

WORKFORCE ANXIETY DUE TO COVID-19 PANDEMIC: THE MEDIATION EFFECT OF PERSONAL FINANCE AMONG PRIVATE LABOR FORCE IN KERALA

Aravind Mohanan Potti*

*TKM Institute of Management
University of Kerala, Kollam, Kerala, India*

Manojkrishnan Champettil Gopalakrishna Pillai

*TKM Institute of Management
University of Kerala, Kollam, Kerala, India*

ABSTRACT

The COVID-19 pandemic hit at its worse on the economic and social conditions of the workers across the world. Studying how COVID-19 has created anxiety among the private workforce in Kerala can contribute significant input to the policymakers. The place of this research is also important as Kerala is a state with a strong public health care system and a sizeable number of workers from Kerala are employed in the private sector. The objectives of this study are to measure the direct impact of COVID-19 on workforce anxiety and to analyze the mediation effect of personal finance on workforce anxiety during the COVID-19 pandemic. Principal Component Analysis was done to identify the influential variables under each factor. After ensuring the reliability, validity, and consistency of the questions, the regression analysis was carried out. The statistical software's IBM SPSS Statistics 20 and PROCESS macro 3.5 were used for data analysis. The initial hypothesis (H1) of this study was COVID-19 has a direct relationship with the worker's anxiety. The result of the regression analysis confirmed this assumption. The mediating role of personal finance during the impact of COVID-19 on the worker's anxiety was tested through the bootstrapping method and the indirect effect of COVID-19 on the worker's anxiety through personal finance is also positive and significant. This study is suggesting numerous measures to the policymakers and to the corporate for addressing the worker's anxiety in the social and economic levels.

Keywords: COVID-19, Anxiety, Personal Finance, Mediation effect, Regression models.

Received: 21 August 2020

Accepted: 21 September 2022

<https://doi.org/10.33736/ijbs.5182.2022>

1. INTRODUCTION

The COVID-19 pandemic has become one of the major social and economic crises of this century. Many organizations have either virtually shut down or reduced the scale of their operations. As an impact of COVID-19 the structure and the demand of the job market has changed. The present COVID-19 crisis, stood as a threat to the job security of workers belonging to the informal sector as well as the private sector to an extent. The workers across the globe are anxious about their

* Corresponding author: Associate Professor (Finance), TKM Institute of Management, Karuvailil (P.O), Kollam, Kerala, India - 691505, Tel no.: +91-9645095662, Email: aravind.1551@gmail.com

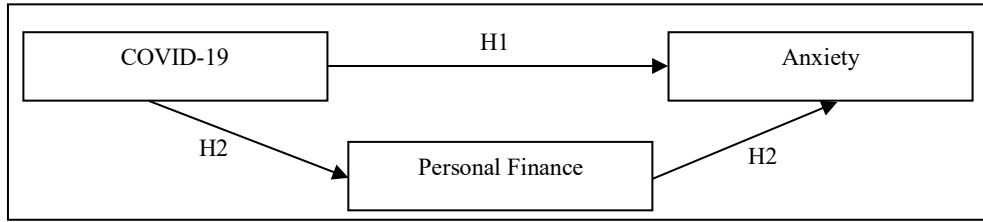
financial security and health and wellness. A report from the International Labour Organization (2020) indicates that nearly 25 million jobs can be lost around the world due to COVID-19. The fast-spreading of COVID-19 has adversely affected the mental health of the worker too (Verma & Mishra, 2020). The major health and wellness stressors are fear of self-infection and the possibility of infecting loved ones with COVID-19. Thus, the workers are exposed to a greater amount of stress and anxiety due to financial and wellness reasons.

This research was structured based on three related theories viz. Cognitive triad proposed by Beck (1976), ABC-X model (Hill, 1949), and the new stress- prospect model (Manojkrishnan & Aravind, 2020). The cognitive theory of anxiety has explained anxiety as a tendency to overrate potential danger. An individual foresees all negative outcomes that may arise out of a situation. The cognitive triad is three forms of negative thinking that can lead an individual into depression. They are a negative view of self, negative view about the world, and a negative view on the future (Beck, 1976). As these three components interact, they interfere with normal cognitive processing, leading to the person becoming obsessed with negative thoughts and the same will leads to some kind of physical disorders. This theory can be used to narrate the workforce anxiety in the present COVID-19 pandemic. The preventive measures such as extended/continuing lockdowns adversely hit the economy and the companies have begun to take cost-cutting measures. As result anxiety and depression have emerged as a major concern for workers all over the world. In this study, we are measuring the impact of COVID-19 on workforce anxiety directly by observing the presence of some common physical symptoms. The mediating effect of personal finance during COVID-19 can be related to the theoretical model proposed by Hill (1949). In this model, he explained that anxiety/stress is a product of the ABC-X model. Components of this model are stressful events or situations (A), interacting with crisis meeting resources (B&C), and produce a crisis (X). In this study, the stressful event is COVID-19 pandemic (A) and it interacts with the personal financial plans of the workers (B&C). For this research, we are considering personal finance as the mediator. The physical symptoms of anxiety in the workforce have taken as the outcome (X).

The above theories were reintegrated in the context of COVID-19 pandemic to form a stress-prospect pandemic model (Manojkrishnan & Aravind, 2020). This model states that if concern about health is low and the labour environment is unfavourable, the workers tend to earn money by sacrificing their health. At this moment their physiological needs will be more prominent for them, compelling them to earn their livelihood, even though the general situation is unfavourable. It is inferred that worry on future income will be the source of anxiety of the workers. We can name it as income hypothesis. On the other hand the concern about health is high and the labour environment is unfavourable, the individual usually prefers to safeguard their health rather than going for monetary benefits. In this situation the health concern stood as a cause of workers anxiety (health hypothesis).

The purpose of this research is to directly measure the impact of COVID-19 on workforce anxiety. For this we are using the health hypothesis of Manojkrishnan and Aravind (2020) as there is a positive relationship between COVID-19 and workers anxiety. Secondly, this study attempts to analyze the mediation effect of personal finance on workforce anxiety during COVID-19 pandemic. Here we assume the income hypothesis of the stress-prospect model (Manojkrishnan & Aravind, 2020) as a positive relationship between COVID-19 and workforce anxiety triggered by personal finance. The suggested theoretical model is presented in Figure 1.

Figure 1: Mediation role of Personal finance on Workforce Anxiety



2. LITERATURE REVIEW

COVID 19 is a zoonotic virus, pointing out that they are spread among animals and then to human beings like the earlier SARS and MERS Viruses (Kothai & Arul, 2020). The major threat of this disease is there are no scientifically tested and proved therapies. This pandemic has challenged the health systems of the countries where it has affected (Yethindra, 2020). It is also pointed out that isolation, infection control, and social distancing are the preventive measures for this disease (Orly & Richard, 2020).

2.1. COVID-19 on Workforce Anxiety

COVID-19 pandemic can generate possible work-related anxieties in the form of changes in concentration, irritability, anxiety, insomnia, reduced productivity, and interpersonal conflicts (Vinkers et al., 2020). It is reported that the prevalence of anxiety was higher among non-medical health care workers than medical personnel (Tan et al., 2020). This conclusion was reported by observing depression, stress, anxiety, and posttraumatic stress disorder among medical and nonmedical health care workers. It is reported that a major worker's concerns about acquiring COVID-19 are self-infection and transmitting the disease to the family member (Temash et al., 2020). Some symptoms of anxiety observed during the COVID-19 phase are sleep problems, panic attacks, health anxiety, worry about illness, and sometimes rise in substance consumption (Banerjee, 2020). Whereas, Lee (2020) has identified symptoms such as sleep disturbances; somatic distress; tonic immobility as an impact of COVID-19. Torales, O'Higgins, Castaldelli-Maia, and Ventriglio (2020) have identified five variables that can influence an individual in this pandemic period. They are anxiety, depression, fear, stress, and sleep problems.

Mental issues related to the health emergency, such as anxiety, depression, post-traumatic stress disorder and sleep disorders are likely to impact on the frontline, migrant workers, and workers in contact with the public. Alnazly, Khraisat, Al-Bashaireh, and Bryant (2021) reports that the COVID-19 has created fear, depression, anxiety, and stress among Jordanian health-care workers. To resolve their anxiety they primarily relied on support from their families, followed by support from friends. Apprehension about family, fear of infection, lack of personal protective equipment and close contact with COVID-19 are the major cause of physical disorder among health care workers (De Kock et al., 2021).

People with higher educational background and younger people are expected to face job insecurity, long periods of isolation, and uncertainty of the future. This can worsen the psychological condition of the workers (Giorgi et al., 2020). Lower age, higher education, female gender, and urban habitat

were associated with a greater perception of anxiety due to this pandemic (Chatterjee et al., 2021). On the other hand PTSD symptoms, stress, anxiety, depression and insomnia among members of the workforce those who just returns to their job after COVID-19 restrictions (Tan et al., 2020). In another study Rodríguez-Hidalgo, Pantaleón, Dios, and Falla (2020) revealed that women showed higher levels of fear of COVID-19 than men. The study exemplified the relationships between fear, stress, and anxiety can play in the development of depression symptoms like sadness, self-depreciation, and worthlessness etc. Based on the above arguments we have developed our primary hypothesis as;

H1: There is a positive relationship between COVID-19 and workforce anxiety

2.2. COVID -19 on Personal Financial Planning

Financial constraints were reported to be one among the key variables identified during the COVID-19 pandemic (Brooks et al., 2020). The workers are concerned about the impact of this pandemic on their quality of societal life maintained at present (Qiu et al., 2020). It is well established that the epidemic condition prevailing in the economy can create stress among the labour force, mainly lack job security, stress on account of meeting livelihood, etc. (Wainwright & Calnan, 2000). A study by Cao et al. (2020) reported that family income stability as a key personal financial goal at the time of COVID-19. It is observed that due to COVID-19 there is speculation on salary cuts and freeze in hikes of workers. Uncertainty of future life and the anticipated job insecurity have resulted in more depressive and anxiety symptoms among workers (Das, 2020).

Martin, Markhvida, Hallegatte, and Walsh (2020) theoretically pointed out that during crisis period individual faces income loss and will use their savings to maintain consumption level. Thus the personal financial planning of them will get collapsed during the crisis period. There are several arguments contradicting the above proposition. Szustak, Gradoń, and Szewczyk (2021) argued that the crisis can result in increasing the level of household savings. They will impose strict cost cutting measures to survive this pandemic. Thus the savings get enhanced due to precautionary reasons. For instance, Vyas and Butakhieo (2021) analysed one of the major advantages of COVID-19 as it enabled the workers to save their cost of travel due to work from home practices. During the pandemic spending was increased sharply, particularly in retail, credit card and on food items. Thereafter a sharp decrease in overall spending was witnessed. In China people have exhibited a saving habit during pandemic as their spending get reduced due to pandemic comparing to the statistics of last year (Jin, Zhao, Song, & Zhao, 2021).

Financial behaviour and financial planning are reported to be the most significant factors during COVID-19 pandemic among working adults (Shaharuddin, Zain, & Ahmad, 2021). COVID-19 has severely affected the financial health of the working middle class. They are facing serious issues in the form of decreasing interest on bank deposits, falling stock prices, depletion in personal savings on account of increased living/medical expenses (Anand, Mishra, Verma, & Taruna, 2021). According to Kurowski (2021) people who have higher financial literacy can better manage their credit liabilities. However, people who have credit cards or short-term loans are expected to suffer higher than those who have mortgage loans with a longer settlement period. Barraferm, Västfjäll, and Tinghög (2020); states that the people are less financially prepared for long lasting negative

shocks and the future prospects of financial well-being are very much related to COVID-19 outbreak.

2.3. COVID-19 and anxiety mediated by personal finance

Financial, social and psychological correlation of COVID 19 impact was confirmed and people perceived this pandemic as a greater financial threat than health threat (Robillard et al., 2020). During the initial stage of COVID-19 the major cause of anxiety was on account of financial and social reasons. The relationship between labour market position, economic hardship and workers anxiety was well exemplified by Witteveen and Velthorst (2020). They reported that low paid low skilled workers are addressing 2 to 3 times anxious on their financial security than highly paid workers. The psychological distress was more prevalent among people with low income and in the younger generations (Nagasu, Muto, & Yamamoto, 2021). The economic impact of COVID-19 has enhanced financial anxiety for many families. The mental health of the workers is negatively influenced by perception of financial safety, financial loss and job insecurity (Hamouche, 2020). The feel of financial insecurity is amplified especially among youngsters and low income groups (Fox & Bartholomae, 2020). To support these findings Nastiti and Rusvitawati (2021) pointed that physiological needs act as a key factor in breeding work force anxiety. Suryavanshi et al. (2020) reported that the pandemic has adversely influenced the quality of life of the working population, consequently resulted in depression and anxiety. Lack of savings, inability to pay debt, fear of job loss etc., has a direct impact on physical and mental health. It can lead to things like heart disease, inability to sleep, and lowered immunity etc. (Little, 2020). Lacks of motivation, difficulty sleeping and increased drinking were also reported by the workforce based on a survey conducted by the financial times on work and mental health (Jacob & Ching, 2021).

COVID-19 has created greater financial injuries and distress among youth. The fear of prolonged unemployment, decline in one's self-esteem adversely affected the mental health of the young labourers (Achdut & Refaeli, 2020). The fear of financial insecurity results in disengagement of workers in their job (Rasdi et al., 2021). This behaviour seems to be prominent among moonlighters. A positive relationship was reported between job insecurity due to the pandemic and financial anxiety, whereas the hypothetical relationship between workflow and financial anxiety not found to be significant. The mediating role of work related flow found a relationship between job security and financial anxiety (Basyouni & Keshky, 2021).

During the period of a crisis, people tend to give more preference to job security options than a choice of higher income (Guillemette, Finke, & Gilliam, 2012). This can be related to ambiguity aversion as the people have pessimistic beliefs and, act as if the worst outcomes occurred (Ilut & Schneider, 2014). According to Kamstra, Kramer, and Levi (2003), this risk aversion tendency can be categorized as a depressive disorder of people. Nofsinger, Patterson, and Shank (2018) have confirmed the influence of behavioural biases as stress on the individual's risk aversion. From the results above studies we can form a hypothesis to assess the mediating role of personal finance as;

H2: There is a positive relationship between COVID-19 and workforce anxiety mediated by personal finance

3. METHODOLOGY

We have selected Kerala state as the destination for this study because the “Kerala model” of addressing COVID-19 is already being discussed around the world as a success story (The Guardian, 2020). Kerala is the Indian state reported to have the highest Human Development Index in 2018. The literacy rate of Kerala is 93.91 percent. Based on a report submitted by the Kerala state planning board in 2017 the total labour force in the organized sector is reported to be 1.173 million among them 0.613 million (52 percent) are in the private sector (Economic Review Report, 2017).

Kerala a state having the highest literacy rate and educated workforce still the state is unsuccessful in generating employment opportunities due to poor industrialization. A major portion of the skilled workers from the state have emigrated to other Indian states, Gulf region and to other west Asian counties for employment (Thomas, 2003). COVID-19 pandemic has paved the way for job loss, especially among daily workers, immigrants and self-employed. The survived labour force is addressing serious issues in terms of a reduction in working hours, pay cut etc. (Refeque, Azad, & Sujathan, 2021). COVID-19 controlling measures such as lockdowns worsened the situation by reduction in employment, domestic demand, supply, finance and trade has disappointingly bowed the lives and livelihood conditions of the workers in Kerala. Numerous families lost financial assets such as savings and bank deposits, this was ratified by the Reserve Bank’s report on the household debt-to-GDP ratio has been increasing sharply since the end of 2018-19 from 37.1% on September 2020 to 37.9% by December 2020 (Inani, 2021). It is revealed that 59 per cent families in Kerala are facing increased indebtedness due to the lockdown and the others could manage their lives with their past savings (Das & Soni, 2020). The above data clearly signals how COVID-19 has adversely affected the personal financial planning of the households in Kerala. This really stood as a motivating factor for conducting a research in this line as Kerala is being a labour intensive economy and we believe that the observations and directions based on Kerala model will be size neutral for other states across the nation and even other labour grounded economies across the globe.

The authors have adopted an electronic questionnaire for collecting primary data. The data were collected during April 2020. During this period physical distribution of questionnaires was not possible as the government of India had declared nationwide lockdown. Thereby we have distributed electronic questionnaires via Google forms. The social networking groups of private-sector employees working across Kerala State were used as a venue for conducting this survey. The confidentiality and anonymity were duly assured in the questionnaire for encouraging the respondents to fill out the forms. We have employed a simple random sampling technique for data collection.

The adequacy of sample size for this study was mathematically calculated by using G*Power 3.1 software package. G*Power 3.1 provides power analysis procedures for both the conditional (and fixed-predictors) and the unconditional (or random-predictors) models of multiple regression (Gatsonis & Sampson, 1989). For linear regression model we followed the power analysis procedure suggested by Faul, Erdfelder, Buchner, and Lang (2009). A generally accepted minimum level of power is 0.80, this minimum is based on the idea that with a significance criterion of 5 percent (typically $\alpha = 0.05$). At this level the software has generated a sample value of 225. In this analysis, we have fixed two predictors in the software as COVID-19 and Personal Finance is

considered as independent variables in this study. The dependent variable (criterion) is the anxiety of the labour force. Though the desired sample value based on G*Power test is 225 and we have collected a sample of 362 confirms that the obtained samples can expect to be an approximation of the population values. Moreover, the academic literatures shows that a sample size of 200 is appropriate for path modelling (Hoyle, 1995), thus a sample of 362 can be justified as sufficient on both theoretical and statistical grounds.

For this research, we have adopted the following standardized questionnaires to identifying necessary variables for the survey. COVID-19 is an emerging area of research and similar studies related to this pandemic are limited. Thereby we have adopted a questionnaire framed by Wong, Gao, and Tam (2007) for measuring anxiety during the SARS epidemic in Hong Kong. The key COVID-19 variables such as govt. restrictions, restrictions on social activities, difficulty in diagnosing the disease, the difficulty of getting treatment, fear of getting affected to the family members, etc., was originated by reframing questionnaire developed by Wong et al. (2007). The anxiety level among workers was measured by using Zung's self-rating anxiety scale (Zung, 1971). The key anxiety variables proposed by Lee (2020) in the COVID-19 period, such as sleep disturbances; somatic distress; tonic immobility was additionally incorporated into the questionnaire. Some variables related to personal finance concerns of the workforce were derived from the financial self-efficacy scale developed by Farrell, Fry, and Risse (2016). Variables such as challenging my progress towards financial goals, it is hard to stick to my spending when unexpected expenses arise, etc., derived from this scale. A four-point Likert scale was used for the survey with options ranging from 1 (strongly disagree) to 4 (strongly agree). The content of the draft questionnaire was further validated through the Delphi technique. For content validation, an online meeting with five experts in the relevant field was organized via the Zoom platform. The re-drafted questionnaire was duly used for the final survey.

In this study, a cross-sectional research design was adopted for checking the mediation effect of personal finance on worker's anxiety during the COVID-19 pandemic. We have performed principal component analysis for dimension reduction. Kaiser-Meyer-Olkin (KMO) test was used to check the adequacy of sample size (Kaiser, 1974). In this study, we have obtained a KMO value of 0.909. This score is above the prescribed cut off conditions of $KMO > 0.7$ (Field, 2005) and $KMO > 0.5$ (Kaiser, 1974). Bartlett's test of sphericity (Bartlett, 1951) reported a satisfactory chi-square value of 3249.29 (p -value = 0.00, significance level = <0.05).

Table 1: Demographic Profile of the Respondents

Demographics	Category	Number	Percentage	Cumulative Percentage
Gender	Male	213	58.8	58.8
	Female	149	41.2	100.0
	Total	362	100.0	
Sector	Banking and Financial Services	66	18.2	18.2
	Education	70	19.3	37.6
	IT Enabled services	72	19.9	57.5
	Manufacturing	48	13.3	70.7

Table 1: continued

	The parcel, courier services	17	4.7	75.4
	Medical/Pharmacy	25	6.9	82.3
	Self-Owned Business	20	5.5	87.8
	Freelancer	26	7.2	95.0
	Agriculture	1	0.3	95.3
	Media	10	2.8	98.1
	Other	4	1.1	99.2
	Hotel/Hospitality	3	0.8	100.0
	Total	362	100.0	
Monthly Income	<INR10000	31	8.6	8.6
	INR10001-20000	53	14.6	23.2
	INR 20001-40000	162	44.8	68.0
	INR 40001-60000	54	14.9	82.9
	INR 60001-80000	38	10.5	93.4
	INR 80000 and above	24	6.6	100.0
	Total	362	100.0	
Experience	< 5 years	179	49.4	49.4
	5-10 years	66	18.2	67.7
	11-15 years	42	11.6	79.3
	16-20 years	29	8.0	87.3
	>20 years	46	12.7	100.0
	Total	362	100.0	
Age Group	21-30	180	49.7	49.7
	31-40	98	27.1	76.8
	41--50	50	13.8	90.6
	51-60	24	6.6	97.2
	>60	10	2.8	100.0
	Total	362	100.0	

Source: Primary Data.

Table 1 indicates that the respondents who participated in this survey were mostly working in banking (18.2%), IT-enabled services (19.9%), and education sectors (19.3%) together account 57.5% of the total responses received. The major portion of the respondents is male (58.8%). While considering income 44.8 % of the respondents are earning a monthly income between INR20000-40000. Half of the respondents were young falling within the age group of 21-30. The greater part of the respondents (49.4%) possessing work experience of less than five years.

4. RESULTS AND DISCUSSION

Table 2 represents the descriptive statistics and Cronbach's alpha values (Cronbach, 1951) of the identified factors. The mean response obtained for the factors is ranging from 2.004 to 2.518

(anxiety = 2.004, COVID 19 = 2.091, and personal finance = 2.518) respectively on a four-point scale. The reported standard deviations are 0.517 (COVID-19), 0.594 (personal finance) and 0.634 (anxiety). The Cronbach's alpha values of 0.8 or above report sound reliability of the factors (Cortina, 1993). In this study the alpha values are 0.794 (COVID-19), 0.806 (personal finance) and 0.920 (anxiety), is closer or above the critical level ($\alpha > 0.8$).

Table 2: Descriptive Statistics

	Mean	Std. Deviation	α	No. Variables
Anxiety	2.0048	0.63423	0.920	8
Personal Finance	2.5180	0.59409	0.806	6
COVID-19	2.0919	0.51705	0.794	4

Source: Primary Data.

In this research principal component analysis was performed. A commonly used criterion for the number of factors to rotate is the eigenvalues-greater-than-one rule proposed by Kaiser (1960). In this study, we have obtained eigenvalues of 7.244, 1.990, and 1.333 respectively under three different dimensions ($K1 > 1$). Variables under these dimensions were categorized as anxiety, personal finance, and COVID-19. Harman's single factor test condition (Podsakoff & Organ, 1986) was used to check the common method bias in the study. The un-rotated factor structure of the variables was examined and found that no single factor accounted for the majority of the variance. The total variance for a single factor under this study is reported to be 38.12 percent, which is less than 50 percent. Thus the chance of common method variance is ruled out. In the principal component analysis, varimax rotation was employed and coefficients below 0.50 were suppressed. In the rotation process, the six variables were duly eliminated. They are; restlessness/upset, fear of getting disease affected by family, travel restrictions, shopping restrictions, increasing cost of essential commodities, and cost of medical treatment.

Table 3: Rotated Component Matrix

Variable	1	2	3
Fear of affecting regular income		0.709	
Fear of tampering the personal savings pattern		0.693	
Possibility of influencing the financial repayments		0.662	
Long-term personal goals cannot be fulfilled		0.722	
Worried about the current family budget		0.659	
Fear of Job Cuts		0.798	
Difficulty in falling asleep/broken sleep	0.680		
Experiencing blood pressure	0.763		
Headache/neck ache/back pain	0.784		
Getting tired easily	0.791		
Lack of interest in hobbies	0.822		
Tensed and cannot breathe easily	0.840		
Stomach ache and indigestion	0.765		
Lack of concentration	0.702		
COVID-19: Difficult to get diagnosed			0.777
COVID-19: Treatment facilities are limited			0.686
COVID-19: Governments restrictions			0.691
COVID19: Restriction on social activities			0.671

Source: Primary Data Analysis.

The average variance extracted of the factors used in this study confirms the threshold level of 0.5 (COVID-19 = 0.501, personal finance = 0.503 and anxiety = 0.593). Anderson and Gerbing (1988) established that if the AVE is 0.5 or more confirms the convergent validity of the factors. The composite reliability of the factors is also reported to be sound as the obtained values are ranging from 0.799 to 0.920 (COVID-19 = 0.799, personal finance = 0.857, anxiety = 0.920). If the composite reliability of the factor loadings is above the threshold 0.7, then it indicates internal consistency (Hair et al. 2014).

Table 4: Convergent and Discriminant Validity

	CR	AVE	Correlation among constructs		
			COVID-19	Personal Finance	Anxiety
COVID-19	0.799	0.501	1		
Personal Finance	0.857	0.502	0.386	1	
Anxiety	0.920	0.593	0.312	0.566	1

Note: CR: Composite Reliability, AVE: Average Variance Extracted.

Source: Primary Data Analysis.

Further, we have assessed the correlation coefficient among the constructs using Karl-Pearsons's correlation measure (Pearson, 1920). COVID-19 and personal financial planning is moving in the same direction with a correlation coefficient of 0.386. It can be inferred that the pandemic has influenced the savings, repayment or investment pattern of the workforce. These findings partially agree with the arguments of Wainwright and Calnan (2000); Shaharuddin et al. (2021); Anand et al. (2021). COVID-19 has enhanced the anxiety of the workforce as confirmed by many researches such as Temash et al. (2020); Lee (2020); Alnazly et al. (2021); Giorgi et al. (2020); Chatterjee et al. (2021); De Kock et al. (2021); Torales et al. (2020). This study also came out with a similar line of findings, where the correlation coefficient is 0.312. Interestingly the financial anxiety of workers on account of the pandemic is reported to have the highest correlation value of 0.566. These findings add to the existing literatures of Robillard et al. (2020); Witteveen and Velthorst (2020); Hamouche (2020); Basyouni and Keshky, (2021). The discriminant validity of the factors was assessed by using the criterion suggested by Fornell and Larcker (1981). If the square root of the AVE is higher than the correlation between the constructs, then the discriminant validity can be confirmed. From Table 4 it can be observed that the square root of the AVE is greater than the correlation values of the factors either across the rows or columns.

The initial hypothecation (H1) of this study was COVID-19 has a direct relationship with the worker's anxiety. The result of regression analysis confirms this assumption ($\beta = 0.3830$, $T = 6.236$, $p = 0.00$). The second assumption (H2) was COVID-19 is positively related to personal finance. The test results revealed that COVID-19 is positively related to personal finance ($\beta = 1.589$, $T = 13.209$, $p = 0.00$). The positive relationship between personal finance and anxiety was speculated in H2 and it is reported that personal finance is positively related to anxiety ($\beta = 0.3154$, $T = 2.26$, $p = 0.02$).

Table 5: Direct, Indirect and Total Effects

COVID-19 on Anxiety	β	SE	T.value	p.value	LLCI	ULCI
Direct Effect	0.1351	0.0574	2.353	0.0191	0.0220	0.2481
Indirect Effect	0.2479	0.445 (Boot SE)			0.1643	0.3382
Total effect	0.3830	0.0614	6.236	0.0000	0.2622	0.5038

Note: LLCI: Lower-Level Confidence Interval, ULCI: Upper-Level Confidence Interval.

Source: Data Analysis.

The mediating role of personal finance during the impact of COVID-19 on the worker's anxiety was tested through the bootstrapping method using Hayes and Preacher's (2013) PROCESS macro 3.5 versions. The parameter estimates were obtained at a 5% level of significance. It can be observed that the direct effect of COVID-19 on anxiety is positive and significant as zero falls outside of the confidence interval values (LLCI = 0.022, ULCI = 0.2481). Similarly, the indirect effect of COVID-19 on the worker's anxiety through personal finance is also significant (LLCI = 0.1643, ULCI = 0.3382). Here both direct and indirect effects are significant and in the same direction, therefore complementary partial mediation is established. Thereby we can confirm the mediation effect of personal finance on worker anxiety during the COVID-19 pandemic period (Refer Table 5).

The purpose of this study is to empirically test the direct effect of COVID-19 pandemic on worker's anxiety. This was done to re-establish the cognitive triad theory (Beck, 1976) and the stress prospect model of Manojkrishnan and Aravind (2020). The study results confirmed that COVID-19 has a direct impact on the worker's anxiety. As a result, the physical symptoms like broken sleep, blood pressure, back pain, tiredness, lack of interest, stomach ache, and lack of concentration, etc., were occasionally felt by the respondents. The theory states that as cognitive triad interact, they interfere with normal cognitive processing, leading to the person becoming obsessed with negative thoughts and the same will leads to some kind of physical disorders (Beck, 1976). From health hypothesis point of the stress pandemic model (Manojkrishnan & Aravind, 2020) worry about health is high and the labour environment is unfavourable, the people attempt to safeguard their health, thus the pandemic has become a cause of health anxiety. These results also support the findings of Lee (2020) as they have reported symptoms such as sleep disturbances; somatic distress; tonic immobility as an impact of COVID-19. In the cognitive triad theory, a person may come across three kinds of worries viz., a negative view of self, negative view about the world, and a negative view on the future. In this study, we have given prominence to the following independent variables viz., difficult to get diagnosed, treatment facilities are limited, the government's restrictions, and restrictions on social activities. These variables are very much related to the negative view of a worker about the health.

The second objective of this study was to analyze the mediation effect of personal finance on workforce anxiety during the COVID-19 pandemic. This study was carried out based on integrating theoretical models viz., cognitive triad (Beck, 1976), the ABC-X model (Hill, 1949) and stress-prospect pandemic model (Manojkrishnan & Aravind, 2020). Here we examined how personal finance as a mediator can impact worker's anxiety. The personal finance variables used for this study are fear of affecting regular income, fear of tampering the personal savings pattern, the possibility of influencing the financial repayments, long-term personal goals cannot be fulfilled, worried about the current family budget, and fear of job cuts. These variables are identified in the light of a negative view of self and a negative view on the future in the cognitive triad (Beck, 1976).

In the ABC-X model; Hill (1949) states that stressful events or situations (A), interacting with crisis meeting resources (B&C), and produce a crisis (X). COVID-19 is a stressful situation, that interacting with personal finance resources and enhances the anxiety of the workers. This was re-established by the income hypothesis of the model proposed by Manojkrishnan and Aravind (2020). Earning money for meeting physiological needs has become the source of worry for workers during the pandemic. This theory was reconfirmed based on the empirical model by establishing a partial mediation for personal finance on workforce anxiety.

5. CONCLUSION

From the discussion we wish to place some strategic measures to the policymakers, the corporate, and to the workers. Companies can use a part of their welfare fund for conducting COVID-19 vaccination drive for their workers, family members of the workers and to the local community. It is another measure for mitigating the risk of infection to the workers and to their dear ones. Conducting vaccination drive among local community enable to control the spread of disease near the factory surroundings, thereby workers anxiety about possible infection would also get reduced. Ministry of Corporate Affairs, Government of India has clarified that the amount spend on vaccination for persons other than employees are eligible for CSR activity under Schedule VII of the Companies Act of 2013 (Srivats, 2021).

Initially, the government of India has issued a circular requesting all corporate not to terminate their employees or reduce their wages. This circular was not properly implemented among the vulnerable group of workers such as casual-contract-migrant workers and employees in private sectors. Proper inspection and enforcement should be implemented via labour offices across the country to ensure that the workers are not losing their job. The government can also effectively implement this strategy by offering tax rebates to the companies those who have complied with this circular. At corporate level wage committees can be effectively used to hear the wage related complaints of the workers and if not properly addressed at this level, then the grievances can be escalated to State-level Labour Boards or Tribunals. For mitigating anxiety at personal finance level initially, the Reserve Bank of India has allowed banks and financial institutions to offer three month moratorium in repayment of all household loans. This moratorium should be made as to interest-free and extension can be granted to the needy persons. We suggest an extension of this moratorium to persons those who have lost their jobs due to the pandemic.

The corporate should take initiatives by organizing personal financial coaching sessions, psychological counselling, etc. to the workers to reduce their anxiety related to economic and safety reasons (Xiang et al., 2020). The companies can take medical insurance policies for their workers to cover up the expense of COVID-19 treatment. And for mitigating the risk of job loss, they can go for work insurance plan, though it was not so popular in India prior to the pandemic. Such plan can help in addressing financial effects from the loss of their family's primary income due to any such pandemics in the future.

Additionally the government can rejuvenate the role of employment exchanges across the state for taking the count of job losses and jobs available in various sectors for finding appropriate jobs for displaced persons. This process may take some time until some measures must be taken to provide unemployment wages to the displaced workers. It is evident that such measures will enhance the

financial burden of the government during the pandemic period; however, this move can boost up money circulation in the bottom level of the economy. So the consumption will automatically will get enhanced. We also would like to place Keynes (1936) underemployment equilibrium in this context as it explicates that level of employment will get increased with an increase in consumption. So the policymakers should ensure that money is circulated among the bottom-line or among middle class to lift consumption. The above implications are relevant throughout the country due to the federal governance structure in India and the state's power is restrained to the public health matters only. We wish to appeal that both the central government and state government should act collectively to overcome the work related and financial chaos created by the pandemic among private labourers.

One of the limitations of this research is the survey was conducted by using an electronic questionnaire during the lockdown period; as a result, the researchers were not able to obtain additional variables by considering the feelings and aspirations of the respondents. The second limitation is that this study fails to cover the responses of the most vulnerable groups like casual labours, migrant workers, etc., this limitation stood as an opportunity for future researchers as an extensive study can be carried out on the topic post-pandemic anxiety of migrant and casual workers.

ACKNOWLEDGEMENT

We are thankful to the IJBS chief editor, editorial team and reviewers for their valuable comments which really helped us to improve this work. Special thanks to Mr. Sreejith S Nair, Senior Functional Consultant, Azentio Software, Malaysia for his support.

REFERENCES

- Achdut, N., & Refaeli, T. (2020). Unemployment and psychological distress among young people during the COVID-19 pandemic: Psychological resources and risk factors. *International Journal of Environmental Research and Public Health*, 17, 7163. <https://doi.org/10.3390/ijerph17197163>
- Alnazly, E., Khraisat, O. M., Al-Bashaireh, A. M., & Bryant, C. L. (2021). Anxiety, depression, stress, fear and social support during COVID-19 pandemic among Jordanian healthcare workers. *PLoS ONE*, 16(3), e0247679. <https://doi.org/10.1371/journal.pone.0247679>
- Anand, S., Mishra, K., Vermam, V., & Taruna, T. (2021). Financial literacy as a mediator of personal financial health during COVID-19: A structural equation modelling approach. *Emerald Open Research*, 2(59), 59. <https://doi.org/10.35241/emeraldopenres.13735.2>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423. <http://dx.doi.org/10.1037/0033-2909.103.3.411>
- Banerjee, D. (2020). The COVID-19 outbreak: Crucial role the psychiatrists can play. *Asian Journal of Psychiatry*, 50, 102014. <https://doi.org/10.1016/j.ajp.2020.102014>
- Barrafrem, K., Västfjäll, D., & Tinghög, G. (2020). Financial well-being, COVID-19, and the financial better-than-average-effect. *Journal of Behavioral and Experimental Finance*, 28, 100410. <https://doi.org/10.1016/j.jbef.2020.100410>

- Bartlett, M. S. (1951). The effect of standardization on a Chi-square approximation in factor analysis. *Biometrika*, 38(3/4), 337-344. <https://doi.org/10.2307/2332580>
- Basyouni, S. S., & Keshky, M. S. (2021). Job insecurity, work-related flow, and financial anxiety in the midst of COVID-19 pandemic and economic downturn. *Front. Psychol*, 12, 632265. <https://doi.org/10.3389/fpsyg.2021.632265>
- Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. International Universities Press.
- Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J. (2020). The psychological impact of quarantine and how to reduce it: Rapid review of evidence. *The Lancet*, 395(10227), 912-920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., & Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, 287, 112934. <https://doi.org/10.1016/j.psychres.2020.112934>
- Chatterjee, S. S., Chakrabarty, M., Banerjee, D., Grover, S., Chatterjee, S. S., & Dan, U. (2021). Stress, sleep and psychological impact in healthcare workers during the early phase of COVID-19 in India: A factor analysis. *Front. Psychol*, 12, 611314. <https://doi.org/10.3389/fpsyg.2021.611314>
- Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, 78(1), 98-104. <https://doi.org/10.1037/0021-9010.78.1.98>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334. <http://dx.doi.org/10.1007/BF02310555>
- Das, G. (2020, March 31). 136 million jobs at risk in post-corona India. *Live mint news*. <https://www.livemint.com/news/india/136-million-jobs-at-risk-in-post-corona-india-11585584169192.html>
- Das, S., & Soni, T. L. (2020, September 16). Lockdown takes a heavy toll on Kerala households. *Business Line*. <https://www.thehindubusinessline.com/opinion/lockdown-takes-a-heavy-toll-on-kerala-households/article32623010.ece>
- De Kock, J. H., Latham, H. A., Leslie, S. J., Grindle, M., Munoz, S. A., Ellis, L., Polson, R., & O'Malley, C. M. (2021). A rapid review of the impact of COVID-19 on the mental health of healthcare workers: Implications for supporting psychological well-being. *BMC Public Health*, 21, 104. <https://doi.org/10.1186/s12889-020-10070-3>
- Economic Review Report. (2017). *State Planning Board*. Government of Kerala. https://spb.kerala.gov.in/economic-review/ER2017/web_e/foreword.php
- Farrell, L., Fry, T. R. L., & Risse, L. (2016). The significance of financial self-efficacy in explaining women's personal finance behavior. *Journal of Economic Psychology*, 54, 85-99. <https://doi.org/10.1016/j.joep.2015.07.001>
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G* Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41(4), 1149-1160. <https://doi.org/10.3758/BRM.41.4.1149>
- Field, A. (2005). *Discovering Statistics Using SPSS* (2nd ed.). Sage Publications.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50. <https://doi.org/10.1177/002224378101800104>
- Fox, J. & Bartholomae, S. (2020). Household finances, financial planning, and COVID-19. *Financial Planning Review*, 3(4), e1103. <https://doi.org/10.1002/cfp2.1103>

- Gatsonis, C., & Sampson, A. R. (1989). Multiple correlation: Exact power and sample size calculations. *Psychological Bulletin*, 106(3), 516-524. <https://doi.org/10.1037/0033-2909.106.3.516>
- Giorgi, G., Lecca, L. I., Alessio, F., Finstad, G. L., Bondanini, G., Lulli, L. G., Arcangeli, G., & Mucci, N. (2020). COVID-19-related mental health effects in the workplace: A narrative review. *International Journal of Environmental Research and Public Health*, 17(21), 7857. <https://doi.org/10.3390/ijerph17217857>
- Guillemette, M., Finke, M., & Gilliam, J. (2012). Risk tolerance questions to best determine client portfolio allocation preferences, *Journal of Financial Planning*, 25(5), 36-44.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling* (1st ed.). Sage.
- Hamouche, S. (2020). COVID-19 and employees' mental health: Stressors, moderators and agenda for organizational actions. *Emerald Open Research*, 2, 15. <https://doi.org/10.35241/emeraldopenres.13550.1>
- Hayes, A. F. & Preacher, K. J. (2013). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*, 67(3), 451-470. <https://doi.org/10.1111/bmsp.12028>
- Hill, R. (1949). *Families under stress: Adjustment to the crises of war separation and reunion*. Harper & Brothers.
- Hoyle, R. H. (1995). *Structural equation modeling: Concepts, issues, and applications*. Sage Publications.
- Ilut, C. L., & Schneider, M. (2014). Ambiguous business cycles. *American Economic Review*, 104(8), 2368-2399. <https://doi.org/10.1257/aer.104.8.2368>
- Inani, R. (2021, August 30). How a year of Covid-19 financially dented India's middle class. *India Spend*. <https://www.indiaspend.com/covid-19/how-a-year-of-covid-19-financially-dented-indias-middle-class-770838>
- International Labour Organisation (2020, March 18). Almost 25 million jobs could be lost worldwide as a result of COVID-19, says ILO. ILO News. [https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_738742/lang--en/index.htm](https://www.ilo.org/global/about-the-ilo/newsroom/news/WCMS_738742/lang-en/index.htm)
- Jacob, E., & Ching, W. L. (2021, February 8). Feeling the strain: Stress and anxiety weigh on world's workers. *Financial Times*. <https://www.ft.com/content/02d39d97-23ed-45ff-b982-7335770ae512v>
- Jin, X., Zhao, Y., Song, W., & Zhao, T. (2021). Save for safe: Effect of COVID-19 pandemic on consumers' saving and spending behavior in China. *Front. Psychol.*, 12, 636859. <https://doi.org/10.3389/fpsyg.2021.636859>
- Kaiser, H. F. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, 20(1), 141-151. <https://doi.org/10.1177/001316446002000116>
- Kaiser, H. (1974). An index of factor simplicity. *Psychometrika* 39, 31-36. <https://doi.org/10.1007/BF02291575>
- Kamstra, M. J., Kramer, L. A., & Levi, M. D. (2003). Winter blues: A SAD stock market cycle. *American Economic Review*, 93(1), 324-343. <https://doi.org/10.1257/000282803321455322>
- Keynes, J. M. (1936). *The General Theory of Employment, Interest and Money*. Macmillan.

- Kothai, R., & Arul, B. (2020). 2019 novel coronavirus: A mysterious threat from Wuhan, China- A current review. *International Journal of Research in Pharmaceutical Sciences*, 11(SPL 1), 7-15.
- Kurowski, L. (2021). Household's overindebtedness during the COVID-19 crisis: The role of debt and financial literacy. *Risks*, 9(4), 62. <https://doi.org/10.3390/risks9040062>
- Lee, S. A. (2020). Coronavirus anxiety scale: A brief mental health screener for COVID-19 related anxiety. *Death Studies*, 44(7), 393-401. <https://doi.org/10.1080/07481187.2020.1748481>
- Little, K. (2020, June 23). Survey: Most Americans are feeling anxious about their money. *Next Advisor*. <https://time.com/nextadvisor/banking/coronavirus-financial-anxiety/>
- Manojkrishnan, C. G., & Aravind, M. (2020). Covid - 19 pandemic and its impact on labor force: A new model based on social stress theory and prospect theory. *Scientific Papers of the University of Pardubice, Series D: Faculty of Economics and Administration*, 28(3), 1-12. <http://dx.doi.org/10.46585/sp28031070>
- Martin, A., Markhvida, M., Hallegatte, S., & Walsh, B. (2020). Socio-economic impacts of COVID-19 on household consumption and poverty. *Economics of Disaster and Climate Change*, 4, 453-479. <https://doi.org/10.1007/s41885-020-00070-3>
- Nagasu, M., Muto, K., & Yamamoto, I. (2021). Impacts of anxiety and socioeconomic factors on mental health in the early phases of the COVID-19 pandemic in the general population in Japan: A web-based survey. *PLOS ONE*, 16(3), e0247705. <https://doi.org/10.1371/journal.pone.0247705>
- Nastiti, R., & Rusvitawati, D. (2021). Impacts of COVID-19 pandemic on employees' anxiety and safety behavior at higher educational institutions in Banjarmasin. *INOBI: Jurnal Inovasi Bisnis dan Manajemen Indonesia*, 4(2), 295-304. <https://doi.org/10.31842/jurnalinobis.v4i2.184>
- Nofsinger, J. R., Patterson, F. M., & Shank, C. A. (2018). Decision-making, financial risk aversion, and behavioral biases: The role of testosterone and stress. *Economics and Human Biology*, 29, 1-16. <https://doi.org/10.1016/j.ehb.2018.01.003>
- Orly, Z., & Richard, M. S. (2020). Covid-19 - A reminder to reason. *The New England Journal of Medicine*, 383(3), e12(1)-e12(3). <https://doi.org/10.1056/NEJMp2009405>
- Pearson, K. (1920). Notes on the history of correlation. *Biometrika*, 13(1), 25-45. <https://doi.org/10.2307/2331722>
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12(4), 531-544. <https://doi.org/10.1177/014920638601200408>
- Qiu, J., Shen, B., Zhao, M., Wang, Z., Xie, B., & Xu, Y. (2020). A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: Implications and policy recommendations. *General Psychiatry*, 33(2), e100213. <http://dx.doi.org/10.1136/gpsych-2020-100213corr1>
- Rasdi, R. M., Zaremohzzabieh, Z., & Ahrari, S. (2021). Financial insecurity during the COVID-19 pandemic: Spillover effects on burnout-disengagement relationships and performance of employees who moonlight. *Front. Psychol*, 12, 610138. <https://doi.org/10.3389/fpsyg.2021.610138>
- Refeque, M., Azad, P., & Sujathan, P. K. (2021). How do workers sustain COVID induced labour market shock: Evidence from the Indian state of Kerala. *The Indian Economic Journal*, 69(3), 520-533. <https://doi.org/10.1177/00194662211023814>

- Robillard, R., Saad, M., Edwards, J., Solomonova, E., Pennestri, M. H., Daros, A., Veissière, S. P. L., Quilty, L., Dion, K., Nixon, A., Phillips, J., Bhatla, R., Spilg, E., Godbout, R., Yazji, B., Rushton, C., Gifford, W. A., Gautam, M., Baofo, A., ... Kendzerska, T. (2020). Social, financial and psychological stress during an emerging pandemic: Observations from a population survey in the acute phase of COVID-19. *BMJ Open*, *10*(12), e043805. <https://doi.org/10.1136/bmjopen-2020-043805>
- Rodríguez-Hidalgo, A. J., Pantaleón, Y., Dios, I., & Falla, D. (2020). Fear of COVID-19, stress, and anxiety in university undergraduate students: A predictive model for depression. *Front. Psychol.*, *11*, 591797. <https://doi.org/10.3389/fpsyg.2020.591797>
- Shaharuddin, N. S., Zain, Z. M., & Ahmad, S. F. S. (2021). Financial planning determinants among working adults during Covid 19 pandemic. *International Journal of Academic Research in Accounting Finance and Management Sciences*, *11*(1), 285-304. <http://dx.doi.org/10.6007/IJARAFMS/v11-i1/8998>
- Srivats, K. R. (2021, August 1). Covid jobs to be treated as CSR activity. *Business Line*. <https://www.thehindubusinessline.com/companies/covid-jobs-to-be-treated-as-csr-activity/article35657792.ece>
- Suryavanshi, N., Kadam, A., Dhumal, G., Nimkar, S., Mave, V., Gupta, A., Cox, S. R., & Gupte, N. (2020). Mental health and quality of life among healthcare professionals during the COVID-19 pandemic in India. *Brain and Behavior*, *10*(11), e01837. <https://doi.org/10.1002/brb3.1837>
- Szustak, G., Gradoń, W., & Szewczyk, L. (2021). Household financial situation during the COVID-19 pandemic with particular emphasis on savings—An evidence from Poland compared to other CEE states. *Risks*, *9*(9), 166. <https://doi.org/10.3390/risks9090166>
- Tan, W., Hao, F., McIntyre, R. S., Jiang, L., Jiang, X., Zhang, L., Zhao, X., Zou, Y., Hu, Y., Luo, X., Zhang, Z., Lai, A., Ho, R., Tran, B., Ho, C., & Tamk, W. (2020). Is returning to work during the COVID-19 pandemic stressful? A study on immediate mental health status and psychoneuroimmunity prevention measures of Chinese workforce. *Brain Behavior, and Immunity*, *87*, 84–92. <https://doi.org/10.1016/j.bbi.2020.04.055>
- Temash, M., Al-Sohime, F., Alamro, N., Al-Eyadhy, A., Al-Hasan, K., Jamal, A., Al-Maglouth, I., Aljamaan, F., Al Amri, M., Barry, M., Al-Subaie, S., & Somily, A. M.. (2020). The psychological impact of COVID-19 pandemic on health care workers in a MERS-CoV endemic country. *Journal of Infection and Public Health*, *13*(6), 877-882. <https://doi.org/10.1016/j.jiph.2020.05.021>
- The Guardian. (2020, April 21). How the Indian state of Kerala flattened the coronavirus curve. *The Guardian*. <https://www.theguardian.com/commentisfree/2020/apr/21/kerala-indian-state-flattened-coronavirus-curve>
- Thomas, J. J. (2003). Labor and industrialization in Kerala. *Indian Journal of Labor Economics*, *46*(4), 575-592.
- Torales, J., O'Higgins, M., Castaldelli-Maia, J. M., & Ventriglio, A. (2020). The outbreak of COVID-19 coronavirus and its impact on global mental health. *International Journal of Social Psychiatry*, *66*(4), 317-320. <https://doi.org/10.1177/0020764020915212>
- Verma, S., & Mishra, A. (2020). Depression, anxiety, and stress and socio-demographic correlates among general Indian public during COVID-19. *International Journal of Social Psychiatry*, *66*(8), 756-762. <https://doi.org/10.1177/0020764020934508>
- Vinkers, C. H., Amelsvoort, T., Bisson, J. I., Branchi, I., Cryan, J. F., Domschke, K., Howes, O. D., Manchia, M., Pinto, L., Quervain, D., Schmidt, M. V., & Wee, N. J. A. (2020). Stress

- resilience during the coronavirus pandemic. *European Neuropsychopharmacology*, 35, 12-16. <https://doi.org/10.1016/j.euroneuro.2020.05.003>
- Vyas, L., & Butakhieo, N. (2021). The impact of working from home during COVID-19 on work and life domains: An exploratory study on Hong Kong. *Policy Design and Practice*, 4(1), 59-76. <https://doi.org/10.1080/25741292.2020.1863560>
- Wainwright, D., & Calnan, M. (2000). Rethinking the work stress 'epidemic'. *The European Journal of Public Health*, 10(3), 231-233.
- Witteveen, D., & Velthorst, E. (2020). Economic hardship and mental health complaints during COVID-19. *Proceedings of the National Academy of Sciences*, 117(44), 27277-27284. <https://doi.org/10.1073/pnas.2009609117>
- Wong, T. W., Gao, Y., & Tam, W. W. S. (2007). Anxiety among university students during the SARS epidemic in Hong Kong. *Stress and Health*, 23(1), 31-35. <https://doi.org/10.1002/smi.1116>
- Xiang, Y. T., Yang, Y., Li, W., Zhang, L., Zhang, Q., Cheung, T., & Ng, C. H. (2020). Timely mental health care for the 2019 novel coronavirus outbreak is urgently needed. *The Lancet Psychiatry*, 7(3), 228-229. [https://doi.org/10.1016/S2215-0366\(20\)30046-8](https://doi.org/10.1016/S2215-0366(20)30046-8)
- Yethindra, V. (2020). Role of GS-5734 (Remdesivir) in inhibiting SARS-CoV and MERS-CoV: The expected role of GS-5734 (Remdesivir) in COVID-19 (2019 nCoV)-VYTR hypothesis. *International Journal of Research in Pharmaceutical Sciences*, 11(SPL 1), 1-6. <http://dx.doi.org/10.26452/ijrps.v11iSPL1.1973>
- Zung, W. W. K. (1971). A rating instrument for anxiety disorders. *Psychosomatics*, 12(6), 371-379. [https://doi.org/10.1016/S0033-3182\(71\)71479-0](https://doi.org/10.1016/S0033-3182(71)71479-0)