

# Impact of Covid-19 Pandemic on Mental State, Personal Finance and the Economy: Evidence from the United States

Titilope Akinsanmi<sup>1</sup> Abisoluwa Akinboboye<sup>2</sup> Chukwuemeka Ebiringa<sup>3</sup>

1.Department of Public Policy & Urban Affairs, Southern University and A & M College, Baton Rouge, Louisiana

2.Department of Brand and Media Strategy, East Tennessee State University, Johnson City, Tennessee

3.Department of Clinical Mental Health Cancellng, Southern University and A & M College, Baton Rouge, Louisiana

## Abstract

This paper investigated the impact of COVID-19 pandemic on the mental state of the US residents, as well as the impact of mental state on personal finance and the US economy. The objectives of the current study were to: (i) determine the factors affecting the psychological state of US residents following COVID-19 outbreak; (ii) evaluate the impact of mental state and personal life on economy and finance. By deploying quantitative research design, secondary survey data relating to the US were analysed using descriptive statistics and structural equation modelling. Result shows that a sizable proportion of people are worried about their mental health because of the COVID-19. Furthermore, the level of satisfaction with the national government's response to the COVID-19 / coronavirus pandemic in the United States is low, while people are generally not satisfied with fellow citizens' response to the COVID-19 / coronavirus pandemic in the United States. However, the level of Satisfaction with hospitals' response to the COVID-19 / coronavirus pandemic in the United States is generally high. The two factors affecting the psychological state of US residents are the impact of the COVID-19 / coronavirus pandemic on personal finances and the level of hospitals' response to the COVID-19 (research objective one). Worry and mental state both affect people's everyday life, however, the impact of worry is more pronounced on everyday life, as this may affect people's productivity (research objective two). Considering that US residents/ citizens are generally satisfied with the measures taken by hospitals to tackle the spread of COVID-19 and treat COVID-19 pandemic, the study recommends that more public funds should be pledged to upscaling the quality and capacity of health infrastructure in the US. This becomes important considering that hospitals have a great impact on the psychological state of residents.

**Keywords:** COVID-19, mental health, personal finance, US economy, social distancing

**DOI:** 10.7176/JESD/12-6-09

**Publication date:** March 31<sup>st</sup> 2021

## 1. INTRODUCTION

The COVID-19 global pandemic has undoubtedly affected the nations of the world (Thelwall & Thelwall, 2020). Considering that in the wake of the COVID 19 outbreak, people had to grapple with fear, loneliness, panic, anxiety, and separation from loved ones in order to cope with the ravaging effect of the pandemic (Mahmoud-Saleh & Karia, 2020). As observed from the literature, there is an undeniable fact that the global pandemic has altered peoples' way of lives (Frimpong, 2020). As a result, several public health protocols were introduced by the World Health Organization including hand-washing, use of sanitizers, wearing of masks and social distancing to contain the spread of the COVID-19 virus. By dwelling on the significant role of social distancing, as a non-pharmacological intervention strategy to contain the spread of the virus (Nagel, 2020), maintaining social distance is now a 'new normal' affecting several people in different dimensions, especially the vulnerable. This also affects those experiencing cognitive decline such as elderly people, people suffering from drug and alcohol use, and those suffering from dementia and Alzheimer's disease, among others (Emerson, 2020; Omobowale, Oyelade, Omobowale & Falase, 2020). As the psychological state of people's mind may affect their productivity and contribution to economic development, it is important to provide empirical evidence on the nexus between Mental state of mind, personal finance and the economy.

As self-isolation and social distance are now ubiquitous practice embraced as the new trend—which is unlikely to go away anytime soon— it becomes important to investigate the impact of social isolation on personal finance, and its associated effect on the larger economy (The New York Times, 2020). Meanwhile, knowledge on the impact of mental state and social isolation on the people's finance and the economy will be helpful to organisations and governments of the world in formulating post-COVID-19 policies that may actualise the achievement of UN SDG 3 (Good Health & Well-Being) in the light of the recent global health pandemic. The study focused on the United States of America (US). US is among the countries with the highest infection rate and COVID-19 death tolls. Other countries such as Italy, Spain, France and UK are among the top-ranking nations with high spate of COVID-19 infection and number of deaths. As of April 23, 2020, the number of COVID-19 induced deaths stood at 47,681, followed by Italy with death toll of 25,085 and Spain recording 21,717 deaths at

the time (World Health Organization, 2020). Therefore, a study from the US is both timely and relevant considering that the country has the highest infection rate of COVID-19 in the world. An exposition on how COVID-19 has affected peoples' personal lives and finance, and the US economy is very critical for formulation of post-COVID-19 recovery policy in the US. Given the economic and political power of the US among nations of the world, the study is also relevant to other countries in formulating strategies that will see to the recovery of the world economy following the COVID-19 outbreak.

Against this backdrop, the objectives of the current study are to: (i) determine the factors affecting the psychological state of US residents following COVID-19 outbreak; (ii) evaluate the impact of mental state and personal life on economy and finance. Result shows that a sizable proportion of people are worried about their mental health because of the COVID-19. Furthermore, the level of satisfaction with the national government's response to the COVID-19 / coronavirus pandemic in the United States is low, while people are generally not satisfied with fellow citizens' response to the COVID-19 / coronavirus pandemic in the United States. However, the level of Satisfaction with hospitals' response to the COVID-19 / coronavirus pandemic in the United States is generally high. The two factors affecting the psychological state of US residents are the impact of the COVID-19 / coronavirus pandemic on personal finances and the level of hospitals' response to the COVID-19 (research objective one). Worry and mental state both affect people's everyday life, however, the impact of worry is more pronounced on everyday life, as this may affect people's productivity (research objective two). The economy of US is worse hit by COVID in comparison to people's personal finance. This may be expected because adverse effect on individual finance sums up to determine the overall impact on the entire economy.

## **2. LITERATURE REVIEW OF COVID-19 OUTBREAK, MENTAL HEALTH AND THE ECONOMY**

In the wake of the COVID-19 outbreak, social isolation was supposedly one of the most prominent and effective non-pharmacological strategies for containing the spread of the highly contagious and deadly Coronavirus, as evidenced by the imposition of lockdown in many nations of the world (Hamdan-Mansour, Al Shibi, Khalifeh & Hamdan Mansour, 2020).

However, considering that people suffering from cognitive decline heavily require the assistance of care givers and family members (Eley, 2016), there is the possibility that the absence of such requisite support may adversely affect persons in this category. Social isolation may have negative impact on patients experiencing cognitive decline (Evans & Bray, 2016; Chapman, 2018). This may extend to memory decline and language coordination (Gethin - Jones, 2012; Dayrit & Mendoza, 2020). Studies show that absence of human interaction or contact is associated with decline in cognitive function (Offord, 2020; Guido, Pichierri, Rizzo, Chieffi & Moschis, 2020). Relatedly, psychology and learning theories suggest that human beings are both psychological and social beings (Boddy, 2012; Mullins & Christy, 2013). Few personal relationships by people undergoing psychological therapy on substance abuse may reverse the gains of recovery and may even worsen the condition of patients through reinforced consumption of narcotic drug or increased use of harmful substance (Burke & Cocoman, 2020). The increased consumption of harmful substance as a result of lack of communication to the outside world by people suffering from the direct and remote effects of substance abuse threatens their health, safety and overall wellbeing (World Health Organisation, WHO 2002, 2012).

Whereas there is a body of literature suggesting that social isolation may aggravate mental health disorders and could negatively affect social and emotional wellbeing of people, the debate is inconclusive as result from empirical studies is mixed (e.g. Oliver, Murphy & Cox, 2010; Gethin-Jones, 2014). Although there appears to be evidence that social isolation may contribute to cognitive decline in older people (e.g. Burke & Cocoman, 2020; Offord, 2020), empirical evidence to support this proposition is lacking. Literature suggests that questions surrounding the potential detrimental effects of social isolation occasioned by pandemic or other circumstances on older adults remain unaddressed (e.g. Manca, De Marco & Venneri, 2020; Vindegaard & Benros, 2020). Further, empirical evidence on the link between social isolation, cognition and language behaviour is still sparse (e.g., Gethin - Jones, 2012; Düz el & Drewelies, 2019; Vindegaard & Benros, 2020), as it appears the subject is under-researched. Some scholars argue that cognition decline on account of little communication with the outside world is not peculiar to the older people, but equally affects people not suffering any cognitive dysfunction. Other studies suggest that the effective deployment of information technology can overcome some problems occasioned by lack of one-on-one contact during social isolation (e.g. Nagel, 2020; Singh, Singh, Houssein & Ahmad, 2020).

Whilst there is growing evidence that social isolation may have negative impact on mental wellbeing of older people and persons with cognitive impairments, other studies have punctured this claim by presenting evidence that reduction or withdrawal of assistance may have no significant adverse effect on this set of vulnerable people in the society. In reconciling the diverging views of scholars, it appears limited sample size and scope in most studies is affecting generalisability of results. Most studies on the subject have used one data-collection technique of either structured questionnaire (e.g. Emerson, 2020; Shriram, Hoffman, Bodner & Palgi, 2020), interview (e.g. Lara, Carnes, Dakterzada, Benitez & Piñol-Ripoll, 2020), case study (e.g. Fahed, Barron & Steffens, 2020; Hwang, Kim, Park, Chang & Park, 2020), or analysis of archival data (e.g. Padala, Jendro & Orr, 2020). The use of one-

sided data-collection technique, and the ensuing data-analysis technique, in many studies may be contributory to the lack of consensus among scholars on the impact of social isolation on patients experiencing cognitive decline. Decline in cognition affects the mental state of people, and this may affect their ability to contribute meaningfully to national economic development. Decline in personal finance on account of reduced mental cognition may negatively affect the economy at large, since it is individual contribution to the economy that is aggregated to determine the world economy.

Although there appears to be evidence that social isolation may contribute to cognitive decline in older people and persons with cognitive impairments, empirical evidence to support this proposition is lacking, as results reported in literature are contradictory. The use of a data triangulation strategy such as combining primary data-collection (questionnaire and interview) with archival data may improve the quality of research findings. Larger and more robust research designs are required to provide well-validated findings. This study attempts to close this gap by empirically examining the link between mental state, personal finance and economic development in the US.

### 3 METHODOLOGY

#### 3.1 Research Design and Measurement of Variables

Quantitative research design was adopted for the study using the survey method. Survey research design was selected because it affords the researcher the opportunity to gather quantitative data conveniently and economically from large number of respondents (Ghauri & Grønhaug, 2005). However secondary survey data was used covering the country under focus. The variables of the study and how they were measured is presented in Table 2.

**Table 1: Measurement of Variables**

S/N	Variable Name	Measurement and Connotation
1	Economy	economic stability as a result of the COVID-19 / coronavirus pandemic in the United States, United Kingdom, Germany and China 2020
2	Life	Level of impact of the COVID-19 / coronavirus pandemic on people's everyday life in the United States, United Kingdom, Germany and China 2020: SCALE 1 (No impact at all) to 10 (severely impacted)
3	Mental	Share of persons worried about their mental health because of the COVID-19 / coronavirus pandemic in the United States, United Kingdom, Germany and China 2020
4	Worry	Share of persons most worried about the COVID-19 / coronavirus pandemic in the United States, United Kingdom, Germany and China
5	Govt.	Satisfaction with the national government's response to the COVID-19 / coronavirus pandemic in the United States, United Kingdom and Germany 2020
6	Finance	Level of impact of the COVID-19 / coronavirus pandemic on people's personal finances in the United States, United Kingdom, Germany and China 2020. SCALE 1 (No impact at all) to 10 (severely impacted)
7	Citizen	Satisfaction with fellow citizens' response to the COVID-19 / coronavirus pandemic in the United States, United Kingdom, Germany and China 2020
8	Hospital	Satisfaction with hospitals' response to the COVID-19 / coronavirus pandemic in the United States, United Kingdom and Germany 2020

**Source:** Author's Modification

#### 3.2 Method of Data Collection

Survey Data on the COVID 19 pandemic covering the four countries under consideration were obtained from the database of statistica (<https://statistica.com>). The data covered the eight variables enumerated in Table 1 for the four countries for 30-daily observations, making a total of 960 observations used in the analysis. The survey spanned across two months (March to April 2020) when the COVID-19 cases peaked all over the world. The use of survey data covering this period is adjudged appropriate considering that this was the peak period when the government of nations started restricting movement, imposing curfews and invoking lockdown as measures to contain the spread of the virus. Thus, survey data generated this period is considered to be a reflection of the severity of the COVID-19 outbreak on social and economic system. The focus on the four countries is justified on the basis that they are part of the countries worst hit by the COVID-19 outbreak (Table 1 shows the death toll per country affected by the COVID-19 outbreak). By considering the complexity of the interrelationship between the variables, a structural equation modelling approach was used to assess the impact of the COVID-19 on these variables. Data analysis was aided by STATA 14 software.

#### 4. DATA PRESENTATION AND DISCUSSION

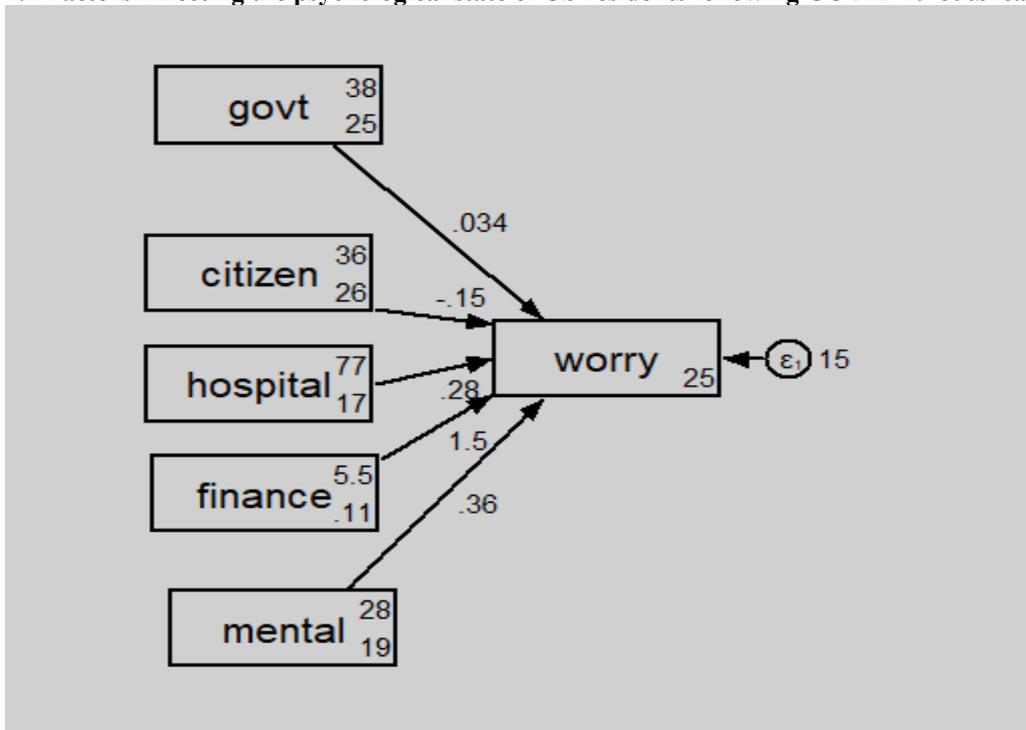
**Table 2: Descriptive Statistics of study variables**

Variable	Obs	Mean	Std. Dev.	Min	Max
economy	60	65.86667	5.026933	51	74
life	60	7.056667	.2235057	6.6	7.4
mental	60	27.8	4.375587	16	34
worry	60	60.73333	4.441204	54	70
govt	60	38.13333	5.067232	25	46
finance	60	5.503333	.3329206	5	6.2
citizen	60	36.06667	5.108539	25	45
hospital	60	76.93333	4.116386	69	85

**Source:** Author's Analysis (2021)

From the result in Table 2, with a Mean of 65.86/100, it appears that the US economy is noticeably shaken by the COVID pandemic. With an average score of 7/10, people's everyday life is severely impacted by the COVID outbreak in the United States. A sizable proportion of people are worried about their mental health because of the COVID-19. Furthermore, the level of satisfaction with the national government's response to the COVID-19 / coronavirus pandemic in the United States is low (M = 38.13%). The severity of impact of the COVID-19 / coronavirus pandemic on people's personal finances in the United States is moderate (M = 5.5/10). People are generally not satisfied with fellow citizens' response to the COVID-19 / coronavirus pandemic in the United States (M = 36.06/100). However, the level of Satisfaction with hospitals' response to the COVID-19 / coronavirus pandemic in the United States is generally high (M = 76.9%). Taken together, this scenario provides a good context to investigate the factors affecting the psychological state of US residents with respect to the COVID-19 pandemic.

#### 4.1 Factors Affecting the psychological state of US residents following COVID-19 outbreak



**Figure 1: Determinants of the Psychological State of US Residents following COVID-19 outbreak**

**Source:** Researchers' Conceptualization (2021)

**Table 3a: Determinants of the Psychological State of US Residents following COVID-19 outbreak**

		OIM				
		Coefficient	Standard Error	z	P> z	[95% Conf. Interval]
Structural						
worry <-						
govt		.0337167	0.1124052	0.30	0.764	-.1865935 .2540269
citizen		-.1491142	0.1092089	-1.37	0.172	-.3631598 .0649314
hospital		.277525	0.1274516	2.18	0.029	.0277244 .5273256
finance		1.467428	1.601341	0.92	0.359	-1.671144 4.605999
mental		.3624073	0.1289943	2.81	0.005	.1095832 .6152314
_cons		25.32406	13.73356	1.84	0.065	-1.593217 52.24134
var(e.worry)		14.80987	2.7039			10.35485 21.1816
LR test of model vs. saturated: chi2(0) = 0.00, Prob > chi2 = .						

Source: Author's Analysis, 2021

**Table 3b: Model Fit statistics for Model 1**

Fit statistic	Value	Description
Likelihood ratio		
chi2_ms(0)	0.000	model vs. saturated
p > chi2	.	
chi2_bs(5)	16.185	baseline vs. saturated
p > chi2	0.006	
Population error		
RMSEA	0.000	Root mean squared error of approximation
90% CI, lower bound	0.000	
upper bound	0.000	
pclose	1.000	Probability RMSEA <= 0.05
Information criteria		
AIC	1772.450	Akaike's information criterion
BIC	1787.110	Bayesian information criterion
Baseline comparison		
CFI	1.000	Comparative fit index
TLI	1.000	Tucker-Lewis index
Size of residuals		
SRMR	0.000	Standardized root mean squared residual
CD	0.236	Coefficient of determination

Source: Author's Analysis, 2021

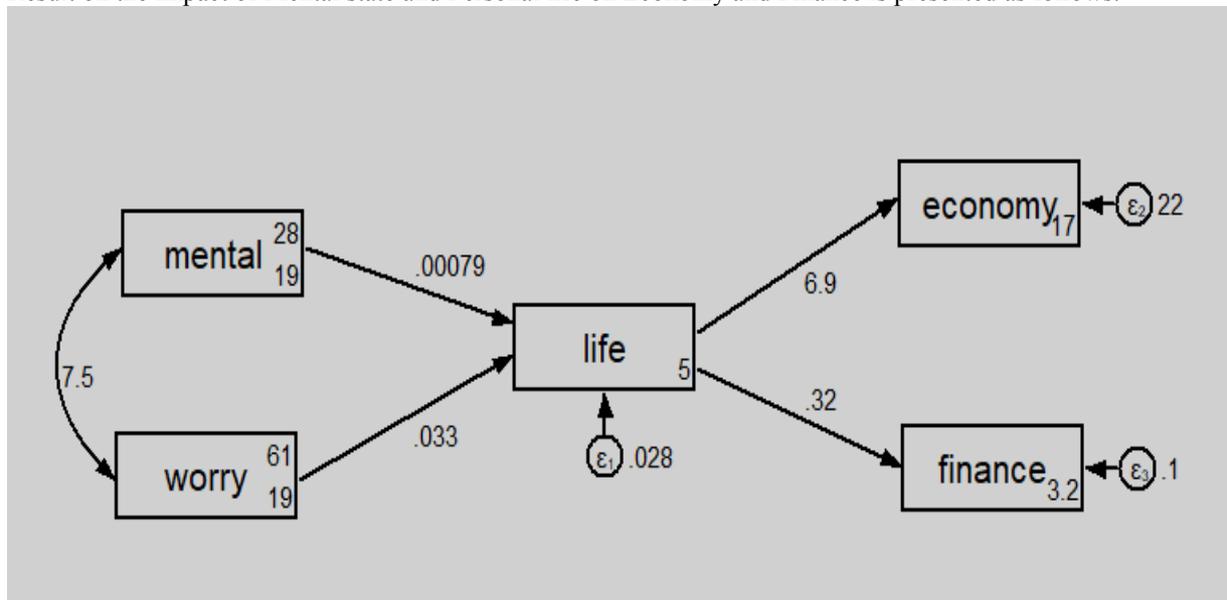
From the result in Table 3a, the factors having the severest impact on the psychological state of US residents are impact of the COVID-19 / coronavirus pandemic on personal finances ( $b = 1.467428$ ) and level of Satisfaction with hospitals' response to the COVID-19 ( $b = .277525$ ). Share of persons worried about their mental health (i.e. *mental*,  $b = .3624073$ ) emerged as a significant predictor, thus justifying its inclusion in the Model as a control variable affecting the psychological state of people. The effect size of Satisfaction with the national government's response to the COVID-19 (*govt*,  $b = .0337167$ ) and fellow citizens' response to the COVID-19 (*citizen* =  $.1491142$ ) is negligible and not statistically significant. This suggests that *govt* and *citizen* have no impact on the psychological state of US residents/citizens. A plausible reason for the lack of statistical significance of *govt* is that people do not believe that the government/ government policies may not adequately curtail the spread of COVID-19. Also, *citizen* may be insignificant because people do not trust other people to instill adequate measures to control the spread of COVID-19. However, as US residents/ citizens are generally satisfied with the measures taken by hospitals. Hospitals have a great impact on the psychological state of residents. Result in Table 3b confirms that the Model is well fitting.

In sum, the two factors affecting the psychological state of US residents are the are impact of the COVID-19 / coronavirus pandemic on personal finances and the level of hospitals' response to the COVID-19 (research

objective one).

#### 4.2 Impact of Mental state and Personal life on Economy and Finance

Result on the impact of Mental state and Personal life on Economy and Finance is presented as follows:



**Figure 2: Impact of Mental state and Personal life on Economy and Finance**  
 Source: Researchers' Conceptualization (2021)

**Table 4a: Impact of Mental state and Personal life on Economy and Finance**

	OIM					
	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
<b>Structural</b>						
<b>life &lt;-</b>						
mental	.0007868	.005377	0.15	0.884	-.009752	.0113256
worry	.0329573	.0052976	6.22	0.000	.0225742	.0433405
_cons	5.033185	.2977769	16.90	0.000	4.449553	5.616817
<b>economy &lt;-</b>						
life	6.939604	2.761944	2.51	0.012	1.526292	12.35292
_cons	16.8962	19.49973	0.87	0.386	-21.32258	55.11497
<b>finance &lt;-</b>						
life	.3218729	.1877554	1.71	0.086	-.0461209	.6898668
_cons	3.231983	1.325581	2.44	0.015	.6338925	5.830074
<b>Means and Variances</b>						
mean(mental)	27.8	.5601587	49.63	0.000	26.70211	28.89789
mean(worry)	60.73333	.5685589	106.82	0.000	59.61898	61.84769
<b>Variances and Covariances</b>						
var(e.life)	.0276555	.0050492			.0193363	.0395538
var(e.economy)	22.48326	4.104862			15.71997	32.15634
var(e.finance)	.1038997	.0189694			.0726452	.148601
var(mental)	18.82667	3.437263			13.16334	26.92656
var(worry)	19.39556	3.541128			13.5611	27.7402
cov(mental,worry)	7.48	2.649226	2.82	0.005	2.287611	12.67239
LR test of model vs. saturated: chi2(5) = 5.00, Prob > chi2 = 0.4155						

Source: Author's Analysis, 2021

**Table 4b: Model fitness**

Fit statistic	Value	Description
<b>Likelihood ratio</b>		
chi2_ms(5)	5.003	model vs. saturated
p > chi2	0.415	
chi2_bs(9)	48.344	baseline vs. saturated
p > chi2	0.000	
<b>Population error</b>		
RMSEA	0.003	Root mean squared error of approximation
90% CI, lower bound	0.000	
upper bound	0.179	
pclose	0.502	Probability RMSEA <= 0.05
<b>Information criteria</b>		
AIC	1061.034	Akaike's information criterion
BIC	1092.449	Bayesian information criterion
<b>Baseline comparison</b>		
CFI	1.000	Comparative fit index
TLI	1.000	Tucker-Lewis index
<b>Size of residuals</b>		
SRMR	0.065	Standardized root mean squared residual
CD	0.437	Coefficient of determination

Source: Author's Analysis, 2021

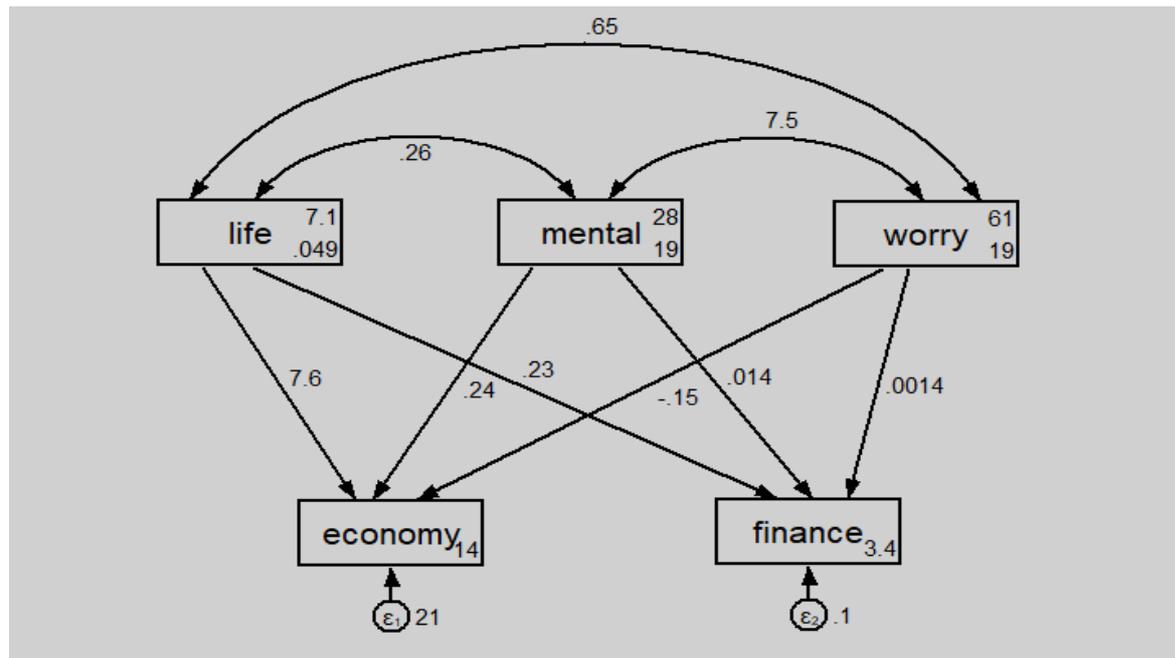
In Table 4a, mental and worry are strong and statistically significant covariates ( $b = 7.48$ ,  $p = 0.005 < .01$ ) which implies that worry affects the mental state and vice versa. Worry and mental state both affect people's everyday life, however, the impact of worry is more pronounced on everyday life, as this may affect people's productivity.

Result shows that COVID affects people's everyday life to the extent that it affects their contribution to the economy ( $b = 6.939604$ ,  $p < .05$ ). Therefore, COVID affects economic stability as people may not be able to contribute meaningfully to economic growth and development because of their worry/mental state. Furthermore, COVID affects people's everyday life to the extent that it affects their personal finance ( $b = .3218729$ ,  $p < .10$ ). However, the impact of COVID with respect to everyday life and personal finance is not as severe that of the entire economy. In other words, the economy of US is worse hit by COVID in comparison to people's personal finance. This may be expected because adverse effect on individual finance sum up to determine the overall impact on the entire economy.

To check the robustness of result in Table 4a, alternative model is proposed and investigated as presented in section 3.3.

#### **4.3 Alternative Model on Impact of worry on Finance (with Life, mental and Worry modelled as covariates)**

Result from alternative model on impact of worry on finance (with Life, mental and Worry modelled as covariates) is presented as follows:



**Figure 3: Alternative Model on Impact of worry on Finance (with Life, mental and Worry modelled as covariates)**

Source: Researchers' Conceptualization (2021)

**Table 5a: Alternative Model on Impact of worry on Finance (with Life, mental and Worry modelled as covariates)**

	OIM					
	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
<b>Structural</b>						
<b>economy &lt;-</b>						
life	7.645652	3.599366	2.12	0.034	.5910246	14.70028
mental	.2433495	.1499419	1.62	0.105	-.0505312	.5372302
worry	-.1523427	.1894396	-0.80	0.421	-.5236376	.2189521
_cons	14.40101	19.92801	0.72	0.470	-24.65717	53.4592
<b>finance &lt;-</b>						
life	.2272871	.2456204	0.93	0.355	-.2541199	.7086942
mental	.0143953	.010232	1.41	0.159	-.0056591	.0344497
worry	.0013708	.0129273	0.11	0.916	-.0239664	.0267079
_cons	3.416004	1.359886	2.51	0.012	.7506768	6.08133
<b>Means and Variances</b>						
mean(life)	7.056667	.028613	246.62	0.000	7.000586	7.112747
mean(mental)	27.8	.5601587	49.63	0.000	26.70211	28.89789
mean(worry)	60.73333	.5685589	106.82	0.000	59.61898	61.84769
<b>Variances and Covariances</b>						
var(e.economy)	21.49731	3.924855			15.03062	30.74621
var(e.finance)	.1001062	.0182768			.0699928	.1431754
var(life)	.0491222	.0089685			.0343456	.0702563
var(mental)	18.82667	3.437263			13.16334	26.92656
var(worry)	19.39556	3.541128			13.5611	27.7402
cov(life,mental)	.2613333	.1286535	2.03	0.042	.0091772	.5134895
cov(life,worry)	.6451112	.1510475	4.27	0.000	.3490634	.9411589
cov(mental,worry)	7.48	2.649226	2.82	0.005	2.287611	12.67239
LR test of model vs. saturated: chi2(1) = 0.08, Prob > chi2 = 0.7759						

Source: Author's Analysis (2021)

Table 5b: Model Fitness:

Fit statistic	Value	Description
Likelihood ratio		
chi2_ms(1)	0.081	model vs. saturated
p > chi2	0.776	
chi2_bs(7)	13.875	baseline vs. saturated
p > chi2	0.053	
Population error		
RMSEA	0.000	Root mean squared error of approximation
90% CI, lower bound	0.000	
upper bound	0.227	
pclose	0.792	Probability RMSEA <= 0.05
Information criteria		
AIC	1064.111	Akaike's information criterion
BIC	1103.904	Bayesian information criterion
Baseline comparison		
CFI	1.000	Comparative fit index
TLI	1.936	Tucker-Lewis index
Size of residuals		
SRMR	0.008	Standardized root mean squared residual
CD	0.198	Coefficient of determination

Source: Author's Analysis, 2021

In the alternative model, life, mental and worry are modelled as covariates because of the linkage between being worried, the mental state and how the mental state affects one's disposition and psychological fitness to perform optimally and contribute to nation-building. Result supports that they are significant covariates as seen that life/mental ( $b = .2613333$ ,  $p < .05$ ), life/worry ( $b = .6451112$ ,  $p < .05$ ) and mental/worry ( $b = 7.48$ ,  $p < .05$ ). the impact of COVID-19 worry about everyday life on economic stability is significant ( $b = 7.645652$ ). This is consistent with the result in Table 4a. Although the impact of mental and worry on economic stability appear negligible and appear to be not statistically significant, the consideration that mental and worry are significant covariates with life suggest that they indirectly affect economic stability.

The impact of COVID worry about everyday life with respect to personal finance is also notable ( $b = .2272871$ ,  $p > .05$ ) but is not statistically significant. This also corroborates the result in Table 4a that the impact of COVID on personal finance is not as severe as its impact on the aggregate economy (research objective two).

## 5. CONCLUSION

This paper investigated the impact of COVID-19 pandemic on the mental state of the US residents, as well as the impact of mental state on personal finance and the US economy. The objectives of the current study were to: (i) determine the factors affecting the psychological state of US residents following COVID-19 outbreak; (ii) evaluate the impact of mental state and personal life on economy and finance. By deploying quantitative research design, secondary survey data relating to the US was used for analysis. Descriptive statistics and structural equation modelling were used to analyse data. Result shows that a sizable proportion of people are worried about their mental health because of the COVID-19. Furthermore, the level of satisfaction with the national government's response to the COVID-19 / coronavirus pandemic in the United States is low, while people are generally not satisfied with fellow citizens' response to the COVID-19 / coronavirus pandemic in the United States. However, the level of Satisfaction with hospitals' response to the COVID-19 / coronavirus pandemic in the United States is generally high. The two factors affecting the psychological state of US residents are the impact of the COVID-19 / coronavirus pandemic on personal finances and the level of hospitals' response to the COVID-19 (research objective one). Worry and mental state both affect people's everyday life, however, the impact of worry is more pronounced on everyday life, as this may affect people's productivity (research objective two). The economy of US is worse hit by COVID in comparison to people's personal finance. This may be expected because adverse effect on individual finance sum up to determine the overall impact on the entire economy.

Considering that US residents/ citizens are generally satisfied with the measures taken by hospitals to tackle the spread of COVID-19 and treat COVID-19 pandemic, the study recommends that more public funds should be pledged to upscaling the quality and capacity of health infrastructure in the US. This becomes important considering that hospitals have a great impact on the psychological state of residents. It is also important that the government increase access to public hospital facilities that citizens/ residents can have better access to treatment and increase the chances of survival because the cost of individual treatment of COVID-19 may be high, especially in the light of declining financial capacity, since COVID-19 has adversely affected personal finance and the economy in general.

## REFERENCES

- Boddy, D. (2012). *Essentials of management: A concise introduction*. Pearson Education Limited.
- Burke, D., & Cocoman, A. (2020). Training needs analysis of nurses caring for individuals an intellectual disability and or autism spectrum disorder in a forensic service. *Journal of Intellectual Disabilities and Offending Behaviour*, 11(1), 9-22. <https://doi.org/10.1108/JIDOB-10-2019-0024>
- Chapman, F. (2018). Managing emotional and psychological distress in older people. *Working with Older People*, 22 (4), 234-242. <https://doi.org/10.1108/WWOP-09-2018-0017>
- Dayrit, M.M., & Mendoza, R.U. (2020). Social cohesion vs COVID-19. *International Journal of Health Governance*, 25 (3), 191-203. <https://doi.org/10.1108/IJHG-03-2020-0022>
- Düzel, S., & Drewelies, J. (2019). Structural brain correlates of loneliness among older adults. *Scientific Reports*, 9, 135-169. <https://doi.org/10.1038/s41598-019-49888-2>
- Eley, R.M. (2016). Telling it as it is: involving people with dementia and family carers in policy making, service design and workforce development. *Working with Older People*, 20 (4), 219-222. <https://doi.org/10.1108/WWOP-09-2016-0026>
- Emerson, K.G. (2020). Coping with being cooped up: Social distancing during COVID-19 among 60+ in the United States. *Rev Panam Salud Publica*, 44. <https://doi.org/10.26633/RPSP.2020.81>
- Evans, S.C., & Bray, J. (2016). Best practice for providing social care and support to people living with concurrent sight loss and dementia: Professional perspectives. *Working with Older People*, 20 (2), 86-93. <https://doi.org/10.1108/WWOP-11-2015-0028>
- Fahed, M., Barron, G.C., & Steffens, D.C. (2020). Ethical and logistical considerations of caring for older adults on inpatient psychiatry during the COVID-19 pandemic. *The American Journal of Geriatric Psychiatry*, 28, 829-834. <https://doi.org/10.1016/j.jagp.2020.04.027>
- Frimpong, A.A. (2020). Epidemiological concept of Coronavirus (COVID-19) and measures for eradication: The perspective of a health economist. *Public Policy and Administration Research*, 10 (3), 61-75
- Gethin - Jones, S. (2012). Outcomes and well - being part 2: A comparative longitudinal study of two models of homecare delivery and their impact upon the older person self - reported subjective well - being. A qualitative follow up study paper. *Working with Older People*, 16 (2), 52-60. <https://doi.org/10.1108/13663661211231774>
- Gethin-Jones, S. (2014). Familial perceptions of the impact of outcome-focused homecare with older people experiencing dementia and living alone. *Working with Older People*, 18 (2), 90-96. <https://doi.org/10.1108/WWOP-12-2013-0031>
- Ghuri, P., & Grønhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide* (3<sup>rd</sup> ed.). Harlow: Financial Times Prentice Hall.
- Guido, G., Pichierri, M., Rizzo, C., Chieffi, V., & Moschis, G. (2020). Information processing by elderly consumers: A five-decade review. *Journal of Services Marketing*. <https://doi.org/10.1108/JSM-09-2019-0368>
- Hamdan-Mansour, A., Al Shibi, A.N., Khalifeh, A.H., & Hamdan-Mansour, L.A. (2020). Health-care workers' knowledge and management skills of psychosocial and mental health needs and priorities of individuals with COVID-19. *Mental Health and Social Inclusion*, 24 (3), 135-144. <https://doi.org/10.1108/MHSI-04-2020-0022>
- Hwang, J., Kim, J.H., Park, J.S., Chang, M.C., & Park, D. (2020). Neurological diseases as mortality predictive factors for patients with COVID-19: A retrospective cohort study. *Neurology Science*, 8, 1-8. <https://doi.org/10.1007/s10072-020-04541-z>
- Lara, B., Carnes, A., Dakterzada, F., Benitez, I., & Piñol-Ripoll G. (2020). Neuropsychiatric symptoms and quality of life in Spanish Alzheimer's disease patients during COVID-19 lockdown. *European Journal of Neurology*, 27, 1744-1747. <https://doi.org/10.1111/ene.14339>
- Mahmoud-Saleh, F.I., & Karia, N. (2020). Benchmarks for INGOs' effective responses during COVID-19 pandemic. *Benchmarking: An International Journal*, 27 (10), 2863-2886. <https://doi.org/10.1108/BIJ-04-2020-0157>
- Manca, R., De Marco, M., & Venneri, A. (2020). The impact of COVID-19 infection and enforced prolonged

social isolation on neuropsychiatric symptoms in older adults with and without dementia: A Review. *Frontal Psychiatry*, 11, 529-540. <https://doi.org/10.3389/fpsy.2020.585540>

Mullins, L.J., & Christy, G. (2013). *Management and organisational behaviour*. Financial Times Publishing International.

Nagel, L. (2020). The influence of the COVID-19 pandemic on the digital transformation of work. *International Journal of Sociology and Social Policy*. <https://doi.org/10.1108/IJSSP-07-2020-0323>

Offord, C. (2020). *How social isolation affects the brain*. The scientist. <https://www.the-scientist.com/features/how-social-isolation-affects-the-brain-67701>

Oliver, T., Murphy, J., & Cox, S. (2010). She can see how much I actually do!’ Talking Mats®: Helping people with dementia and family carers to discuss managing daily living. *Housing, Care and Support*, 13 (3), 27-35. <https://doi.org/10.5042/hcs.2010.0708>

Omobowale, A.O., Oyelade, O.K., Omobowale, M.O., & Falase, O.S. (2020). Contextual reflections on COVID-19 and informal workers in Nigeria. *International Journal of Sociology and Social Policy*. <https://doi.org/10.1108/IJSSP-05-2020-0353>

Padala, S.P., Jendro, A.M., & Orr, L.C. (2020). Facetime to reduce behavioral problems in a nursing home resident with Alzheimer’s dementia during COVID-19. *Psychiatry Research*. <https://doi.org/10.1016/j.psychres.2020.113028>

Shrira, A., Hoffman, Y., Bodner, E., & Palgi Y. (2020). COVID-19-related loneliness and psychiatric symptoms among older adults: The buffering role of subjective age. *The American Journal of Geriatric Psychiatry*. <https://doi.org/10.1016/j.jagp.2020.05.018>

Singh, N., Singh, S.B., Houssein, E.H., & Ahmad, M. (2020). COVID-19: Risk prediction through nature inspired algorithm. *World Journal of Engineering*, <https://doi.org/10.1108/WJE-08-2020-0358>

Thelwall, M., & Thelwall, S. (2020). A thematic analysis of highly retweeted early COVID-19 tweets: Consensus, information, dissent and lockdown life. *Aslib Journal of Information Management*. <https://doi.org/10.1108/AJIM-05-2020-0134>

Vindegaard, N., & Benros, M.E. (2020). COVID-19 pandemic and mental health consequences: Systematic review of the current evidence. *Brain Behaviour Immunity*, 89, 531–542. <https://doi.org/10.1016/j.bbi.2020.05.048>

World Health Organisation, WHO (2002). World Health Report on mental disorders treatment. *International Journal of Health Care Quality Assurance*, 15 (1), 15-24. <https://doi.org/10.1108/ijhcqa.2002.06215aab.003>

World Health Organisation, WHO (2012). WHO highlights global underinvestment in mental health care. *International Journal of Health Care Quality Assurance*, 25 (2), 1-2. <https://doi.org/10.1108/ijhcqa.2012.06225baa.002>

World Health Organization. (2020). WHO Director-General's opening remarks at the media briefing on COVID-19—11 March 2020. *World Health Organization*. 11 March 2020. Retrieved 9 June 2020.

The New York Times (2020). "Coronavirus Live Updates: Europe Prepares for Pandemic as Illness Spreads From Italy". *The New York Times*. 26 February 2020. Retrieved 20 May 2020.

**APPENDIX: SOCIO-ECONOMIC SURVEY DATA ON IMPACT OF COVID-19 IN THE U.S.**

ECONOMY	LIFE	MENTAL	WORRY	GOVT	FINANCE	FINANCE2	CITIZEN	HOSPITAL
62	7.3	27	65	39	6	31	33	74
66	6.7	22	54	42	5.5	34	37	71
62	7	33	54	38	6.2	41	40	72
51	7	18	58	39	5.4	24	36	82
61	7.4	30	66	35	5.7	34	28	73
69	7.1	26	56	41	5.7	30	33	74
72	7.3	25	62	44	5.6	25	27	81
60	6.8	16	54	42	5.2	24	36	72
60	6.6	32	56	38	5.2	30	39	80
67	6.9	32	62	45	5.4	30	38	80
61	7.2	27	70	42	5.6	36	33	76
66	7	21	59	41	5.3	27	38	79
74	7.3	30	64	41	5.3	29	34	76
65	7.4	34	67	30	5.9	30	34	81
66	6.9	29	63	30	5.6	30	34	82
59	6.7	26	54	38	5.1	28	30	69
64	7.3	29	63	33	5.1	25	35	74
69	7	29	63	42	5	23	40	81
73	7.1	23	65	39	5.8	29	40	76

ECONOMY	LIFE	MENTAL	WORRY	GOVT	FINANCE	FINANCE2	CITIZEN	HOSPITAL
73	7.2	31	59	39	5.5	28	37	76
74	7.2	26	57	39	5.3	27	36	76
69	7.2	29	65	38	5.3	26	44	76
69	7	28	57	46	6.1	38	45	80
64	6.8	30	59	37	5.2	22	45	71
67	7.1	29	61	46	5.5	30	41	82
69	7.1	32	64	30	5.8	32	39	82
66	6.8	25	56	25	5	24	28	79
66	7.1	33	67	39	5.7	27	35	74
66	7.4	32	62	32	5.1	26	42	85
66	6.8	30	60	34	6	38	25	74
62	7.3	27	65	39	6	31	33	74
66	6.7	22	54	42	5.5	34	37	71
62	7	33	54	38	6.2	41	40	72
51	7	18	58	39	5.4	24	36	82
61	7.4	30	66	35	5.7	34	28	73
69	7.1	26	56	41	5.7	30	33	74
72	7.3	25	62	44	5.6	25	27	81
60	6.8	16	54	42	5.2	24	36	72
60	6.6	32	56	38	5.2	30	39	80
67	6.9	32	62	45	5.4	30	38	80
61	7.2	27	70	42	5.6	36	33	76
66	7	21	59	41	5.3	27	38	79
74	7.3	30	64	41	5.3	29	34	76
65	7.4	34	67	30	5.9	30	34	81
66	6.9	29	63	30	5.6	30	34	82
59	6.7	26	54	38	5.1	28	30	69
64	7.3	29	63	33	5.1	25	35	74
69	7	29	63	42	5	23	40	81
73	7.1	23	65	39	5.8	29	40	76
73	7.2	31	59	39	5.5	28	37	76
74	7.2	26	57	39	5.3	27	36	76
69	7.2	29	65	38	5.3	26	44	76
69	7	28	57	46	6.1	38	45	80
64	6.8	30	59	37	5.2	22	45	71
67	7.1	29	61	46	5.5	30	41	82
69	7.1	32	64	30	5.8	32	39	82
66	6.8	25	56	25	5	24	28	79
66	7.1	33	67	39	5.7	27	35	74
66	7.4	32	62	32	5.1	26	42	85
66	6.8	30	60	34	6	38	25	74