

# A QUANTITATIVE ANALYSIS: FINANCIAL LITERACY AND FINANCIAL STRESS AMONG COLLEGE STUDENTS WITH IN DAVA O REGION

## ABSTRACT

This research aims to explore the relationship between financial literacy and financial stress, as well as the potential predictors of financial stress related to financial literacy, including subscales of spending habits, saving habits, and financial knowledge. A total of 368 individuals participated in the study, including first to fourth-year students, from one of the universities in Davao Region.

The research design used is quantitative, employing a descriptive-predictive approach. The study reveals that students exhibit a high level of financial knowledge and moderate spending and saving habits, indicating moderate financial literacy. Additionally, respondents exhibited a moderate level of financial stress, with moderate levels of affective and relational stress and a low level of physiological response. A positive correlation exists between financial literacy and financial stress.

Moreover, linear regression analysis showed that saving habits ( $B=0.274$ ,  $p<.001$ ) is a significant predictor of financial stress, implying that it exerts a significant influence on individuals' financial stress levels. Consequently, this study recommends a further exploration as to why individuals with high saving habits increase financial stress, including factors associated with individual circumstances, behaviors, personality and future time perspective.

**Keywords:** *Financial Literacy, Financial Stress, Saving Habits*

## 1. INTRODUCTION

In the challenging environment of college, stress has been a pervasive concern, affecting the mental health and overall well-being of students. Flaherty [1], found that 86% of students reporting poor mental health had experienced chronic stress during their college years. While occasional stress is typical, chronic and severe stress may lead to dysfunction and physical imbalances known as allostatic load [2],[3]. Significantly, the American Psychological Association [4] reported the highest prevalence of money-related stress among individuals aged 18-25 years old, with 82% of respondents recognizing money as a significant stress factor.

On that note, financial stress refers to a state of worry, anxiety, or emotional pressure related to financial issues, such as debt management and money management [5]. Additionally, according to the American Psychological Association [6], stress symptoms can be manifest psychologically or physiologically. Zhang [7], defined psychological symptoms as the burdens or difficulties experienced by individuals in their thoughts and emotions. On the other hand, physiological symptoms refer to the way in which the human body reacts when coping with stressors. In fact, a study by McCloud and Bann [8], found that higher financial stress was linked to poor mental health among UK students as well as a higher risk of common mental disorders among college students, like major depressive disorder and panic disorder [9]. Moreover, Badger et al. [10], confirmed that financial burden increases the stress experienced through associating it with healthy lifestyle factors. The findings showed that an elevated stress levels correlate with reduced physical activity, lower dietary quality, and heightened sedentary behavior among college students.

Furthermore, according to studies by Reid et al. [11] and Moore et al. [12], students facing financial stress commonly experienced difficulties in both academics and social aspects. Thus, stress affects the cognitive and behavioral phenomena of individuals within a social context [13]. Vogel and Schwabe [14], suggested that stress can lead individuals to avoid situations that evoke mixed emotions, yet for naturally aggressive individuals, stress might increase their likelihood of confronting such situations. Moore et al. [12], also found that students encountering financial stress struggle to

handle interactions with wealthier peers, frequently resulting in feelings of isolation and embarrassment. Additionally, financial stress reduces students' motivation, influences their educational choices, disrupts their sense of belonging, and alters their perceptions of the campus environment, leading to school dropout and reduced retention rates [15], [16], [17].

Meanwhile, financial literacy is a combination of financial knowledge, attitudes, and behaviors necessary to make wise financial choices and achieve financial well-being [18]. According to Rejeki et al. [19], financial literacy is important for young people as it can form a habit of saving and accumulating assets, reduce financial problems, and influence decision making regarding financial problems. In addition, this set of skills empowers individuals to make well-informed financial decisions and exercise greater control over financial matters [20].

According to a study by Sarsour et al. [21], those who lack financial literacy are less likely to save money, invest in the stock market, or create retirement plans. As such, issues with savings, investments, and credit are brought on by a lack of financial literacy [22]. Indeed, according to a study by Bakhtiar et al. [23], students' spending habits on non-academic purchases—mainly food and drink—cause poor money management and social issues for Malaysia's younger population. While Anisa et al. [24], found that students with lower financial literacy have higher impulse buying behaviors.

Conversely, individuals with greater financial literacy typically attain better financial results and make more effective decisions [21]. Moreover, Arofah [25], claimed that high financial literacy levels combined with self-efficacy significantly impact college students' financial behavior. Consequently, there is an increased use of savings and investment products and a decline in debt-related loans. Furthermore, higher levels of financial literacy among undergraduate students lead to making more informed financial decisions and increasing awareness of cryptocurrencies, Almeida & Costa, [26], particularly due to their prevalent nature today.

Several studies examined the association of financial literacy to persons' financial stress, as well as the predictors of financial stress. Research has found that the ability of young individuals in Medan City to manage their finances well, despite the possibility of having few financial problems, is demonstrated by a positive association found between financial stress and financial literacy [27]. On the other hand, the impact of financial stress and financial literacy on Americans' financial well-being was examined by [28]. The evidence indicates that financial stress and financial literacy are negatively correlated, which is in line with the analysis conducted by Calonia [29] among Bukidnon Association of Catholic Schools personnel. This implies that individuals with higher financial literacy experience lower levels of financial stress.

In Malaysia, Rahman et al. [30], explored the factors influencing the financial well-being of low-income households. Three factors served as independent variables in this study: financial stress, financial behavior, and financial literacy. The study identified financial behavior as the most influential factor predicting the financial well-being of the low-income group. Moreover, financial behavior and financial literacy were found to be positively correlated, yet financial stress had a negative impact on the financial well-being of the urban poor.

In the Philippines, Moreno [31], conducted a study on the effects of financial literacy on stress levels among business education students at North Luzon Philippine State College. The analysis showed that neither the profile nor the overall degree of respondents' financial stress was significantly correlated with each other's levels of financial literacy or stress. Moreover, there is no noticeable distinction between the BSBA and BSOA courses. Furthermore, predictors of financial stress were determined using cash management, financial records and savings plan as variables. It was noted that effective cash management was associated with lower stress levels, whereas proficiency in financial records and savings plans correlated with higher stress levels. The Bukidnon Association of Catholic Schools employees' financial stressors were investigated in a different study by Calonia [29], with a particular emphasis on financial behavior and literacy. The findings showed a substantial relationship between respondents' financial management practices and financial stress as well as between financial literacy and stress. Furthermore, both variables predicted the respondents' financial stress. The study also highlighted that respondent exhibited a moderate level of financial behavior, which manifested in poor financial management practices.

Several studies have confirmed the connection between financial literacy and its impact on financial stress, including the factors contributing to this relationship. However, a research gap has been identified, with insufficient recent studies in the association between variables and determinants of financial stress among college students. Additionally, there is a lack of locally relevant literature, attributed to limited sources. Consequently, this research initiative has the potential to significantly contribute to the body of knowledge in research, particularly in the local setting. Moreover, this study aims to aid in university students' financial literacy intervention and financial stress management. Furthermore, this study can be beneficial to future researchers by filling gaps in the existing literature.

## 1.1 RESEARCH OBJECTIVES

This study aimed to explore the following:

1. To identify the demographic profile of the respondents in terms of:
  - 1.1 Age
  - 1.2 Gender
  - 1.3 Year Level
  - 1.4 Department
2. To analyze the level of financial literacy of college students in terms of:
  - 2.1 Spending habits
  - 2.2 Saving habits
  - 2.3 Financial knowledge
3. To distinguish the level of financial stress of college students in terms of:
  - 3.1 Affective reaction
  - 3.2 Relational/Interpersonal behavior
  - 3.3 Physiological responses
4. To determine whether financial literacy and financial stress have associations among college students
5. To specify which domain of financial literacy predicts students' financial stress

## 2. METHODOLOGY

### 2.1 Research Respondents

The individuals who participated in the study were students from a specific university within Davao Region, which includes all academic levels and departments during the school year 2023-2024. The researcher employed a sample size of 350, solved through a Slovin's test calculator, utilizing simple random sampling from the total population of 3,868 students in this study. However, during the analysis of the data, a problem occurred for some reason, leading to an additional 18 respondents.

### 2.2 Research Instruments

The instruments used in this study were adapted from questionnaires utilized in previous research. Before utilizing the questionnaires, the researcher asked permission via email to the respected authors for both scales.

Somcio et al. [32] modified and compiled questions from various surveys to create a 21-item Financial Literacy Scale (FLS) with three categories consisting of seven questions each: Spending habits, Saving habits, and Financial Knowledge. Moreover, the scale used a 5-point Likert scale with the following values: Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, and Strongly Agree = 5. The scale underwent a reliability test, resulting in a Cronbach's alpha of .707, which is deemed acceptable. To assess the reliability of the questionnaire in a new setting, a pilot test was conducted with 52 respondents on the chosen university. The reliability analysis, conducted using JAMOVI (version 2.4.14), indicated that the reliability index was acceptable, with  $\alpha = .763$ .

**Table1. FinancialLiteracy MeanInterpretation**

MeanInterval	Description	Interpretation
4.21–5.00	Strongly Agree	Veryhigh
3.41–4.20	Agree	High
2.61–3.40	Neutral	Moderate
1.81–2.60	Disagree	Low

1.00–1.80

Strongly Disagree

Very low

Furthermore, Heo et al. [13] developed a multidimensional 24-item financial stress scale. The APR Financial Stress Scale consists of three dimensions: Affective reactions, Relational behavior, and Physiological responses. Initially, 42 items were created, which were then refined to 24 items. Additionally, the scale used a 5-point Likert scale with the following values: Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, and Strongly Agree = 5. The scale underwent reliability testing for each dimension, resulting in high reliability for affective reaction ( $\alpha = .95$ ), relational behavior ( $\alpha = .91$ ), and physiological responses ( $\alpha = .94$ ). Nonetheless, the researcher changed a few scale items (items 9–14) to make them more appropriate for use in a school setting. A pilot test was carried out at the same university, resembling the financial literacy scale. The reliability analysis, performed using JAMOVI (version 2.4.14), indicated that the reliability index was acceptable, with  $\alpha = .957$ .

**Table 2. Financial Stress Mean Interpretation**

Mean Interval	Description	Interpretation
4.21–5.00	Strongly Agree	Very high
3.41–4.20	Agree	High
2.61–3.40	Neutral	Moderate
1.81–2.60	Disagree	Low
1.00–1.80	Strongly Disagree	Very low

### 2.3 Design and Procedure

The research adopted a quantitative research design, employing a descriptive- predictive approach to investigate the association between financial literacy and financial stress among college students. The study delved into the affective, physiological, and relational dimensions of financial stress, aiming to provide a comprehensive understanding of how financial literacy influenced these aspects. To uncover potential predictors of financial stress associated with financial literacy, the study specifically explored subscales such as spending habits, saving habits, and financial knowledge. Utilizing descriptive statistics, the study aimed to demonstrate the current state of financial literacy and stress among college students, for which survey questionnaires were utilized to gather data.

The researchers took several steps before disseminating the survey for the respondents to evaluate the correlation of the variables. Firstly, they provided printed questionnaires and Google Forms for both in-person and online respondents, offering accessibility to a wider range of individuals. Before starting the survey, the researchers obtained permission letters from their professor and the dean, ensuring that participants with permission from the school administration were allowed to participate. This step ensured that proper authorization was obtained before involving participants. Lastly, the researchers collected data using a data sheet, maintaining the confidentiality and anonymity of participants' responses. The data were then analyzed using JAMOVI (version 2.4.14), a statistical software, to draw conclusions regarding the correlation of variables in the study.

### 2.4 Statistical Treatment

A total of 368 respondents were gathered by the researcher. The collected data were then analyzed using the statistical tool JAMOVI (version 2.4.14). Descriptive measures were employed to analyze the levels of financial literacy and financial stress, utilizing the mean and standard deviation. Additionally, the Shapiro- Wilk test was utilized by the researchers to assess the normality of the data and determine whether the null hypothesis would be rejected. The results of the test ( $W=.98$ ,  $p\text{-value}<.001$ ) indicated that the variables did not follow a normal distribution. According to Kwak and Park [33], if the null hypothesis of the data obtained from the Shapiro-Wilk test is less than the chosen significance level (e.g., 0.05), then the null hypothesis is rejected, suggesting that the data are not normally distributed. Consequently, a nonparametric test was employed to determine the correlation between financial literacy and financial stress, particularly Spearman's rank correlation. Furthermore, a linear regression was generated to specify which domain of financial literacy predicts the students' financial stress. With the aid of one or more independent variables, this modeling approach forecasts a dependent variable [34].

## 2.5 Ethical Consideration

The researchers of this study adhered to the University's Research Ethics and carefully observed ethical norms to protect the researchers and the potential respondents.

**2.5.1 Voluntary Participation.** The participants were asked if they would be willing to participate in the research study. They can stop or withdraw from the study at any time; the researchers will not question them about it. Researchers must accept and respect the decision made by the participants.

**2.5.2 Right to Revoke.** The researchers made sure that every subject could leave at any moment. Participation was completely voluntary and could happen at any time.

**2.5.3 Privacy and Confidentiality.** Additionally, during the course of the study, the researchers kept a careful eye on the privacy of contact information and personal information. To respect the participants' right to privacy and confidentiality, only the researchers knew who the participants were. It was made clear that their participation was entirely voluntary.

**2.5.4 Informed Consent Process.** Researchers gave informed consent as directed by the ethics committee. Prior to that the Dean of College gave the researchers permission. Those taking part were informed on the background and objectives of the research. In order to better explain to them in a way that matched their comprehension, the researchers waited. Also, to be able to demonstrate that the participation was voluntary and that the informed consent procedure was followed, it was essential to make sure the participants understood the goal of the interview

**2.5.5 Risk.** The participants of the study were not subjected to any adverse consequences. The goal of the research was to pursue beneficence and nonmaleficence. Researchers identified potential links between physical, mental, emotional, social, and monetary dangers. As a result, the only place the data was collected was at schools, where it is advantageous for them to participate. The well-being of the researchers came first. The data gathering would stop and the participants would be helped to facilitate their negative reactions if any indications of psychological dangers were noticed.

**2.5.6 Plagiarism.** This study eliminates the possibility of plagiarism. Researchers cited ideas and results from other authors and scholars carefully according to the proper method.

Fabrication. The researchers made sure they did not represent the work of others as their own. Researchers also made sure not to falsely record results or draw conclusions that contradict existing literature in the manuscript.

**2.5.7 Falsification.** The study draws on several reliable and precise studies. The article originated from the study of the authors, who were credited.

**2.5.8 Conflict of Interest.** The study's researchers are dedicated to obtaining certain results that are of a high quality and to carrying out the investigation honestly.

**2.5.8.1 Deceit.** The researchers found that respondents' responses to interviews were truthful and did not cause harm. The researcher used ethical methods and avoided misleading the volunteers. Unwanted comments and moral issues were dealt with in a timely manner.

**2.5.8.2 Permission from Organization/Location.** The researcher obtained advisor signatures and the approved endorsement of the school dean on authorization letters from the University before the distribution of questionnaires.

## 3. RESULTS AND DISCUSSION

### 3.1 The Demographic Profile of the Respondents

Table 3 displays the total number of respondents involved in the conducted research, which includes students enrolled at the university. The overall respondents consist of 368 college students. In terms of age distribution, the highest number of respondents fell in the 18-20 years old category (n=300, 81.5%), followed by the 21-23 years old group (n=60, 16.3%), and the least number of respondents were in the 24-27 years old category (n=8, 2.2%). Female respondents made up the majority (n=197, 53.5%), followed by male participants (n=165, 44.8%), and the least number of respondents were from the LGBTQ+ community (n=6, 1.6%). Moreover, the majority of respondents were both First-Year students (n=167, 45.4%) and Second-Year students (n=167, 45.4%), following Third-Year students (n=26, 7.1%), and Fourth-Year students (n=8, 2.2%), with the smallest number of participants. Regarding departmental distribution, the Department of Arts and Sciences and the Department of Teachers Education had the highest respondents, each with an equal number (n=82, 22.3%). Followed by the Department of Criminal Justice Education (n=63,

17.1%), the Department of Business Administration and the Department of Technical Programs with an equal number (n=56, 15.2%). While the Department of Accounting Education has the least respondents with (n=29, 7.9%).

**Table 3. Frequency Distribution by Age, Gender, Year Level and Department**

PROFILE	<i>f</i>	%
<b>AGE</b>		
18-20	300	81.5
21-23	60	16.3
24-27	8	2.2
<b>GENDER</b>		
Male	165	44.8
Female	197	53.5
LGBTQ+	6	1.6
<b>YEAR LEVEL</b>		
1 <sup>st</sup>	167	45.4
2 <sup>nd</sup>	167	45.4
3 <sup>rd</sup>	26	7.1
4 <sup>th</sup>	8	2.2
<b>DEPARTMENT</b>		
DAS	82	22.3
DBA	56	15.2
DAE	29	7.9
DTP	56	15.2
DCJE	63	17.1
DTE	82	22.3
<b>TOTAL</b>	<b>368</b>	<b>100.0</b>

### 3.2 Financial Literacy Among College Students

Table 4 presents the results of the statistical analysis conducted in determining the levels of financial literacy experienced by college students across three subscales: Spending Habits, Saving Habits and Financial Knowledge. The overall total for the level of Financial Literacy is ( $\bar{X} = 3.24$ ,  $SD = 0.37$ ), indicating that the respondents have a moderate level of Financial Literacy. The findings show a moderate level of Spending Habits ( $\bar{X} = 2.98$ ,  $SD = 0.25$ ) and Saving Habits ( $\bar{X} = 3.35$ ,  $SD = 0.63$ ), while Financial Knowledge ( $\bar{X} = 3.60$ ,  $SD = 0.63$ ) depicts a high level among the respondents.

Students demonstrate a high level of financial knowledge, indicating a strong understanding of financial concepts and principles. This is supported by the study of Brau et al. [35], which found that students with financial learning opportunities score higher on financial literacy tests and surveys. In contrast, Estrada- Mejia et al. [36], found that individuals residing in rural areas, with low income, women, and those with lower levels of education, exhibit low financial literacy levels in both Peru and Uruguay. Nonetheless, in a study by Shvaher et al. [37], it was found that social media could enhance financial literacy by utilizing its extensive capabilities to reach a broader demographic for financial education. While social media plays a significant role in disseminating information, Rudeloff [38], proposed that parent-student discussions about finance remain important informal sources of learning for adolescents' financial literacy.

Following this, the two subscales, namely Spending Habits and Saving Habits, fall within the moderate range. These findings imply that while students demonstrate moderate levels of both spending and saving habits, their saving habits tend to be notably higher. As indicated in the report by UCAS [39], college students are very careful in spending their pocket money, balancing their expenditures across various needs such as transportation, food, entertainment, and mobile expenses. This finding is consistent with the study of Alshebami et al. [40], which suggests that financial literacy contributes to improving students' saving behavior. Moreover, according to the report by PR Newswire [41], financial emergencies may contribute to students' struggles in maintaining stable savings, which explains the moderate results from the analyzed data above. However, this contradicts the study conducted by Hall [42], which suggests that financially literate individuals can avoid the burden of financial emergencies

by saving for emergency funds.

**Table 4. Level of Financial Literacy Among Respondents**

Indicator	$\bar{X}$	SD	Interpretation
Spending habits	2.98	.25	Moderate
Saving habits	3.35	.63	Moderate
Financial Knowledge	3.50	.63	High
Overall Student Financial Literacy	3.24	.37	Moderate

### 3.3 Financial Stress Among College Students

Table 5 presents the results of the statistical analysis conducted in determining the levels of financial stress experienced by college across three dimensions: Affective Reaction, Relational/Interpersonal Behavior, and Physiological Response. It is evident that the highest mean score is observed in the dimension of Affective Reaction ( $\bar{X} = 3.19$ ,  $SD = 0.91$ ), indicating a moderate level. This finding aligns with the study by Ryu and Fan [43], which demonstrated that individuals experiencing financial stress often exhibit elevated levels of anxiety and depressive symptoms. This indicates a pronounced affective response to financial pressure. Moreover, Guan et al. [44], indicate that monetary stress can lead to an increase in psychological distress. Similarly, the dimension of Relational /Interpersonal Behavior presents a similar pattern, with respondents reporting a mean score of ( $\bar{X} = 2.71$ ,  $SD = 0.78$ ), signifying a moderate level of relational or interpersonal responses to financial stress. This finding is corroborated by Heo et al. [13], who noted that individuals experiencing financial stress tend to seek moderate interpersonal support.

Meanwhile, the dimension of physiological responses records a mean score of ( $\bar{X} = 2.38$ ,  $SD = 0.93$ ), suggesting a relatively lower level of psychological responses to financial stress. This observation aligns with the findings of Sharma and Bhat [45], who suggest that individuals may employ coping mechanisms to mitigate the physiological impact of financial difficulties. Chu et al. [46], on the other hand, discovered that certain people might have more severe physiological symptoms, like elevated blood pressure and heart rate, in response to overwhelming financial stressors. This indicates that individuals exhibit dissimilar physiological reactions to financial stress, challenging the notion of a universal physiological response. Additionally, while some individuals may effectively manage coping mechanisms, others may experience long-term physiological distress, as recent research by Monin [47] has indicated concerning financial stress and physical health. Financial stress among students varies based on factors like socioeconomics, background, employment status, and academic pressures. Limited resources, high tuition costs, and student loan debt contribute to the heightened stress [12], while family support, financial aid, and money management skills can alleviate it [48]. Overall, the combined analysis of the three dimensions yields an overall mean score for financial stress ( $\bar{X} = 2.77$ ,  $SD = 0.74$ ). This indicates that, on average, college students experience a moderate level of financial stress.

**Table 5. Level of Financial Stress Among Respondents**

Indicator	$\bar{X}$	SD	Interpretation
Affective reaction	3.19	.91	Moderate
Relational/Interpersonal behavior	2.71	.78	Moderate
Physiological responses	2.38	.93	Low
Overall Student Financial Stress	2.77	.74	Moderate

### 3.4 Correlation Analysis between Financial Literacy and Financial Stress

Table 6 presents a summary of the Spearman's Rho analysis between financial literacy and financial stress among the respondents. A statistically significant correlation has been found between financial stress and financial literacy, as indicated by the p-value ( $p = 0.025$ ) below the 0.05 level; thus, the null hypothesis is rejected. Moreover, the Spearman's rho coefficient is reported as 0.116, indicating a positive correlation between the variables. This suggests that, on average, as financial literacy increases, financial stress tends to increase as well, although the correlation is weak. According to a recent study [49], financial stress and financial literacy correlate strongly. This discovery suggests that

even with a solid understanding of financial concepts, failure to implement effective financial practices can lead to heightened financial stress. Moreover, according to the study by Kawamura et al. [50], individuals with high financial literacy tend to take excessive risks, overborrow, resulting in experiencing deep debt, and hold naive financial attitudes. In other words, financial literacy makes individuals to take bold and risky actions, thereby leading to a more stressful life. These findings contrast with the study of Zhang and Chatterjee [51], which indicates a negative association between financial literacy and financial stress, implying that as financial literacy increases, financial stress decreases. The study additionally found that financial literacy serves as a safeguard, mitigating both financial stress and anxiety.

**Table6.Spearman’sRhoCorrelationAnalysis**

Independentvariable	OverallFinancialStress		
	spearman’srho	p-value	Remarks
FinancialLiteracy	0.116	0.025	<b>Significant</b>

### 3.5 Regression Analysis

Table 7 shows the regression analysis for variables predicting the financial stress of the respondents. Linear regression analysis, incorporating coefficients of correlation, was conducted with significance tested at the  $\alpha=0.05$  level. The subscales examined include Spending Habits ( $B=0.109$ ,  $p=0.488$ ), Saving Habits ( $B=0.274$ ,  $p<.001$ ), and Financial Knowledge ( $B=-0.115$ ,  $p=0.151$ ). The analysis revealed that Saving Habits has a significant positive relationship with financial stress ( $B=0.274$ ,  $p<.001$ ). In other words, as Saving Habits increases, Financial Stress increases as well. In contrast, the other predictor variables, Spending Habits and Financial Knowledge, do not demonstrate a statistically significant impact on predicting Financial Stress in this analysis. Moreover, the estimate or B implies that for a one-unit increase in Saving Habits, Financial Stress is expected to increase by 0.274 units. Additionally, Saving Habits have a low standard error (SE) of 0.0805, suggesting that the estimate for it is more precise and reliable compared to the other predictors. On the other hand, the t- value exceeds the critical value; therefore, Saving Habits have a significant positive relationship with Financial Stress ( $t=3.405>2$ ). Furthermore, the Saving Habits accounts for 4% of the variance in stress,  $F(3,364)=4.85$ ,  $p<.003$ . In other words, only 4% predicts the financial stress of college students. The 96% can be explained by other factors or variables.

Although a positive connection between saving habits and financial stress may appear contradictory at first glance, as indicated in a study by Submitter [52], where having a habit of saving can lead to increased financial well-being and financial security, it can be clarified by considering a range of factors such as individual circumstances, behaviors, and personalities. In fact, Dulleck et al. [53], investigated how participants' bodies reacted physiologically while engaging in a financial bargaining game. They found that individuals who made less generous offers experienced higher levels of stress compared to those who made more generous offers. This suggests that while being stingy might help someone save money, it could also lead to increased financial stress. Furthermore, as outlined in an article authored by Jain [54], an excessive emphasis on reducing expenses can foster a mindset of deprivation and a conviction that the optimal method for saving money is by minimizing spending at all costs. This mindset may also cultivate a perpetual feeling of insufficiency, wherein individuals, regardless of their savings, persist in maintaining an extreme frugal approach to continuously saving. While such an approach may yield short-term success in attaining particular objectives, it could prove to be unsustainable and unhealthy over time. In another article written by Watkins [55], excessive saving can result in individuals experiencing the fear of missing out, as they may find themselves unable to spend money for enjoyment.

**Table7.RegressionAnalysisforVariablesPredictingFinancialStress**

Variable	B	SE	t	p
SpendingHabits	0.109	0.1563	0.694	0.488
SavingHabits	0.274	0.0805	3.405	<.001
FinancialKnowledge	-0.115	0.0799	-1.439	0.151
$\eta^2$	<b>F</b>	<b>df1</b>	<b>df2</b>	
0.384	4.85	3	364	0.003

#### **4. CONCLUSION**

This study assessed the correlation between financial literacy and financial stress among college students. The findings revealed that the respondents exhibited a moderate level of the overall financial literacy with a high level of financial knowledge. This suggests that a majority of the respondents are knowledgeable about various financial concepts, such as the exchange rate of the peso and inflation rate in the Philippines. Moreover, they perceive themselves as financially literate individuals. However, they moderately lack in practicing good spending and saving habits. Additionally, the study revealed that respondents displayed moderate levels of overall financial stress, with physiological responses registering as the lowest among the three subscales at a low level. This suggests that respondents do not often experience physiological distress associated with financial stress, such as feelings of coldness, fatigue, and stomach aches due to their financial circumstances. It is worth noting that while physiological responses were relatively low, the study did find significant correlations between financial literacy and financial stress, indicating that despite the absence of pronounced physiological symptoms, financial stress still affects individuals in other ways. This could also imply that respondents may not fully comprehend or recognize the physiological effects of stress, contributing to the observed low level of physiological responses. Moreover, while it is widely recognized that being financially literate can mitigate financial stress, the findings revealed a nuanced relationship wherein individuals with higher financial literacy levels may also experience increased financial stress. This suggests that as individuals become more proficient at understanding financial concepts and are exposed to greater financial responsibilities, their stress levels may correspondingly rise. In the linear regression analysis, saving habits emerge as the only predicting variable to financial stress with a positive relationship. This indicates that excessive saving can lead to heightened stress levels and potentially impact an individual's overall well-being. This suggests that while saving money is typically viewed as a positive financial behavior, there exists a threshold beyond which excessive saving may contribute to increased stress due to restrictions in spending and socialization. Overall, considering the contradictory outcomes of this study in comparison to most research findings, it remains essential to uphold balance across all aspects. Whether someone possesses enough financial literacy or not, there are always drawbacks that can potentially result in stress.

#### **5. RECOMMENDATIONS**

Based on the findings and conclusion of this study, these are the recommendations derived:

To the students, self-education is important; students should actively seek out resources to improve their understanding of basic financial concepts such as budgeting, saving, and debt management. Establishing a budget to track expenses, along with building an emergency fund, offers a safety net during unexpected financial setbacks. Furthermore, future researchers can utilize the findings as a foundation for conducting similar research. Since it lacks generalizability, future researchers can modify its methodology, such as expanding the number of respondents in a broader setting. Moreover, researchers can explore potential moderating variables and underlying mechanisms to thoroughly investigate the relationship between financial literacy and financial stress among college students. Factors such as socioeconomic background, cultural influences, and individual personality traits may influence this relationship and require further examination. Additionally, further exploration focusing on saving habits as predictors of financial stress is needed. It is crucial to explore the various factors of saving habits that contribute to financial stress, including factors associated with individual circumstances, behaviors, future time perspective, and personality traits. Overall, efforts should be directed towards increasing awareness of the importance of financial literacy and stress management, as well as ensuring accurate dissemination of information to promote better financial well-being among students.

#### **REFERENCES**

1. Flaherty, C. (2023). Survey: stress is hurting college students. Inside Higher Ed|Higher Education News, Events and Jobs. <https://www.insidehighered.com/news/student-success/health-wellness/2023/05/23/survey-stress-hurting-college-students>
2. McEwen, B. S. (1998). Stress, Adaptation, and Disease: Allostasis and Allostatic Load. *Annals of*

the New York Academy of Sciences, 840(1), 33- 44. <https://doi.org/10.1111/j.1749-6632.1998.tb09546.x>

3. Renna, M. E., Fresco, D. M., & Mennin, D. S. (2020). Emotion Regulation Therapy and Its Potential Role in the Treatment of Chronic Stress-Related Pathology Across Disorders. *Chronic Stress*. <https://doi.org/10.1177/2470547020905787>
4. American Psychological Association. (2022). Stress in America: Coping with the Pandemic. <https://www.apa.org/news/press/releases/stress/2022/march-2022-survival-mode>
5. Campbell, A. C. (2021). Financial Stress: What's Money Got to Do with Sanity? Better Up.
6. APA Dictionary of Psychology. (2018.). <https://dictionary.apa.org/stress>
7. Zhang, H. (2022). A novel deep learning model for analyzing psychological stress in college students. *Journal of Electrical and Computer Engineering*, 2022, 1–11. <https://doi.org/10.1155/2022/3244692>
8. McCloud, T., & Bann, D. (2019). Financial stress and mental health among higher education students in the UK up to 2018: rapid review of evidence. *Journal of Epidemiology and Community Health*, 73, 977 - 984. <https://doi.org/10.1136/jech-2019-212154>.
9. Karyotaki, E., Cuijpers, P., Albor, Y., Alonso, J., Auerbach, R., Bantjes, J., Bruffaerts, R., Ebert, D., Hasking, P., Kiekens, G., Lee, S., McLafferty, M., Mak, A., Mortier, P., Sampson, N., Stein, D., Vilagut, G., & Kessler, R. (2020). Sources of Stress and Their Associations With Mental Disorders Among College Students: Results of the World Health Organization World Mental Health Surveys International College Student Initiative. *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01759>.
10. Badger, J., Quatromoni, P., & Morrell, J. (2019). Relationship between Stress and Healthy Lifestyle Factors of College Students. *Health Behavior and Policy Review*. <https://doi.org/10.14485/HBPR.6.1.4>.
11. Reid, M., Jessop, D., & Miles, E. (2019). Explaining the negative impact of financial concern on undergraduates' academic outcomes: evidence for stress and belonging as mediators. *Journal of Further and Higher Education*, 44, 1157 - 1187. <https://doi.org/10.1080/0309877x.2019.1664732>.
12. Moore, A., Nguyen, A., Rivas, S., Bany-Mohammed, A., Majeika, J., & Martinez, L. (2021). A qualitative examination of the impacts of financial stress on college students' well-being: Insights from a large, private institution. *SAGE Open Medicine*, 9. <https://doi.org/10.1177/20503121211018122>.
13. Heo, W., Cho, S., & Lee, P. (2020). APR Financial Stress Scale: Development and Validation of a Multidimensional Measurement. *Journal of Financial Therapy*, 11 (1) 2. <https://doi.org/10.4148/19449771.1216>
14. Vogel, S., & Schwabe, L. (2019). Stress, aggression, and the balance of approach and avoidance. *Psychoneuroendocrinology*, 103, 137–146. <https://doi.org/10.1016/j.psyneuen.2019.01.020>
15. Baker, A., & Montalto, C. (2019). Student Loan Debt and Financial Stress: Implications for Academic Performance. *Journal of College Student Development*, 60, 115- 120. <https://doi.org/10.1353/CSD.2019.0008>.
16. Smathers, K., Chapman, E., Deringer, N., & Grieb, T. (2022). The Relationship Between Financial

- Stress and College Retention Rates. *Journal of College Student Retention: Research, Theory & Practice*. <https://doi.org/10.1177/15210251221104984>.
17. Zimmerman, T., & Parker, E. (2023). Does Financial Stress Influence Students' Campus Climate Perceptions and Sense of Belonging? *Journal of College Students Retention: Research, Theory & Practice* <https://doi.org/10.1177/15210251231210855>.
  18. OECD/INFE (2020) International Survey of Adult Financial Literacy. 2020. [www.oecd.org/financial/education/launchoftheoecdinfeglobalfinancialliteracyreport.htm](http://www.oecd.org/financial/education/launchoftheoecdinfeglobalfinancialliteracyreport.htm)
  19. Rejeki, H., Hartono, P., Kurniawan, Y., Abdullah, L., & Madiun, P. (2023). Financial Literacy. A Case Study in Madiun. *Indonesian Journal of Business Analytics*. <https://doi.org/10.55927/ijba.v3i3.4635>.
  20. OECD/INFE (2023) International Survey of Adult Financial Literacy <https://www.oecd.org/publications/oecd-infe-2023-international-survey-of-adult-financial-literacy-56003a32-en.htm>
  21. Sarsour, N., Daya, W., and Aldalou, E. (2023). Assessment Of Financial Literacy: Case Study of Business Students. *Uluslararası İktisadi ve İncelemeler Dergisi*, 39, 123-137. <https://doi.org/10.18092/ulikidince.1185992>
  22. Kenayathulla, H., Nair, S., Rahman, M., & Radzi, N. (2020). Financial Literacy of Undergraduate Students in Selected Malaysian Higher Education Institutions: A Way Forward to Policy Recommendation., 8, 82-102. <https://doi.org/10.22452/MOJEM.VOL8NO3.5>.
  23. Bakhtiar, I., Jamaluddin, M., Salim, M., & Harun, M. (2020). The Students Spending Pattern on Non-Academic Items Towards Food and Beverage Lead to Poor Financial Management., 60-62. <https://doi.org/10.2991/ASSEHR.K.200921.011>.
  24. Anisa, N., Arifin, S., Setyowati, L., Hidayah, N., & Megasari, A. (2020). Financial Literacy on Impulsive Buying Behavior in Y Generation. *Quantitative Economics and Management Studies*. <https://doi.org/10.35877/454ri.qems1180>.
  25. Arofah, A. (2019). Financial Literacy, Self-Efficacy, and Financial Behaviour of College Students., 3, 129-138. <https://doi.org/10.20961/IJPTE.V3I2.17546>.
  26. Almeida, F., & Costa, O. (2021). Perspectives on financial literacy in undergraduate students. *Journal of Education for Business*, 98, 1 - 8. <https://doi.org/10.1080/08832323.2021.2005513>.
  27. Larasati, M., & Dewi, A. (2021). Relationship Analysis Between Financial Literacy and Financial Distress (Among Young Adult Medan City). *Manajemen Bisnis*. <https://doi.org/10.22219/mb.v11i2.15652>.
  28. Zhang, Y., & Chatterjee, S. (2023). Financial Well-Being in the United States: The Roles of Financial Literacy and Financial Stress. *Sustainability*, 15(5), 4505. <https://doi.org/10.3390/su15054505>
  29. Calonia, J. T. (2022). Financial Literacy and Financial Behavior: Predictors of Financial Stress among Employees of Catholic Schools. *The International Journal of Business Management and Technology* (2581-3889), 6(3), 239-250. [https://www.researchgate.net/publication/372316918\\_Financial\\_Literacy\\_and\\_Financial\\_Behavior](https://www.researchgate.net/publication/372316918_Financial_Literacy_and_Financial_Behavior)

Predictors\_of\_Financial\_Stress\_among\_Employees\_of\_Catholic\_Schools

30. Rahman, M., Isa, C. R., Masud, M. M., Sarker, M., & Chowdhury, N. T. (2021). The role of financial behaviour, financial literacy, and financial stress in explaining the financial well-being of B40 group in Malaysia. *Future Business Journal*, 7(1). <https://doi.org/10.1186/s43093-021-00099-0>
31. Moreno, R. C. (2019). Impact of Financial Literacy on Level of Stress among Business Education Students. *Luz y Saber*, 13(2). <https://ejournals.ph/article.php?id=15191>
32. Somcio, A. (2019,). Financial literacy of senior high school students in Bacolod City. [https://www.academia.edu/39729084/Financial\\_Literacy\\_of\\_Senior\\_High\\_School\\_Students\\_in\\_Bacolod\\_City](https://www.academia.edu/39729084/Financial_Literacy_of_Senior_High_School_Students_in_Bacolod_City)
33. Kwak, S. G., & Park, S. H. (2019). Normality test in clinical research. *Journal of Rheumatic Diseases*, 26(1), 5-11.
34. Kumari, K., & Yadav, S. (2018). Linear regression analysis study. *Journal of the Practice of Cardiovascular Sciences*,4(1),33. <https://doi.org/10.4103/jpcs.jpcs818>
35. Brau, J. C., Holmes, A. L., & Israelsen, C. L. (2019). Financial Literacy among College Students: An Empirical Analysis. *Journal of Financial Education*, Vol. 45, 2.
36. Estrada-Mejia, C., Mejía, D., & Córdoba, P. (2023). Financial literacy and financial wellbeing: Evidence from Peru and Uruguay. *Journal of Financial Literacy and Wellbeing*. <https://doi.org/10.1017/flw.2023.15>.
37. Shvaher, O., Degtyarev, S., & Polyakova, L. (2021). The Effect of Social Media on Financial Literacy. *International Journal of Media and Information Literacy*. <https://doi.org/10.13187/IJMIL.2021.1.211>.
38. Rudeloff, M. (2019). The influence of informal learning opportunities on adolescents' financial literacy. *Empirical Research in Vocational Education and Training*, 11, 1-17. <https://doi.org/10.1186/s40461-019-0086-y>.
39. UCAS. (2022). Spends and trends. In UCAS Freshmen Reports.
40. Alshebami, A. S., & Aldhyani, T. H. (2021). The Interplay of Social Influence, Financial Literacy, and Saving Behaviour among Saudi Youth and the Moderating Effect of Self-Control. *Sustainability*,14(14), 8780. <https://doi.org/10.3390/su14148780>
41. PR Newswire. (2023). New report finds 57% of college students lack emergency funds. Yahoo Finance. <https://finance.yahoo.com/news/report-finds-57-college-students-170000087.html>
42. Hall, C. C. (2021). Promoting savings for Financial resilience: Expanding the psychological perspective. *Association for Psychological Science*, Vol. 30(1).
43. Ryu, S., & Fan, L. (2022). The relationship between financial worries and psychological distress among U.S. adults. *Journal of Family and Economic Issues*, 44(1), 16–33. <https://doi.org/10.1007/s10834-022-09820-9>
44. Guan, N., Guariglia, A., Moore, P., Xu, F., & Al-Janabi, H. (2022). Financial stress and depression in adults: A systematic review. *PloS one*, 17(2), e0264041
45. Sharma, V., & Bhat, D. A. R. (2020). Financial stress, health and its coping mechanism. *International Journal of Economic Research*, 17, 1-5. <http://www.serialsjournal.com>

46. Chu, B., Marwaha, K., Sanvictores, T., & Ayers, D. (2022). Physiology, stress reaction. StatPearls-NCBI Bookshelf. <https://www.ncbi.nlm.nih.gov/books/NBK541120/>
47. Monin, P. (2019). The OFR Financial Stress Index. *Risks*, 7(1), 25. <https://doi.org/10.3390/risks7010025>
48. Roksa, J., & Kinsley, P. (2019). The role of family support in facilitating academic success of low-income students. *Research in Higher Education*, 60, 415-436.
49. Ismail, N., & Zaki, N. D. A. (2019). Does Financial Literacy and Financial Stress Effect the Financial Wellness? *International Journal of Modern Trends in Social Sciences*, 2(8), 01-11. DOI: 10.35631/IJMTSS.28001
50. Kawamura, T., Mori, T., Motonishi, T., & Ogawa, K. (2020). Is Financial Literacy Dangerous? Financial Literacy, Behavioral Factors, and Financial Choices of Households. *FinPlanRN: Consumer Financial Decision-Making*. <https://doi.org/10.2139/ssrn.3621890>.
51. Zhang, Y., & Chatterjee, S. (2023). Financial Well-Being in the United States: The Roles of Financial Literacy and Financial Stress. *Sustainability*, 15(5), 4505. <https://doi.org/10.3390/su15054505>
52. Submitter, B. D. P. (2020). Perceived financial preparedness, saving habits, and financial security. *Social Science Research Network*. <https://doi.org/10.2139/ssrn.3790588>
53. Dulleck U, Schaffner M, Torgler B (2014) Heartbeat and Economic Decisions: Observing Mental Stress among Proposers and Responders in the Ultimatum Bargaining Game. *PLoS ONE* 9(9): e108218. <https://doi.org/10.1371/journal.pone.0108218>
54. Jain, P. (2023). The invisible problem affecting our saving habits. *The Sydney Morning Herald*. <https://www.smh.com.au/money/planning-and-budgeting/the-invisible-problem-affecting-our-saving-habits-20230321-p5ctw0.html>
55. Watkins, K. (2022, August 23). The disadvantages of saving money. *Looking After Your Pennies*. <https://lookingafteryourpennies.com/disadvantages-of-saving-money/>

UNDER PEER REVIEW