Financial Stress and COVID-19

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The COVID-19 pandemic presented a unique set of challenges for individuals, households, and policymakers, leaving people to grapple with a multitude of health-related concerns, reduced social interactions, drastic disruptions to daily routines, and looming financial uncertainties.

financial stress | COVID-19 | propensity score matching | hierarchical linear modeling

1. Introduction

The COVID-19 pandemic presented a unique set of challenges for individuals, households, and policymakers, leaving people to grapple with a multitude of health-related concerns, reduced social interactions, drastic disruptions to daily routines, and looming financial uncertainties (Akhtaruzzaman et al. 2021; Yazdanparast and Alhenawi 2022). It is now known that the unprecedented circumstances associated with the COVID-19 pandemic triggered a cascade of psychological effects, including a surge in financial stress (Rodrigues et al. 2023) which has prompted notable shifts in consumer behavior patterns (Galoni et al. 2020), including changes in perceptions, expectations, and behaviors (Ashraf 2020; Haroon and Rizvi 2020).

An important outcome associated with the pandemic was a marked increase in financial stress at the household level. Financial stress describes a state of emotional or physiological distress caused by financial issues or challenges (Britt et al. 2015; Friedline et al. 2021; Lee et al. 2023). Financial stress is distinct from a state of money shortage or financial instability, as it centers on individuals' emotional and physiological reactions to financial stressors (Ensel and Lin 1991; Heo et al. 2020) and their subjective perceptions and experiences related to holding inadequate financial resources to meet needs (Pearlin et al. 1981; Simonse et al. 2022). Households across the economic spectrum experienced some degree of financial stress, which altered the way money was (and continues to be) managed. The pandemic also altered the way household financial decisions are made (Heo et al. 2021; Thayer and Gildner 2021).

Research interest in the association between the pandemic and financial stress has increased over the past five years (Simonse et al. 2022). Although limited, the extant literature suggests that rather than being primarily a functional health issue, the COVID-19 pandemic can be seen as a precursor to and trigger for financial stress, which can also relate to family well-being. For example, Rodrigues et al. (2023) noted that the COVID-19 pandemic caused financial stress in families, also affecting their perception of well-being. Kelly et al. (2022) examined how financial stress relates to family relationships (e.g., relational conflict, emotional closeness, couple relationship happiness), measured at three phases (before, at the height of the pandemic, and at the time the survey was taken during the summer of 2020). What these and other studies indicate is that it is important to consider financial stress and well-being in a macroeconomic context (Friedline et al. 2021). By comparing different time frames, an analysis of financial stress can more effectively account for shifting macroeconomic conditions that were evident during the COVID-19 pandemic.

It is important to note that the COVID-19 pandemic affected households in heterogeneous ways. For instance, studies have shown that individual characteristics such as age, education, gender, income, and other socioeconomic status variables are associated with perceptions and reactions to the pandemic (Atchison et al. 2020; Cutler 2020; Lund 2020; Park et al. 2020). Thus, it is reasonable to hypothesize that these perceptions and behaviors have an association with the degree of financial stress exhibited at the household level. Furthermore, it is worth considering the possibility that factors related to financial stress at different points in time (e.g., before and after the onset of the pandemic) may provide more nuanced insights into the association between financial stress and future global health crises.

2. The COVID-19 Pandemic and Household Psychological Responses

By their very nature, pandemics are known by scholars to cause emotional distress. Pandemics create uncertainty, ambiguity, feelings of loss of control, and internal (i.e., psychophysiological) symptoms, such as anger, anxiety, and depression (Ensel and Lin 1991; Pearlin et al. 1981). The COVID-19 pandemic outbreak that began in late 2019 and accelerated into early 2020 (World Health Organization 2020) led policymakers worldwide to respond by implementing policies such as social distancing, the closing of schools, family gathering restrictions, work-at-home mandates, and travel restrictions. Although unknown at the time, these policies resulted in an increase in negative psychological outcomes, including psychological distress (Shanahan et al. 2020; Van Rheenen et al. 2020).

Social distancing requirements implemented in 2020 led to widespread psychological distress that resulted in generalized stress and anger. The Office for National Statistics (2020) in the United Kingdom reported that about 72% of the UK's population was concerned about the impact COVID-19 would have on their lives, with many reporting high levels of anxiety (32%), diminished well-being (43%), and loneliness (23%). In addition, countries such as Italy and Spain that were deeply affected by COVID-19 observed societal impacts that went beyond physical symptomologies (e.g., González-Sanguino et al. 2020; Odriozola-Gonzalez et al. 2020; Orgilés et al. 2020).

3. Economic Influence of the Pandemic

It is now clear that there was comorbidity between the physiological and mental effects of COVID-19 and economic stress. Many households experienced unemployment, economic disruptions, and investment asset price volatility at the height of the pandemic (Akhtaruzzaman et al. 2021). In one study that used a nationally representative sample of U.S. adults, researchers found that the increase in psychological distress associated with COVID-19 was caused more by economic stressors than by fear of contagion among those aged 60 years or younger (Breslau et al. 2021). The work of Breslau et al. (2021) hints at the strong likelihood that some of the psychological syndromes associated with COVID-19 were related, in part, to financial stress.

Private employers reacted to the pandemic in a variety of ways. Some employers responded to decreased consumer demand for products and services by furloughing employees. This had a significant effect on the labor market, as it adversely impacted consumption patterns, the allocation of financial resources, and economic activity, leading to more significant financial stress for a majority of the population. Thayer and Gildner (2021) found that 43% of those living in the United States during the pandemic were worried about their financial situation.

The linkages between disease (both functional and psychological) and financial stress, while very apparent during the pandemic, were not unique to the period ranging from 2019 to 2022. Negative outcomes associated with global health crises have been observed at other times as well. Haacker (2004) studied how the economic costs of the HIV/AIDS pandemic affected human life. Haacker pointed out that permanent changes in consumer behavior due to the HIV/AIDS pandemic created a tremendous challenge to the global economy, resulting in a decline in consumption and domestic demand worldwide. Similarly, Santaeulalia-Llopis (2008) investigated the impact of the HIV/AIDS epidemic on economic growth, finding that AIDS delayed industrialization for nearly a century and reduced income per capita by 12% in countries where the prevalence of the disease was at its highest. These studies suggest that pandemics bring changes to the global economy by triggering problematic financial behavior that is linked to financial stress (e.g., a pandemic can shift the risk preference of a society, which can reduce human economic activity (Heo et al. 2021; The American Institute of Stress 2020)).

4. Personal Finance and the Pandemic

To date, there have been just a handful of empirical investigations into the association between the COVID-19 pandemic and personal financial behavior (Heo et al. 2021; Yazdanparast and Alhenawi 2022). Given the lack of research, it is difficult to clearly define how the pandemic was or continues to be associated with individual and household financial behavior. However, studies that have examined other global financial crises provide some clues to better understand the association. For instance, Leoni (2013) found that the spread of HIV in developing countries was related to a significant increase in bank deposit turnover because of the need to pay for medical treatments. Lagoade-Segot and Leoni (2013) developed a theoretical model showing that the prevalence of large-scale pandemics increases in alignment with the likelihood of a banking industry collapse in developing countries. Similarly, Skoufias (2003) noted that a significant portion of collective loans from micro-financial institutions and banks come under pressure during pandemics due to the systematic negative effect of the health crisis on all group members. The societal impact of a pandemic can reduce the ability of households to make loan repayments.

A pandemic can also affect the use of other household financial products. Insurance ownership, for example, needs to be in place to deal with financial emergencies, especially crises resulting from health problems (Gangopadhyaya and Garrett 2020). Most workers in the United States receive health insurance benefits through their employer or their spouse's employer. If they (or their spouse) lose their job, they are likely to lose job-based insurance, although they can retain insurance coverage over a temporary period through the Consolidated Omnibus Budget Reconciliation Act (COBRA). Gangopadhyaya and Garrett (2020) noted that the COVID-19 crisis highlights the possibility that millions of people might not only lose their livelihoods but also their ability to pay for medical bills. As the insurance literature suggests, the knock-on effects of economic crises that emerge after a pandemic are closely linked to health issues beyond end-of-life concerns. For this reason, this study was designed to determine whether health status and insurance status are associated with differences in financial stress and financial behavior.

This study was also designed to determine if financial stress observed during the pandemic, between 2019 and 2021, correlates with household financial capacity. This is important because of the large variance in financial capacity observed at the household level. For instance, high-income households have a higher degree of immunity from supply and demand shocks, while low-wage workers are much more economically vulnerable (Cutler 2020). When viewed this way, the COVID-19 pandemic can be seen as a mechanism that accelerated and worsened measures of income inequality. That is, the gap between the rich and the poor widened during and immediately after the pandemic (Heo et al. 2021). Heo et al. (2021) found that COVID-19 shifted downward the financial risk tolerance of households, especially for low-income financial decision-makers. Heo et al. argued that, over time, this shift may increase the income and wealth gap between high-income and low-income households.

5. Other Factors Associated with a Pandemic

In the context of pandemics, researchers have taken an interest in gaining a better understanding of the potential associations between demographic characteristics and financial stress experienced at different points in time. Of particular interest is the relationship between demographic attributes, such as gender, age, marital status, income level, educational attainment, number of dependents, employment status, and the experience of financial stress. Notably, gender, despite being acknowledged as a multidimensional construct, occupies a fundamental role in influencing an individual's ability to cope with stressors and their ensuing responses (Geary 2010; Matsuno and Budge 2017). A significant portion of the existing literature on pandemics, with a particular focus on the COVID-19 pandemic, has concentrated on discerning behavioral distinctions between males and females, building upon prior studies that explored gender-based variations during disease outbreaks. For instance, during the Ebola outbreak in Africa, women faced disproportionately heightened responsibilities in caregiving, partly due to their increased roles as primary caregivers (Androsik 2020; Park et al. 2020).

Age is another salient factor in predicting individuals' reactions to stressors and their perception of health threats amidst a pandemic. Age is a useful descriptor because of the capacity of older individuals to contextualize novel stressors and exhibit heightened resilience towards disease and mortality concerns (Bacon and Corr 2020; Cicirelli 1999). This was evidenced by an inverse correlation between age and COVID-19-related stress in a sample of American adults, with younger individuals reporting higher stress levels (Park et al. 2020). Park et al.'s (2020) findings imply that adolescents may adopt less adaptive coping strategies, potentially leading to adverse consequences (Atchison et al. 2020).

Moreover, some researchers have identified other demographic factors, including race/ethnicity, socioeconomic status, and parental status, as potential risk indicators when adopting inappropriate responses during a pandemic (e.g., Park et al. 2020). However, these studies have not thoroughly explored the correlation between demographic factors and how individuals' coping responses to COVID-19 may be linked to their financial behavior or stress level. Extensive research, however, has shown that the relationship between demographic characteristics and health-related behaviors can be mediated (Cheng and Furnham 2003; Nabi et al. 2008), implying that demographic attributes are intertwined with individuals' health-related behaviors during national health crises, ultimately manifesting as financial stress.

In summation, demographic factors exhibit a discernible connection with the psychological responses to financial challenges exhibited by households. This is true historically and during the COVID-19 pandemic.

6. Factors Related to Financial Stress

As described above, the COVID-19 pandemic created a substantial negative impact on society and households, both in the short term and the long term. This impact has manifested in various ways, including heightened anxiety related to health issues, job insecurity, financial instability, elevated stress levels, and increased conflicts within couples due to self-quarantine and telecommuting measures. Additionally, individuals have encountered challenges related to credit card payments, escalating debts, and a global economy that has experienced an unprecedented slowdown (Mastropietro et al. 2020; Phan and Narayan 2020; Remuzzi and Remuzzi 2020). Consequently, the amplification of financial stress resulting from the COVID-19 pandemic can be expected to have a substantial impact on individuals' financial well-being today and into the future (Brewer and Gardiner 2020; Brodeur et al. 2021).

The issue of financial stress is not unique to the COVID-19 pandemic. Financial stress is known to have arisen during previous economic and global health crises. For instance, researchers who studied the 2008 global financial crisis observed an increase in biased financial decision making at the household level, which likely resulted in and from increased stress levels (Apostolakis and Van Dijk 2018). Apostolakis and Van Dijk (2018) found that sociological factors such as one's living situation, care provisions, health conditions, and loneliness are linked to feelings of financial stress, impaired financial decision making, and other problematic household financial outcomes. It has been well established in the literature that global health crises, such as the COVID-19 pandemic, cause people to experience emotional distress, encompassing symptoms such as anxiety, depression, and anger (Ensel and Lin 1991). Thus, it can be postulated that the outbreak of the COVID-19 pandemic induced stress, which was accompanied by a spectrum of negative emotions as well as concerns regarding personal and familial health and economic losses (Forbes et al. 2016).

However, even though researchers and policymakers acknowledge the relationship between health crises and stress reactions, comprehensive descriptions of the association are lacking in the current body of literature. For example, there are only a handful of studies that have reported on the socioeconomic or socio-demographic factors associated with financial stress. Nearly all of these studies suggest that stress is felt more acutely by lower-income households and individuals with a lower net wealth (Guan et al. 2022). In addition to income and wealth, other researchers have documented a link between financial worries and psychological distress and other socio-demographic factors, including gender, marital status, employment, and education (e.g., Ryu and Fan 2023). Based on the extant literature, this study controlled for these and other socioeconomic or sociodemographic factors.

References

1. Akhtaruzzaman, Md, Sabri Boubaker, and Ahmet Sensoy. 2021. Financial contagion during COVID-19 crisis. Finance Research Letters 38: 101604.
2. Yazdanparast, Atefeh, and Yasser Alhenawi. 2022. Impact of COVID-19 pandemic on household financial decisions: A consumer vulnerability perspective. Journal of Consumer Behaviour 21: 806–27.
3. Rodrigues, Margarida, Rui Silva, and Mário Franco. 2023. COVID-19: Financial stress and well-being in families. Journal of Family Issues 44: 1254–75.
4. Galoni, Chelsea, Gregory S. Carpenter, and Hayagreeva Rao. 2020. Disgusted and afraid: Consumer choices under the threat of contagious disease. Journal of Consumer Research 47: 373–92.
5. Ashraf, Badar Nadeem. 2020. Economic impact of government interventions during the COVID-19 pandemic: International evidence from financial markets. Journal of Behavioral and Experimental Finance 27: 100371.
6. Haroon, Omair, and Syed Aun R. Rizvi. 2020. COVID-19: Media coverage and financial markets behavior—A sectoral inquiry. Journal of Behavioral and Experimental Finance 27: 100343.
7. Britt, Sonya L., Anthony Canale, Fred Fernatt, Kristen Stutz, and Racquel Tibbetts. 2015. Financial stress and financial counseling: Helping college students. Journal of Financial Counseling and Planning 26: 172–86.
8. Friedline, Terri, Zibei Chen, and So'Phelia Morrow. 2021. Families' financial stress & well-being: The importance of the economy and economic environments. Journal of Family and Economic Issues 42: 34–51.
9. Lee, Yoon G., Heather H. Kelley, and Jae Min Lee. 2023. Untying financial stress and financial anxiety: Implications for research and financial practitioners. Journal of Financial Therapy 14: 41–65.
10. Ensel, Walter M., and Nana Lin. 1991. The life stress paradigm and psychological distress. Journal of Health and Social Behavior 32: 321–41.
11. Heo, Wookjae, Soo Hyun Cho, and Philseok Lee. 2020. APR financial stress scale: Development and validation of a multidimensional measurement. Journal of Financial Therapy 11: 1–28.
12. Pearlin, Leonard I., Elizabeth G. Menaghan, Morton A. Lieberman, and Joseph T. Mullan. 1981. The stress process. Journal of Health and Social Behavior 22: 337–56.
13. Simonse, Olaf, Wilco W. Van Dijk, Lotte F. Van Dillen, and Eric Van Dijk. 2022. The role of financial stress in mental health changes during COVID-19. Npj Mental Health Research 1: 15.
14. Heo, Wookjae, Abed Rabbani, and John E. Grable. 2021. An evaluation of the effect of the COVID-19 pandemic on the risk tolerance of financial decision makers. Finance Research Letters 41: 101842.
15. Thayer, Zaneta M., and Theresa E. Gildner. 2021. COVID-19-related financial stress associated with higher likelihood of depression among pregnant women living in the United States. American Journal of Human

Biology 33: e23508.

16. Kelly, Annemarie M., Cory Gilden, Caitlin Bailey, Lewis B. Hershey, and E. Virginia Sticinski. 2022. Financial health assessments by people with disabilities and their families during the COVID-19 Pandemic: Opportunities and obstacles for financial planners. Journal of Financial Service Professionals 76: 46–55.
17. Atchison, Christina. J., Leigh Bowman, Charlotte Vrinten, Rozlyn Redd, Philippa Pristera, Jeffrey W. Eaton, and Helen Ward. 2020. Early perceptions and behavioural responses during the COVID-19 pandemic: A cross-sectional survey of UK adults. BMJ Open 11: e043577.
18. Cutler, David. 2020. How will COVID-19 affect the health care economy? JAMA 323: 2237–38.
19. Lund, Emily M. 2020. Even more to handle: Additional sources of stress and trauma for clients from marginalized racial and ethnic groups in the United States during the COVID-19 pandemic. Counselling Psychology Quarterly. Advanced publication online.
20. Park, Crystal L., Beth S. Russell, Michael Fendrich, Lucy Finkelstein-Fox, Morica Hutchison, and Jessica Becker. 2020. Americans' COVID-19 stress, coping, and adherence to CDC guidelines. Journal of General Internal Medicine 35: 2296–303.
21. World Health Organization. 2020. Archived: WHO Timeline—COVID-19. Geneva: World Health Organization. Available online: https://www.who.int/news/item/27-04-2020-who-timeline---covid-19 (accessed on 15 July 2022).
22. Shanahan, Lilly, Annekatrin Steinhoff, Laura Bechtiger, Aja L. Murray, Amy Nivette, Urs Hepp, Denis Ribeaud, and Manuel Eisner. 2020. Emotional distress in young adults during the COVID-19 pandemic: Evidence of risk and resilience from a longitudinal cohort study. Psychological Medicine 23: 1–10.
23. Van Rheenen, Tamsyn E., Denny Meyer, Erica Neill, Andrea Phillipou, Eric J. Tan, Wei L. Toh, and Susan L. Rossell. 2020. Mental health status of individuals with a mood-disorder during the COVID-19 pandemic in Australia: Initial results from the COLLATE project. Journal of Affective Disorders 275: 69–77.
24. Office for National Statistics. 2020. Coronavirus and the Social Impacts on Great Britain Data. Available online: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/datasets/coronavirusandthesocialimpa (accessed on 15 July 2022).
25. González-Sanguino, Clara, Berta Ausín, MiguelÁngel Castellanos, Jesús Saiz, Aída López-Gómez, Carolina Ugidos, and Manuel Muñoz. 2020. Mental health consequences during the initial stage of the 2020 coronavirus pandemic (COVID-19) in Spain. Brain, Behavior, and Immunity 87: 172–76.
26. Odriozola-Gonzalez, Paula, Álvaro Planchuelo-Gomez, María Jesús Irurtia, and Rodrigo de Luis-García. 2020. Psychological symptoms of the outbreak of the COVID-19 crisis and confinement in the population of Spain. Journal of Health Psychology. Advanced publication online.
27. Orgilés, Mireia, Alexandra Morales, Elisa Delvecchio, Claudia Mazzeschi, and José P. Espada. 2020. Immediate psychological effects of the COVID-19 quarantine in youth from Italy and Spain. Frontiers in Psychology 11: 579038.
28. Breslau, Joshua, Melissa L. Finucane, Alicia R. Locker, Matthew D. Baird, Elizabeth A. Roth, and Rebecca L. Collins. 2021. A longitudinal study of psychological distress in the United States before and during the COVID-19 pandemic. Preventive Medicine 143: 106362.
29. Haacker, Markus. 2004. The Impact of HIV/AIDS on Government Finance and Public Services. Washington, DC: International Monetary Fund.
30. Santaeulalia-Llopis, Raul. 2008. Aggregate Effect of AIDS on Development. Meeting Papers 533. Society for Economic Dynamics. Available online: https://www.proquest.com/openview/c18c38b3be479de6df750d64d52a8d59/1?pq-origsite=gscholar&cbl=18750 (accessed on 15 July 2022).
31. The American Institute of Stress. 2020. Income Loss, Financial Stress, and COVID-19. Weatherford: The American Institute of Stress. Available online: https://www.stress.org/income-loss-financial-stress-and-covid-19 (accessed on 15 July 2022).
32. Leoni, Patrick L. 2013. HIV/AIDS and banking stability in developing countries. Bulletin of Economic Research 65: 225–37.

33. Skoufias, Emmanuel. 2003. Economic crises and natural disasters: Coping strategies and policy implications. World Development 31: 1087–102.
34. Gangopadhyaya, Anuj, and Bowen Garrett. 2020. Unemployment, health insurance, and the COVID-19 recession. In Health Insurance, and the COVID-19 Recession. Washington, DC: Urban Institute, D.C., Robert Wood Johnson Foundation.
35. Geary, David C. 2010. Male, Female: The Evolution of Human Sex Differences, 2nd ed. Washington, DC: APA.
36. Matsuno, Emmie, and Stephanie L. Budge. 2017. Non-binary/genderqueer identities: A critical review of the literature. Current Sexual Health Reports 9: 116–20.
37. Androsik, Ana. 2020. Gendered understanding of ebola crisis in Sierra Leone. Lessons for COVID-19. Population and Economics 4: 88–95.
38. Bacon, Alison M., and Philip J. Corr. 2020. Coronavirus (COVID-19) in the United Kingdom: A personality-based perspective on concerns and intention to self-isolate. British Journal of Health Psychology. Advanced online publication.
39. Cicirelli, Victor G. 1999. Personality and demographic factors in older adults’ fear of death. The Gerontologist 39: 569–79.
40. Cheng, Helen, and Adrian Furnham. 2003. Personality, self-esteem, and demographic predictions of happiness and depression. Personality and Individual Differences 34: 921–42.
41. Nabi, Hermann, Mika Kivimäki, Michael G. Marmot, Jane Ferrie, Marie Zins, Pierre Ducimetiere, Silla M. Consoli, and Aarchana Singh-Manoux. 2008. Does personality explain social inequalities in mortality? The French GAZEL cohort study. International Journal of Epidemiology 37: 591–602.
42. Mastropietro, Paolo, Pablo Rodilla, and Carlos Batlle. 2020. Emergency measures to protect energy consumers during the Covid-19 pandemic: A global review and critical analysis. Energy Research and Social Science 68: 101678.
43. Phan, Dinh H. B., and Paresh Kumar Narayan. 2020. Country responses and the reaction of the stock market to COVID-19—A preliminary exposition. Emerging Markets Finance and Trade 56: 2138–50.
44. Remuzzi, Andrea, and Giuseppe Remuzzi. 2020. COVID-19 and Italy: What next? The Lancet 395: 1225–28.
45. Brewer, Mike, and Laurda Gardiner. 2020. The initial impact of COVID-19 and policy responses on household incomes. Oxford Review of Economic Policy 36: S187–S199.
46. Brodeur, Abel, David Gray, Anik Islam, and Suraiya Bhuiyan. 2021. A literature review of the economics of COVID-19. Journal of Economic Surveys 35: 1007–44.
47. Apostolakis, George, and Gert Van Dijk. 2018. Retirement concerns and planning of cooperative members: A study in the Dutch healthcare sector. Business Economics 53: 209–24.
48. Forbes, Miriam K., Jennifer L. Tackett, Kristian E. Markon, and Robert F. Krueger. 2016. Beyond comorbidity: Toward a dimensional and hierarchical approach to understanding psychopathology across the life span. Development and Psychopathology 28 Pt 1: 971–86.
49. Guan, Naijie, Alessandra Guariglia, Patrick Moore, Fangshou Xu, and Hareth Al-Janabi. 2022. Financial stress and depression in adults: A systematic review. PLoS ONE 17: e0264041.
50. Ryu, Soomin, and Lu Fan. 2023. The relationship between financial worries and psychological distress among U.S. adults. Journal of Family Economics Issues 44: 16–33.