ORIGINAL ARTICLE

Emotional Distress and Coping Strategies in COVID-19 Pandemic across Different Stages of Life: An Eriksonian Perspective

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Abstract

Background: The early part of 2020 saw countries across the world take various measures to mitigate the effects of the coronavirus pandemic and impose restrictions on the movement of people. In a developing economy like India, the effects of a lockdown on the life and livelihood of people are huge, and reports are unequivocal about the psychological impact it is having on the mental health of individuals.

Objectives: This study examined how the imposed lockdown affected the emotional states of individuals across age-groups and the various coping styles adopted to deal with the overwhelming uncertainty, anxiety, and lack of productivity.

Materials and methods: This study was carried out in early 2020, comprising 600 men and women from metropolitan cities in India belonging to the age-group of 20–89 years, hailing from upper or upper-middle income backgrounds with a minimum education level of higher secondary. The tools used were Beck Depression Inventory II, State-Trait Anxiety Inventory (STAI) Form Y, and Coping strategies inventory. Multivariate analysis of variances (MANOVA) was used for statistical computation.

Results: Results indicated that young adults displayed intense depression and anxiety relative to other age-groups. Men had significantly more anxiety and depression across all age-groups. People across different age-groups displayed different coping styles. Problem solving and cognitive restructuring were dominant coping styles in early and middle adulthood. Seeking social support was found to be highest in young adulthood. Expressed emotions and social withdrawal were more prominent coping styles in late adulthood.

Conclusion: The results indicate significant psychological distress in all age-groups during pandemic with young adults being affected the most. Coping strategies differed across different stages of the life cycle. The findings may facilitate the formulation of effective intervention across different age-groups, both during and after the pandemic.

Keywords: Anxiety, Coping styles, Coronavirus disease-2019, Depression, Mental health.

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Introduction

The world witnessed the outbreak of an epidemic caused by an infectious disease called the coronavirus disease-2019. In January 2020, the World Health Organization (WHO) declared COVID-19 a worldwide community alert along with a global health threat, and on March 11, it was declared to be a pandemic.[1] The disease now has individuals infected across all continents.[2] The manifestation of the symptom is similar to flu characterized by fever, cough, and shortness of breath, which in the long term may lead to pneumonia. The pattern of infection reveals that it can be life-threatening, more so to the elderly, individuals with weak immune systems, and those having preexisting chronic medical conditions like diabetes and hypertension.[3]

The pandemic has taken our lives by storm. Owing to its contagious nature, social distancing and lockdown were considered as some of the measures for prevention and control of the disease in India. While everyday activities such as leaving one's home remain suspended during the lockdown, the sense of normality remains suspended too. The impending threat to peoples' lives is affecting not only their physical but also emotional well-being.[4]

Two previous coronavirus outbreaks had been reported in the years 2002 and 2012 – the ones caused by severe acute respiratory syndrome associated coronavirus (SARS-CoV) and Middle East Respiratory Syndrome associated coronavirus (MERS-CoV), respectively.[5] Both the epidemics resulted in drastic psychological consequences.[6] There was distress associated with fear of injection, separation from family, concern for loved ones, stress related to the job at hand, quarantine, perceived stigma, and social isolation.[7] This led to an assumption that epidemics disturb the psychological

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well-being of the community as a whole. The present scenario is more alarming than the previous outbreaks, both in terms of morbidity and mortality. The current study, therefore, proposes to examine the associated psychological distress and coping strategies used to mitigate stress across different age-groups.

Under the threat of potential disease, people have tendencies to engage in avoidant behaviors (e.g., avoid contact with people who have pneumonia-like symptoms) and adhere to social norms rigidly (e.g., conformity).[8] According to the behavioral immune system (BIS) theory,[9] both these apparently adaptive behaviors can at times lead to the development of negative emotions (e.g., aversion, anxiety, etc.) and consequently, unfavorable cognitive assessment for self-protection.[10]

Coping through these negative emotions is crucial to the well-being of each individual and those around them. The transactional theory of coping views coping as an ever-evolving mechanism that responds to contextual cues to manage demands received internally and externally.[11] Each individual has a different coping style that they adopt in times of stress, uncertainty, and crisis, whether it is avoidance, rationalizing, problem-solving, distraction, social support, or social isolation. The emotional reactions to the threat, uncertainty, and suspension of normalcy during the lockdown were imposed to minimize the spread of the virus are diverse, and so are the coping strategies adopted by individuals in their struggle to extenuate emotional distress along with the adjustment to the "new normal" living conditions.

The present study attempts to identify effects of ongoing lockdown on the mental health of individuals across three different ages: Group I = 20–39 years (early adulthood); Group II = 40–59 years (middle adulthood); and Group III = 60 years above (late adulthood). The three age-groups have been taken keeping Erik Erikson's stages of psychosocial development in mind.[12] The first two stages involve the most productive stages of one's life and focus around the discovery and resolution of crucial crises such as finding one's identity, contributing to society, and evaluation of accomplishments. Lockdown is assumed to cause hindrance in personal and professional growth, leading to increased distress in these age-groups. Late adulthood is the period when one's productivity is slowed down, and one tends to look back into the past. If life's goals appear to have been achieved, then a sense of contentment and integrity develops, failure of which leads to despair. A threat to humanity by a tiny virus in the era of major scientific and technological advances may lead one to ponder about the futility of individual and collective human endeavor. Further, it has been seen that individuals above the age of 60 have a higher fatality rate in the face of COVID-19, making them more vulnerable to psychological distress.

The main goals of the existing research are as follows:

- Assess and compare the depressive features across three age-groups in the pandemic.
- Assess and compare the anxiety features across three age-groups in the pandemic.
- Assess and compare the coping strategies used across three age-groups to deal with the pandemic.

Materials and Methods

Study Design

It is a cross-sectional comparative study. Multistage random sampling technique was adopted for the selection of participants. The entire study area of Kolkata city was divided into clusters following zone division according to Kolkata Municipal Corporation. A list of housing societies and complexes from each zone was prepared. The Housing Management committee was contacted, and research invitations were sent to residents. Participants willing to participate were requested to send the confirmation by mail. Lists of consented participants from each zone were made, and participants were then randomly selected through random number generation for each age-group. The study was conducted online using google forms due to pandemic restrictions.

Participants

Six hundred individuals residing in Kolkata within the age-group of 20–89 years selected through a multistage random sampling strategy participated in the study. The sample size was determined following sample size estimation calculation. We chose participants from these categories: early adulthood (18–39 years), middle adulthood (40–59 years), and late adulthood (60 and above). There were 200 participants in each group, with 100 males and 100 females, respectively. All the participants came from upper-middle- or upper-income groups, determined through Kuppuswamy's socioeconomic status scale, with minimum of higher secondary level of education. All participants were required to be fluent in English so that they could be assessed using validated tools in the English language and belonged to urban residence. Three groups were matched in terms of education, residence, and socioeconomic status. Individuals suffering from any terminal illness, long-term medical illness, and any diagnosis of past psychological disorder were exempted from participating in the study. Medical history was taken through an information sheet provided to the client in the google form.

Tools

An appropriate consent form was prepared to seek consent from the research group to engage in this study. A detailed information schedule was designed to collect demographic details regarding name, age, sex, address, marital status, area, occupation, qualification, personal and family income, family details, medical history, and psychiatric history. Besides, the following scales were administered individually to each participant.

Kuppuswamy socioeconomic status scale[13] is an important scale to assess the socioeconomic status of individuals or families. The Kuppuswamy SES has three measures, and each of them has subgroups which are each allotted score. The total score of Kuppuswamy SES ranges from 3 to 29, and classifies families into five groups, "upper class, upper-middle class, lower-middle class, upper-lower, and lower socioeconomic class."

Beck Depression Inventory-II by Dr Aaron T Beck, is a 21-item self-rating questionnaire to measure the severity of subjective distress. It documents different criteria for depression in the last 14 days. Scale scores range from 0 to 63, with higher scores reflecting more symptoms categorizing the client as having mild, moderate, and severe distress.[14]

State-Trait Anxiety Inventory Form consists of two 20-item subscales measuring state and trait anxiety.[15] In the current study, STAI state was used to measure the anxiety of the participants in response to pandemic outbreak. The total score ranges from 20 to 80 points, with higher scores indicating more symptoms in terms of anxiety.

Coping strategies inventory[16] is a 72-item self-rated questionnaire designed to assess coping techniques in reaction to life stressors. There are eight primary scales namely problem solving, cognitive restructuring, social support, express emotions, problem avoidance, wishful thinking, and social withdrawal.

Procedure

Ethics approval was obtained from the Ethical Committee of Caring Minds which is Kolkata-based psychological wellness center. The participants for the study were recruited from the society through an online platform. They were requested to upload their scanned identity proof in the Google form to prevent them from faking the data. All data were collected through Google amidst the national lockdown period ranging from March 2020 to April 2020. Obtained responses were then tabulated and subjected to statistical analysis using SPSS 21.

Statistical Analysis

The data were statistically analyzed. The homogeneity of variances was checked using Levene's test. Data were found to be homogenous, and thus parametric statistics were done. Multivariate analysis of variances was done to see a significant differences in variables between the three age-groups. All the findings were interpreted at 95% confidence interval (Tables 1 and 2).

Results

Results of multivariate analysis for the first set with depression and state anxiety as dependent variables (DV) using an alpha level of 0.05, we see the significant effect of age (Wilk's $\Lambda = 0.69$, $F = 39.87$, $p = 0.001$) and gender (Wilk's $\Lambda = 0.719$, $F = 4.81$, $p = 0.003$). The values indicate that there is no significant interaction effect of age and gender (Wilk's $\Lambda = 0.984$, $F = 1.657$, $p = 0.193$). From the results, it has been seen that individuals in early adulthood and males have significantly higher levels of depression and anxiety.

Results of multivariate analysis for the second set with coping strategies as DVs using an alpha level of 0.05, we see a significant effect of age (Wilk's $\Lambda = 0.685$, $F = 20.121$, $p = 0.002$) but not of gender (Wilk's $\Lambda = .952$, $F = 2.306$, $p = 0.075$). The values indicate that there is no significant interaction effect of age and gender (Wilk's $\Lambda = 0.956$, $F = 1.853$, $p = 0.104$).

Univariate analysis revealed that there was a significant difference among males and females for depression F (7, 96) = 7.244, $p = 0.005$ and anxiety F (7, 96) = 5.965, $p = 0.005$. Males have significantly higher levels of depression and anxiety as compared to females.

Univariate analysis further revealed that there was a difference among gender for depression F (7, 96) = 76.432, $p = 0.001$; anxiety F (7,96) = 24.188, $p = 0.010$; problem-solving F (7,96) = 37.782, $p = 0.001$; social support F (7,96) = 66.830, $p = 0.004$; expressed emotion F (7,96) = 14.788, $p = 0.001$; and social withdrawal F (7,96) = 35.164, $p = 0.001$. From the results, it has been seen that individuals in early adulthood have significantly high levels of depression and anxiety. In terms of coping strategies, individuals belonging to early and middle adulthood have significantly higher use of problem-solving and cognitive restructuring; individuals in early adulthood have higher use of social support, whereas individuals in late adulthood have significantly higher use of expressed emotion and social withdrawal.

Table 1: Sociodemographic information (Total $N = 600$)

Variables	*Early adulthood (N = 200)*	*Middle adulthood (N = 200)*	*Late adulthood (N = 200)*
Mean age			
Male	28.89	49.45	70.12
Female	28.12	48.78	68.74
Nature of population	Urban	Urban	Urban
Mean years of education	19.74 years	17.12 years	15.12 years
Family type			
Nuclear	120 (60%)	60 (30%)	105 (42.5%)
Joint	80 (40%)	120 (60%)	95 (47.5%)
Extended	0 (0%)	20 (10%)	0 (0%)
Religion			
Hindu	102 (51%)	110 (55%)	106 (53%)
Muslim	98 (49%)	90 (45%)	94 (47%)
Marital status			
Unmarried	106 (53%)	25 (12.5%)	10 (5%)
Married	74 (37%)	150 (75%)	170 (85%)
Divorced	20 (10%)	25 (12.5%)	20 (10%)

Table 2: Showing means and standard deviations for all the variables amongst 600 participants across all age-groups along with ANOVA (F) values

	Early adulthood (N = 200)		*Middle adulthood (N = 200)*		*Late adulthood (N = 200)*			
Dependent variables	*Male (N = 100)*	*Female (N = 100)*	*Male (N = 100)*	*Female (N = 100)*	*Male (N = 100)*	*Female (N = 100)*	*F*	*Sig*
Depression (BDI)	15.37 (3.79)	10.25 (3.15)	9.87 (3.43)	4.12 (2.53)	8.43 (3.28)	5.09 (2.89)	76.432	0.001
Anxiety (STAI)	45.26 (4.44)	41.78 (5.12)	40.06 (3.39)	33.67 (4.38)	38.28 (3.12)	32.49 (3.86)	24.188	0.010
Problem-solving	38.32 (3.52)	37.21 (3.43)	40.12 (4.94)	38.32 (4.07)	28.13 (2.18)	25.14 (3.14)	37.782	0.001
Cognitive restructuring	21.75 (5.95)	23.83 (4.63)	34.31 (5.31)	32.19 (4.45)	27.12 (3.12)	28.43 (3.95)	7.231	0.324
Social support	37.56 (5.13)	45.44 (4.56)	27.67 (5.79)	28.51 (5.63)	23.44 (3.12)	21.13 (4.47)	66.830	0.004
Expressed emotion	17.56 (3.13)	20.44 (4.56)	25.67 (5.79)	27.33 (4.63)	28.69 (3.12)	34.13 (4.47)	14.788	0.001
Problem avoidance	35.35 (4.4)	38.96 (5.74)	35.63 (7.55)	38.67 (5.77)	35.32 (4.23)	36.12 (5.09)	12.124	0.324
Wishful thinking	22.35 (4.65)	24.02 (2.77)	23.83 (4.09)	26.54 (3.7)	27.12 (4.12)	28.53 (3.89)	16.312	0.210
Self-criticism	22.83 (5.06)	25.12 (4.51)	22.58 (5.22)	25.37 (4.16)	24.74 (3.13)	21.58 (4.10)	12.325	0.214
Social withdrawal	17.32 (2.58)	21.45 (3.15)	27.12 (3.74)	26.58 (4.11)	34.81 (4.03)	30.13 (3.72)	35.164	0.001

Discussion

The 2019–2020 coronavirus pandemic is assumed to lead to adverse psychological consequences along with damage in physical health if not dealt with effectively. The current study, therefore, attempts to examine the emotional distress associated with this pandemic across all age-groups. We found depression and anxiety levels to be the highest in early adulthood, that is 20–39 years of age. This is the group that has the highest level of productivity, with most of the participants in this age-group being students or working professionals. The sudden change caused by the countrywide lockdown of movement and interaction has led to a partial or complete standstill of the goals and plans that individuals belonging to this age-group had. For students, education has taken a backseat and for working professionals, the crashing economy is a huge stressor. These results are concordant with a survey conducted in China by Jianyin Qui[17] and colleagues, who found the young adult group (18–30 years) were having higher levels of psychological distress than other age-groups. Further exposure to information and news from all around the world about rising number of active cases, increasing death tolls and effects of COVID-19 on people from all walks of life, which is widely available to the young adults via online platform is also a possible cause for high levels of anxiety and depression. Further, it has been found that males are having higher anxiety and depression as compared to females. According to the general strain theory,[18] men are more conscious about monetary and explicit achievements, whereas women are preoccupied with interpersonal relations. During pandemic, there is a significant loss in the economy, leading to increased depression and anxiety among males. Besides, in most Indian families' men are often the main earning members, irrespective of social and educational status. They consider the economic burden of running a household to be their primary responsibility as compared to their female counterparts.

In terms of coping strategies, it has been found that use of problem-solving and cognitive structuring is highest during middle adulthood, whereas seeking social support is highest in early adulthood. Whereas, during late adulthood, individuals have significantly higher use of expressed emotion and social withdrawal. As illustrated by Erikson, individuals undergo multiple stages of change as they age. Younger adults seek for intimate partners and pursue their careers. It is, therefore, natural that they will turn to friends and partners for support in a time of crisis. During middle age, individuals focus on balancing their personal and professional life. Older adults tend to introspect their life span and try to integrate their ego.[19] Solution-focused coping and mental reframing are ways to solve a problem. Lower use of such coping mechanisms in aged individuals can be attributed to increased health concerns and declining coping techniques with increasing physical vulnerabilities.[20] Further, studies suggest that older adults cope with a stressful situations by accepting them and venting them out leading to increased expressed emotion.[21] Further, older adults tend to have less access to social networking sites leading to decreased social interaction during the lockdown. They also are prone to use more passive coping,[22] leading to increased social withdrawal, as indicated in the study.

The study does have certain limitations. Only educated urban populations having internet access were included in the current study. Data have been collected in India during the period of national lockdown and imposed social distancing. Thus, we had to rely on social networking solely for data collection. Self-reporting inventories have been used, which may be led to social desirability and faking.

The results thus indicate that individuals who are victims of this destabilizing condition may experience increased psychological distress across all age-groups, and the symptoms may become clinically significant. Thus, the study would assist the mental health professionals in understanding the psychological distress associated with pandemic across all age-groups, facilitating the formulation of effective preventive treatment. Psychoeducational campaigns are ongoing through trained professionals across the country. The findings of the study further give insight into effective coping strategies that can combat stress across all age-groups. The crisis intervention for pandemic could focus on strengthening coping resources to contribute to effective recovery and reduction in psychological trauma.

Conclusion

The present study attempts to contribute in the formulation of effective crisis intervention strategies in the wake of a pandemic. The essential conclusion of this research is that a strong correlation exists between positive mental health and adaptive coping strategies and that people belonging to different age-groups have varying needs and resources. Psychological distress is inevitable in a face of pandemic; however, effective and insightful coping strategies like problem-solving, cognitive restructuring, and social support can combat stress across all age-groups.

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