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Financial Self-Efficacy and Debt Behavior: Does Gender or Marriage Matter?

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This study investigates the relationship between financial self-efficacy and debt behavior, focusing on gender and marital differences. Using data from the 2021 National Financial Capability Study (NFCS) and employing structural equation modeling, this paper analyzes other forms of debt, not just credit card debt, as previously studied. The study finds that higher financial self-efficacy is generally significantly associated with controlled debt across gender and marital status. While the gender differences in this relationship are not statistically different, marital differences exist, with stronger relationships observed among married individuals. These findings indicate that tailored financial education and interventions, such as affirming positive outcomes and praising them when they reach challenging goals, could boost individuals' financial self-efficacy and improve debt management, thereby addressing financial challenges more effectively across gender and marital statuses.

Keywords: financial self-efficacy; debt behavior; gender differences; marital differences

INTRODUCTION

As per the Federal Reserve Bank of New York (2024) report on household debt and credit, household debt, which includes rising mortgage, student, credit card, and other debt, reached a record high of 17.3 trillion in 2024. Higher household debt does not automatically translate into worse financial standing because debt can be used to finance several goals that improve one's living, such as buying a home or finishing school (Ruben, 2009). Because debt allows individuals to access resources to smooth consumption in times of low income, it can

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be a useful tool until and unless managed inappropriately. However, financial distress begins to surface when individuals cannot manage their debt (Anderloni et al., 2012). Many American adults have claimed that they cannot accurately assess their debt levels or that their loads are too high (Lusardi, 2011), which suggests problematic debt behavior.

Numerous studies have demonstrated that individuals with higher *financial self-efficacy* (FSE) typically make better financial decisions in different areas of the personal finance domain, including savings (Asebedo & Seay, 2019 Lown et al., 2015), investment (Montford & Goldsmith, 2016), planning (Gamst-Klaussen et al., 2019), and debt (Liu & Zhang, 2021). Hence, FSE is a crucial predictor of sound financial behavior. Though theories about researching human behavior based on advances in cognitive psychology are gaining popularity, few new theories of psychotherapy suggest cognitive elements like self-efficacy as a key role in shaping human behavior (Bandura, 1977). While there has been prior research on the relationship between FSE and credit card behavior (Liu & Zhang, 2021), the present study focuses on a comprehensive examination of various common debt forms in an analysis that has not been explored extensively for different age groups in the United States. The 2018 Financial Capability Report shows that credit card debt is not the only form of debt owed in the United States. This report shows that 35% of the sample had a mortgage, 26% had student loan debt, and 33% had an auto loan. Therefore, understanding how FSE is associated with other debt behavior is essential.

Furthermore, it is crucial to investigate how sociodemographic factors affect the relationship between FSE and debt behavior. These factors influence the financial environment, opportunities, and resources available to individuals, impacting their ability to manage their financial behavior, including debt. Therefore, the current study focuses on two sociodemographic characteristics influencing the relationship between FSE and debt behavior: gender and marital status. Furthermore, comparing how this association is different for men and women is essential, as men and women tend to have different debt behaviors (Almenberg et al., 2021; Mottola, 2013) and have different FSE levels (Asebedo, 2019). Additionally, given that previous research has demonstrated that partners' FSE influences their financial management behavior, it is intriguing to investigate how marital status affects the relationship between FSE and debt behavior (Kim et al., 2023).

An increasing body of research has explored gender disparities in FSE (Chan et al., 2017; Rothwell & Wu, 2019) and the influence of disparities on various financial behaviors, such as retirement savings (Dietz et al., 2003) and investment (Montford & Goldsmith, 2016). Meanwhile, existing literature indicates that spouses within a marital relationship often derive mutual benefits from both their own and their partner's FSE in the adoption and maintenance of sound financial practices (Kim et al., 2023; Okamoto et al., 2024). This study aims to investigate the relationship between FSE and debt behavior, considering existing empirical findings about FSE, financial behavior, and socio-demographic characteristics. The present study has the potential to expand the body of research by examining the potential gender differences in the influence of FSE on debt behavior and exploring the potential benefits of marital status in this relationship. Financial therapists and planners would find information from this study beneficial as it provides insight into the gender differences in psychological mechanisms and financial behavior of themselves and their clients, thereby

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allowing them to provide effective, customized, and empathetic financial therapy that acknowledges and bridges gender gaps in financial behavior. Moreover, professionals can better customize their advice to help married and unmarried clients achieve their financial goals by recognizing the impact of marital status on the relationship between FSE and debt behavior.

LITERATURE REVIEW

Self-Efficacy

Self-efficacy refers to an individual's belief in their capacity to plan and execute the necessary actions to achieve specific goals or outcomes (Bandura, 1982). These beliefs play a crucial role in guiding behavior and determining the level of commitment and perseverance exhibited when facing challenges (Bandura, 1991, Bandura et al., 1999). Self-efficacy encompasses both general and specific dimensions. General self-efficacy reflects an individual's overall assessment of their capabilities across a range of areas, whereas specific self-efficacy pertains to particular domains or tasks (Luszczynska et al., 2005). As conceptualized by Bandura, self-efficacy should be explained within a specific domain. Therefore, FSE focuses on financial matters, defining individuals' perceived competence in managing financial tasks (Bandura, 1982, 1991, Bandura et al., 1999). Thus, self-efficacy is an ongoing interplay between cognitive and behavioral elements significantly influencing one's achievements (Furrebøe & Nyhus, 2022).

Financial Self-Efficacy and Gender

As discussed earlier, FSE refers to an individual's belief in their capabilities to manage their money effectively and achieve their financial goals. This concept emphasizes that it is not just about having the knowledge (financial literacy) but the belief in one's ability to apply it and navigate financial situations. Most of the existing literature has focused primarily on exploring the link between financial literacy and positive financial behavior (Babiarz & Robb, 2014; Gathergood, 2012; Lusardi & Mitchell et al., 2007) as well as disparities between genders in financial literacy (Bucher-Koenen et al., 2017). However, the association of FSE with improved financial behavior remains less explored, and the gender differences in FSE are even more underexplored. Addressing these gaps is crucial for a comprehensive understanding of financial decision-making dynamics.

It is widely acknowledged that, compared to men, women typically exhibit more conservative risk-taking tendencies, which can lead to financial disadvantages (Charness & Gneezy, 2012; Dwyer et al., 2002; Hira & Loibl, 2008; Hira, 2010; Lusardi & Mitchell, 2008; Mottola, 2013; Powell & Ansic, 1997; Webster et al., 2004). Women often live longer than men, requiring their accumulated assets to last longer. However, many women invest too cautiously, raising concerns about their financial well-being (Browning, 2011). While financial literacy can explain some of these discrepancies in financial behavior between men and women, it does not fully account for them (Dwyer et al., 2002). Applying financial knowledge to behavior involves complex processes like FSE (Asaad, 2015; Ranta & Salmela-Aro, 2018; Rothwell et al., 2018; Serido et al., 2013).

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A study by Montford and Goldsmith (2016) found that women make less risky investments than men and that FSE is positively related to the level of risk taken within investment portfolios. This finding suggests that FSE may account for the frequently observed gender differences in financial risk-taking.

Gender and Debt Behavior

Gender disparities have also been observed in attitudes towards debt. Most research indicates that men generally exhibit more favorable attitudes toward debt. For instance, a study by Almenberg et al. (2021) found that adult women are more likely to feel uncomfortable with debt. Similarly, secondary and first-year university female students in New Zealand (Haultain et al., 2010), American female college students (Beale & Cude, 2017; Xiao et al., 1995), German female adolescents (Goedde-Menke et al., 2017), and English female university students (Agnew & Harrison, 2015) were found to be more hesitant about debt compared to their male counterparts and less likely to perceive it as beneficial. However, Joo et al. (2003) found that the association between gender and attitudes towards credit cards was insignificant, as did a study involving New Zealand university students (Agnew & Harrison, 2015).

Most debt studies focus primarily on credit card decisions, neglecting other important aspects of debt attitudes (Bialowolski et al., 2020). However, comprehending overall debt behavior requires a multidimensional approach (Kamleitner et al., 2012). For example, attitudes towards different types of debt, such as mortgage debt, may differ from those towards payday loans or credit card debt (Tay et al., 2017). Moreover, individual attitudes toward debt may vary even within specific groups of respondents, as indicated by prior studies on student attitudes toward credit cards (Borden et al., 2008; Davies & Lea, 1995; Haultain et al., 2010; Hayhoe et al., 1999; Xiao et al., 1995). Therefore, exploring the notable gap in existing literature regarding how different genders and age groups feel about debt is important.

Financial Self-Efficacy and Gender

Marital status is one of the most widely recognized demographic and socio-economic factors, in addition to age, gender, and income (Hira & Mugenda, 1999), which is associated with financial wellbeing (Gray, 1997). Studies by Sabri and Zakaria (2015) and Sabri et al. (2020) confirm significant differences in financial well-being between married and unmarried individuals, likely due to the social and emotional support in marriage, which enhances economic stability (Diener et al., 2000).

Limited research has examined the link between FSE and marital status, but the studies that do exist indicate that married individuals benefit from both their own and their partner's FSE in managing their finances. (Kim et al., 2023; Okamoto et al., 2024). This relationship stems from individual financial behaviors and shared financial management within partnerships (Kim et al., 2023).

Marital Status and Debt Behavior

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According to a 2019 Society of Actuaries (SOA) report, there is a complex relationship between marital status and debt. Married individuals tend to carry more debt than singles, largely because they are more likely to own homes and take on mortgage debt. This higher debt level often accompanies a stronger asset base and greater financial stability due to combined incomes. Married individuals generally consider themselves savers and planners, which influences their approach to managing debt, often viewing it as a tool for long-term financial goals.

In contrast, single individuals usually carry higher levels of unsecured debt, such as credit card debt, which can lead to greater financial vulnerability. Experian (2020) data support this, showing that married couples tend to have over twice the debt of single individuals but benefit from better credit scores and lower delinquency rates, facilitating more favorable debt terms and repayment options. The Federal Reserve's Survey of Consumer Finances (2019) also finds that married couples, particularly younger ones, report higher net worth than other marital statuses, while unmarried individuals often experience less asset accumulation and greater financial risks due to higher consumer debt relative to income (Experian, 2020; Federal Reserve Bank of St. Louis, 2019).

Self-Confidence, Financial Self-Efficacy, and Financial Behavior

Self-efficacy is often likened to "confidence," but they differ significantly in scope and implications. While confidence generally denotes a broad belief in oneself, self-efficacy is more narrowly focused on belief in one's capability to perform specific actions (Bandura et al., 1999). Linked to self-efficacy is the concept of locus of control, which refers to an individual's perception of control over life events (Rotter, 1966). Both self-efficacy and locus of control adjust based on experiences, but the locus of control tends to stabilize over time (Galvin et al., 2018).

As previously mentioned, the association between FSE and improved financial behavior, such as savings and investments, has been explored. For instance, Asebedo and Seay (2018) examined the relationship between FSE and savings behavior. They found a positive association, results confirmed by Lown et al. (2015) while focusing on middle- and low-income households. Regarding investments, Montford and Goldsmith (2016) found a positive relationship between financial self-efficacy and the level of risk taken within an individual's portfolio.

Turning to FSE and debt, while some studies have investigated the link between FSE and debt, they primarily focus only on credit card behavior. In China, for example, Liu and Zhang (2021) examined the role of FSE in explaining the relationship between financial literacy and risky credit card behavior in Chinese students. Their study found that FSE partially mediates the relationship between financial literacy and risky credit-card behavior. Focusing on Australian women, Farrell et al. (2016) examined credit cards and loans and found that women with higher FSE are less likely to hold debt-related products.

Other studies have investigated the relationship between FSE and debt, primarily focused on "credit literacy," which encompasses understanding elements like credit reports

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and scores (Lyons et al., 2007). There is insufficient attention given to overall debt literacy. Debt literacy, as defined by Lusardi and Tufano (2015), encompasses knowledge about debt and self-assessed financial knowledge. This debt literacy includes objective and self-assessed financial knowledge or "confidence." Lusardi and Tufano (2015) found that individuals with lower debt literacy tend to engage in costly financial behaviors, such as incurring higher fees and using expensive borrowing methods. Moreover, less knowledgeable individuals often perceive their debt burden as excessive or struggle to assess their debt situation accurately. Similarly, consumer misunderstandings about financial statement features can lead to errors in judging monthly payments (Soll et al., 2013). Additionally, self-assessed financial knowledge appears to have a more significant impact on reducing poor financial behaviors than objective financial knowledge and is associated with healthy credit card use (Allgood & Walstad, 2013; Atlas et al., 2019)

Some researchers equate confidence with self-efficacy and argue that boosting individuals' self-efficacy can enhance their ability to make sound financial decisions and maintain control over their finances (Atlas et al., 2019). Although limited studies examine the impact of FSE on credit card behavior, there is a paucity of research on the relationship between FSE and other aspects of debt behavior.

Contribution

There are critical gaps in existing research on FSE and its implications for financial behavior, particularly in gender differences, marital status, and household debt management. While studies have explored the association between FSE and overall financial well-being, debt attitudes, and gender disparities, as well as debt attitudes among married couples in household decision-making, there remains a dearth of research on how gender and marital status influence FSE and its impact on debt behavior. Moreover, existing studies on debt and FSE have predominantly focused on credit card behavior, overlooking broader aspects of debt management. Using data from the 2021 National Financial Capability Study (NFCS), this study aims to fill these gaps by investigating how FSE influences household debt behavior and if there are any gender and marital differences, thereby contributing valuable insights to our understanding of financial decision-making dynamics.

THEORETICAL MOTIVATION

The theoretical basis for this study is the social cognitive theory of self-regulation by Bandura (1977, 1991, 1997). The social-cognitive theory emphasizes the role of self-efficacy in shaping human behavior. According to Bandura (1991), self-efficacy is the belief an individual has in their ability to succeed and accomplish tasks. This belief shapes how individuals are motivated, approach and set goals, make choices, track their behavior, evaluate the outcomes of their actions, value activities, react to feedback on their performance, and respond emotionally as they navigate through life and its challenges through its interaction with the psychological functions of the self-regulatory system. More precisely, individuals with higher self-efficacy are more likely to set higher goals, persist through challenges and setbacks, embrace new learning opportunities, view failures as

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temporary and influenced by external factors, maintain a strong interest in the activity, and handle stress and anxiety more effectively during tough times.

This current study focuses on FSE, following Bandura's (1997) statement that self-efficacy should be assessed according to the specific behavioral domain. So, financial self-efficacy, in this sense, is the belief in one's ability to manage one's finances well, including one's debt behavior. Given the premise of Bandura (1991), individuals with higher financial self-efficacy can set aspirational financial goals (like avoiding high-interest debt, preventing debt accumulation, and not missing debt payments), persist through challenges (like sticking to their repayment plans to manage their debt effectively instead of defaulting), handle stress and anxiety related to their debt, and adapt to changing financial circumstances (adjusting to changes in reduced income and increased expenses and avoiding accumulating more debt under pressure).

Based on the social cognitive theory of self-regulation by Bandura (1977, 1991, 1997) and the existing literature review, this present study hypothesizes the following:

H1: Controlled debt behavior for credit cards, student loans, and mortgages, as measured by a combined latent construct for debt behavior, will have a positive relationship with greater levels of FSE.

H2: The relationship between FSE and debt behavior differs between men and women.

METHODOLOGY

Data and Sample

This analysis uses data from the 2021 National Financial Capability Study (NFCS), a cross-sectional data set provided by the Financial Institution Regulatory Authority (FINRA) Investor Education Foundation. This NFCS had a primary objective of measuring the key indicators of financial capability and assessing how these change in response to demographic, attitudinal, and knowledge factors. The 2021 NFCS was a self-administered survey conducted online and covered a nationally representative sample of over 25,000 American adults (age 18 and over), including 500 individuals per state and Puerto Rico. The 2021 NFCS applies survey weights to make the data nationally representative.

A multi-group analysis is performed in this study that groups the data into different groups – men vs. women and married vs. unmarried. Respondents who did not have student loans, mortgages, and/or credit cards were dropped from the sample. Also, responses such as “I don’t know” and “Prefer not to say” were omitted from the sample, reducing the sample by 1,129 respondents. After restricting the sample based on the above and accounting for missing data using the Full Information Maximum Likelihood (FIML), the final analytic sample included 10,417 observations made up of 5,476 women and 4,941 men, as well as 6,442 married respondents and 3,975 unmarried respondents.

To address potential bias due to missing data, in addition to the FIML employed, a power analysis using this final sample size was also conducted using *semPower* (Moshagen

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& Bader, 2024). This power analysis was done to evaluate the power to detect a good-fitting model (RMSEA = .05) using the parameters of our measurement model, which consisted of six total items and eight degrees of freedom. This analysis demonstrated that our sample size provided us with a power of > .9999. Employing these procedures ensures that missing data is addressed appropriately with respect to bias and statistical power.

Variable Measurement

Financial Self-Efficacy

This is a multi-item construct that contains financial control, financial satisfaction, and perceived bill pay ease as indicators. These indicators are based on Bandura (1997), which showed that people with high self-efficacy tend to set aspirational goals, exhibit more resilience to negative consequences associated with challenges and failures, and exhibit fewer stress symptoms. Given this explanation, three attributes are key regarding FSE, a domain-specific self-efficacy, as further highlighted by Asebedo (2019): financial control, emotional financial resiliency, and perceived financial difficulties. Although the 2021 NFCS dataset does not contain a multi-item FSE measure, there were three separate variables in the survey that estimated financial control, emotional, financial resilience (financial satisfaction), and perceived financial difficulties that were included in the model as post-hoc indicators to measure FSE.

Financial control was measured based on the question, "How strongly do you agree that you are good at dealing with day-to-day financial matters?" Possible responses ranged from 1(strongly disagree) to 7(strongly agree). Emotional financial resiliency was measured through financial satisfaction based on the question, "Overall, thinking of your assets, debts, and savings, how satisfied are you with your current financial condition?" Possible responses ranged from 1(not at all satisfied) to 10(extremely satisfied). Perceived bill pay ease was used to measure perceived financial difficulties based on the question, "In a typical month, how difficult is it for you to cover expenses and pay all your bills?" Possible responses ranged from 1 (very difficult) to 3 (not at all difficult).

Debt Behavior

Debt behavior is used as a latent construct, with student loan behavior, credit card behavior, and mortgage behavior as indicators. According to the 2021 Financial Capability Report by Lin et al. (2022), the most common debts owed in the United States are credit cards, mortgages, car loans, and student loans. Based on this, the indicators above for debt behavior are selected. While auto debt is a common form of debt, the dataset did not include a measure that captured auto debt behavior; the dataset only included whether auto debt existed.

Student loan behavior was estimated by asking the question, "How many times have you been late with a student loan payment in the past 12 months?" Possible responses were never (1), once, two times, three times, and four times or more. In the analysis, this was recoded where (late one time or more than once) were recoded as 1 and 2 ("negative"

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student loan behavior), respectively, and 3 represented not being late ("positive" student loan behavior).

Mortgage behavior was measured by asking the question, "How many times have you been late with mortgage payments in the past 12 months?" Possible responses were never (1), once (2), and more than once (3). This was reverse-coded so that (late once or more) was recoded as 1 and 2. Representing ("negative" mortgage behavior) and 3 represented not being late ("positive" mortgage behavior).

To measure credit card behavior, six questions were asked with possible responses of Yes (1) or No (2): a) I always paid my credit cards in full; b) In some months, I carried over a balance and was charged interest; c) In some months, I paid the minimum payment only; d) In some months, I was charged a late fee for late payment; e) In some months, I was charged the over the limit fee for exceeding my credit line; f) In some months, I used the credit cards for a cash advance. Question "a" was recoded so that a lower score (1) represented bad credit card behavior, and a higher score (2) represented good credit card behavior. Parceling was used to average answers for the six questions to create a credit card behavior indicator (Little, 2024).

To address the issue of items being on different scales in our model, we rescaled all items to be on the proportion of maximum (POM) scale, where 0 represents the minimum value, and 1 represents the maximum value of any variable in our model (Little, 2024).

Covariates

The covariates used are demographic factors based on past literature. Specifically, the covariates used in this analysis are race/ethnicity (White, Non-White), marital status (married, unmarried), income (ten categories), objective financial knowledge (measured as a continuous variable based on responses to six financial knowledge questions asked in the NFCS), and subjective financial knowledge (seven categories).

Data Analysis

The Structural Equation Modelling (SEM) and the Confirmatory Factor Analysis (CFA) are employed through the *lavaan* package (version 4.3.3; Rosseel, 2012) in *R*. The CFA model, as presented in Figure 1, is built for the four separate groups, female and male, and married and unmarried, to evaluate the relationship between FSE and debt behavior and to investigate whether this relationship differs by gender and marital status. Because this is a multigroup analysis, invariance testing is carried out to ensure that the measurements used in the model (FSE and debt behavior) are consistent across the male vs. female groups and the married vs. unmarried groups. Therefore, a configural model is first defined, then the weak and strong models are compared. After establishing measurement invariance, latent parameter difference tests are done to evaluate whether the variances and means are not statistically different between the two groups and if gender truly moderates the relationship between FSE and debt behavior. Full Information Maximum Likelihood (FIML) is used to account for missing data.

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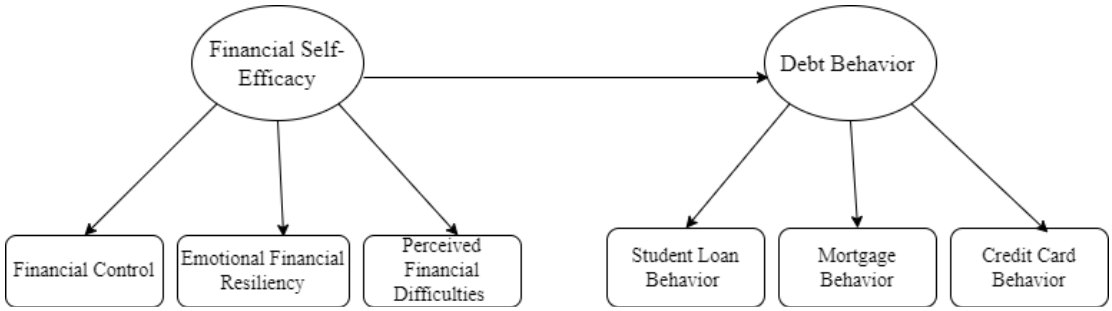
Race/ethnicity, income, objective financial knowledge, and subjective financial knowledge are calibrated into the model as covariates using the full-partial method (Little, 2013). These results are further discussed in the result section.

Figure 1.

The Estimated Model.



Note. This model is tested for four different groups (men vs. women and married vs. unmarried).

RESULTS

Descriptive Statistics

Table 1 shows the descriptive statistics for the full sample. The sample is slightly skewed more towards women (53%), White (74%), and married (75%) respondents. Also, about 49% of the sample earns between $50,000 and $150,000. Most of the sample have financial control, are financially satisfied (experience emotional financial resiliency), and do not experience difficulty paying their bills. With debt, average respondents in the sample seem to have somewhat positive student loan, mortgage, and credit card behavior. Specifically, 50% of the respondents have never missed a student loan payment, 85% have never missed mortgage payments, 85% have never used their credit card for cash advance, 87% have never been charged an over-the-limit fee, and 81% have never been charged a late fee on their credit card. However, 51% of the respondents report carrying credit card balances, and 39% report paying only the minimum payments on their credit cards. Regarding financial knowledge, while only 8% of the respondents provided correct answers to all the objective financial knowledge questions, 15% perceived their financial knowledge to be very high.

Table 1.

Descriptive Characteristics for Full Sample (N = 10,417).

Variables	Proportion of Sample

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Gender:	
Women	53%
Men	47%
Race/Ethnicity:	
White	75%
Non-White	25%
Marital Status:	
Married	62%
Unmarried	47%
Income:	
Less than $15,000	5%
$15,000 - $24,999	6%
$25,000 - $34,999	8%
$35,000 - $49,999	13%
$50,000 - $74,999	21%
$75,000 - $99,999	18%
$100,000 - $149,999	18%
$150,000 - $199,999	7%
$200,000 - $299,999	3%
$300,000+	1%
Subjective Financial Knowledge:	
1 (Very Low)	1%
2	2%
3	5%
4	16%
5	34%
6	27%
7 (Very High)	15%
Objective Financial Knowledge Scores:	
0	5%
1	11%
2	17%
3	21%
4	22%
5	17%
6	8%
Financial Control:	
1 (Strongly disagree)	2%
2	2%
3	3%
4	11%
5	16%
6	25%
7 (Strongly agree)	40%
Emotional Financial Resiliency:	
1 (Not at all satisfied)	9%
2	3%
3	6%

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4	7%
5	11%
6	11%
7	17%
8	16%
9	9%
10 (Extremely satisfied)	10%
Perceived Financial Ease:	
1 (Very difficult)	10%
2	33%
3 (Not at all difficult)	57%
Student Loan:	
1 (Never been late)	50%
2 (Been late once)	14%
3 (Been late more than once)	36%
Mortgage Loan:	
1 (Never been late)	85%
2 (Been late once)	7%
3 (Been late more than once)	8%
Pay Credit Card Balance in Full:	
Yes	50%
No	50%
Carried Balance on Credit Card:	
Yes	51%
No	49%
Paid Minimum Payment on Credit Card:	
Yes	39%
No	61%
Charged Late Fee on Credit Card:	
Yes	19%
No	81%
Charged Over the Limit Fee on Credit Card:	
Yes	13%
No	87%
Used Credit Card for Cash Advance:	
Yes	15%
No	85%

Table 2 presents the descriptive statistics comparing the men and women samples. A higher proportion of the male sample is married, White, and reports earning higher incomes. Additionally, a higher proportion of men report having higher control over their finances, being financially satisfied (experiencing emotional financial resiliency), and having less difficulty paying bills than women. Regarding debt behavior, while more women in the sample have missed student loan payments more than once, more men report missing mortgage payments more than once. With credit cards, although a higher proportion of men report paying their credit cards in full, a lower proportion of these women report being

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charged an over-the-limit fee and using their credit cards for a cash advance. Conversely, a higher proportion of men provided correct answers to all the objective financial knowledge questions, and a higher proportion assessed their financial knowledge to be very high. In our sample, men and women were significantly different on every measure except for *Charged Late Fee on Credit Card* (p = .860), indicating that gender differences exist in the items used in this analysis. Further gender differences can be seen in the correlations among the items of interest in Table 3. The statistical differences among these relationships will be the subject of our SEM analysis.

Table 2.

Descriptive Characteristics (Men vs. Women Sample).

Variables	Men	Women	χ^2	df	*p*-value
N	4,941	5,476			
Race/Ethnicity:			1.650	1	0.199
White	75%	74%			
Non-White	25%	26%			
Marital Status:			73.275	1	< .001
Married	66%	58%			
Unmarried	34%	42%			
Income:			359.710	9	< .001
Less than $15,000	4%	6%			
$15,000 - $24,999	4%	8%			
$25,000 - $34,999	6%	9%			
$35,000 - $49,999	11%	15%			
$50,000 - $74,999	20%	21%			
$75,000 - $99,999	19%	17%			
$100,000 - $149,999	22%	15%			
$150,000 - $199,999	9%	5%			
$200,000 - $299,999	4%	2%			
$300,000+	1%	1%			
Subjective Financial Knowledge:			282.040	6	< .001
1 (Very Low)	0.9%	2%			
2	1%	2%			
3	4%	6%			
4	12%	19%			
5	32%	36%			
6	30%	23%			
7 (Very High)	19%	12%			
Objective Financial Knowledge Scores:			718.600	6	< .001
0	3%	6%			
1	7%	14%			
2	13%	20%			
3	18%	23%			
4	24%	20%			
5	24%	12%			

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6	12%	4%			
Financial Control:			35.248	6	< .001
1 (Strongly disagree)	2%	2%			
2	2%	2%			
3	3%	4%			
4	10%	12%			
5	15%	18%			
6	27%	24%			
7 (Strongly agree)	41%	39%			
Emotional Financial Resiliency:			286.870	9	< .001
1 (Not at all satisfied)	6%	11%			
2	2%	4%			
3	5%	7%			
4	6%	18%			
5	10%	13%			
6	11%	12%			
7	18%	16%			
8	18%	14%			
9	10%	7%			
10 (Extremely satisfied)	13%	8%			
Perceived Financial Ease:			69.131	2	< .001
1 (Very difficult)	9%	10%			
2	29%	37%			
3 (Not at all difficult)	61%	53%			
Student Loan:			17.002	2	< .001
1 (Never been late)	51%	49%			
2 (Been late once)	16%	12%			
3 (Been late more than once)	33%	38%			
Mortgage Loan:			6.709	2	.035
1 (Never been late)	84%	86%			
2 (Been late once)	7%	7%			
3 (Been late more than once)	9%	7%			
Pay Credit Card Balance in Full:			114.580	1	< .001
Yes	61%	50%			
No	39%	50%			
Carried Balance on Credit Card:			34.094	1	< .001
Yes	48%	54%			
No	52%	46%			
Paid Minimum Payment on Credit Card:			25.260	1	< .001
Yes	47%	42%			
No	63%	58%			
Charged Late Fee on Credit Card:			0.031	1	.860
Yes	19%	20%			
No	81%	80%			
Charged Over the Limit Fee on Credit Card:			22.660	1	< .001
Yes	15%	11%			
No	85%	89%			
Used Credit Card for Cash Advance:			50.786	1	< .001
Yes	19%	13%			

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No	82%	87%

Table 3.

Item Correlations for Men and Women.

Financial Control	1.000	.346	.239	.084	.094	.229
Emotional Financial Resiliency	.325	1.000	.293	.057	-.121	.192
Perceived Financial Ease	.285	.505	1.000	.395	.456	.470
Student Loan	.188	.271	.350	1.000	.653	.421
Mortgage Loan	.161	.104	.346	.407	1.000	.483
Credit Card	.273	.342	.473	.342	.362	1.000

Note. Item correlations for men are represented in the upper triangle. Item correlations for women are represented in the lower triangle.

When comparing married and unmarried respondents in the sample in Table 4, a larger percentage of married respondents are men, White, earn higher incomes, and have higher objective and subjective financial knowledge scores. Regarding debt behavior, a higher proportion of unmarried respondents report being late with mortgage and student loan payments, using their credit cards for cash advances, and being charged a late fee and over-the-limit fee. Also, while more married respondents report having greater control over their finances and being extremely financially satisfied (emotional, financial resiliency), a higher proportion of unmarried respondents report experiencing difficulties paying their bills. The differences in these measures among married and unmarried respondents are statistically significant. They are further emphasized by the differences in the correlations amongst the key variables, as shown in Table 5. These relationships will be explored in greater depth through the SEM analysis conducted.

Table 4.

Descriptive Characteristics (Married vs. Unmarried Sample).

Variables	**Married**	**Unmarried**	χ^2	**df**	***p*-value**
N	6,442	3,975			
Race/Ethnicity:			215.92	1	< .001
White	79%	67%			
Non-White	21%	33%			
Gender:			73.275	1	< .001
Male	51%	42%			
Female	49%	58%			
Income:			1947.5	9	< .001
Less than $15,000	1%	11%			
$15,000 - $24,999	3%	12%			
$25,000 - $34,999	4%	13%			

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$35,000 - $49,999	9%	18%			
$50,000 - $74,999	20%	22%			
$75,000 - $99,999	22%	12%			
$100,000 - $149,999	25%	8%			
$150,000 - $199,999	10%	2%			
$200,000 - $299,999	4%	1%			
$300,000+	2%	1%			
Subjective Financial Knowledge:			179.75	6	< .001
1 (Very Low)	1%	2%			
2	1%	2%			
3	4%	7%			
4	14%	18%			
5	35%	33%			
6	29%	24%			
7 (Very High)	17%	13%			
Objective Financial Knowledge Scores:			187.90	6	< .001
0	4%	6%			
1	9%	14%			
2	15%	19%			
3	20%	21%			
4	24%	20%			
5	19%	15%			
6	9%	5%			
Financial Control:			200.05	6	< .001
1 (Strongly disagree)	1%	3%			
2	1%	3%			
3	3%	4%			
4	9%	14%			
5	16%	18%			
6	26%	23%			
7 (Strongly agree)	43%	34%			
Emotional Financial Resiliency:			421.37	9	< .001
1 (Not at all satisfied)	6%	14%			
2	2%	5%			
3	6%	7%			
4	6%	9%			
5	10%	13%			
6	11%	11%			
7	19%	15%			
8	18%	12%			
9	10%	7%			
10 (Extremely satisfied)	12%	3%			
Perceived Financial Ease:			263.65	2	< .001
1 (Very difficult)	16%	13%			
2	33%	40%			
3 (Not at all difficult)	51%	47%			
Student Loan:			38.46	2	< .001
1 (Never been late)	56%	46%			
2 (Been late once)	15%	14%			

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3 (Been late more than once)	31%	40%			
Mortgage Loan:			18.17	2	< .001
1 (Never been late)	86%	82%			
2 (Been late once)	6%	9%			
3 (Been late more than once)	8%	9%			
Pay Credit Card Balance in Full:			8.37	1	.004
Yes	57%	47%			
No	43%	53%			
Carried Balance on Credit Card:			6.73	1	.009
Yes	49%	54%			
No	51%	46%			
Paid Minimum Payment on Credit Card:			40.29	1	< .001
Yes	47%	53%			
No	63%	47%			
Charged Late Fee on Credit Card:			87.33	1	< .001
Yes					
	17%	25%			
No	83%	75%			
Charged Over the Limit Fee on Credit Card:			40.67	1	< .001
Yes	11%	16%			
No	89%	84%			
Used Credit Card for Cash Advance:			48.40	1	< .001
Yes					
	13%	19%			
No	87%	81%			

Table 5.

Item Correlations for Married and Unmarried Respondents.

Financial Control	1.000	.315	.216	.087	.079	.222
Emotional Financial Resiliency	.324	1.000	.326	.021	-.042	.259
Perceived Financial Ease	.293	.486	1.000	.399	.423	.468
Student Loan	.157	.269	.336	1.000	.631	.413
Mortgage Loan	.214	.047	.343	.346	1.000	.426
Credit Card	.285	.270	.465	.346	.415	1.000

Note. Item correlations for married respondents are represented in the upper triangle. Item correlations for unmarried respondents are represented in the lower triangle.

Measurement Model and Model Fit

Model fit for our initial CFA measurement model was below the conventional thresholds for acceptability (Kline, 2016; Little, 2024) with a χ^2 (8) = 1175.844, $p < .001$, CFI = .873, TLI = .762, SRMR = .055, and RMSEA = .118. While these fit indices do not meet the conventional threshold for acceptability, except for the SRMR, we are willing to relax these guidelines due to the post-hoc nature of our scales. When novel scales are used or scales are

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created post-hoc from existing items not originally intended to be used as scales, the heuristics of acceptable fit can be relaxed (Little, 2023). The evaluation of model parameters further suggests that our model is acceptable, with standardized item loadings for FSE ranging from .396 to .765 and standardized item loadings for *Debt Behavior* ranging from .561 to .773, with all parameters being significant with $p < .001$. The correlation between our constructs of interest was also very high, .796, and significant with $p < .001$.

Invariance Tests

Invariance testing was conducted to see if our items performed equivalently across both men and women participants. Invariance was evaluated using the heuristic of ΔCFI < .01 to evaluate whether the constrained model fit unreasonably worse than the unconstrained model (Little, 2024). The results of the invariance testing, as depicted in Table 6, show that one item, *Emotional Financial Resiliency*, could not be held invariant in both the weak and the strong models, so this constraint was relaxed, and we established partial invariance with the remainder of our items (Little, 2024). With partial invariance established, we could evaluate group differences at the latent level.

Table 6.

Invariance Tests (Men vs. Women).

Model	χ^2	*df*	*p*	*CFI*	*TLI*	*SRMR*	*RMSEA*	*Δ CFI*	Pass?
Configural	1188.541	16	< .001	.875	.766	.054	.119		
Weak	1371.023	20	< .001	.856	.785	.065	.114	.019	No
Weak Partial	1260.476	19	< .001	.868	.792	.059	.112	.007	Yes
Strong	1467.663	23	< .001	.847	.800	.068	.110	.021	No
Partial Strong	1310.514	22	< .001	.863	.813	.061	.106	.005	Yes

Note. Partial invariance in both the weak and strong models were established by relaxing the constraint placed on the *Emotional Financial Resiliency* item.

A separate invariance test was conducted to test whether the items functioned equivalently across married and unmarried respondents using the aforementioned heuristics of ΔCFI < .01 to determine whether a model passes the invariance test (Little, 2024). The results of this second invariance testing are presented in Table 7, and show that the model met the criteria for weak invariance. However, *Perceived Bill Pay Ease* did not meet the threshold for strong invariance. Therefore, the constraint on this item was relaxed, allowing for the establishment of partial invariance for the other items (Little, 2024).

Table 7.

Invariance Tests (Married vs. Unmarried).

Model	χ^2	*df*	*p*	*CFI*	*TLI*	*SRMR*	*RMSEA*	*Δ CFI*	Pass?
Configural	1246.900	16	< .001	.862	.742	.058	.122		
Weak	1303.134	20	< .001	.856	.784	.062	.111	.006	Yes

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Strong	1439.406	24	< .001	.841	.802	.067	.106	.015bill	No
Partial Strong	1310.514	22	< .001	.863	.813	.061	.106	.005	Yes

Note. Partial invariance in both the weak and strong models were established by relaxing the constraint placed on the *Emotional Financial Resiliency* item.

Latent Parameter Differences

After establishing measurement invariance, we evaluated the latent structural parameters of means, variances, and covariances for moderation across gender by constraining the latent parameters to equality across groups and by using a nested χ^2 difference test to evaluate whether the parameters were significantly different. Our test of latent means demonstrated significant differences across both *FSE*, $\Delta\chi^2(1) = 49.53$, $p < .001$, and *Debt Behavior*, $\Delta\chi^2(1) = 12.51$, $p < .001$. Next, we evaluated whether the variances of these two constructs were moderated by gender and found that the variance for both *FSE*, $\Delta\chi^2(1) = 4.32$, $p = .038$, and *Debt Behavior*, $\Delta\chi^2(1) = 9.46$, $p = .002$, were moderated by gender. With variances being significantly different across groups, we added rescaling constructs to our model to evaluate whether the covariance between our constructs was moderated by group (Little, 2024). After fixing our latent covariance to equality, we concluded that this parameter was not moderated by gender, $\Delta\chi^2(1) = 0.67$, $p = .415$. The full results of our latent parameter testing can be found in Table 8.

Table 8.

Latent Parameter Difference Testing (Men vs. Women).

Model	***χ²***	***df***	**Δχ²**	**Δdf**	***p-value***	**Moderated by Gender?**
Partial Strong (Parent Model)	1310.514	22				
Latent Means Omnibus	1360.046	24	49.533	2	< .001	Yes
Latent Means FSE	1360.045	23	49.531	1	< .001	Yes
Latent Means DB	1323.026	23	12.512	1	< .001	Yes
Latent Variance Omnibus	1327.020	24	16.506	2	< .001	Yes
Latent Variance FSE	1314.838	23	4.324	1	.038	Yes
Latent Variance DB	1319.971	23	9.457	1	.002	Yes
Latent Covariance	1311.179	23	0.665	1	.415	No

Note. All nested models were evaluated against the Partial Strong Invariance model. Significance was evaluated with an alpha of .05.

Similarly, to test for moderation across marital status, we evaluated the latent structural parameters—means, variances, and covariances—by constraining these latent parameters to be equal across groups and using a nested χ^2 difference test to determine whether the parameters varied significantly. The results of this analysis, as shown in Table 9, reveal that the latent means, variances, and covariances of *FSE* and *Debt Behavior* were moderated by gender.

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Table 9.

Latent Parameter Difference Testing (Married vs. Unmarried).

Model	χ^2	*df*	$\Delta\chi^2$	Δdf	*p-value*	Moderated by Gender?
Partial Strong (Parent Model)	1322.370	23				
Latent Means Omnibus	1814.99	25	492.53	2	< .001	Yes
Latent Means FSE	1462.089	24	139.72	1	< .001	Yes
Latent Means DB	1797.372	24	475	1	< .001	Yes
Latent Variance Omnibus	1423.05	25	100.68	2	< .001	Yes
Latent Variance FSE	1423.01	24	100.65	1	< .001	Yes
Latent Variance DB	1326.31	24	3.93	1	.047	Yes
Latent Covariance	1327.56	24	5.192	1	.022	Yes

Note. All nested models were evaluated against the Partial Strong Invariance model. Significance was evaluated with an alpha of .05.

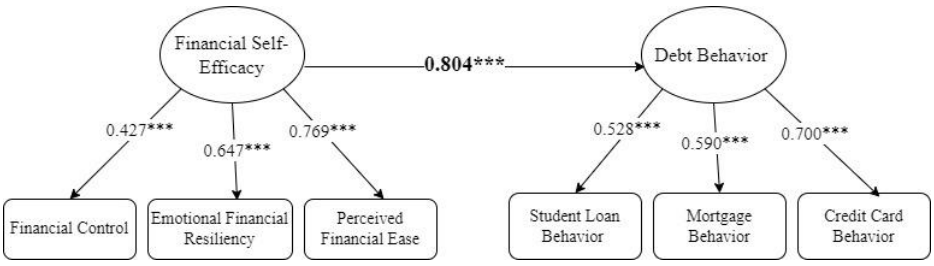
Structural Model Results

Men vs. Women

Figures 2 and 3 display the results of the structural model, showing the relationship between *FSE* and *Debt Behavior* for male and female participants. The regression model demonstrated adequate fit for our study, with a χ^2 (234) = 8315.899, $p < .001$, CFI = .893, TLI = .748, SRMR = .063, and RMSEA = .081. This study finds a statistically significant positive association between *FSE* and *Debt Behavior* for both men and women. The results show that a one-unit increase in *FSE* is associated with a 0.804 increase in positive *Debt Behavior* among female respondents. Similarly, a one-unit increase in the *FSE* of the male respondents is associated with a 0.797 increase in their positive *Debt Behavior*. This means that men and women with higher *FSE* are more likely to engage in positive *Debt Behavior*. To evaluate if there is a difference in this relationship, we tested for moderation of this regression.

Figure 2.

Women: Structural Model Results.



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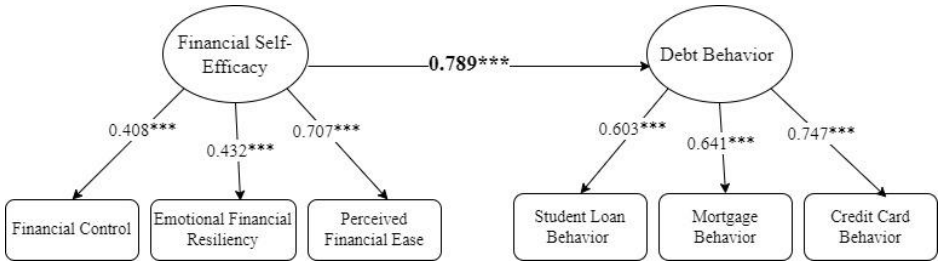
Note. Standardized results are provided. Model fit *χ2 (234) = 8315.899, p < .001, CFI = .893, TLI = .748, SRMR = .063 and RMSEA = .081.* All parameters are significant with $p < .001$. *N* =5,476.

Figure 3.

Men: Structural Model Results.



Note. Standardized results are provided. Model fit χ2 (234) = 8315.899, p < .001, CFI = .893, TLI = .748, SRMR = .063, and RMSEA = .081. All parameters are significant with $p < .001$. *N* =4,941.

Turning to covariates, as shown in Table 10, for the female sample, the only statistically significant covariates were White and objective financial knowledge, with income and subjective financial knowledge being marginally significant. Specifically, women who are White, earn more, and score higher on the financial knowledge questions are more likely to exhibit positive debt behavior. Interestingly, women who rate their financial knowledge higher are less likely to engage in positive debt behavior.

Table 10.

Structural Model Results for Effects of Covariates on Debt Behavior (Men vs. Women).

Variables	Men	Women
N	4,941	5,476
White (Ref = Non-White)	0.010	0.116***
	(0.012)	(0.012)
Married (Ref = Unmarried)	0.018	-0.004
	(0.012)	(0.012)
Income (Ref =Less than $15,000)		
$15,000 - $24,999	0.071**	0.022
	(0.039)	(0.032)
$25,000 - $34,999	0.037	0.037
	(0.036)	(0.031)
$35,000 - $49,999	0.062*	0.062*
	(0.033)	(0.029)
$50,000 - $74,999	0.081*	0.087*
	(0.032)	(0.029)
$75,000 - $99,999	0.082*	0.066*

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	(0.032)	(0.030)
$100,000 - $149,999	0.051	0.071*
	(0.033)	(0.031)
$150,000 - $199,999	0.015	0.062**
	(0.035)	(0.036)
$200,000 - $299,999	0.024	0.032
	(0.039)	(0.044)
$300,000+	0.021	-0.005
	(0.050)	(0.056)
Objective Financial Knowledge Score	0.305***	0.187***
	(0.004)	(0.004)
Subjective Financial Knowledge (Ref = Very Low)		
2	0.018	-0.033
	(0.077)	(0.060)
3	0.005	-0.026
	(0.066)	(0.050)
4	-0.002	-0.036
	(0.062)	(0.047)
5	0.002	-0.065
	(0.061)	(0.046)
6	-0.037	-0.079
	(0.062)	(0.047)
7 (Very High)	-0.240**	-0.178***
	(0.063)	(0.049)

Note. Standardized results are provided. Model fit RMSEA = 0.082, SRMR = 0.063, CFI = 0.894, TLI = 0.747. *** $p<0.001$; ** $p<0.01$; * $p<0.05$. N =10,417.

Similarly, in the male sample, displayed in Table 10, the only statistically significant covariate was objective financial knowledge, with income and SFE being marginally significant. In other words, while men who score higher in objective financial knowledge are more likely to depict positive debt behavior, men who assess their financial knowledge as very high are less likely to depict positive debt behavior. A final covariate model was evaluated after pruning all non-significant covariates, resulting in a model with a χ^2 (264) = 8359.511, $p < .001$, CFI = .893, TLI = .776, SRMR = .063, and RMSEA = .077.

To test whether the relationship between *FSE* and *Debt Behavior* is truly different for men and women, a chi-square difference test was conducted and is presented in Table 11. The results demonstrate that the relationship is not significantly different among men and women, $\Delta\chi^2(1) = 0.01$, $p = .925$.

Table 11.

Chi-square Difference Test (Men vs. Women).

Model Tested	χ^2	*df*	$\Delta\chi^2$	Δdf	*p*	Decision
Model 1 (path freely estimated)	8359.5	264				
Model 2 (path constrained to be equal)	8359.5	265	0.009	1	.9245	Not Sig. Diff

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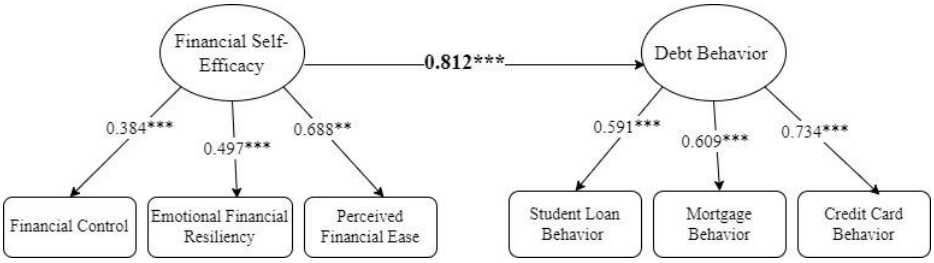
Married vs. Unmarried

The results of the structural model, showing the relationship between *FSE* and *Debt Behavior* for married and unmarried respondents, are illustrated in Figures 4 and 5. The regression model demonstrated adequate fit for our study, with a χ^2 (235) = 7831.271, p < .001, CFI = .904, TLI = .775, SRMR = .059, and RMSEA = .079. The analysis shows a statistically significant positive association between *FSE* and *Debt Behavior* for married and unmarried respondents. Specifically, a one-unit increase in *FSE* is associated with a 0.812 increase in positive *Debt Behavior* among married participants and a 0.759 increase among unmarried participants.

Figure 4.

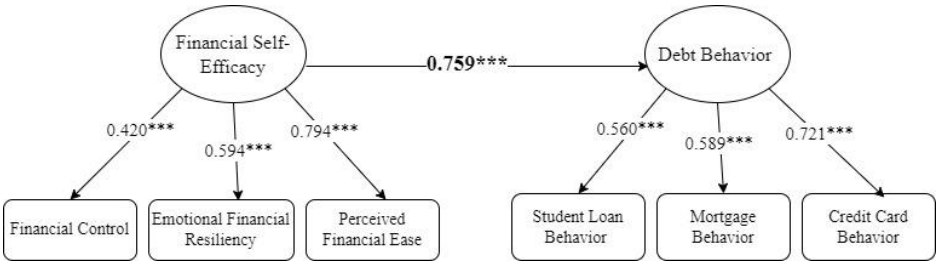
Married: Structural Model Results.



Note. Standardized results are provided. Model fit *χ2 (235) = 7831.271, p < .001, CFI = .904, TLI = .775, SRMR = .059, and RMSEA = .079.* All parameters were significant with p < .001. *N* =6,442.

Figure 5.

Unmarried: Structural Model Results.



Note. Standardized results are provided. Model fit *χ2 (235) = 7831.271, p < .001, CFI = .904, TLI = .775, SRMR = .059, and RMSEA = .079.* All parameters were significant with p < .001. *N* =3,975.

Table 12 shows the result of the covariates for the married vs the unmarried sample. For both samples, objective financial knowledge, ethnicity, and gender were the only statistically significant covariates, while income and subjective financial knowledge were

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marginally significant. Specifically, respondents who are White, earn higher incomes, and score higher on the financial knowledge questions are more likely to engage in positive debt behavior. Men are less likely to exhibit positive debt behavior. Interestingly, respondents who rate their financial knowledge higher are less likely to engage in positive debt behavior. Like the men vs. women analysis, a final covariate model was tested after pruning all non-significant covariates, resulting in a model with a χ^2 (261) = 7879.6, $p < .001$, CFI = .904, TLI = .797, SRMR = .059, and RMSEA = .075.

Table 12.

Structural Model Results for Effects of Covariates on Debt Behavior (Married vs. Unmarried).

Variables	Married	Unmarried
N	6,442	3,975
White (Ref = Non-White)	0.032*	0.124***
	(0.073)	(0.073)
Men (Ref = Women)	-0.072***	-0.047*
	(0.065)	(0.066)
Income (Ref =Less than $15,000)		
$15,000 - $24,999	0.041	0.046
	(0.353)	(0.145)
$25,000 - $34,999	0.082**	0.010
	(0.333)	(0.140)
$35,000 - $49,999	0.117**	0.038
	(0.317)	(0.133)
$50,000 - $74,999	0.162**	0.056
	(0.309)	(0.131)
$75,000 - $99,999	0.149**	0.065
	(0.308)	(0.144)
$100,000 - $149,999	0.140*	0.060
	(0.307)	(0.160)
$150,000 - $199,999	0.099*	0.010
	(0.315)	(0.221)
$200,000 - $299,999	0.083**	-0.022
	(0.333)	(0.310)
$300,000+	0.041*	-0.027
	(0.373)	(0.415)
Objective Financial Knowledge Score	0.266***	0.217***
	(0.004)	(0.025)
Subjective Financial Knowledge (Ref = Very Low)		
2	0.001	-0.029
	(0.458)	(0.323)
3	0.004	-0.041
	(0.389)	(0.272)
4	-0.014	-0.051
	(0.368)	(0.252)
5	0.057	-0.033

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	(0.367)	(0.250)
6	-0.086	-0.055
	(0.372)	(0.256)
7 (Very High)	-0.289***	-0.142**
	(0.398)	(0.267)

Note. Standardized results are provided. Model fit $\chi 2\ (235)$, RMSEA = 0.079, SRMR = 0.059, CFI = 0.904, TLI = 0.775. *** $p<0.001$; ** $p<0.01$; * $p<0.05$. N =10,417.

Finally, a chi-square difference test is presented in Table 13 to determine whether the relationship between *FSE* and *Debt Behavior* is truly different for married and unmarried respondents. The results indicate that the slightly different relationship found between the married and unmarried groups is statistically significant.

Table 13.

Chi-square Difference Test (Married vs. Unmarried).

Model Tested	χ^2	*df*	$\Delta\chi^2$	Δdf	*p*	Decision
Model 1 (path freely estimated)	7879.6	261				
Model 2 (path constrained to be equal)	7884.7	262	5.139	1	.023	Sig. Diff

DISCUSSION

Research shows that formal financial education alone does not automatically result in better financial behavior (Fernandes et al., 2014; Lusardi & Mitchell, 2007; Stolper & Walter, 2017). Although many studies have focused on improving individuals' financial knowledge and literacy through educational initiatives, managing personal finances requires more than these skills. It demands a high level of FSE.

Recent studies suggest that financial knowledge, abilities, and FSE collectively form financial capabilities (Reyers, 2019). Some research indicates that FSE partially mediates the relationship between financial literacy and financial inclusion (Mindra et al., 2017). Several studies have found that increased FSE can enhance financial outcomes and improve resilience when facing challenges (Asebedo & Payne, 2019; Asebedo et al., 2019b; Farrell et al., 2016; Furrebøe & Nyhus, 2022; Mindra et al., 2017). Overall, a comprehensive review by Furrebøe and Nyhus (2022) concludes that FSE, or locus of control, is a significant factor in financial attitudes, knowledge, and behavior.

When exploring the association between FSE and improved financial outcomes, one area that remains underexplored is the relationship between FSE and debt. Some studies focus on specific debt segments, such as credit card debt, and examine the association with FSE (Bialowolski et al., 2020; Lyons et al., 2007). Attitudes towards different types of debt, such as mortgage debt, may differ from payday loans or credit card debt (Tay et al., 2017). Additionally, some research investigates the association of credit card behavior with self-assessed financial knowledge, often equating it to FSE (Allgood & Walstad, 2013; Atlas et al.,

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2019). Hence, there is a notable gap in the literature concerning the association between FSE and overall debt behavior, including student loans, mortgages, and credit card debt.

Similarly, some studies have explored gender differences in debt behavior. For instance, Almenberg et al. (2021) found that adult women are more likely to feel uncomfortable with debt. However, the relationship between gender differences in FSE and debt behavior has not been thoroughly investigated. Most research on gender differences in FSE focuses on investment behavior. For example, Montford and Goldsmith (2016) found that women tend to make less risky investments than men and that FSE positively correlates with the risk level taken in investment portfolios. Similarly, Farrell et al. (2016) found that women with higher FSE are more likely to hold financial products. Identifying this gap in the literature, this study explores the relationship between FSE and overall debt behavior, focusing on gender and marital differences. However, the findings of this study are not statistically significant to confirm that the association of FSE with responsible debt management differs among men and women. This could be because of the cross-sectional nature of the dataset. Nevertheless, other researchers are encouraged to explore further such an association. However, an interesting finding from this study is that although objective financial knowledge is positively associated with responsible debt behavior for men and women, subjective financial knowledge is negatively associated with responsible debt behavior. This finding may result from overconfidence, where individuals perceive their financial knowledge to be more than it is objectively. Furthermore, this overconfidence has been linked to risky financial behavior like over-indebtedness (Artsei & Gallo, 2021) and margin use (Kim et al., 2022).

Regarding marital differences in financial outcomes, existing research indicates that married and unmarried individuals experience different levels of financial well-being. In married couples, financial decisions are often made jointly (Kim et al., 2017), with one partner typically managing most financial responsibilities, while the other handles other family duties (Fonseca et al., 2012; Hsu, 2016). This partnership allows married couples to share social and emotional support, which boosts their confidence (FSE) in managing money. Studies suggest that this combined FSE encourages positive debt behaviors, as each partner's financial management skills influences the other's (Experian, 2020). The result of this study shows that an increase in FSE is associated with an increase in positive debt behavior among married respondents. Such a finding is likely driven by the fact that FSE relates to individuals' own financial management behavior and the financial management behaviors of their partners. When married couples view debt as a tool for achieving long-term goals, this shared, stable outlook helps them plan finances more effectively. Their structured approach enables them to take on larger debts, such as mortgages, with confidence, unlike many unmarried individuals who may not have the same support system or approach to managing debt.

This study has some limitations. One limitation is the binary grouping of key demographic variables. Gender was limited to men and women, marital status to married and unmarried, and ethnicity to White and non-White. The binary grouping is mainly due to the secondary nature of the dataset. Future research can benefit from collecting primary data that is inclusive in terms of gender and ethnicity. Also, although the model fit is acceptable

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(Kline, 2016), it is not an ideal fit, due to the use of secondary data. Little (2024) explains that when novel scales are used or scales are created post-hoc from existing items not originally intended to be used as scales, the heuristics of acceptable fit can be relaxed. Nonetheless, the literature has consistently applied structural equation modeling to secondary data sets. Another limitation caused by using secondary data is the measurement of FSE. The 2021 NFCS data set does not have a direct assessment of FSE. While having a direct assessment of this would have been ideal, measured indicators of financial control, emotional financial resiliency, and perceived financial difficulties as manifest indicators of FSE were used, citing Asebedo (2019) and Bandura (1997) to support the use of these items as proxy indicators of FSE.

CONCLUSION AND IMPLICATIONS

This research focuses on FSE, a crucial psychosocial factor associated with financial behaviors. The focus of this study is debt behavior. Additionally, the study considers the broad spectrum of debt behavior, analyzing the behavior related to mortgages, credit cards, and student loans. Lastly, the relationship between FSE and debt behavior is examined using Bandura's (1977) social cognitive theory.

The current study finds a positive association between FSE and debt behavior, suggesting that individuals with higher FSE are more likely to have positive or responsible debt behavior. It finds a significant association between FSE and responsible debt behavior for both married and unmarried respondents. However, the association between FSE and debt was stronger for married individuals. These findings have several ramifications.

First, to encourage clients to develop FSE, financial therapists and planners can educate clients on the importance of FSE to their financial health and how it can lead to improved debt behavior. Financial therapists and planners should modify their interventions to increase FSE among married and unmarried individuals, since this study indicated that the relationship between FSE and debt behavior varies between groups. These customized interventions boost the client's confidence in handling their money, resulting in better financial behavior. Likewise, they must comprehend the dynamics of partnerships because this will make it much easier for them to take advantage of couples' FSE to promote their good debt management and other practices.

Furthermore, since financial literacy has been linked to FSE (Rothwell et al., 2018), targeted financial education programs are a great way to boost FSE. Tailored financial education sessions on financial literacy, debt management, saving, and personalized investing could be highly beneficial. These sessions can help married and unmarried individuals assess and overcome societal, cultural, and psychological barriers related to FSE and effective financial management behavior. Financial therapists and planners should encourage married couples to communicate openly and plan jointly to create a supportive partnership setting where positive financial behaviors, including debt, can be enhanced.

Policymakers should prioritize enhancing financial awareness via educational initiatives and fostering self-belief among individuals in their capacity to handle debt and

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overcome associated challenges. The policy's design should mainly consider the needs of each married and unmarried individual, specifically in terms of financial education.

In addition to providing services and products, a professional financial planner or financial therapist may need to interact with their clients to shape their FSE. This will help the client develop desirable financial behaviors, not only when managing debt but also in other financial areas. Increasing individuals' FSE will help them accomplish other financial objectives, such as savings for retirement, making prudent investments, preparedness for emergencies, and improving their debt behavior.

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