

Resilient Personality or Financial Resilience Framework for Coping with Physical and Mental Health During the COVID-19 Pandemic

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Abstract

Crises events such as the COVID-19 pandemic can have a profound impact on consumers' financial, physical, and mental health. This study explores the role of two resilience frameworks, namely the financial resilience framework and the resilient personality, in coping with physical and mental health challenges during the pandemic. The financial resilience framework encompasses economic resources, access to financial resources, financial knowledge and behavior, and social capital, while the resilient personality focuses on cognitive flexibility and the ability to tolerate ambiguity. The study aims to investigate whether these frameworks act as complements or substitutes in promoting resilience. GLM ANOVA is employed in this research to examine the effects of financial resilience and a resilient personality on physical and mental health outcomes. Findings from this study indicate that both the financial resilience framework and resilient personality may contribute to one's mental and physical health. However, the financial resilience framework is a stronger predictor of a positive self-assessment for both health factors than a resilient personality.

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Introduction

The past two decades have witnessed a confluence of unprecedented global crises impacting not only financial well-being but also physical and mental health. Since the 2008

housing bubble financial crisis, coupled with the emergence of cyber threats and geopolitical instability, individuals have faced heightened levels of uncertainty. These factors have had ripple effects on economic activity and public

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health (Burgard & Kalousova, 2015; Shandler et al., 2023). Most notably, the COVID-19 pandemic strongly illustrates how a global health crisis can have cascading economic and psychological consequences. Although the pandemic has ended, the ripple effects continue to be significant.

In terms of physical health, there was not only increased morbidity and mortality stemming from COVID-19 infections but also reduced access to healthcare services for other conditions (Shadmi et al., 2020). This resulted in the subsequent years marked by an increase in chronic health conditions resulting from delayed or canceled medical appointments and decreased use of preventive services (Bambra et al., 2021; Patel et al., 2021). Moreover, physical distancing measures and social isolation spawned reductions in physical activity, increased sedentary behaviors, and changes in dietary patterns, all of which can negatively impact physical health outcomes today (Ahmed et al., 2021; Meyer et al., 2020). Additionally, the pandemic has also resulted in significant mental health challenges that have not subsided as quickly as COVID-19 infection rates (Gruber et al., 2023). Research shows that the pandemic had a negative impact on mental health outcomes, with increased rates of anxiety, depression, and substance abuse symptomatology and diagnosis (Gao et al., 2020; Pfefferbaum & North, 2020). The emotional stress caused by the COVID-19 pandemic (Salari et al., 2020; Tsamakis et al., 2020) was compounded by the financial stress that lockdown policies, unemployment, layoffs, and furloughs facilitated (Coibion et al., 2020; Crayne, 2020; Faria-e-Castro, 2021; Kochhar, 2020; Pappas, 2020; Tran et al., 2020).

The adverse outcomes of the pandemic did not have a homogenous effect on all. Although many people struggled with the effects of the pandemic, others demonstrated resilience in light of stressors and have experienced an increase in financial, physical, and mental health during the endemic (Prati & Mancini, 2021). The purpose of this study is to identify protective factors that allowed some to be resilient in light of the COVID-19 crisis. Two key theories of resilience

propose the protective factors necessary to be resilient: (a) the financial resilience framework (Morrow, 2008; Salignac et al., 2019) and (b) the resilient personality (Asendorpf et al., 2001). The financial resilience framework is composed of four multidimensional components: economic resources, access to financial resources, financial knowledge and behavior, and social capital (Morrow, 2008; Salignac et al., 2019). It posits that individuals are best equipped to cope with adversity when they have knowledge of an adverse event and the resources to adapt successfully (Morrow, 2008; Salignac et al., 2019). In comparison, a resilient personality is characterized by cognitive flexibility and an ability to tolerate ambiguity well (Asendorpf et al., 2001). An individual with this personality type has the inner vision, calmness, intelligence, maturity, and self-esteem needed to see a challenge not as a threat but as a time to gather internal resources to enact positive and effective resistance. Individuals with a resilient personality are often seen as assertive, verbally expressive, energetic, personable, open-minded, smart, and self-confident (Asendorpf et al., 2001).

The overarching research question guiding this study is whether the financial resilience framework and the resilient personality are complements (e.g., have an additive effect) or substitutes (have the same impact and it is not cumulative) as they relate to resilience in one's physical and mental health in light of COVID-19. The examination used GLM ANOVA to analyze the effects of the financial resilience framework and a resilient personality on physical and mental health. Through insights into resiliency, the hope is the findings will be generalizable to other stressors and crises.

Theoretically Informed Literature Review

Biopsychosocial Model

The biopsychosocial model (Engel, 1977) proposes that health and disease are determined by the interaction of biological, psychological, and social factors. The state of a person's biological condition (e.g., organs, tissue, cells) is strongly influenced by psychological factors (e.g., cognition, emotions, motivation) and social interactions (e.g., society, community, family; Serafino, 2011). The biopsychosocial model has

been extensively adopted in medical research. Findings from these studies have led to the development of a more comprehensive approach to healthcare to include mental health professionals, patients, families, and support systems. The theory was foundational to the study of COVID-19's short-term and long-term impacts across many domains. For example, Kop (2021) found that attention to psychological and social factors is 74% higher in COVID-19-related articles compared to all other physical health-related scientific articles published during the same period.

The biopsychosocial model can be applied to the study of personal finance, as financial resilience and financial well-being are also complex constructs influenced by biological, psychological, and social factors (Hughes, 2021). However, the relationship between biopsychosocial factors and financial well-being is largely unexplored (Kannadhasan et al., 2016). The model has been applied to some aspects of personal finance, namely financial risk-taking and tolerance (Fong, 2005; Grable & Joo, 2004; Grable & Webb, 2008; Kannadhasan et al., 2016), and oniomania or compulsive overbuying (Faber, 1992). Additional evidence for the complex relationship of the elements of the biopsychosocial model was found in a longitudinal study of married couples (Lee et al., 2021). Using Structural Equation Modeling (SEM), the authors discovered that during the middle years of adulthood, the existence of family financial hardships was associated with reduced marital stability, which was linked to heightened mental health difficulties. Moreover, the results reaffirmed the influential role of psychological distress in shaping subsequent physical health outcomes. Specifically, anxiety symptoms reported by both husbands and wives during their early middle years contributed to the decline of their physical health in later adulthood (Lee et al., 2021). While some results seem intuitive, further exploration of each nuanced component of the biopsychosocial model is in order.

Biological

Chou et al. (2016) established a connection between financial well-being, economic

hardships, and adverse health outcomes including heightened physical pain, reduced pain tolerance, and an elevated risk of coronary heart disease. In another study, individuals who reported substantial financial debt experienced poorer self-reported general health and higher diastolic blood pressure (Sweet et al., 2013). These associations persisted even after controlling for previous socioeconomic status, psychological and physical health, and various demographic factors (Sweet et al., 2013). A meta-analysis found that being in debt was related to poor health behaviors including increases in smoking, problem drinking, and drug dependence (Richardson et al., 2013). These findings underscore the interplay between financial well-being and physical health, highlighting the importance of considering the biological implications of economic hardships and financial stress.

Psychological

Ryu and Fan (2023) find that financial stress greatly contributes to one's psychological distress, and the relationship between financial stress and distress is moderated by socioeconomic factors such as gender, marital status, employment, income, and homeownership. The association between financial stress and psychological distress was significantly stronger among women, people who were separated, divorced, widowed, or never married, unemployed persons, those with a household income under \$75,000, and those who rent versus own a home. A meta-analysis found statistically significant associations between debt and the presence of various mental health conditions, including but not limited to mental health disorders, suicide completion or attempt, as well as psychotic disorders. (Richardson et al., 2013). Depression and anxiety are widely studied psychological conditions associated with financial stress. A longitudinal study among cancer patients found that financial burden significantly predicted depressive symptoms and general anxiety. However, depressive symptoms and general anxiety during the initial survey did not predict subsequent financial burden, suggesting that financial difficulties are indicative of future distress (Jones et al., 2020). At the extreme end of psychological issues, after

controlling for demographic and clinical covariates specific to the population of the study, results suggested that for each progressive increment in financial strain, the predicted probabilities of suicide attempts and suicidal ideation experienced significant escalation. Respondents who acknowledged all four financial strain variables measured exhibited a predicted probability of future suicide attempts that were 20 times higher in comparison to respondents who did not endorse any of the financial strain variables (Elbogen et al., 2020). In summary, there is a critical need to address financial well-being as a key factor in promoting and maintaining mental health.

Sociological

The sociological implications of financial resilience and financial well-being have been relatively well examined from the lens of several disciplines. Looking at many sociological elements, one study explored the relationship between financial wellness, personal well-being, and gender, finding that men scored higher in financial satisfaction and knowledge than women. However, women demonstrated higher levels of personal well-being, affirming the multi-dimensional aspect of financial wellness proposed by Joo (2008). This also underscored the mediating role of financial satisfaction in the relationship between financial satisfaction and knowledge (Gerrans et al., 2014). In another study, Kim et al. (2003) found that after accounting for the initial financial stressor score, age, and household income, credit counseling had a positive impact on reducing financial stressors for clients who remained in the program for 18 months.

Although a person's general degree of optimism can affect their resilience (Muir & Strnadova, 2014), the relationship between resilience and optimism is ambiguous, as the impact of one on the other remains unclear. While individuals' optimism levels may influence their ability to recover from adverse events, it is also plausible that their confidence in coping abilities influences their level of optimism (Salignac et al., 2019). Individuals classified as optimistic tend to have greater social capital (friends and family on whom they can rely for financial knowledge and

assistance) and greater access to financial products and services (such as bank accounts, affordable credit and insurance products) than individuals classified as neutral or pessimistic (Salignac et al., 2019). They note that since those experiencing sociological limitations such as mental illness may have higher barriers to amass formal and informal social supports and community resources, they are in turn also likely to express lower financial resilience. The literature reviewed here highlights the sociological factors that can influence financial well-being, such as gender, social support, and community resources. Therefore, an approach based on the biopsychosocial model (Engel, 1977) is useful for understanding financial stress and financial resilience's role in promoting financial well-being.

Financial Resilience Framework

The financial resilience framework (Morrow, 2008; Salignac et al., 2019) is intended to aid individuals and families in building financial resilience in the face of economic uncertainty and financial shocks, such as the period marked by COVID-19 (Norris, 2010). Morrow (2008) conceptualized financial resilience in the context of measuring financial inclusion/exclusion as dependent on one's knowledge of events, ability to predict risks, access to and knowledge of available alternatives, and resources to adapt. Norris (2010) offered five essential financial elements of financial resilience: saving, budgeting, debt management, insurance, and investment. Sherraden (1991) added that acquiring assets (savings, investments, and property) is a precursor to household and individual financial resilience. Finally, Salignac et al. (2019) expanded on the financial resilience framework by outlining four essential components: (a) economic resources, (b) financial resources and products, (c) financial knowledge and behaviors, and (d) social capital which serve as the operationalization of the financial resilience framework.

The first component, economic resources, includes savings, income, and the ability to meet cost-of-living expenses. Resilience is influenced by one's ability to meet their cost of living (Jacobs et al., 2014), and an inability to do so

contributes to financial stress (Orthner et al., 2004). The economic resources component captures an individual's ability to cope with adversity and deal with unexpected expenses given their monetary inputs (Demirgüç-Kunt et al., 2015).

The second component, financial resources and products, measures access to financial products and services. Individuals may experience several different types of exclusion from financial products and services (Cnaan et al., 2012; Gomez-Barroso & Marban-Flores, 2013; Marron, 2013; Salignac et al., 2016). Financial exclusion arises from a confluence of factors. One key factor is condition mismatch, where the products and services offered simply don't align with the target population's needs or interests. Another factor is access limitations, where individuals do not meet minimum requirements to qualify for desired products or services (Salignac et al., 2019; Kempson & Poppe, 2018). Physical and geographic barriers also play a role, as the absence of local branches or service availability can significantly hinder access. Price can be a significant hurdle as well, with costs exceeding the budgets of potential users. Self-selected exclusion can occur when individuals voluntarily choose not to participate due to cultural reasons, psychological factors, or lack of financial literacy. Finally, marketing gaps contribute to the problem when marketing strategies fail to effectively reach the target group, leading to a lack of awareness about available financial products and services.

The third component, financial knowledge, builds on literature from financial literacy (Lusardi & Mitchell, 2014) and financial capability research (Kempson & Poppe, 2018; Serido et al., 2013). Given increasingly complex financial systems, an individual's financial security is based on an adequate understanding of the system, along with positive financial skills and behaviors (Lusardi & Mitchell, 2014). This component of the financial resilience framework fills a necessary gap in the literature as neither financial literacy nor financial capability alone can well-explain one's ability to cope with financial stressors or economic shocks (Salignac et al., 2022).

The fourth component is social capital. Social capital is the connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them (Putnam, 2000). Social capital depends on networks—specifically on the payoff from network membership—in terms of access to resources and opportunities that would be otherwise unavailable (Scrivens & Smith, 2013). Individuals draw on family, friends, and community as sources of financial support and information in times of emergency (Demirgüç-Kunt et al., 2015; Seccombe, 2002). The component of social capital theory integrates this framework into the biopsychosocial model (Engel, 1977) as it falls in the social domain of this model.

Resilient Personality

Personality is made up of behavioral predispositions (i.e., temperament), cognitive attributes, and emotional qualities (Skodol, 2010). Research on the resilient personality type, a concept developed by Werner & Smith (1982), involves the traits and qualities that help people deal well with problems, stress, and other life difficulties. Derived from the Big Five Personality dimensions (agreeableness, conscientiousness, extraversion, neuroticism, and openness to experience), this simplified approach to personality typology characterizes individuals as resilient, undercontrolled, or overcontrolled (Werner & Smith, 1982). Unlike under and overcontrolled personality types, resilient personality types can recover from difficult events or situations, adapt to changes, and maintain a positive attitude despite obstacles (Morrow, 2008). Resilient personality type ranges from having the skills to cope with adversity to being able to thrive in the face of adversity (Bonanno, 2004). Although one's resilience is a dynamic internal process that changes and is affected by personal, familial, community, and cultural factors (Masten, 2014), the resilient personality type has internal developmental assets that promote stronger resilience despite external factors (Benson et al., 1999; Masten, 2001).

A relationship may exist between the financial resilience framework factors and resilient

personality; however, this examination is limited in the literature. Zahedi et al. (2022) propose that future studies explore the ways that financial resilience might be moderated by personality traits. This study aims to expand on these findings by better understanding how having a resilient personality is associated with coping with financial adversity.

Methods

Data

The data were collected by the Qualtrics partner network of panel providers from November 17, 2021 to December 15, 2021 using several different avenues of recruitment (e.g., email, social media platforms). This data were part of a larger study that aimed to collect data on resilience in the aftermath of the COVID-19 pandemic. The targeted population included adults living in the United States (n = 3,598) with

a particular emphasis on low and moderate income households and people of color, as this population was most negatively impacted by the pandemic (Kantamneni, 2020). The participants obtained through this data collection process were 51% White, 22% Black/African American, 10% Asian American, and 17% Other. Regarding ethnicity, 20% of the sample identifies as Hispanic. Also, among the respondents, approximately 30% have a high school diploma (or equivalent), 28% were some college, 31% were college degree holders (associate’s or bachelor’s), 8% have earned graduate degrees, and 3% had less than high school educations. The majority (52%) were employed at least part-time, 24% were unemployed, and the remainder were self-employed, students, or other. The married or cohabiting respondents account for 58% of the sample. Demographic data is summarized in Table 1.

Table 1. Client Demographic Data

	Total Sample		Analyzed Cases	
	<i>N</i>	%	<i>N</i>	%
Age (<i>n</i> = 3,597)				
18 – 24 years	654	18.18	529	17.12
25 – 34 years	1,107	30.78	994	32.17
35 – 44 years	869	24.16	761	24.63
45 – 54 years	441	12.26	381	12.33
55 – 64 years	256	7.12	209	6.76
65 years or older	270	7.51	216	6.99
Gender				
Female	1,767	49.11	1,498	48.48
Male	1,753	48.72	1,527	49.42
Other	78	2.17	65	2.10
Race				
White	1,820	50.58	1,595	51.62
Black	799	22.21	697	22.56
Asian	362	10.06	290	9.39
Other	617	17.15	508	16.44
Hispanic				
No	2,879	80.02	2,464	79.74
Yes	719	19.98	626	20.26

Education (<i>n</i> = 3,596)				
Less than high school	124	3.45	90	2.91
High school graduate or equivalent	1,095	30.45	934	30.23
Some college, or degree or in progress	976	27.14	834	26.99
Associate degree	442	12.29	385	12.46
Bachelor's degree	682	28.97	603	19.51
Graduate degree (Master's, Professional, Doctorate)	277	7.70	244	7.90
Marital Status				
Married or cohabiting	2,085	57.95	1,741	56.34
Not married nor cohabiting	1,513	42.05	1,349	43.66
Employment Status (<i>n</i> = 3,597)				
Employed full-time (40 hours per week)	1,457	40.51	1,349	43.66
Employed part-time (less than 40 hours per week)	397	11.04	326	10.55
Self-employed	301	8.37	250	8.09
Full-time student	201	5.59	168	5.44
Part-time student	67	1.86	56	1.81
Unemployed	878	24.41	730	23.62
Other	296	8.23	211	6.83
Resilient Personality				
No	2,037	56.61	1,748	56.57
Yes	1,561	43.39	1,342	43.43

N = 3,598 unless otherwise noted for the total sample; *N* = 3,090 for the analyzed cases

Measures

The two dependent variables were self-reported measures of physical and mental health. The physical health measure was a single question that asked respondents to rate their overall health. Respondents were then asked in a separate single question to rate their overall mental health. Responses for both questions range from 1 to 5, with 1 being “excellent” and 5 being “poor”.

The independent variables of interest were the resilient personality typology and the financial resilience framework. To assess a resilient personality, respondents self-reported whether overcontrolled, undercontrolled, or resilient comes closest to their personality. Respondents were allowed to select only one typology. The financial resilience framework variable was a

scale composed of 10 questions representing the four components of the framework. Seven of the ten resilience questions were given scores ranging from 0 to 1, with 0 representing the absence of a resilient feature and 1 indicating the highest level of resilience. Financial knowledge was coded on a scale ranging from 0 to 1. The survey had three financial knowledge questions, and the total number of correct answers for each respondent was calculated. The score was then recoded as follows: 0 correct = 0.00; 1 correct = 0.33; 2 correct = 0.67; and 3 correct = 1.00. By recoding the objective financial knowledge variable [0, 1] interval, the construct of objective financial knowledge was weighted the same as the other constructs in the financial resilience index. Social capital was measured by asking respondents to identify sources of financial

support, as was done in similar articles (e.g., Scrivens & Smith, 2013). Respondents who identified a family member, friend, neighbor, faith-based community, service provider, institution, or organization as a source for urgently needed monetary support to face an emergency, were coded 1 indicating presence of social capital. If respondents said there was nobody they could ask if they urgently needed

\$1,000 for an emergency, then they were coded 0 to indicate no social capital.

The total scores for the scale range from 0 to 8. Responses to the questions for the financial resiliency framework are summarized in Table 2. Several covariates (i.e., age, gender, race, ethnicity, education, marital status, employment status, and employment change during COVID-19) were included in the analyses.

Table 2. Financial Resilience Framework—Survey Results

	<i>N</i>	<i>%</i>
<u><i>Annual Household Income</i></u>		
Less than \$15,000	643	18.37
\$15,000 – \$24,999	540	15.43
\$25,000 – \$34,999	539	15.40
\$35,000 – \$49,999	698	19.94
\$50,000 – \$74,999	360	10.29
\$75,000 – \$99,999	360	10.29
\$100,000 – \$149,999	360	10.29
Greater than \$150,000	0	0.00
<u><i>Savings Before COVID-19 Pandemic</i></u>		
I had no savings	984	28.20
I had very little savings (1 month of income or less)	886	25.39
I had limited savings (1 to 2 months of income)	763	21.87
I had moderate savings (3 or more months of income)	856	24.53
<u><i>Access To Any Form Of Credit Before COVID-19 Pandemic</i></u>		
No access to any form of credit	808	22.46
Access to any form of credit	2,790	77.54
<u><i>Access To Financial Accounts</i></u>		
No access to financial accounts	82	2.28
Access to financial accounts	3,516	97.72
<u><i>Before Making Major Financial Decisions...</i></u>		
Almost no research	380	10.58
A little bit of research	996	27.72
Moderate amount of research	1,168	32.51
A great deal of research	1,049	29.20
<u><i>Total Financial Literacy Questions Answered Correctly</i></u>		
0	895	24.87
1	1,294	35.96

2	854	23.74
3	555	15.43
<i>Knowledge of Financial Products and Services</i>		
No knowledge of financial products and services	422	11.75
Basic knowledge of financial products and services	1,749	48.68
Good knowledge of financial products and services	1,069	29.75
Very good knowledge of financial products and services	353	9.82
<i>Could you ask someone if you urgently needed \$1,000 for an emergency?</i>		
No	981	27.27
Yes	2,617	72.73
<i>Missing data handled by listwise deletion for each question</i>		

Analysis

GLM ANOVA was used to analyze the effects of the financial resilience framework and a resilient personality on physical and mental health. GLM ANOVA was chosen because it can account for continuous covariates and yet allow for greater interaction analysis than OLS. This is important for substitute/complement analysis. For analysis, responses to the financial resilience variables were summed, and the scores were grouped into three categories with one category comprising the lowest quartile, one representing the middle two quartiles (interquartile range), and one representing the highest quartile. The quartile cutoff scores were less than 4.00 for the lower quartile ($n = 810$), 4.00 to 5.76 for the middle two quartiles (IQR) ($n = 1,770$), and greater than 5.76 for the upper quartile ($n = 824$). Missing data on key variables reduced the number of complete cases to $n = 3,090$.

Results

For mental health, GLM ANOVA analysis indicated significant results for the main effects

of both the financial resilience framework score ($\chi^2[2] = 34.99$, $p < .001$) and the resilient personality indicator ($\chi^2[1] = 51.60$, $p < .001$). The GLM ANOVA results for mental health are presented in Table 3. The interaction between resilient personality and the financial resilience framework score was also significant ($\chi^2[2] = 11.24$, $p < .01$). Table 4 summarizes the main and interaction effects for the model. All interactions with a resilient personality and a high quartile indicator of the financial resilience framework were significantly stronger than any other combination at $p < .001$. A resilient personality combined with the financial resilience framework in the IQR was also significant at $p < .001$ compared to the same financial resilience framework level without a resilient personality. Given a significant interaction, the analysis supports a resilient personality and the financial resilience framework as complements concerning their effect on mental health. Both are associated with a significant difference in mental health, and the two factors interact to associate with even greater change.

Table 3. Mental Health—GLM ANOVA Results

Factors	<i>df</i>	<i>χ²</i>	<i>Significance</i>
Indicator of Resilience	2	34.99	***
Resilient Personality	1	51.60	***
INTERACTION	2	11.24	**

N = 3,090

* *p* < .05; ** *p* < .01; *** *p* < .001

For physical health, GLM ANOVA analysis showed significant main effects for both the financial resilience framework score ($\chi^2[2] = 77.50, p < .001$) and a resilient personality ($\chi^2[1] = 15.76, p < .01$). The GLM ANOVA results for physical health are presented in Table 5. However, the interaction term was not significant ($\chi^2[2] = 4.21, p = 0.12$). The main effects difference for a resilient personality was significant at $p < .001$, and all three possible main effects comparisons for the financial resilience framework score were also significant at $p < .001$. The main effects contrast is presented in Table 6. GLM ANOVA supports the financial resilience framework and a resilient personality as substitutes concerning physical health. Each factor is associated with a significant difference in physical health, with changes in the financial resilience framework associated with the greatest changes in physical health. The interaction between the two factors was not significant, indicating a substitution effect, where changing one factor alone would not be expected to affect the other factor's impact on physical health.

Discussion

This study examined whether the financial resilience framework and the resilient personality work as complements or substitutes to impact one's mental and physical health in light of the

health and financial crisis created by the COVID-19 pandemic. Findings from this study indicate that both the financial resilience framework and resilient personality may contribute to one's mental and physical health. However, the financial resilience framework is a stronger predictor of both mental and physical health outcomes than a resilient personality.

Findings from our study provide several essential contributions to the literature. First, the current study provides an important finding regarding mental health and resilience. The components that make up the financial resilience framework (Salignac et al., 2019) have been linked to mental health outcomes in prior research. For example, financial knowledge and behavior have been associated with lower levels of psychological distress and depression (Lim et al., 2019; Seay et al., 2019). Similarly, social capital has been linked to improved mental health outcomes, such as greater social support, reduced stress, and better overall well-being (Kim & Garman, 2019; Moksnes et al., 2018). Taken together, this study's finding that the financial resilience framework is essential for mental health is important in designing personal finance interventions and policies that target financial health that can also aid a client's mental health.

Table 4. Mental Health - Contrasts (Main and Interactions)

(Indicator Group, Personality Group)	<i>Contrast</i>	<i>SE</i>	<i>z</i>	<i>Significance</i>
MAIN: Indicator 1 vs 0	0.1711	0.05	3.25	**
MAIN: Indicator 2 vs 0	0.3790	0.06	5.89	***
MAIN: Indicator 2 vs 1	0.2079	0.05	4.01	***
MAIN: Personality 1 vs 0	0.3174	0.04	7.18	***
(0, 1) vs (0, 0)	0.1341	0.09	1.56	
(1, 0) vs (0, 0)	0.0917	0.06	1.43	
(1, 1) vs (0, 0)	0.3845	0.07	5.56	***
(2, 0) vs (0, 0)	0.1834	0.08	2.17	*
(2, 1) vs (0, 0)	0.7087	0.08	8.96	***
(1, 0) vs (0, 1)	-0.0424	0.08	-0.54	
(1, 1) vs (0, 1)	0.2541	0.08	3.05	**
(2, 0) vs (0, 1)	0.0493	0.10	0.52	
(2, 1) vs (0, 1)	0.5746	0.09	6.35	***
(1, 1) vs (1, 0)	0.2929	0.05	5.13	***
(2, 0) vs (1, 0)	0.0917	0.07	0.04	
(2, 1) vs (1, 0)	0.6170	0.07	9.25	***
(2, 0) vs (1, 1)	-0.2012	0.08	-2.61	**
(2, 1) vs (1, 1)	0.3242	0.07	4.61	***
(2, 1) vs (2, 0)	0.5254	0.08	6.42	***

N = 3,090

* $p < .05$; ** $p < .01$; *** $p < .001$

Indicator Group: 0 = low quartile financial resilience, 1 = IQR financial resilience, 2 = high quartile financial resilience

Personality Group: 0 = not resilient, 1 = resilient

Table 5. Physical Health—GLM ANOVA Results

Factors	<i>df</i>	<i>χ^2</i>	<i>Significance</i>
Indicator of Resilience	2	77.50	***
Resilient Personality	1	15.76	**
INTERACTION	2	4.21	

N = 3,090

* $p < .05$; ** $p < .01$; *** $p < .001$

Table 6. Physical Health—Contrasts (Main Only)

Main Group	Contrast	SE	z	Significance
Indicator 1 vs 0	0.1621	0.05	3.56	***
Indicator 2 vs 0	0.4735	0.06	8.51	***
Indicator 2 vs 1	0.3114	0.04	6.96	***
Personality 1 vs 0	0.1517	0.04	3.97	***

N = 3,090

* $p < .05$; ** $p < .01$; *** $p < .001$

Indicator Group: 0 = low quartile financial resilience, 1 = IQR financial resilience, 2 = high quartile financial resilience

Personality Group: 0 = not resilient, 1 = resilient

Secondly, our findings support the link between factors related to the financial resilience framework (Salignac et al., 2019) and physical health. For example, economic resources have been associated with improved access to healthcare, better nutrition, and better overall physical health (Morrow, 2011; Zhu et al., 2019). Access to financial resources has also been linked to improved physical health outcomes, including lower levels of chronic disease and better overall health status (Kobayashi et al., 2015; Zhu et al., 2019). Social capital through informal networks can provide individuals with information, support, and motivation to engage in health-promoting behaviors such as exercise, healthy eating, and smoking cessation (Berkman et al., 2000). Similarly, our findings show the added benefit of increased physical health and higher levels of financial resilience. Furthermore, social networks can facilitate access to healthcare services and encourage compliance with medical treatments (Kim et al., 2017). Yet, to the authors' knowledge, no study has directly examined how the entirety of the financial resilience framework impacts physical health domains, and the link is important to explore further in future studies.

Finally, our study found that the financial resilience framework and resilient personality were complementary in explaining mental health but not the physical health results. The complementary nature of the resiliency factors and mental health is consistent with previous research that suggests that personality traits can moderate the relationship between financial

stressors and mental health outcomes (Rothmann & Coetzer, 2003). For instance, individuals with a resilient personality may be better able to cope with financial stressors and maintain positive mental health outcomes (Windle, 2011). Interestingly, this study did not find support for a complementary relationship between the financial resilience framework and resilient personality traits when it came to physical health. This may be because financial factors are more directly related to physical health outcomes, particularly in the United States where medical care costs are high, financial resources become even more essential to access healthcare, purchase prescriptions, and buy healthy food options (Todorova et al., 2016). The impact of inner vision, calmness, intelligence, maturity, and self-esteem on financial setbacks will not overcome the need for financial resources to be physically healthy. However, more research is needed to gather deeper insights into why resilient personality did not have a complementary role when it came to physical health.

These findings suggest that financial professionals should continue to highlight the importance of financial security and capability and the role of social support networks in promoting both mental and physical health to their clients. Moreover, the findings underscore the importance for financial professionals to advocate for increased access to mental and physical health resources so individuals can maintain a healthy lifestyle. Financial services

providers should be trained on how to identify financial difficulties that may be linked to psychological and physical stressors to help these clients receive the proper care, thus increasing their ability to cope with financial shocks.

Limitations

There are several limitations to note. This study did not have a random selection of respondents, which can impact generalizability to the larger population. Next, none of the households sampled had an income greater than \$150,000. This was an intentional decision as the study was designed to study at-risk households and oversample households based on race/ethnicity and income. Results from our study cannot be applied directly to households that were excluded based on the research design. Future research should focus on high-income groups to see if these findings will hold. Our study used a single-item question to measure a resilient personality. Future studies should consider using multi-item measure to improve robustness and possibly provide results for different levels of the resilient personality trait. Similarly, where data allowed, we included the individual's position before the stressor event (savings before Covid and access to credit before Covid), but longitudinal data would improve the reliability and validity of this study.

Lastly, nearly one-fourth of respondents were unemployed. Although this employment status is overrepresented, it aligns with the situation at hand during the height of the pandemic. The unemployment rate for Black and Hispanic/Latino communities was significantly higher than the rate for White communities during the COVID-19 pandemic. According to data from the Bureau of Labor Statistics (BLS), the unemployment rate for Black Americans peaked at 16.8% in April 2020. By March 2021, this rate gradually declined to 7.8%. Similarly, the unemployment rate for Hispanic/Latino Americans peaked at 18.9% in April 2020 and declined to 7.9% by March 2021. In comparison, the unemployment rate for White Americans peaked at 14.2% in April 2020 and declined to 5.4% by March 2021. It is worth noting that these unemployment rates do not account for individuals who dropped out of the labor force

due to pandemic-related factors, such as caregiving responsibilities or health concerns. Thus, the true impact of the pandemic on employment may be even greater than these statistics suggest.

Implications

Results from this study provide an opportunity to re-examine the biopsychosocial model (Engel, 1977) as the model originally incorporated basic financial aspects (e.g., socioeconomic status and household income) within the social component construct. However, the intersection between more nuanced financial health factors, as described in the financial resilience framework (i.e., economic resources, access to financial resources, financial knowledge and behavior, and social capital; Salignac et al., 2019) suggests there is potential for the biopsychosocial model to include a separate financial component. Adding a separate financial component will allow research to examine the unique contributions of social health (e.g., friends and community) and one's overall well-being, including financial health. This is consistent with previous research that has emphasized the need for a more comprehensive understanding of the factors that contribute to overall well-being, including financial factors (Moffitt et al., 2018). As stated by Kannadhasan et al. (2016), "There is no specific theory on the role of biopsychosocial factors in the financial services domain" (p. 118). Our findings suggest that this is an oversight in the theorizing of the connection between pillars of well-being. This may be especially true in the United States, where the costs of medical care are staggering relative to other countries around the world (Papanicolas et al., 2018), and one's physical and mental health may be even more directly dictated by one's financial health (Todorova et al., 2016).

This study has several practical implications for various personal finance and mental health stakeholders across education, advising, coaching, planning, and counseling domains. For mental health professionals, interventions that increase resilience could help clients better cope with mental health issues such as trauma, depression, and anxiety. For financial professionals, understanding the traits that make

people resilient can help identify individuals at risk for mental health problems. The findings of this study suggest that financial professionals should persist in highlighting to their clients the critical role of financial stability, financial literacy, and social support networks in promoting both mental and physical health. Moreover, the findings underscore the importance for financial professionals to advocate for increased access to services and resources that influence mental and physical well-being, thereby supporting individuals in maintaining a healthy lifestyle. It is crucial for financial professionals to acknowledge and address financial difficulties that may be linked to psychological and physical stressors among their clients. Finally, financial professionals can utilize the insights from this study to enrich discussions with clients about how personality factors contribute to their overall well-being.

Our study provides several reasons for the inclusion of resilience methods in financial and mental health interventions. First, findings from this study support the idea that interventions should include complementary mechanisms that focus on helping clients enhance their financial resiliency. The need for holistic and multifaceted interventions is evident given that those in this study with a resilient personality and the multiple components of the financial resilience framework may have better mental and physical health. By creating interventions that address resilience across the five elements (saving, budgeting, debt management, insurance, and investment; Norris, 2010) and incorporating strategies that support the four financial resilience framework components (economic resources, financial resources, and products, financial knowledge and behaviors, and social capital; Salignac et al., 2019), practitioners and researchers will strengthen their effectiveness in helping individuals cope and have better overall well-being.

Second, lingering chronic stress, secondary to adverse COVID-19 pandemic related outcomes, is an issue that many mental health and personal finance practitioners are still helping their clients manage. Resources have been made available from federal and state agencies, professional organizations (e.g., AFCPE, FPA), financial

institutions, and nonprofits. For example, the Consumer Financial Protection Bureau (CFPB, n.d.) developed web-based and printed materials to inform consumers on how they can protect and manage their finances during COVID-19. These resources focus on financial management, mortgage and housing assistance, avoiding fraud, and student loan relief. Practitioners can familiarize themselves with such resources and incorporate them as tools to help their clients build a mindset to better endure future economic downturns and protect their mental and financial health. For personal finance practitioners, these results also hint at the importance of financial planners incorporating the biopsychosocial model when working with clients. This inclusion may provide a more thorough assessment of a client's physical and mental health, particularly for financial planning components such as cash flow, estate planning, and insurance planning. Given the difficulty many practitioners experience getting their clients to implement recommendations, the biopsychosocial model coupled with assessing financial resilience could help planners and counselors better assist their clients with meeting their goals. More research should be conducted to test these interventions in hopes of informing professional practice.

Finally, the findings support an intersectional approach to research that could potentially expand our understanding of how people cope during economic uncertainty in times of crisis and the tools they need to cope and recover. Future studies can focus on examining how having financial resilience is associated with other outcomes of well-being, such as parenting, environmental, or relationship health. To do this, measures that capture resilient personalities and the financial resilience framework could be included in data collection. Additionally, the findings suggest a need for empirically based interventions that are inclusive of targeted audiences (e.g., gender, race, culture) and lead to valid and reliable outcomes. Resilience may also help expand insights regarding factors associated with other research areas such as consumer decision-making and behavioral economics.

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