogonal rotation (varimax). As the sample size exceeds 200, the scree plot is a valid basis for selecting factors (Field, 2013). The scree plot (see figure 1) shows four significant factors for extraction, one of which is located at the point of inflection (Field, 2013). The factor loading after maximum likelihood Oblique (Varimax) rotation is shown in Table 4, with loadings of >.40 in bold (Field, 2013). The items suggest that factor one (Items 8, 9, 10, 11, 13), Factor two (Items 2,1,3,4), Factor three (Items 7, 6, 17) and Factor four (14, 15, 16). Initial retention of four factors is supported by the total variance of 54.82%, accounted for by 17.54, 14.16, 11.58, and 11.53%, respectively. The four-factors retention meets the (Kaiser's 1960) criterion for retaining factors with an eigenvalue greater than 1(Factor 1= 3.850, Factor 2=1.625, Factor 3= 1.498, Factor 4=1.252). The initial factor analysis and final factor analysis measurement comparison shown that the final factor analysis is closer to the model fit (see table 3). It explored the possibility of finding a new way to achieve the best outcome.

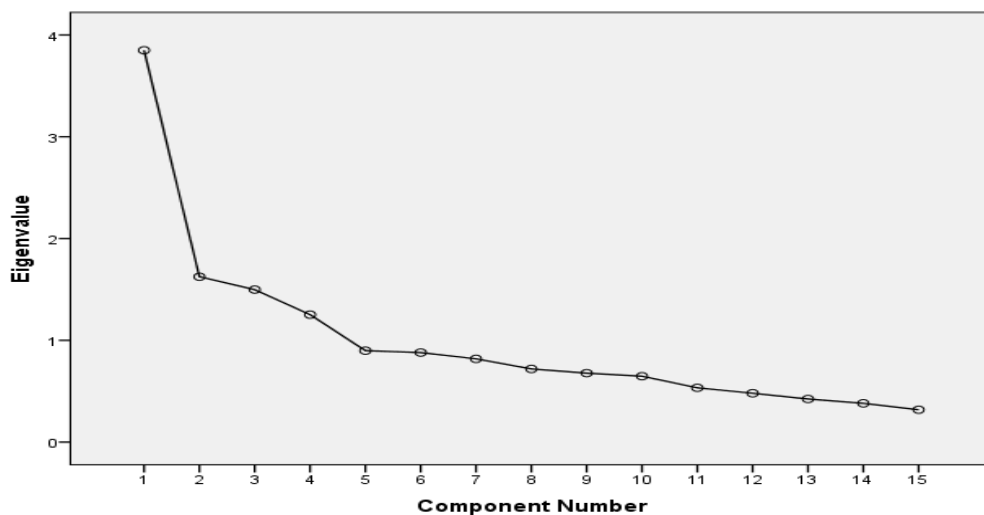
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Table 4: Maximum likelihood estimates of the oblique (Varimax) rotated factor loadings for the ER-COVID-19 Scale

Items	Factor loading				
	1	2	3	4	α
Factor 1(Awareness)					
8 I am aware of what is happening around me.	.783	-.034	.024	.011	.736
9 I have enough knowledge/awareness about the COVID-19 crisis	.742	.096	.225	-.062	.741
10 All the information about covid-19 is helpful to me	.693	.216	.278	.033	.739
11 I know that the situation is very bad because I always accept the reality	.604	.158	.085	.263	.726
13 I take precautions to save myself from covid-19	.551	.349	.043	.179	.740
Factor 2(Belief)					
2 I have faith in myself	.167	.800	.111	-.009	.733
1 I know myself very well	.326	.688	-.073	.065	.737
3 I am happy with my life	-.045	.683	.373	-.078	.728
4 I always follow my own rules	.101	.498	.396	.213	.722
Factor 3(Gratification)					
7 The covid-19 crisis does not affect me at all	.234	.030	.716	-.009	.729
6 I am fine in this lockdown	.309	-.076	.626	-.022	.731
17 If I have a mobile with high-speed internet, then I don't have any issue in lockdown	-.047	.151	.597	.277	.744
Factor 4(Regulation)					
15 Thinking about COVID-19, I get scared and prefer not to do anything	.053	.152	.075	.759	.740
16 When I am stressed, I stop thinking about the COVID-19 crisis	.007	-.185	.137	.702	.755
14 When I am afraid of the situation, I start praying	.133	.081	-.021	.650	.741
Eigenvalues					
	3.85	1.62	1.49	1.25	
% of variance					
	25.66	10.83	9.98	8.34	
A					
	.77	.67	.52	.56	

KMO=.76, Determinant=.031, Bartlett’s test of sphericity $\chi^2 = 692.80$, df-105, $p \leq .000$, Factor loading in bold

Figure 1: Scree plot for the ER-COVID-19 Scale showing the amount of variance accounted for by each factor



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Table 5: Descriptive measures of ER-COVID-19 and its subscales(factors)

Scale	No. of items	Theoretical range	Mean	S. D
Awareness	5	5-25	9.00	2.604
Belief	4	4-20	7.38	2.25
Gratification	3	3-15	8.06	2.46
Strategy	3	3-15	8.64	2.64
ER Scale-15	15	15-75	45.59	8.41

Table 6: The correlation coefficient between items and ER-COVID-19 scores

Item no.	Correlation	Item no.	Correlation	Item no.	Correlation
1	.406*	6	.509*	11	.513*
2	.356*	7	.428*	12	.417*
3	.400*	8	.529*	13	.478*
4	.541*	9	.613*	14	.348*
5	.468*	10	.534*	15	.478*

N=207, *p<0.01 level.

Table 7: The correlation coefficient between study variables, inter-factors (Subscale) and ER-COVID-19 scores

Variables	1	2	3	4	5	6	7	8
1 Gender	1							
2 Age	-.017	1						
3 Religion	-.106	-.085	1					
4 Education	-.075	.811**	-.063	1				
5 Awareness	.081	.015	.123	.047	1			
6 Belief	.207**	-.109	.096	-.064	.402**	1		
7 Gratification	-.017	.093	.184**	.135	.381**	.272**	1	
8 Regulation	-.013	.041	.204*	.083	.195**	.147*	.200**	1
9 ERS-15 score	.086	.007	.240**	.093	.727**	.607**	.678**	.569**

N=207, *p<0.05, **p<0.01(Two tailed)

Reliability analysis

Cronbach's alpha is measured to analyse the internal consistency of the ER-COVID-19 Scale. Internal consistency explored the average inter-item relationship of the Scale. Cronbach's alpha was calculated to determine the internal consistency of the items that comprised the emotion regulation score form a reliable scale (See table 4).

The alpha of the global ER-COVID-19 Scale is .75, means that the scale items have sufficient internal consistency. The internal consistency of the ER-COVID-19 scale for factor-1 $\alpha = .77$, Factor-2 $\alpha = .67$, Factor-3 $\alpha = .52$, Factor-4 $\alpha = .56$. Cortina (1993) revealed that with more than 12 items, alpha could reach and surpass values .70(.65-.80). However, alpha greater than .80 is widely accepted, but .75 is also reasonable in social science (Kline, 1999; Field, 2013).

Validity analysis

Construct validity

Table 6 shown a significant correlation coefficient between all items and the E.R.- COVID-19 scores. Correlation coefficient values between items and ER-COVID-19 scores range

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from .348 to .613 which is significant at the 0.01 level (see table 7). The Pearson correlation coefficient was calculated to determine the relationship between each factor (construct) and the ER-COVID-19 score, which found a substantial relationship at the 0.01 level (see table 7). It means all of the factors (constructs) are bound to the Scale. As a result, the Scale has found a strong construct validity.

Convergent validity and discriminant validity

Table 8: The correlation coefficient between construct(factor) and its items

Construct	Item no.	r	Construct	Item no.	R
Awareness	8	.687**	Gratification	7	.707**
	9	.767**		6	.748**
	10	.807**	17	.691**	
	11	.688**	15	.691**	
	13	.650**	Regulation	16	.790**
Belief	2	.665**	14	.707**	
	1	.718**			
	3	.738**			
	4	.730**			

N=207, ** p<0.01

Table 9: The heterotrait-monotrait ratio of correlation (HTMT)

	Awareness	Belief	Gratification	Regulation
Awareness				
Belief	0.56			
Gratification	0.59	0.42		
Regulation	0.29	0.21	0.36	

HTMT score lesser < .90 represent good discriminant validity (Henseler, 2015)

Table 10: Discriminant validity through Fronell-Larcker Criterion

	Awareness	Belief	Gratification	Regulation
Awareness	.680[^]			
Belief	.402**	.676[^]		
Gratification	.381**	.272	.678[^]	
Regulation	.195**	.147*	.200**	.704[^]

N=207, **p<0.01, *p<0.05 (Two-tailed), [^]The square roots of its AVE

Correlation coefficients described the convergent validity. The study has revealed an association between factors (Construct) and items to be highly significant at the 0.01 level (table 8). It demonstrates a significant relationship between construct and its items that established a convergent validity. "Discriminant validity assessment has become a generally accepted prerequisite for analyzing relationships between latent variables" (Henseler et al., 2015).

The heterotrait-monotrait ratio of correlation (HTMT) and Fronell-Larcker criteria have been analysed to determine the discriminant validity of the ER-COVID-19 Scale. Fornell and Larcker (1981) suggest that "discriminant validity is established a latent variable account for more variance in its associated indicator variables than it shares with other constructs in the same model".Fronell-Larcker criteria compare the square root of the AVE

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(average variance extracted) with the correlation of the latent factors (Hair, Joseph et al., 2014). If the square root of each construct gets a higher value than the correlations with another construct, discriminant validity can be established (Henseler et al., 2015). Table 10 shows that the association of a construct with other constructs is less than its AVE's square root. As a result, the requirements have been met, and the study's discriminant validity has been identified. HTMT ratio measures the correlation of the indicators with the factors or constructs. The methods explained that if the HTMT score is found to be lesser than .90, the discriminant validity could be established (Henseler et al., 2015). Table 9 shows that all HTMT scores are not greater than .90. So, HTMT criteria confirmed a strong discriminant validity.

Artificial neural network analysis

Table 11: RMSE value

Training			Testing		
	N	RMSE	N	RMSE	Total sample
ANN1	184	0.199	22	0.186	206
ANN2	186	0.184	20	0.162	206
ANN3	184	0.204	22	0.191	206
ANN4	187	0.190	19	0.175	206
ANN5	181	0.171	25	0.211	206
ANN6	185	0.220	21	0.198	206
ANN7	183	0.179	23	0.137	206
ANN8	184	0.157	22	0.161	206
ANN9	184	0.283	22	0.159	206
ANN10	175	0.177	31	0.186	206
	Mean	0.196	Mean	0.177	
	SD	0.0352	SD	0.0221	

Table 12: Sensitivity

	GN	AG	RL	ED	AWN	BL	GRT	RGL
ANN1	0.05	0.16	0.1	0.25	0.94	0.72	0.91	1
ANN2	0.07	0.18	0.1	0.24	0.97	0.7	0.94	1
ANN3	0.06	0.32	0.16	0.35	1	0.74	0.93	0.99
ANN4	0.08	0.14	0.14	0.18	1	0.68	0.92	0.94
ANN5	0.04	0.2	0.17	0.23	0.99	0.67	0.88	1
ANN6	0.08	0.08	0.07	0.06	0.87	0.55	0.83	1
ANN7	0.08	0.12	0.11	0.12	1	0.78	0.99	0.98
ANN8	0.15	0.19	0.11	0.23	1	0.74	0.94	0.84
ANN9	0.06	0.35	0.1	0.23	1	0.47	0.59	0.58
ANN10	0.06	0.18	0.11	0.28	0.85	0.66	1	0.98
AI	0.07	0.19	0.12	0.22	0.96	0.67	0.89	0.93
NI (%)	7.29	19.79	12.50	22.91	100	69.78	92.70	96.87

GN: Gender, AG: Age, RL: Religion, ED: Education, AWN: Awareness, BL: Belief, GRT: Gratification, RGL: Regulation, ANN: Artificial neural network, AI: Average importance, NI: Normalized importance

The reason for using ANNs in this study is that they are more resilient to noise, outliers, and limited sample sizes (Leong et al., 2020). The ANN algorithm can effectively handle both

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linear and nonlinear relationships and does not require the presence of a normal distribution (Teo et al., 2015). Multilayer perceptrers and sigmoid active functions have been used for input and hidden layers (Sharma & Sharma, 2019). The training procedure received 90% of the samples, while the testing procedure received the remaining samples to conduct the ANN. (Sim et al., 2014; Tan, Ooi, Leong et al., 2014). To avoid overfitting, we used a tenfold cross-validation method and calculated the root mean square of the errors (RMSE) (Ooi & Tan, 2016). The average root mean square error (RMSE) of the neural network model is very low (0.196 for training data and 0.177 for testing data), suggesting a reasonably accurate prediction (Sim et al., 2014; Tan,Ooi, Leong et al., 2014). As a result, we can confirmed that the model fits properly.

We use sensitivity analysis (Table 12) to calculate the normalized value of these neurons, dividing their relative significance into the maximum value and stating it as a percentage to measure the predictive power of each input neuron. (Karaca et al., 2019). The result indicated that awareness is the most significant predictor, with a normalized significance of 96%. This is accompanied by regulation (93%), gratification (89%), belief (69%), education (22.91%), age (19.79%), religion (12.50%), and gender (7.29 percent).

DISCUSSION

The present study intends to establish a context-specific emotion regulatory measure in COVID-19 crisis. The factor analysis extracted the four factors based on eigenvalues >1 , namely (a) Awareness, (b) Belief, (c) Gratification and (d) Regulation. The factor loading has shown in table 4, and a descriptive measure of the ER-COVID-19 Scale has shown in table 5. The global reliability of the ER-COVID-19 Scale is .75. The reliability of subscales "Awareness" $\alpha=.77$, "Belief" $\alpha=.67$, "Gratification" $\alpha=.52$ and "Regulation" $\alpha=.56$. The third and fourth subscales' reliability is low because it consists of fewer items (three). The low internal consistency with its fewer number of items indicated some potential gap for further research. A significant relationship has been found between each factor (construct) and ER-COVID-19 score at a 0.01 level, which proves a construct validity of the Scale (see table 7). The correlation coefficient between factors (Construct) and its items have been found significant at 0.01 level (table 8). It indicates a good convergence of items into its constructs that explore the study's convergent validity. The Heterotrait-Monotrait ratio of correlation and Fronell-Larcker Criterion method have been used to check the Scale's discriminant validity. The result given by both the ways has proved a good discriminant validity (see table 9 & 10) of the Scale. The result of the correlation coefficient of different demographic variables has shown a mixed result. A meaningful positive relationship has been found between 'age and education, 'Gender and belief', 'Religion and gratification', 'Religion and Regulation', 'Religion and ER-COVID-19 score'. On the other hand, the interrelation of some variables has been found insignificant (see table 7). Further research with different samples could potentially re-examine the study. Though females were vastly underrepresented in the study, it introduces a possible bias. This disparity in female participation may be attributed to females' inadequate responses. Some open-ended research appears to have provided evidence for the cause of male/female inequalities in participation. It also described the sociometric lag between male and female interpersonal relationships.

CONCLUSION

In the last three decades, emotion regulation has been initiated as a growing domain in the field of psychology. In the Indian context, we have a diversified prospect to explore human psychology where the psychological findings have been found very ignorable(!). Most of the time, the emotional health and hygiene of Indian people have been controlled more socially,

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culturally and religiously but less scientifically. India has the potential to boost emotion regulation among citizens in daily life.

The study on emotion regulation in the COVID-19 crisis has explored some fundamental constructs that may help the individual module their emotional state. The four significant constructs (Awareness, Believe, Gratification and Regulation) play an essential role in regulating the individual's emotion during the COVID-19 crisis. The study may help people direct their emotions in a good and healthy way. It may also be used as a policymaking guide to developing an individual's emotional well-being to overcome depression, frustration, and serious crises like tendencies to commit suicide among the young generation. We need to be conscious of our changing emotions to cope with the challenging circumstances and are expected to receive a lot of mixed emotions when dealing with them. We need to plan and prepare to handle stressful events that may arise every day throughout the pandemic.

Further research is needed to explore how awareness, belief, gratification, and regulation help to the strategic concern of an individual's emotions in adverse circumstances in the Indian and global context? Although an adequate sample was chosen for this study, it has been conducted only on a limited number of participants in a single country (India). The study has space for further research on an extensive sample with a diversified population. It explores the potential field for a new researcher to conduct research on other emotion regulation factors or constructs that the present study could not revealed. Does it also raise a question for further investigation by arguing whether it is possible to conduct the study on other types of the pandemic situation like Ebola outbreak, swine flu or plague? Are there similarities or dissimilarities in regulating an individual's emotion during the COVID-19 and everyday emotional crises?

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Conflict of Interest

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