

Mediating Effect of Self-Resilience on the Relationship between Financial Anxiety and Psychological Distress among University Students

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Abstract: The purpose of this study was to investigate the role that self-resilience plays as a mediator in the relationship between financial anxiety and psychological distress experienced by university students. In total, one hundred twenty undergraduate university students were sent an online invitation to take part in the research as survey respondents, and the survey instruments used were pre-tested to ensure their reliability. When the scores for respondents' financial anxiety, self-resilience, and psychological distress were compared with the characteristics of the respondents, the statistics suggest that there was no statistically significant difference. The primary finding reveals that self-resilience statistically and significantly mediated the association between financial anxiety and psychological distress, even though the effect size was relatively small. This is even though all variables were shown to have statistically significant correlations with one another. This study suggests that self-resilience can operate as a buffer against the potentially harmful impact that financial concern can have on psychological well-being. It is recommended that the university, in addition to providing continuous financial-related support to the students, provide a variety of programs on campus and off campus aimed at improving students' self-resilience. This will assist students in better managing their financial-related psychological distress.

Keywords: *Self-resilience, financial anxiety, psychological distress, mediation, university students, well-being.*

1. Introduction and Background

Early adulthood encourages people to move away from their families or homes to develop new careers, learn new skills, or enroll in higher education programs (Lenz, 2001). An increase in financial responsibility is also frequently observed at this time (Archuleta et al., 2013). When they enroll in college or university, many young adults handle their finances for the first time, and they frequently find themselves juggling financial obligations in addition to academic obligations. According to previous research, undergraduate students typically spend money on things like accommodation, food and drink, academic-related costs, personal items, and entertainment. According to Daud et al. (2018), inadequate financing resources, a delay in receiving funding and poor planning that caused an imbalance between income and spending were the root causes of financial anxiety among Malaysian students enrolled in higher education. Thus, financial anxiety among college students might result from unmet needs. This is regarded as one of the major stressors impacting university students and has been linked to students' cognitive function, mental health, and emotional well-being (Cadaret & Bennett, 2019; Jones et al., 2018).

A study by Fawzy and Hamed (2017) highlighted the prevalence of depression, anxiety, and stress among university students. University students have been reported to have poor mental health, including higher rates of anxiety, depression, and other mental health disorders and problems (Wong et al., 2023). Financial anxiety among university students indirectly impacts psychological distress among them. Apart from mental health problems, psychological distress is among the most common causes of academic failure because it can affect academic performance, and psychological well-being, all of which are important for success in higher education. However, university students with high levels of self-resilience can overcome obstacles throughout their studies. As Kaloeti et al. (2019) conceptualized resilience as the ability of individuals to navigate towards maintaining resources they need in the context of adversity, they found psychological distress directly affected resilience and depression. Hence, based on the above discussion, this study aims to investigate the mediation effect of self-resilience on the relationship between financial anxiety and psychological distress among university students.

2. Literature Review

University life is often perceived as a time of growth, exploration, and exciting opportunities. However, for many students, this phase can also be marked by significant psychological distress. Psychological distress refers to a state of emotional suffering, characterized by symptoms such as anxiety, depression, loneliness, and a feeling of being overwhelmed (Ross, 2017; Cuijper et al., 2009). The transition to university, academic pressures, financial challenges, and social expectations can all contribute to the high prevalence of psychological distress among university students (Granieri et al., 2021; Fradelos et al., 2019).

Financial anxiety, a state of worry and unease surrounding one's financial situation, has emerged as a significant concern among university students (McCloud & Bann, 2019). With rising tuition fees, increasing living expenses, and student loans, many students find themselves grappling with financial challenges. The impact of financial anxiety on the mental health of university students is profound, leading to heightened psychological distress (Moore et al., 2021).

Financial anxiety is prevalent among university students, affecting their mental well-being and academic performance. A study found that financial-related stress was a significant source of distress for college students (Lim et al., 2014). The fear of student loan debt, uncertainty about future job prospects, and the pressure to afford necessities contribute to heightened financial anxiety levels among students.

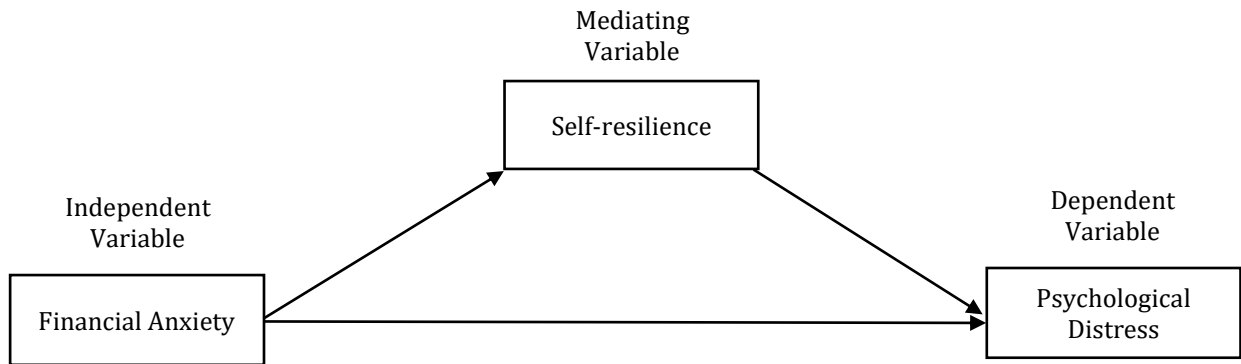
The psychological distress caused by financial anxiety can have adverse effects on academic performance (Bennett et al., 2015). Students may have trouble concentrating, completing assignments, and preparing for exams due to their preoccupation with financial worries. Additionally, the pressure to work part-time jobs or take on excessive hours to cover expenses can lead to fatigue and burnout, further impacting academic achievements.

While the effect of financial anxiety on psychological distress among students is obvious, the magnitude of such an effect might depend on the ability to maintain a positive perspective to addressing financial issues and how well the students equip themselves in managing stress. This concept relates to self-resilience. The impact of self-resilience on financial anxiety among university students is significant and can play a crucial role in how students perceive and cope with financial challenges. Self-resilience refers to an individual's ability to bounce back and adapt in the face of adversity (Alva, 1991; Wang et al., 1994), and it can influence how a student approaches and navigates financial anxieties.

Self-resilient university students are better equipped to manage stress, including stress related to financial challenges (Popa-Velea et al., 2021). They are more likely to view financial difficulties as temporary setbacks that can be overcome, rather than insurmountable obstacles. This perspective acts as a buffer against the negative impact of financial anxiety (Lie et al., 2021). Students with higher levels of self-resilience are more likely to adopt adaptive coping mechanisms when faced with financial anxiety. They may seek social support, proactively seek solutions to financial problems, and engage in problem-solving strategies. These coping mechanisms can alleviate financial anxiety and promote a sense of control over their financial situation.

The relationship between self-resilience and psychological distress is inversely related, meaning that higher levels of self-resilience are associated with lower levels of psychological distress (Jeamjitvibook et al., 2022). While self-resilience refers to an individual's ability to bounce back and adapt in the face of adversity, psychological distress encompasses a range of negative emotional and psychological symptoms, such as anxiety, depression, and feelings of helplessness. A study conducted by Song et al. (2020) showed that self-resilience acts as a protective factor against psychological distress. The finding suggests that resilient individuals possess the skills and resources to cope with stressors and challenges effectively. Having said that, it is sensible to suggest that highly resilient individuals are more likely to view difficult situations as manageable and temporary, which can reduce the likelihood of experiencing overwhelming psychological distress as a result of financial worries.

Figure 1: Conceptual Framework



Although the direct relationship between financial anxiety, self-resilience, and psychological distress has been rigorously examined in the past, it is unknown to what extent self-resilience mediates the negative impact of financial anxiety on psychological distress. Therefore, the current study is embarked on to explore this issue. Figure 1 depicts the conceptual framework of the current study.

HA: Self-resilience mediates the relationship between financial anxiety and psychological distress

3. Research Methodology

Population/ Sample: This study employed a cross-sectional design, with undergraduate students of Universiti Teknologi Mara Puncak Alam Campus, participating in the study as survey respondents. In total, 120 undergraduate students of various academic programs (i.e., Business & Management, Hospitality, Accountancy, Build Environment, and Education) responded to the online survey.

Instrument: The financial anxiety scale (Shapiro & Burchell, 2012), the Brief resilience scale (Smith et al., 2008), and the Kessler Psychological Distress Scale (Kessler et al., 1992) were used to measure respondents' financial anxiety, self-resilience, and psychological distress. Respondents were asked to respond to questionnaire items using a five-point Likert scale (from 1 to indicate very strong disagreement, to 5 to indicate very strong agreement). High scores for financial anxiety, and psychological distress indicate the respondents are suffering from stressful financial situations and non-specific symptoms of stress, anxiety, and depression. On the other hand, a high score for self-resilience indicates the respondents are highly able to withstand adversity and bounce back from difficult life events. Before analyses, the psychometric properties of the scales were examined and the Cronbach's alphas for financial anxiety scale (0.81), brief resilience scale (0.84), and psychological distress scale (0.86) indicated good internal consistency. The confirmatory factor analysis (CFA) results also suggest each measurement has an appropriate fit.

Statistical Analysis: Categorical variables were analyzed using frequency and percentage, and continuous variables using mean and standard deviation. Pearson's Product-Moment Correlation test was performed to examine the association between variables and this was followed by multiple regression analysis to determine the extent to which the dependent variables influence the measured outcome. Mediation analysis was performed based on a counterfactual approach, in which total effect, controlled direct effect, and natural direct effect were computed. The computation of the mediation effect was performed using a Stata user's written module Paramed (Emsley & Liu, 2013). This module performs causal mediation analysis using parametric regression models, and it extends statistical mediation analysis (widely known as the Baron and Kenny procedure) to allow for the presence of exposure-mediator interactions in the outcome regression model using counterfactual definitions of direct and indirect effects. Numerous studies demonstrated the applicability of this method in analyzing mediation effects (VanderWeele & Vansteelandt, 2009; Whittle et al., 2017; Kim & VanderWeele, 2019). All reported P-values were 2-tailed and the significance level was set at $P < .05$. Stata Statistical Software Release 17 (Stata Corp LP, College Station, TX) was used to analyze the data.

4. Results and Discussion

This section presents sets of results relating to the profile of respondents, and the comparison of respondent's financial anxiety, self-resilience and psychological distress scores based on the selected respondent's characteristics.

Profile of Respondents: A total of 120 students participated in the survey. Most respondents were female ($n = 85, 71.1\%$), aged between 22 - 24 years ($n = 70, 70.3\%$), and were currently in the final year of undergraduate programs ($n = 90, 74.4\%$). A great number of respondents were also living in the university's arranged accommodation ($n = 80, 66.1\%$). Mean comparison analyses using the Welch t -test identified no significant difference in respondents' financial anxiety, self-resilience, and psychological distress when the scores were statistically compared against gender, year of academic study, and the status of living arrangement.

Table 1: Correlational Analysis (N = 120)

	M	SD	1	2	3
1. Financial Anxiety	2.89	0.65	1.00		
2. Self-resilience	2.92	0.55	0.55***	1.00	
3. Psychological Distress	3.24	0.55	0.53***	-0.51***	1.00

*** $p < .001$

Correlational Analysis: The result of the analysis suggests both financial anxiety and self-resilience scores significantly correlated with respondents' psychological distress. While financial anxiety showed a positive relationship with psychological distress ($r = 0.53, p < .001$), an inverse association was observed between self-resilience and psychological distress ($r = -0.51, p < .001$). The effect size for both correlations is large according to Cohen (1988).

Table 2: Multiple Regression Analysis (N = 120)

	B	S.E	t	p	95% CI	Collinearity Statistics	
						Tolerance	VIF
Financial Anxiety	0.48	0.10	4.61	<.001	0.27 - 0.68	0.74	1.34
Self-resilience	-0.50	0.12	-4.08	<.001	-0.73 to -0.23	0.74	1.34
R^2	0.39						
adj R^2	0.38						
$F_{2, 118}$	38.22						
Sig. F	<.001						

Multiple regression analysis was performed to determine the influence of financial anxiety and self-resilience on psychological distress. Overall, the regression model is statistically significant ($F_{2, 118} = 38.22, p < .001$), and the r -squared value explains 39% of fitted data in the regression model. The analysis revealed that both financial anxiety and self-resilience are significant predictors of psychological distress. Based on the unstandardized beta value, self-resilience has a greater influence on psychological distress ($\beta = -0.50, p < .001$), when compared with the influence of financial anxiety ($\beta = 0.48, p < .001$). Table 2 summarizes the results of the multiple regression analysis.

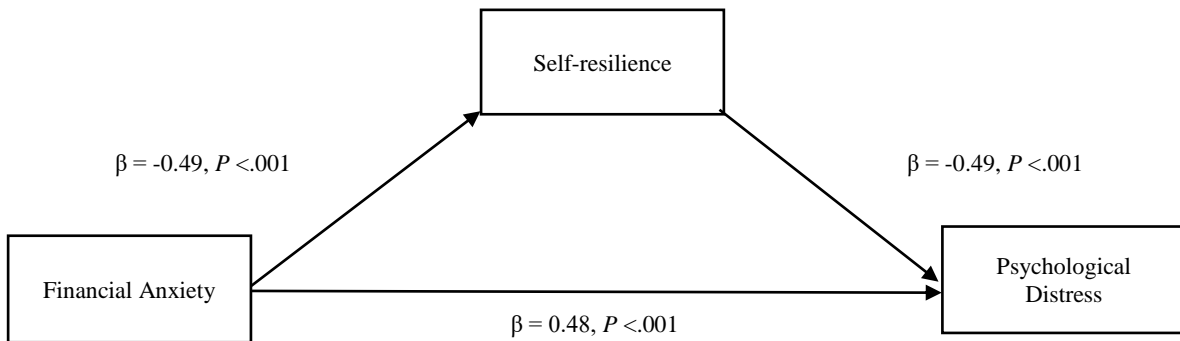
Mediation analysis was performed to determine the influence of self-resilience on the relationship between financial anxiety and psychological distress. Using a counterfactual approach to mediation analysis, controlled direct, natural indirect effect, and total effect values were computed. Controlling the effect of respondent characteristics, the model was found to be statistically significant ($F_{13, 107} = 6.73, p < .001$).

Table 3: Result of Mediation Analysis

	β	S.E	P	95% CI
Controlled direct effect (CDE)	0.48	0.11	<.001	0.26 – 0.70
Natural indirect effect (NIE)	0.24	0.07	.001	0.10 – 0.38
Total effect (TE)	0.71	0.10	<.001	0.52 – 0.91

Table 3 summarizes the result of the mediation analysis. The total effect suggests that for a unit increase in the score of financial anxiety, the score for psychological distress increases by 0.71 units. While the natural indirect effect captures the effect of financial anxiety and psychological distress through the self-resilience mechanism, the controlled direct effect provides information on the effect of financial anxiety on psychological distress through mechanisms other than self-resilience. The result based on this regression analysis showed the controlled direct effect is significantly larger ($\beta = 0.48, p < .001$) than the natural direct effect ($\beta = 0.24, p = 0.001$). Nonetheless, self-resilience demonstrates a statistically significant mediating effect on the relationship between financial anxiety and psychological distress. The relationship between the studied variables and the mediating pathway is depicted in Figure 2.

Figure 2: Diagrammatic Presentation of Variables Relationship and Mediating Effect



Discussion: The purpose of this study was to investigate the mediation effect of self-resilience on the relationship between financial anxiety and psychological distress among university students. The evidence from the past literature confirms the relationships between the variables, but the information regarding the extent to which self-resilience mediates the relationship is somehow limited.

Our hypothesis postulated that self-resilience would serve as a mediator between financial anxiety and psychological distress. The results of the analyses supported this hypothesis. Consistently, self-resilience was found to mediate the relationship between the variables, as observed in the findings of two past studies. The initial investigations examined whether or not resilience mediates the relationships between stress, depression, and anxiety among Indonesian nursing students. After controlling for student age, living conditions, and living allowance, the results indicated that resilience partially mediated the relationship between depression and anxiety (Devi, Purborini & Chang, 2021). Another study was conducted to determine whether or not resilience mediates the association between purpose in life and mental health among Pakistani students. According to the study's findings, resilience served as a mediator between the presence of meaning in life and mental health (Rasheed, Fatima & Tariq, 2022). Thus, the current study findings show some consistency that suggests self-resilience mediates the relationship between financial anxiety and psychological distress among university students.

Students' self-concepts appeared to be key determinants of financial anxiety. Students in this study compared their financial position to that of their peers and experienced increased anxiety when they felt worse off than their counterparts. Meeting basic financial needs was also important to students as shown in the results of this study. Students experienced heightened anxiety when they perceived their income as inadequate and reductions in anxiety when income was viewed as sufficient. Also, the ability to afford basics, such as food, housing, medical care, clothing, and transportation, was associated with reduced financial anxiety. It

appeared that students' self-perception of finance was the main reason for having financial distress. They tend to compare their financial situation to their peers and experience anxiety when they feel less financially secure than their peers. Other than that, students showed increased anxiety when they judged their finances to be inadequate and thus limited their ability to buy necessary items such as food, medical care, clothing and pay for transportation (Potter, Jayne & Britt, 2020). Despite that, the severity of this anxiety highly depends on the ability to maintain a positive perspective to addressing financial issues and how well the students equip themselves to manage stress – a concept that relates to self-resilience.

5. Conclusion

This study demonstrates that financial anxiety is a significant cause of psychological distress among university students. Together with parents, lecturers, and university counselors, this issue should be addressed to assist students with financial limitations during their academic years. Psychological distress has a strong correlation with financial anxiety among students, which can harm their academic performance and mental health. While parents and policymakers may provide financial aid or educational scholarships, students with greater self-resilience are better able to manage stress healthily. It has been shown that a student's ability to assimilate and adjust to the university environment, as well as the social support they receive from their peers and lecturers, can increase self-resilience, and assist them in coping with financial issues, alleviating psychological distress. Therefore, it is recommended that the university provide various in-campus and out-campus programs aiming at improving resilience among students such as success story-sharing sessions, problem-solving skills programs, and motivational talks. Additionally, but most importantly, students should be informed of the availability of student counselors if they exhibit symptoms of distress that, if untreated, are likely to impact their future academic performance.

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