Original Research Article

Anxiety and panic buying of population of India during COVID-19: the mediating role of adjustment

Ritu Modi¹, Arun Tipandjan², Laxmi D. Mishra³, Chhavi Gupta¹*, Devi R. Nithiya⁴

¹Department of Psychology, University of Allahabad, Allahabad, Uttar Pradesh, India
²International Centre for Psychological Counselling and Social Research, Puducherry, India
³School of Education, VSSD PG College, Uttar Pradesh, India
⁴Department of Physiology, Mahatma Gandhi Medical College and Research Institute, Sri Balaji Vidyapeeth, Puducherry, India

Received: 04 May 2021
Accepted: 04 June 2021

*Correspondence:
Chhavi Gupta,
E-mail: chhavigupta@allduniv.ac.in

ABSTRACT

Background: The aim of the study was to study the relationship between coronavirus anxiety, panic buying, work and social adjustment. It also examines how adjustment mediates the relationship between coronavirus anxiety and panic buying.

Methods: The study's total sample size was 450 participants aged 21-76 years. Both genders were equally represented in the sample, with 225 males and 225 females. An incidental sampling technique was adopted for data collection. Data was collected using a Google form survey from participants who consented to participate in the research from various Uttar Pradesh, India cities. The socio-demographic details and corona anxiety, panic buying and work and social adjustment related responses were recorded.

Results: The results indicated that coronavirus anxiety, work and social adjustment, and panic buying are significantly correlated with each other. Results showed that coronavirus anxiety and work and social adjustment would significantly variance in panic buying scores. It was also found that work and social adjustment mediated the relationship between coronavirus anxiety and panic buying.

Conclusions: It was evident from the results that panic buying results from fear and negative emotions. This demonstrates the importance of adjustment training to cope with sudden or future uncertainties in a better manner. This could help alleviate the wave of anxiety and panic, leading to better emotional well-being and adjustment to unexpected and adverse circumstances.

Keywords: COVID-19, Pandemic, Coronavirus anxiety, Panic buying, Work and social adjustment, India

INTRODUCTION

Later christened as COVID-19, coronavirus disease was first detected in Wuhan, China, towards the last quarter of 2019. It then spread quickly across the globe in January 2020, and by 11 March 2020, it was officially declared a pandemic by the WHO. It has affected 213 countries and territories around the world. This disease is caused by severe acute respiratory syndrome coronavirus-2.¹ The first case of COVID-19 in India was reported on 30 Jan 2020.² In UP, the first positive case of COVID-19 was confirmed on 4 March 2020, in Ghaziabad.

COVID-19 global health pandemic has affected every person's life, like forcing isolation, uncertainty, anxiety, anger, irritability, sadness, sleeplessness, and hopelessness. To further complicate the situation, these factors were coupled with the economic meltdown and recession, causing substantial psychological distress. The COVID-19 pandemic threatens human society, both in terms of economic distress and its intangible
emotional strain. More than one-third of the world's population has been under lockdown during different periods since the beginning of this disease, with their movements being severely restricted by the governments. United Nations warned that the coronavirus pandemic "has the seeds of a major mental health crisis".

Uttar Pradesh, being one of India's most populous states and having a culmination of different cultures, castes and religions, serves as an ideal location to study the impacts of COVID-19 as it represents the mini version of the entire nation. A majority of the migrant workers in different parts of India are from UP, and they were the worst affected group during this crisis. They either got stuck at various places without work or had to return to their home state. This also impacted the Indian economy, and even as the situation inches close to normalcy, they are reluctant to go back. A survey found that more than one-fourth of the Kanpur workers, also known as the Manchester of UP, did not return to their old jobs.

Conceptual background and formulation of hypotheses

The COVID-19 pandemic has projected uncertainty, negativity, and anxiety in people's minds. COVID-19 epidemic has led to an outburst of stress, anxiety, and depression. This is not surprising given that mass tragedies, particularly those involving infectious diseases, often trigger waves of heightened fear and anxiety known to cause massive disruptions to the behaviour and psychological well-being. Worries related to COVID-19 can take an emotional toll, especially in the form of coronavirus anxiety. Given these multiple impacts, coronavirus has adversely affected individuals' economy, social integrity, and mental health across the globe. Coronavirus anxiety is defined as dysfunctional anxiety associated with the COVID-19 crisis. An undesirable side effect of this anxiety is the phenomenon of panic and subsequent panic buying. This panic can cause more damage than the virus itself. Panic buying is "a situation in which many people suddenly buy as much food, fuel, etc. as they can because they are worried about something bad that may happen." Panic buying is a socially inadmissible group behaviour. Significant amounts of daily needs and medicines are purchased from grocery and medical stores, leading to scarcity of the necessary everyday life products. Such shortages have the highest impact on more vulnerable people, such as the elderly or poor, who urgently require these products or cannot afford to buy and store them in bulk. This generates adverse outcomes in societies, as such panic-buying leads to instability and insecurity in most cases. Panic buying represents a relatively under-explored area and provides an opportunity in the form of a knowledge gap for further research. Emotions such as fear of the unknown and anxiety blight the decision to purchase, and people cannot visualize such acts' social impact. A study has shown that Indians were spending 40% more at grocery stores during lockdown. People who did not get sufficient supply during the lockdown phases were the most negatively affected, along with their families.

The literature review carried out in the previous sections showed that work and social adjustment and anxiety are related. Still, it does not explain the relationship between work and social adjustment and panic buying. This study examines the relationship between work and social adjustment and panic buying. It also explores the mediating effect of work and social adjustment between coronavirus anxiety and panic buying. The study aims to investigate these underlying processes. The objective of this study was to examine the relationship of corona anxiety and panic buying among Uttar Pradesh's population (India).

Apart from this, the researchers also wanted to investigate the mediating role of work and social adjustment in the relationship between coronavirus anxiety and panic buying. Based on the above, the following hypotheses are proposed.

H1: There would be a significant relationship between corona anxiety, panic buying, work, and social adjustment.

H2: The coronavirus anxiety and work and social adjustment will account for significant variance in panic buying scores.

H3: Work and social adjustment mediates the relationship between coronavirus anxiety and panic buying.

The research framework integrates the above hypotheses into the conceptual model shown in Figure 1.
METHODS

Participants

Four hundred fifty adults (225 F+225 M, age mean: 34.86 years, SD: 10.32 years) provided their responses to the questionnaire. This research was designed as a cross-sectional, observational study to be carried out in Uttar Pradesh, India. The incidental sampling technique was adopted for data collection using Google Forms. Data were collected from 43 cities in Uttar Pradesh (UP), India. A significant chunk of participants (41.11%) came from two towns located in Eastern UP (Prayagraj: 136) and Central UP (Kanpur: 49). Table 1 summarizes the essential characteristics of the participants. The socio-demographic variables included gender, age, city, employment status, monthly income, and time spent thinking about coronavirus per week.

The measurement scales

Three scales were used to measure the variables. This section outlines a brief description of these scales, along with their reliabilities. The first scale was Coronavirus anxiety scale (CAS, coefficient alpha=0.93). There were five items in this scale, and participants were instructed to answer ‘How often have you experienced the following activities over the last two weeks; on a 5-point Likert scale ranging from 0-4 (‘not at all’, ‘rare’, less than a day’, ‘several days’, ‘more than seven days’, ‘nearly every day over the last two weeks’). Scores ranged from 0 to 20, with a higher score reflecting a higher anxiety level. The reliability (Cronbach's alpha) for the scale was 0.74 in the present study.

The second scale was Work and social adjustment scale (WSAS, Cronbach alpha range=0.70 to 0.94). WSAS scale measures the impairment in functioning. The measures in WSAS require responses on eight points varying from ‘no impairment at all’ to ‘very severe impairment’. The five items in WSAS measure how much your problem impairs your ability to carry out the activity, on eight-point Likert type responses varying from ‘no impairment at all’ to ‘very severe impairment’. Scores ranged from 0 to 40, with a higher score reflecting a severe impairment in the adjustment level. In this scale, ‘my disorder’ word in items was replaced with ‘during these days’ in the context of the corona pandemic after a discussion with experts. The reliability (Cronbach's alpha) for the scale was 0.75 in the present study.

The third scale was the Panic buying scale (PBS, Cronbach alpha=0.90). The seven items in PBS measure the degree of panic buying behaviour. Participants had to respond in the context of each item, ‘During the current outbreak of the COVID-19 pandemic, how has your buying behaviour been?’. The measures in PBS require responses on seven points Likert scale ranging from (1 to 7) ‘Strongly disagree’ to ‘Strongly agree’. Scores ranged from 7 to 49, with a higher score reflecting an increase in panic buying. The reliability (Cronbach's alpha) for the scale was .75 in the present study.

The present study developed a 17-item questionnaire, which included all items from CAS, WSAS and PBS; the above questionnaires were appropriately framed to be meaningful and relevant to the Indian context. The questionnaire comprised two sections: Section A and Section B. Section A contained a statement of informed consent for participation in the study and sought personal and socio-demographic information on characteristics as summarized in Table 1. Section B included 17 items related to the study variables. The questionnaire had a covering request note, which provided the instructions for completing the questionnaire.

The final questionnaire was bilingual (English-Hindi). The questionnaire items were originally written in English. The Brislin model for translation was used for translating these scales from the English language to the Hindi language.20

Data collection procedure

Since the data collection happened during the peak of the COVID-19 pandemic period, personal visits to the participants were avoided for health reasons and honor the social distance directives and advisories by government and health officials. Online survey technique was used to collect data through Google Forms, which automatically arranged the data into excel sheets. The study's Ethical approval was availed from the Institutional ethics committee of one of the co-authors of this research paper (from the International Centre for Psychological Counselling and Social Research, Puducherry, India, Project Number: Member Project/1/2020/1). Informed consent was taken from all the participants before data collection to ensure that the letter and spirit followed the ethical guidelines.

RESULTS

Data collected through the survey forms were analyzed using these four steps: (i) statistical test for coefficient of correlation; (ii) hierarchical regression analysis use to assess the variance; (iii) hypothesis testing by estimating the mediation analysis; and (iv) multi-group comparisons to assess the influence of the socio-demographic characteristics.

First of all, the parametric test assumptions were checked before running the descriptive statistics and one-way ANOVA for socio-demographic characteristics. Pearson's correlation analysis was used to test the nature and extent of the relationship between variables. Hierarchical regression analysis was carried out after checking its assumptions. Hierarchical regression analysis was used as a statistical tool to examine the predictive strength of variables. This tool is handy because it provides a framework for model comparison rather than a statistical
method. Further mediation analysis was used for hypothesis testing. The statistical tool (SPSS macro-PROCESS model 4 suggested by Hayes) was employed to understand a known relationship by exploring the underlying mechanism or process by which one variable influences another variable through a mediator variable.\cite{21}

The results of this study have been presented in two parts. The correlation and hierarchical regression analysis coefficients have been introduced in the preliminary analysis, whereas the second part outlines the mediation analysis.

**Preliminary analysis**

Table 1 depicts the frequencies and percentages of sociodemographic variables. The one-way ANOVA, coefficients of correlation and hierarchical regression analysis were employed. This analysis used statistical tools to explore the nature, differences and extent of association and predictive strength of coronavirus anxiety and work and social adjustment for panic buying behavior.

Table 2 represents the descriptive statistics and correlation matrix. Coronavirus anxiety was positively correlated with panic buying (0.29) and work and social adjustment (0.19). Panic buying was positively correlated with work and social adjustment (0.34). There was a significant relationship among coronavirus anxiety, panic buying, work and social adjustment; hence H1 was supported. The regression analysis showed that the predicted value of panic buying behavior increased by 1.44 and 0.363 units for each coronavirus anxiety and work and social adjustment unit. Further, coronavirus anxiety and work and social adjustment accounted for 8.00% ($R^2$=0.080, F (1, 448) =38.83, p=0.000) and 1.66% ($R^2$=0.166, F (1, 449) =44.34, p=0.000) variation in this criterion measure, respectively (Table 3). Hence H2 was supported.

**Testing for the proposed model**

This analysis aimed to identify and explore the mechanisms involved in the relationship between predictors and outcome variable. The hypothesis included how (mediating effect) coronavirus anxiety influences panic buying. This study used the SPSS macro-PROCESS model 4 suggested by Hayes to test the proposed model.\cite{21} This macro-PROCESS has been extensively used to examine the mediation model. Process analysis was used to quantify and explore the direct and indirect pathways through which a predictor variable transmits its effect on an outcome variable through an intermediary variable.

A macro-PROCESS analysis was performed to test the third hypothesis by using Andrew Haye's macro-PROCESS plug-in for SPSS to investigate the hypothesis that the relationships among coronavirus anxiety and panic

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**Table 1: Sociodemographic characteristics of participants at baseline (n=450).**

| Baseline characteristics | N   | Percentage (%) |
|--------------------------|-----|----------------|
| **Gender**               |     |                |
| Male                     | 225 | 50             |
| Female                   | 225 | 50             |
| **Age (years)**          |     |                |
| Young adulthood          | 345 | 76.7           |
| Middle age               | 105 | 23.3           |
| **Employment status**    |     |                |
| Employed                 | 298 | 66.2           |
| Unemployed               | 91  | 20.2           |
| Homemaker                | 38  | 8.4            |
| Students                 | 23  | 5.1            |
| **Monthly income**       |     |                |
| 5000-20000               | 175 | 38.9           |
| 20001-35000              | 78  | 17.3           |
| 35001-50000              | 84  | 18.7           |
| 50001-65000              | 40  | 8.9            |
| >65000                   | 73  | 16.2           |
| **Time spent thinking about COVID-19 per week (hours)** | | |
| 1 to 10                  | 241 | 53.6           |
| More than 10             | 209 | 46.4           |

**Table 2: Descriptive analysis and correlation among variables (n=450).**

| Variables                    | M   | SD  | 1  | 2  | 3  |
|------------------------------|-----|-----|----|----|----|
| Coronavirus anxiety          | 6.69| 2.41|    |    |    |
| Panic buying                 | 25.56| 12.26| 0.282**|    |    |
| Work and social adjustment   | 16.10| 10.08| 0.191**| 0.341**|    |

M: Mean, SD: Standard deviation, **p<0.01.

**Table 3: Summary of hierarchical regression analysis for the variables predicting panic buying behavior of the participants (n=450).**

| Measures                      | Model 1 | Model 2 |
|-------------------------------|---------|---------|
|                               | B       | SE B    | $\beta$  | B       | SE B    | $\beta$  |
| Panic anxiety                 | 1.44    | 0.231   | 0.282    | 1.05    | 0.224   | 0.226    |
| Work and social adjustment    | 0.363   | 0.054   | 0.298    |         |         |          |
| $R^2$                         | 0.080   | 0.166   |          |         |         |          |
| $F$ for change in $R^2$       | 38.83** | 44.34** |          |         |         |          |

B: Unstandardized estimate, $R^2$: adjusted value of $R^2$, **p<0.01.
buying were fully mediated work and social adjustment. The PROCESS Model 4 was employed to estimate regression coefficients and follow-up bootstrap analyses with 5,000 bootstrap samples to estimates 95% bias-corrected confidence intervals for specific and total indirect effects.

The main findings of the results generated by SPSS macro-PROCESS has been presented in Table 4. The Table 4 shows that coronavirus anxiety positively predicts work and social adjustment ($\beta=0.19$, $p<0.01$) and panic buying ($\beta=-0.36$, $p<0.01$). These results indicate that work and social adjustment mediates the relationship between coronavirus anxiety and panic buying; hence, H3 was supported.

Besides, the direct and indirect effects were positively and significantly different from zero. Figure 2 also depicts this mediation model. Table 5 shows the descriptive and one-way ANOVA analysis of socio-demographic variables. The study found significant difference between male and female in coronavirus anxiety [$f (1, 448) = 22.61$, $p=0.000$] and panic buying [$f (1, 448) = 5.37$, $p=0.021$].

There was also significant difference among employed, unemployed, homemaker and students in coronavirus anxiety [$f (3, 446) = 3.42$, $p=0.017$] and in work and social adjustment [$f (3, 446) = 4.41$, $p=0.004$]. There was a significant difference among different income groups in coronavirus anxiety [$f (4, 45) = 3.77$, $p=0.005$].

Groups based on the number of hours spent thinking about COVID-19 showed variation in results. Those with one to ten hours and more than ten hours were found to have significant differences in coronavirus anxiety [$f (1, 448) = 13.29$, $p=0.000$].

**Table 4: Mediating effects of work and social adjustment on the relationship between coronavirus anxiety and panic buying (n=450).**

| Regression paths                                      | B     | t     | p     |
|-------------------------------------------------------|-------|-------|-------|
| Mediation a path (coronavirus anxiety on work and social adjustment) | 0.1906 | 0.1944 | 0.0000 |
| Mediation b path (coronavirus anxiety on panic buying)    | 0.3629 | 0.0535 | 0.0000 |
| Direct effect, c path (coronavirus anxiety on panic buying; no mediator) | 1.1502 | 0.2244 | 0.0000 |
| Indirect effect c' (coronavirus anxiety on panic buying, including work and social adjustment as mediator) | 0.2899 | 0.0832 | 0.0005 |
| Indirect effect bootstrapped (c-c') with bootstrapped 95% CI | 0.2899 (0.1404, 0.4812) |       |       |

B: Unstandardized estimate; p: probability; aPredictors: (Constant), Corona Anxiety; bPredictors: (Constant), Corona Anxiety, Work and social adjustment.

Figure 2: The mediation model with coronavirus anxiety as a predictor (X), work and social adjustment as a mediator (M), and panic buying as an outcome (Y).
Table 5: Socio-demographic characteristics of participants and descriptive analysis at baseline (n=450).

| Variables                  | N  | Coronavirus anxiety | Panic buying | Work and social adjustment |
|----------------------------|----|---------------------|--------------|-----------------------------|
|                            |    | Mean | SD | F     | Mean | SD | F     | Mean | SD | F     |
| Gender                     |    |      |    |       |      |    |       |      |    |       |
| Male                       | 225 | 6.16 | 1.90 | 22.61** | 24.23 | 12.70 | 5.37** | 16.02 | 10.00 | 0.031 |
| Female                     | 225 | 7.22 | 2.73 |         | 26.90 | 11.69 |         | 16.19 | 10.18 |         |
| Age (years)                |    |      |    |       |      |    |       |      |    |       |
| Young adulthood            | 345 | 6.70 | 2.40 | 0.045  | 25.52 | 12.13 | 0.016  | 16.41 | 10.21 | 1.36  |
| Middle age                 | 105 | 6.64 | 2.41 |         | 25.69 | 12.74 |         | 15.09 | 9.62  |         |
| Type of family             |    |      |    |       |      |    |       |      |    |       |
| Joint family               | 185 | 6.44 | 1.99 | 3.35   | 24.60 | 11.73 | 1.94   | 16.57 | 10.07 | 0.669 |
| Nuclear family             | 265 | 6.86 | 2.64 |         | 26.23 | 12.59 |         | 15.77 | 10.09 |         |
| Employment status          |    |      |    |       |      |    |       |      |    |       |
| Employed                   | 298 | 6.44 | 2.12 | 3.42** | 25.42 | 12.40 | 0.299  | 15.13 | 9.76  | 4.41** |
| Unemployed                 | 91  | 7.08 | 2.78 |         | 25.13 | 11.98 |         | 18.97 | 10.09 |         |
| Homemaker                  | 38  | 7.32 | 2.83 |         | 26.97 | 12.71 |         | 14.90 | 11.15 |         |
| Students                   | 23  | 7.39 | 3.07 |         | 26.83 | 11.41 |         | 19.30 | 10.18 |         |
| Monthly income             |    |      |    |       |      |    |       |      |    |       |
| 5000-20000                 | 175 | 7.17 | 2.76 | 3.77** | 24.93 | 11.86 | 0.792  | 17.04 | 10.20 | 1.74  |
| 20001-35000                | 78  | 6.29 | 2.02 |         | 25.04 | 12.60 |         | 15.53 | 9.21  |         |
| 35001-50000                | 84  | 6.31 | 1.69 |         | 26.64 | 13.27 |         | 15.87 | 10.42 |         |
| 50001-65000                | 40  | 7.05 | 2.96 |         | 24.08 | 11.64 |         | 12.58 | 9.39  |         |
| >65000                     | 73  | 6.22 | 2.01 |         | 27.22 | 12.07 |         | 16.67 | 10.44 |         |
| Spending hours per week to thinking about COVID-19 (hours) |    |      |    |       |      |    |       |      |    |       |
| 1 to 10                    | 241 | 6.31 | 2.04 | 13.29* | 24.68 | 11.92 | 2.70   | 15.68 | 10.26 | 0.908 |
| More than 10               | 209 | 7.12 | 2.69 | *       | 26.58 | 12.60 |         | 16.58 | 9.87  |         |

N= frequency, M= Mean, SD= Standard deviation, F= F-ratio value, **p<0.05.

DISCUSSION

Pandemic is a periodic phenomenon and can trigger an array of emotional, physical and social trauma. The fear and anxiety related to pandemic trauma influences the behaviour of people in society. A trauma is an event that is not within the normal range of everyday experiences. It involves a high perceived physical and emotional impact and a threat to the individual or a loved one.22 Highly traumatic and stressful events usually produce a range of cognitive, emotional, and behavioral responses. These responses lead to considerable social and occupational dysfunctioning.23 This study examined the relationship between coronavirus anxiety, work and social adjustment, and panic buying behavior.

The study’s findings demonstrated that both coronavirus anxiety and work and social adjustment have a significant role in shaping the nature and extent of the participants' panic buying behavior. Significant correlations were found in these variables. Likewise, coronavirus anxiety and work and social adjustment contributed significant variations in panic buying measure. These findings get more evident with the significant mediating role of work and social adjustment in shaping the relationship between coronavirus anxiety and panic buying. These findings sustained the proposed hypotheses 1, 2 and 3.

These findings evinced that when coronavirus anxiety affects a large percentage of the population, it could result in panic buying as a side effect. Anxiety acts as a fuel for panic buying. Because of coronavirus anxiety, people adopted unwanted lifestyles and suffered from work and social adjustment problems. These may affect the mental well-being of human beings adversely. Therefore, it is essential to deal with the mental health difficulties in the global pandemic situation. This study builds a mediation model for analysis of the underlying mechanism between coronavirus anxiety and panic buying. The results confirmed the mediating effect of work and social adjustment in the relationship between coronavirus anxiety and panic buying.

Firstly, this study confirmed that coronavirus anxiety, work and social adjustment, and panic buying are significantly correlated. These results are consistent with previous studies on the relationship between coronavirus anxiety and work and social adjustment. Previous studies also showed a strong positive correlation between adjustment and negative emotions.24 A prior survey found a negative correlation between adjustment and negative
emotions (anxiety, stress, or depression).\textsuperscript{25} Secondly, this study also confirmed that work and social adjustment mediate the relationship between coronavirus anxiety and panic buying. Psychological explanations of the panic buying behavior include perceived feeling of losing control over the environment, perceived shortage effect, social learning and perceived sense of insecurity and instinctual behavior.\textsuperscript{26} Overall, a person would experience emotional discomfort such as anxiety and fear during a disease eruption.\textsuperscript{27} This distress is mainly caused by humans' inability to predict an epidemic's outcomes, which challenges nature's human dominance.\textsuperscript{28} Purchasing essential commodities in excessive quantities can create a shortage of stocks and problems for needy people or those who buy on a daily or weekly basis due to a lack of monetary resources. Promoting generosity and feeling of kinship can reduce panic buying attitude.\textsuperscript{29} The perceived mental health care need was written by more than eighty percent of participants. They also suggested a need to intensify the awareness and address the public's mental health issues during this pandemic. This was in agreement with the findings of the study, who observed that the participants of their study reported sleep difficulties, paranoia and social media distress.\textsuperscript{30} Panic buying behavior can be predicted by anxiety and impairment in work and social adjustment.

In general, people experience emotional discomfort such as fear and anxiety during a disease outbreak.\textsuperscript{27} Anxiety can predict panic buying behavior. Previous studies found that fear modified shopping behaviour.\textsuperscript{31} Fear motivates persons to purchase to increase comfort and decrease stress levels.\textsuperscript{31} Fear motivating the individual to take extreme measures to respond to deal with threat. In this context, panic buying can control the unexpected situation, compensating for the psychological losses.\textsuperscript{27} Reports of supermarkets showed that anxious people show panic buying behavior in pandemics.\textsuperscript{32} Indians have high levels of anxiety during the Covid-19 pandemic.\textsuperscript{33} Apart from anxiety, work and social adjustment can also predict panic buying behavior, which is indicated by this study's results.

These results also showed a direct relationship between anxiety and panic buying and anxiety and work and social adjustment. A strong correlation was observed among work and social adjustment with anxiety and panic buying, especially in a crisis. The study confirmed that social and work adjustment mediates the relationship between coronavirus anxiety and panic buying. Fear promotes people's purchasing because that would reduce the discomfort, insecurity and alleviates the distress.\textsuperscript{31} The relationship between fear and increased purchasing behavior could also be described in terms of the concept of mood congruency. It proposes that negative feelings and stress affect an individual's perception and judgment.\textsuperscript{30} Heightened fears increase the tendency of people's perceived risk.\textsuperscript{33} Consequently, it can trigger panic buying, a form of self-protective behavior to minimize the risk. It was found that people with anxiety reported more fear and worry about coronavirus. It affects their adjustment and coping styles, increases hopelessness and suicidal ideation.\textsuperscript{34,35} More significant coronavirus anxiety and distress may lead to the elevated threat of instability.\textsuperscript{36} Demographic variables showed that males had lesser corona anxiety and panic buying as compared to their female counterparts. This finding of the current study is consistent with other studies, which show that females were more likely to be anxious than males.\textsuperscript{37} These findings were similar to previous studies where it was found that females suffered a more significant psychological impact due to the coronavirus outbreak.\textsuperscript{15} A recent study revealed that females have significantly higher coronavirus anxiety and panic buying than males.\textsuperscript{38}

As seen from Table 5, there is a significant difference in corona anxiety in the context of income. The high-income group has less anxiety in comparison to other groups. Previous studies support this observation. There is a significant relationship between economic crises and abnormal behaviour.\textsuperscript{39} This study found that participants, who were anxious about losing their livelihood or reduced their earnings, had a significantly higher anxiety level.

The above results indicate that different-different socio-demographic groups influenced by coronavirus anxiety, social and work adjustment and panic buying. Results also revealed that employability decreases anxiety and increases adjustment. In follow-up interviews, it was found that employed persons face versatile situations in their lives, which increases their adjustment, enhancing coping with anxiety. Follow-up interviews also revealed that time availability also increases the thinking process, so it can improve anxiety level if individuals think more.

Limitations

The study was based on the sample population of Uttar Pradesh, India, so it would not be feasible to extrapolate the results to the entire nation as different factors could be responsible in other areas. This study was limited to participants in possession of smartphones and email I.D.s, so a significant proportion of the more disadvantaged population was not represented in the results. The sample size of 450 was not sufficiently adequate to describe the nearly 200 million people of UP. There were also limitations with self-reported questionnaires. They might not represent authentic answers due to various reasons such as social desirability bias, reluctance to provide the correct response, and so forth. Lastly, the study does not outline or effectively explains how exactly coronavirus anxiety affects panic buying even though it establishes the relationship between them.

Future implications

Results of this study suggest that it is anxiety that motivates panic buying behaviour. However, this study was conducted within the context of a pandemic of a particular virus at a specific point in time. These results have implications for understanding how people react to
problems at a societal level and deal with such an issue. Results of this study suggest that anxiety serves a negative function. Feeling anxious was positively correlated to panic buying behaviours. During a pandemic, people are compelled to make quick decisions and subside their negative emotions such as anxiety to feel better and safe. In doing so, people use their heuristic or mental shortcuts, which leads to panic buying behaviours. This study showed the mediating relationship of work and social adjustment with anxiety and panic buying. These results could be used as the basis for behavioural changes in people by training them to control better their emotions regarding their work and social adjustment with their environment. This could help alleviate the wave of anxiety and panic, leading to better emotional health, well-being, and adjustment to the circumstances.

CONCLUSION

It can be concluded from the above discussion that there is a significant and direct correlation between coronavirus anxiety and panic buying behaviour. In a social crisis, work and social adjustment are strongly correlated with coronavirus anxiety and panic buying behaviour. Work and social adjustment mediates the relationship between coronavirus anxiety and panic buying. This study ascertains that coronavirus anxiety can trigger a vicious cycle, leading to work and social adjustment problems and panic buying behaviours, thereby adding to the confusion and chaos that already exists in abundance during such situations. The study results have real-time practical applications and implications. They can be integrated into behavioural change programs and therapies to help people suffering from such coronavirus anxiety and related problems.

ACKNOWLEDGEMENTS

The authors acknowledge the effort given by every respondent who spent their precious time participating in the survey to provide their insights that have helped to furnish data for this paper.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Modi R, Tipandjan A, Mishra LD, Gupta C, Nithiya DR. Anxiety and panic buying of population of India during COVID-19: the mediating role of adjustment. Int J Community Med Public Health 2021;8:3406-14.