Is age just a number: Exploring fear, anxiety, and coping in individuals during COVID-19

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ABSTRACT

Introduction: The current pandemic coronavirus (COVID-19) is a novel disease with no standardized course of treatment and cure. This novelty, origin, and dispersion of COVID-19 have been reported to cause chaos, anxiety, and fear among the general population. Aim: The present study aimed to explore the correlation between different age groups, in relation to their general coping strategies, fear, and anxiety due to COVID-19. Methodology: The research study employed a total sample of 135 participants. The sample was divided into four age groups: 12–18, 19–25, 26–55, and 56–85. Participants were selected through convenience sampling. General coping strategies employed by these participants were assessed using a brief COPE scale, the COVID-19 fear scale was used to assess fear, and coronavirus anxiety scale was used to screen anxiety. Results: Our results indicated that age has a negative correlation with adaptive coping and positive correlation with problem-focused coping, emotion-focused coping, and fear of COVID-19. The most used coping strategy among the age groups 12–18 and 19–25 age group was adaptive coping; for the 26–55 age group, it was problem-focused coping; and for the age group 56–85, emotion-focused coping was used the most. Conclusion: The findings of the current research could help to make the intervention procedure tailor-made for different age groups, thereby ensuring adherence and relatability to the precautionary directions.

Keywords: Age, anxiety, coping, COVID-19, fear

The current pandemic coronavirus (COVID-19) being a novel disease with no standardized course of treatment and cure became a concern of national and international emergence as it spreads rapidly on a global scale after being first identified in Wuhan, China. In India alone, more than 5 lakh lives have been affected; of which 15,000 people have lost their lives to the same. This novelty, origin, and dispersion of COVID-19 have been reported to cause chaos, anxiety, and fear among the general population.

The level to which one tolerates uncertainty is a trait that influences how that individual manages stressful situations. These skills become of eminent importance when dealing with any novel situation and are understood as effective coping. However, when an individual is unable to manage or cope effectively with these environmental variables, it could lead to anxiety, fear, or could have other psychological manifestations. Fear is considered to be an adaptive reaction that works toward employing energy to deal with potential threats. However, when not regulated corresponding to the actual threat, it can turn out to be maladaptive. In a pandemic, fear intensifies anxiety in healthy individuals and worsens the symptoms of those with underlying psychiatric disorders.

In relation to COVID-19, all populations are at risk. However, research findings have established that the most at risk are the elderly, especially those with underlying diseases such as hypertension, diabetes, or cardiovascular diseases and the least affected are children between 10 and 19 years. An Indian research has also stated that people...
among 15–35 years felt more depressive, whereas people of 21–25 years of age experienced more stress and anxiety during the lockdown phase.\textsuperscript{[8]} Similar findings have been reported during the SARS epidemic which revealed that people aged <50 years have better coping skills for health crises than people who are more than 60 years of age.\textsuperscript{[9]} Therefore, it is evident that age plays an important role in determining how a pandemic affects people psychologically.

With this novel situation in hand, there have been no studies in the past that measure COVID-19-related fear and anxiety and people’s general coping strategies. Hence, the need of the current study becomes very important, especially in the Indian scenario. The research aims to understand these variables by following the trend among various age groups and observing the difference among different age groups in fear, anxiety, and coping from the exposure to COVID-19.

**Aim**

The main objective of the present study was to understand the fear of COVID-19, anxiety of COVID-19, and the general coping styles of individuals in different age groups among participants of the present study. Thus, the present study aimed to explore the relationship between age, fear, anxiety, and coping strategies among individuals due to COVID-19.

**METHODOLOGY**

The research study employed a total sample of 135 participants, of which 74 were female and 61 were male. The sample included participants of four age groups: 12–18, 19–25, 26–55, and 56–85. The sample was selected through convenience and purposive sampling wherein a Google Form was sent to the participants through the use of Google link over mail and messages. The inclusion criteria for the study included participants in the given age ranges, who gave their consent, were not COVID-19 positive and had no history of traumatic brain injury. With respect to ethical considerations, consent was sought from the participants before the study. Since the research did not involve any medical provisions or clinical intervention, consultation from institutional ethical committee was not sought. The study employed descriptive statistics, correlations analysis, and post hoc analysis using a licensed version of SPSS-20 (IBM SPSS, Armonk, New York, USA).

**Tools used**

1. Sociodemographic profile: General information such as age, sex, level of education, and health conditions were asked from the participants
2. The Fear of COVID-19 Scale\textsuperscript{[10]} The Fear of COVID-19 Scale, a seven-item scale, is reliable \((r = 0.86)\) and valid in assessing fear of COVID-19 among the general population. The participants use a five-item Likert-type scale. Answers range from 1 (strongly disagree) to 5 (strongly agree). The minimum score for each question is 1 and the maximum is 5. A total score is calculated by adding the scores of each item (7–35). The higher the score, the greater the fear of the novel coronavirus
3. Coronavirus Anxiety Scale\textsuperscript{[11]} This five-item scale, which was based on 775 adults with anxiety over the coronavirus, demonstrated solid reliability and validity. The answers range from 0 (not at all) to 4 (nearly every day). The scale results in 90% sensitivity and specificity of 85% with a cutoff score of 9
4. The Brief-COPE Scale\textsuperscript{[12]} The Brief-COPE consists of 28 items on a scale of 1 (I usually don’t do this at all) to 4 (I usually do this a lot). The items with the highest score indicate greater use of that coping strategy. The items measured are self-distraction, denial, active coping, substance use, use of emotional support, use of instrumental support, behavioral disengagement, venting, positive framing, planning, humor, acceptance, religion, and self-blame. Each item has two questions and all meet or exceed the internal consistency of 0.50.

**RESULTS**

The study had 135 participants aged between 12 and 85 years \((M = 37.59, \text{standard deviation} = 20.46, \text{male} = 61, \text{female} = 74)\) recruited among four age groups: 12–18 \((n = 36, \text{male} = 17, \text{female} = 19)\), 19–25 \((n = 30, \text{Male} = 14, \text{Female} = 16)\), 26–55 \((n = 39, \text{male} = 15, \text{female} = 24)\), and 56–85 \((n = 30, \text{male} = 30, \text{female} = 15)\). The analysis found that all the variables were normally distributed. The summary of all the participants is given in Table 1.

The results in the present study indicated that age has a significant negative correlation with adaptive coping \((r = -0.334, P < 0.05)\); acceptance and humor employed as major strategies of coping mechanisms for resolving issues), which indicated that with an increase in age, there is a decrease in the use of mentioned adaptive coping strategies employed for solving problems.

Result findings suggested that age has a positive significant correlation with problem-focused coping \((r = 0.204, P < 0.05)\); which includes strategies such as active coping, planning, and use of instrumental support) and emotion-focused coping \((r = 0.277, P < 0.05)\); which includes use of emotional support, positive reframing, and religion). The findings thus signify that with an increase in age, individuals use more of problem-focused and...
emotion-focused coping strategies to resolve or solve problems.

Further analysis of fear with age showed that fear was found to have a significant positive correlation with age ($r = 0.223$, $P < 0.05$). It reflected that with an increase in age, the fear associated with COVID-19 also increased. However, the correlation between age and anxiety associated with COVID-19 was found to be insignificant.

Result findings indicated significant positive correlations between coping styles and disease (COVID-19)-related fear and anxiety. Maladaptive coping (which includes strategies such as denial, venting, self-distraction, self-blame, substance use, and behavioral disengagement) has a significant positive relationship with fear ($r = 0.421$, $P < 0.05$) and anxiety scores ($r = 0.510$, $P < 0.05$) which indicated that with an increase in employment of maladaptive coping, the fear and anxiety also increase. Similar results are found with problem-focused and emotion-focused coping which has a significant positive correlation with anxiety and fear.

The analysis showed a significant positive correlation between fear and anxiety ($r = 0.595$, $P < 0.05$) which reflects that with an increase in COVID-19-related anxiety, there is an increase in COVID-19-related fear. The above-stated results are tabulated in Table 2.

As shown in Table 3, post hoc MANOVA analysis showed that there is a statistically significant difference between 12–18 age group and 26–55 ($M_{diff} = 0.415$, $P < 0.05$) age group as well as with 56–85 ($M_{diff} = 0.529$, $P < 0.05$) age group with respect to using the adaptive coping style. Similarly, there was a statistically significant difference between the 12–18 age group and 26–55 ($M_{diff} = −0.516$, $P < 0.05$) age group with respect to problem-focused coping.

With respect to emotion-focused coping, there was a statistically significant difference between the age groups of 12–18 and 55–85 ($M_{diff} = −0.479$, $P < 0.05$). Finally, with respect to fear, there was a statistically significant difference with respect to 12–18, 19–25 ($M_{diff} = −4.194$, $P < 0.05$), and 55–85 ($M_{diff} = −3.894$, $P < 0.05$) age groups.

Moreover, to enhance our understanding of whether the present health condition of individuals and gender had any correlation with coping, fear, and anxiety, additional analysis was conducted. The results did not show any significant correlation to the health condition of participants; however, post hoc analysis reflected that there was a significant effect of gender on fear of COVID-19 ($M_{diff} = 2.311$, $P < 0.05$).

Graph 1 shows a significant gender difference with respect to fear associated with COVID-19. It implied that males experience more fear from coronavirus than females irrespective of their age.

**DISCUSSION**

The results of our research added to the previous findings which have shown that age differences exist with respect to employment of different coping styles.[13–15] However, our research findings have helped us understand closely how individuals at different ages and stages of life employ different coping skills. In our research, we found that individuals in the age groups of 12–18 and 19–55 use

### Table 1: Sociodemographics of the participants

| Variables          | n (%) | Mean | SD  |
|--------------------|-------|------|-----|
| Age                |       |      |     |
| 12–18              | 125   | 37.59| 20.46|
| 18–25              | 36 (23.1) | 16.72 | 0.65|
| 26–55              | 39 (25) | 44.79 | 8.28|
| 55–85              | 30 (19.2) | 67.8 | 8.25|
| Gender             |       |      |     |
| Male               | 61 (39.1) | 37.85 | 22.14|
| Female             | 74 (47.4) | 37.38 | 19.11|
| Education          |       |      |     |
| Below 10th grade   | 5 (3.2) |      |     |
| 10th–12th grade    | 47 (26.3) |      |     |
| Graduation         | 47 (30.1) |      |     |
| Postgraduation     | 42 (26.9) |      |     |
| Health             |       |      |     |
| Absent             | 106 (67.9) |      |     |
| Present            | 29 (18.6) |      |     |

SD: Standard deviation

### Table 2: Correlational analysis between variables

| Variables | Mean | SD | A | AC | MC | PC | EC | Ax | F |
|-----------|------|----|---|----|----|----|----|----|---|
| A         | 2.47 | 1.11| 1 | −0.334$^*$ | −0.005 | 0.204$^*$ | 0.277$^*$ | 0.120 | 0.223$^*$ |
| AC        | 2.43 | 0.88 | −0.334 | 1 | 0.283$^*$ | 0.242$^*$ | 0.208$^*$ | 0.015 | −0.119 |
| MC        | 1.56 | 0.42 | −0.005 | 0.283$^*$ | 1 | 0.477$^*$ | 0.454$^*$ | 0.510$^*$ | 0.212$^*$ |
| PC        | 2.29 | 0.74 | 0.204$^*$ | 0.242$^*$ | 0.477$^*$ | 1 | 0.698$^*$ | 0.305$^*$ | 0.395$^*$ |
| EC        | 2.25 | 0.72 | 0.277$^*$ | 0.208$^*$ | 0.454$^*$ | 0.688$^*$ | 1 | 0.261$^*$ | 0.379$^*$ |
| Ax        | 1.53 | 2.54 | 0.120 | −0.015 | 0.510$^*$ | 0.305$^*$ | 0.261$^*$ | 1 | 0.595$^*$ |
| F         | 16.50 | 5.56 | 0.223$^*$ | −0.119 | 0.421$^*$ | 0.395$^*$ | 0.379$^*$ | 0.595$^*$ | 1 |

*P<0.05. A – Age; AC – Adaptive coping; MC – Maladaptive coping; PC – Problem-focused coping; EC – Emotion-focused coping; Ax – Anxiety; F – Fear; SD – Standard deviation
adaptive coping strategy the most at the time of crisis; adaptive coping includes acceptance of the situation and knowing it is real as well as using humor to deal with the situation. This could be supplemented by additional research finding that there was a negative correlation found between age and adaptive coping styles, which indicated as age increases, the employment of adaptive coping decreases. This could be because young adults typically invest more to know about the condition, treatment strategies, and prognosis that incite a fighting spirit within them. Apart from this, the younger generation has a greater need to connect with other people and that is only possible with a positive attitude and understanding of the crisis.[16]

Our findings indicate that the most commonly used coping strategy in the middle-aged group (26–55 years) is problem-focused coping which includes active coping, planning, and seeking instrumental support. This could be supported by the positive correlation between age and problem-focused coping implying that with age, people use more problem-focused strategies. This could be explained by the “energy conservation model” of change in coping strategies with age which states that young people have an abundance of energy, but they lack experience, at the same time, as the age increases, people apply more anticipatory strategies and deal with the situation efficiently.[17] People in the middle age have more confidence and generativity skills because of which their way of coping is aimed at solving the problem, using logical analysis or direct action.[18]

In the older generation (56–85 age), the most commonly used coping strategy was emotional-focused coping which includes the use of emotional support, positive reframing, and religion as the coping strategies. This could be supplemented by the positive correlation between age and emotion-focused coping which implies that with age, the use of emotion-coping strategies also increases. For instance, a study done in 2015 revealed that significantly a greater number of older adults used emotion-focused coping as compared to middle-aged adults.[19] This could be explained through the socioemotional selectivity theory which states that as people tend to reach their end years, their motivation starts shifting from the pursuit of knowing about the crisis and toward reaching their social goals and maximizing their emotional well-being. Hence, older people employ more strategies that are more focused on emotional goals.[13]

In addition, our findings also indicate a significant positive correlation between age and fear of COVID-19 which implies that fear associated with COVID-19 was found to be higher as age increased. This could be because the severity and fatality of COVID-19 have been found to be higher in the elderly with compromised immunity and already existing physical conditions, all of which can put added risk to older adults.[20] The uncertainty and fear of the pandemic would have a higher influence on the minds of the elderly as they are aware of their vulnerability. Due to certain knowledge limitations and sensory deficits, they may not be aware of the latest updates about COVID-19 which makes them more susceptible to misinformation and rumors.[21] It was also found that there was a significant gender difference with respect to fear of COVID-19, i.e., males experience more fear from COVID-19 than females. This could be because in our society, it is more common for men to take the role of the provider of the family. In times like this, there are various stressors such as financial crises and employment downsizing that can cause fear and uncertainty in the men of our society.

**CONCLUSION**

In this study, fear, anxiety, and general coping styles in response to COVID-19 among different age groups have been analyzed. Since there were no past studies done on this subject, the need of the current study is crucial. The findings of the current research could help to make the intervention procedure tailor made for different age groups. It would also help the policymakers or health-care workers to develop measures or policies based on the attitude of different age groups and thus ensuring more reliability and adherence to precautionary measures.
However, there are a few limitations in the study. This study was done with only 135 participants; future studies can increase the sample size so that the generalizability of the research findings is more absolute. Apart from that, limited sample size in both size and technique can lead to random error and selection bias. Moreover, the study did not take into consideration the difference in fear, anxiety, and coping strategies based on geographical location. It is possible that people living in highly affected areas exhibit more fear and anxiety. Future research should also focus on studying different variables such as well-being and health anxiety in response to COVID-19.

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Conflicts of interest
There are no conflicts of interest.

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