Journal of Financial Therapy

Volume 7 | Issue 2 Article 4

12-31-2016

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Ann Sanders Woodyard
University of Georgia

Cliff A. Robb
University of Wisconsin

Recommended Citation

Woodyard, A. S., & Robb, C. A. (2016). Consideration of Financial Satisfaction: What Consumers Know, Feel and Do from a Financial Perspective. *Journal of Financial Therapy, 7* (2) 4. https://doi.org/10.4148/1944-9771.1102

Consideration of Financial Satisfaction: What Consumers Know, Feel, and Do from a Financial Perspective

Ann Sanders Woodyard, Ph.D.
University of Georgia

Cliff A. Robb, Ph.D.
University of Wisconsin

Financial satisfaction has long been considered an important component to consumer life satisfaction and well-being. Using data from the 2012 National Financial Capability Study (NFCS), financial satisfaction is explored in the context of personal characteristics related to financial knowledge (both objective and subjective), as well as self-reported financial behaviors. Ordinary Least Squares Regression is applied to a predictive model of financial satisfaction, and results indicate that measures associated with what people do (behaviors related to recommended practice) and how they feel (subjective knowledge) may be more salient factors to consider with regard to satisfaction than measures related to what individuals know (objective knowledge). Implications are considered for consumers in light of a general policy approach promoting financial literacy and education as a means of improving financial outcomes and well-being.

Keywords: financial satisfaction; financial knowledge; behavior

INTRODUCTION

Financial satisfaction is an important variable in economic and psychological studies on happiness and subjective well-being (Easterlin, 2006; Plagnol, 2011; vanPraag & Ferrer-i-Carbonnell, 2004). Long associated with personal well-being and life satisfaction as a sub-construct of financial well-being (Campbell, 1981; Campbell, Converse, & Rodgers, 1976; Joo, 2008; Xiao, Tang, & Shim, 2009), financial satisfaction is a subjective assessment of the adequacy of one's financial resources or financial situation (Hira & Mugenda, 1998). Positive financial satisfaction is considered a desirable state, with individuals who are financially satisfied also reporting acceptable levels of happiness, health, and freedom from financial stress (Hansen, 2009; Zimmerman, 1995). A variety of life-satisfaction factors are related to

ISSN: 1945-7774

financial satisfaction, including workplace productivity, marital stress, and consumer choice (Freeman, Carlson, & Sperry, 1993; Garman, Leech, & Grable, 1996; Pittman & Lloyd, 1988; Williams, Haldeman, & Cramer, 1996). Although financial satisfaction is subject to the influence of external forces and stressors (Freeman et al., 1993), individual considerations ultimately have the greatest potential impact on financial satisfaction (Frey & Stutzer, 2000). Diener and Biswas-Diener (2002) noted that a nation's wealth is strongly correlated to its citizenry's subjective well-being, but that financial satisfaction is not strongly correlated to wealth at the individual level. This is further complicated when individuals' perceptions of income are considered, as those who perceive their own income as adequate tend to display higher levels of financial satisfaction (Grable, Cupples, Fernatt, & Anderson, 2013).

As noted by Garrett and James (2013), financial satisfaction is often considered as a critical goal for financial therapists and counselors, as factors related to clients' subjective experiences and perceptions of their situation should not be ignored. Joo and Grable (2004) detailed a conceptual framework of financial satisfaction that incorporates sociodemographic characteristics along with stress factors, financial behavior, financial attitudes, and financial knowledge. This provides a reasonable theoretical framework, but the results were limited to a convenience sample. Many studies of financial satisfaction have faced similar limitations (i.e., small sample size), though several recent studies have explored financial satisfaction using large, nationally representative data sets (Garrett & James, 2013; Xiao, Chen, & Chen, 2014).

The present study utilized a large national data set to examine aspects of behavior, financial strain, attitude, and financial knowledge in a predictive model of financial satisfaction. Unique effects of different positive or negative financial behaviors can be explored in detail, controlling for objective measures of financial strain and the individual's understanding of financial markets. Whereas previous studies have identified associations between satisfaction and broader patterns of behavior (Xiao et al., 2014) or specific measures of financial strain (Garrett & James, 2013), the present analysis brings all of the concepts together in an attempt to capture all aspects of the Joo and Grable (2004) framework with a large, nationally representative data set. The introduction of a dynamic financial knowledge measure is another contribution of the present study, as the interplay between objective and subjective knowledge types has been explored for some financial behaviors (Allgood & Walstad, 2013; Robb, Babiarz, Woodyard, & Seay, 2015) but has been lacking from the financial satisfaction literature.

LITERATURE REVIEW

Financial Satisfaction

Financial satisfaction is a difficult construct to define and measure. Despite many years of research on financial satisfaction, no consensus has been reached regarding how it might best be described or measured (Godwin, 1994; Joo & Grable, 2004). The source of the disagreement could be related to the divergence of the disciplines working on the concept of financial satisfaction. Psychologists, economists, and demographers have all provided the

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field with productive and useful research. For the purposes of the present study, Zimmerman (1995) presented a definition that is both concise and effective, depicting financial satisfaction as satisfaction with one's current financial situation - individuals are the final arbitrators of their own financial satisfaction level. This definition incorporates the subjective nature of the construct and has been used in previous studies (Joo & Grable, 2004).

Financial satisfaction and well-being measures include both single- (e.g., Danes, 1998; Porter & Garman, 1993) and multiple-item measures (e.g., Draughn, LeBoeuf, Wozniak, Lawrence, & Welch, 1994; Hira & Mugenda, 1998; Leach, Hayhoe, & Turner, 1999). Valid and reliable findings have been established with each type of measure (see Joo & Grable, 2004 for a comprehensive review of these measures). The use of single-item measures of well-being and overall life quality is quite common in the literature, and particularly common for large, nationally representative surveys that cover a broad range of information (Mitchell & Helson, 1990). However, using a global measure of satisfaction presents a potential weakness, as it is possible that there are multiple dimensions (or aspects) of financial satisfaction. If financial satisfaction consists of multiple facets, then a single-item measure would be limited in its application. Though a single-item measure limits our ability to run rigorous tests of validity, prior research has demonstrated many examples where single-item measures perform as well as measures consisting of multiple items (Zimmerman et al., 2006).

Demographic factors that have been proposed as determinants of financial satisfaction include age, income, gender, educational attainment, ethnicity, and marital status. Using path analysis, Joo and Grable (2004) found that other than education level, income, number of dependents, and demographic factors (e.g., age, gender, ethnicity, and marital status) were not significant contributors to financial satisfaction when the model includes non-demographic variables such as attitudes, knowledge, and behavioral considerations. This contradicted earlier studies where factors, such as age and marital status, were noted as significant predictors of financial satisfaction (Hong & Swanson, 1995; Sumarwan & Hira, 1993). The inclusion of knowledge, as well as behavioral and attitudinal factors, seems to diminish the role that demographic factors (other than income) play in individual financial satisfaction (Hira & Mugenda, 1999).

Financial Knowledge and Sophistication

Financial knowledge, often referred to as financial literacy, is a focus item from an education, research, and policy perspective (Hilgert, Hogarth, & Beverly, 2003). Research has noted consistent associations between knowledge and behavior within the financial realm (Babiarz & Robb, 2014; Hilgert et al., 2003; Lusardi & Mitchell, 2007; Robb, 2011; Robb & Woodyard, 2011; Xiao, Tang, Serido, & Shim, 2011). The general assumption underlying financial literacy education is that improved knowledge of financial matters leads to better financial outcomes or behaviors. This, in turn, is assumed to result in greater financial satisfaction. However, this may not necessarily hold for all cases. Mugenda, Hira, and Fanslow (1990) found a negative relationship between objective financial knowledge and financial satisfaction. They concluded that more knowledge could result in a more rigorous

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or realistic assessment of financial status, including negative factors that impact perceptions of financial status. For example, individuals with high levels of objective knowledge may give strong negative weight to one factor, such as a large amount of student loan debt, when self-assessing financial satisfaction. Conversely, an individual with a low level of objective financial knowledge may have high credit card balances or a mortgage that should be refinanced, but his or her cash flow level masks the long-term implications of these issues, so a high level of financial satisfaction is self-reported.

Recent studies distinguished between two distinct methods of financial knowledge measurement: (a) objective financial knowledge (i.e., whether respondents can objectively answer questions about financial markets and instruments correctly) and (b) subjective financial knowledge (i.e., their self-perceived knowledge and confidence) (Joo & Grable, 2004; Robb & Woodyard, 2011; Xiao et al., 2011). Research suggested that both types of knowledge have a significant impact on satisfaction and behavior (Robb & Woodyard, 2011; Xiao et al., 2011; 2014). Joo and Grable (2004) introduced a measure of subjective financial knowledge and noted a positive association (both in terms of direct and indirect effects) between the subjective measure and financial satisfaction. Whereas objective financial knowledge received more attention in the past, research has indicated that subjective, or self-assessed, financial knowledge may have a more significant impact on personal actions and financial satisfaction, or well-being (Robb & Woodyard, 2011; Xiao et al., 2011). These findings suggest that one's perception of one's own financial knowledge is a stronger predictor of financial satisfaction than specific knowledge of market mechanisms, inflation, and diversification. However, it is important to consider that individuals do not always accurately assess their own financial knowledge (Courchane & Zorn, 2005). Evidence from behavioral finance suggests that people often suffer from the dual illusions of knowledge and control, and put greater stock in their knowledge and abilities than is warranted (Baker & Nofsinger, 2002; Gross et al., 2011). Aspects of inaccurate knowledge assessment can be explored by incorporating a combined measure of objective and subjective knowledge (Allgood & Walstad, 2013; Robb et al., 2015). In effect, individuals can be divided into one of four mutually exclusive categories based on their subjective knowledge relative to their objective knowledge (e.g., high objective score and low subjective score, or high objective score and high subjective score). This may be viewed as a measure of financial sophistication, as it not only assesses objective financial knowledge, but also the accuracy of individuals' self-assessments of that knowledge.

Financial Behavior

Financial behaviors and financial knowledge are positively related based on the available research (Babiarz & Robb, 2014; Borden, Lee, Serido, & Collins, 2008; Chen & Volpe, 1998; Robb, 2011; Robb & Sharpe, 2009; Robb & Woodyard, 2011). Further evidence has suggested that financial satisfaction is associated with engaging in more positive financial behaviors in a predictive model of behavior (Robb & Woodyard, 2011). These behaviors included savings, risk management, cash flow management, and long-term planning. Studies dealing with college students positively related financial knowledge to hypothetical financial decisions (Chen & Volpe, 1998) and behavioral intentions (Borden et al., 2008). Robb and

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Sharpe (2009) and Robb (2011) offered conflicting information about the linkages between knowledge and behavior within this age group that may indicate that behavior is largely independent of objective financial knowledge.

Credit usage behavior and financial satisfaction were linked in a study that found credit practices to be as much an influence on financial satisfaction as demographic factors, including income, home value, and savings (Lown & Ju, 1992). Other demographic factors that are linked to financial behavior include gender (Hayhoe, Leach, Turner, Bruin, & Lawrence, 2000), life-cycle stage (Hira & Mugenda, 1998), educational attainment, race/ethnicity, and number of dependents (Joo & Grable, 2004). Xiao et al. (2014) provided a more comprehensive analysis of the connections between behavior and financial satisfaction, noting that desirable financial behaviors appeared to be associated with greater satisfaction, whereas risky financial behaviors were associated with lower levels of financial satisfaction when controlling for knowledge and other demographics.

Financial Strain

A number of studies have explored the concept of financial strain or stress, often with an emphasis on financial ratios (Baek & DeVaney, 2004; DeVaney & Lytton, 1995; Garrett & James, 2013; Lyons & Yilmazer, 2005). Financial ratios provide a snapshot of a household's financial position with regard to debts, liquidity, and other critical aspects, and reasonably can be considered in the context of financial satisfaction. A number of studies have effectively identified ratios that are considered problematic (Kim & Lyons, 2008). Garrett and James (2013) utilize solvency, liquidity, and investment asset ratios in an attempt to objectively measure financial strain as a means of explaining financial satisfaction. Results were supportive of the hypothesized direct association between financial strain and financial satisfaction (Garrett & James, 2013). Other studies have provided evidence of linkages between financial strain and satisfaction using less comprehensive measures, including foreclosure, legal problems, bankruptcy, and excessive consumer debt (Freeman et al., 1993; Joo, 1998).

Financial Attitudes

Earlier studies of consumer financial satisfaction considered the role of financial attitudes, often measured as subjective assessments of overall financial management and standing (Joo, 1998; Porter & Garman, 1993). These types of variables were absent from the present survey data, although Joo and Grable (2004) posited that risk tolerance may be an important attitude in a predictive model of financial satisfaction. In theory, behavioral differences that result from different levels of risk tolerance could influence financial outcomes, ultimately impacting satisfaction. This line of reasoning is supported by research (Woon-Young & Hanna, 2004), though there are not many studies that have explored this issue specifically.

The Present Study

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Based on the theoretical framework outlined by Joo and Grable (2004), the present study explored financial satisfaction in the context of financial sophistication, financial behavior, financial strain, risk tolerance, and general financial status (Figure 1). The previous literature has provided evidence that certain demographic factors (Hayhoe et al., 2000; Hira & Mugenda, 1998; Joo & Grable, 2004; Xiao et al., 2014), measures of financial status and strain (Joo & Grable, 2004), risk tolerance (Woon-Young & Hanna, 2004), financial behaviors (Robb & Woodyard, 2011) and financial knowledge (Allgood & Walstad, 2013; Robb et al., 2015) are germane to financial satisfaction. To date, researchers have not explored such a comprehensive model of financial satisfaction using a large, nationally representative data set. We hypothesized that greater levels of financial sophistication, defined as accurate self-assessments of financial knowledge, and higher risk tolerance are associated with higher levels of financial satisfaction. We also hypothesized that individuals who reported engaging in more responsible financial behavior, ceteris paribus, would report higher levels of satisfaction, whereas those facing greater levels of financial strain were assumed to report lower levels of satisfaction.

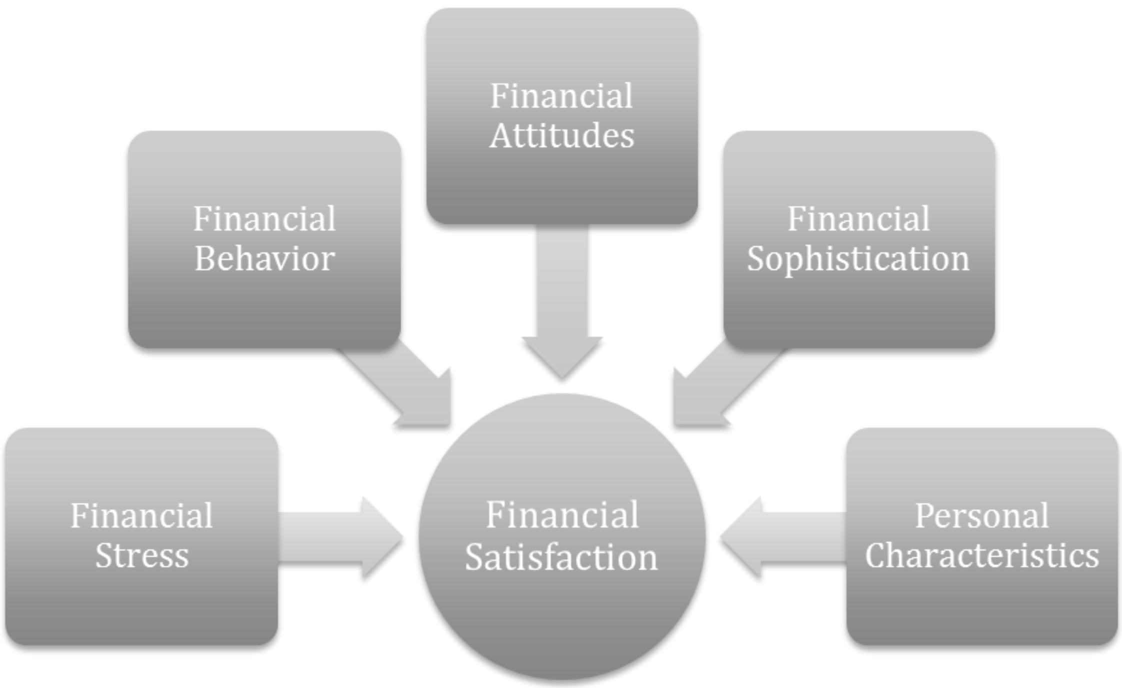

Figure 1. Theoretical determinants of financial satisfaction. Adapted from Joo & Grable (2004).

METHODOLOGY

The Financial Industry Regulatory Authority (FINRA) is a non-governmental agency that is the largest self-regulator of member financial brokerage firms and exchange markets in the United States. It was formed in 1987 from the former National Association of Securities Dealers (NASD) and some regulatory functions formerly under the direction of the New York

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Stock Exchange (NYSE). The FINRA Investor Education Foundation, or FINRA Foundation, exists to provide education to underserved populations regarding the skills, knowledge, and tools required to achieve financial literacy. In 2009, the FINRA Foundation, in conjunction with the U.S. Department of the Treasury, conducted the first National Financial Capability Study in order assess Americans' ability in dealing with four key components of financial competence. These components are: (a) making ends meet, (b) planning ahead, (c) managing financial products, and (d) financial knowledge and decision-making.

Subsequent to the release of the National Survey in December 2009 and the military survey in October 2010, the state-by-state survey was released in December 2010. The survey was repeated in 2012 and released in May 2013. The newest data were used for this research. With more than 25,000 data points, this survey represents a unique opportunity to study the financial capability of the American public. More information about the National Financial Capability Survey can be found at www.finrafoundation.com. The present analysis examined the relationship between financial satisfaction and possible predictors, namely demographic characteristics, financial status, financial behaviors, financial strain, and financial knowledge, using data from the NFCS. Financial satisfaction was the dependent variable and a series of multiple regression analyses were performed.

Measures

Financial satisfaction. The FINRA survey included one question measuring financial satisfaction, stated, "overall, thinking of your assets, debts and savings, how satisfied are you with your current personal financial condition?" Responses ranged from 1 to 10, with higher numbers indicating greater degrees of financial satisfaction.

Demographic measures. Demographic variables used for the study were gender (Male or Female), race/ethnicity (White or Non-White), age (18-24, 25-34, 35-44, 45-54, 55-64, 65 and over), number of dependent children in the household (None, One or more), income (8 banded levels ranging from less than $15,000 to more than $150,000), marital status (Married, Separated, Divorced, Widowed, Single), and educational attainment (High school/Graduate/Equivalent, Some college, College graduate/Post graduate degree). In addition, the survey provided some basic details associated with individuals' financial status. Variables included were investment account ownership, utilization of an employer retirement account, and home ownership. These were coded either Yes or No. Unfortunately, the survey data lacked detail with regard to the relative valuation of these assets, but on their face these variables should provide some useful information with regard to what financial assets and resources individuals possess or to which they have access.

Financial behaviors. Financial behaviors, both positive and negative, were measured by a series of variables meant to indicate proactive consumer behavior. On the positive side, these included having an emergency fund to cover three months' worth of expenses, having planned for retirement, obtaining a copy of a credit report in the past 12 months, paying off credit card balances monthly, having a retirement account outside the workplace, and having health insurance. Negative behaviors were overdrawing a checking account and not paying off credit cards regularly.

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Financial Strain. Previous studies examined financial satisfaction in the context of financial strain through analysis of financial ratios. Whereas information on debt-to-income and solvency are powerful tools for assessing strain, the present data do not provide sufficient information for construction of financial ratios. However, the NFCS included several questions that can be utilized as both objective and subjective measures of financial strain. Objectively, respondents were asked if they had experienced a large, unexpected decrease in income during the prior year, whether they have difficulty meeting their expenses on a monthly basis, and whether they have had to take a hardship withdrawal from a retirement account. All of these behaviors are indicative of financial hardship, at least in the short run, and might reasonably be considered to have some association with individuals' satisfaction scores.

More subjective measures asked individuals the extent to which they agree with the statement, "I have too much debt right now" (responses scored on a Likert-type scale from 1-7) or to gauge their level of confidence in being able to come up with $2,000 if an unexpected need arose within the next month. The latter question has been utilized as a measure of financial fragility (Lusardi, Schneider, & Tufano, 2011), as consumers who are not confident in their ability to come up with the money in 30 days should be classified as financially fragile, or vulnerable to minor financial set-backs. Respondents from the survey self-identified as being (a) certain they could come up with the money (39.3%), (b) probably able to come up with the money (22.4%), (c) probably not able to come up with the money (14.5%), or (d) certain they could not come up with the money (23.8%). For the present analysis, respondents who were in the latter two categories were classified as fragile, with the former categories being classified as not fragile.

Subjective financial knowledge. Subjective financial knowledge was a critical component of the financial sophistication measure used in the analysis (see below), and was measured using the answer to a single survey question. Respondents assessed their own financial knowledge on a scale from 1 to 7 (1 meaning very low, and 7 meaning very high).

Objective financial knowledge. The FINRA Financial Capability Survey asked five questions relating to financial knowledge, and along the subjective measure, the objective knowledge questions were utilized in the development of the financial sophistication measure (see below). Lusardi and Mitchell developed three of the questions for the 2004 wave of the Health and Retirement Survey, and those questions have been used in many subsequent studies (Lusardi, Mitchell, & Curto, 2010). The five questions asked were:

- Compound Interest: Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?
- Inflation: Imagine that the interest rate on your savings account was 1% per year, and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account?
- Bond Pricing: If interest rates rise, what will typically happen to bond prices?

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- Mortgages: A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less.
- Diversification: Buying a single company's stock usually provides a safer return than a stock mutual fund.

For the present analysis, the researchers developed an additive scale using a respondent's answers to the five financial knowledge questions, and potential response values ranged from 0 to 5. The Cronbach's alpha measure for the additive scale was 0.617.

Financial Sophistication. Based on scores from the objective and subjective financial knowledge measures, individuals were coded into one of four mutually exclusive financial sophistication levels. Following earlier work by Allgood and Walstad (2013), individuals were divided into classifications of high or low financial literacy for both the objective and subjective measures. Those scoring higher than the sample median score were classified as high, whereas those at or below the median were classified as low. For the present sample, the median score on the measure of financial knowledge was 3, whereas the median value for subjective knowledge was 5. When combined, these measures allow for respondents to be grouped into one of the following dummy categories: (a) high objective-high subjective, (b) high objective-low subjective, (c) low objective-high subjective, and (d) low objective-low subjective.

Risk Tolerance. The NFCS survey included a single-item measure of financial risk tolerance. Specifically, respondents were asked, "When thinking of your financial investments, how willing are you to take risks?" Responses were scored on a 10-point scale, where 1 meant "Not at all willing" and 10 meant "Very willing".

RESULTS

Sample Characteristics

Researchers initially analyzed the data to eliminate any observations that had missing or inappropriate values for the dependent and independent variables. The final analysis included 19,557 respondents. In addition to the scales described above, the analysis included standard demographic variables such as age, education level, household income, gender, marital status, and race/ethnicity. The demographic and summary results in Table 1 reflect only those observations used in the analysis.

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Table 1

Sample Demographics (n = 19,557)

Variable	Category	Percentage	Mean* (St. Dev.)
Gender	Male	46.6	
	Female	53.4	
Age	18-24	8.1	
	25-34	16.3	
	35-44	17.0	
	45-54	20.9	
	55-64	20.0	
	65 and over	17.7	
Education	High school graduate/Equivalent	29.5	
	Some college	33.6	
	College graduate or Post	36.9	
Income	Less than $15,000	11.1	
	$15,000 to $25,000	10.6	
	$25,000 to $35,000	10.7	
	$35,000 to $50,000	14.7	
	$50,000 to $75,000	19.8	
	$75,000 to $100,000	12.9	
	$100,000 to $150,000	12.6	
	More than $150,000	7.6	
Dependent Child	None	60.9	
	One or More	39.1	
Marital Status	Married	57.9	
	Separated	1.8	
	Divorced	11.9	
	Widowed	3.9	
	Single	24.3	
Race/Ethnicity	White	75.1	
	Non-white	24.9	
Retirement Account	Yes	59.4	
	No	40.6	
Other Investments	Yes	39.2	
	No	60.8	
Own Home	Yes	64.5	
	No	35.5	
Emergency Fund	Yes	45.2	
	No	54.8	
Overdraw Account	Yes	19.4	
	No	80.6	
Plan for Retirement	Yes	47.8	
	No	52.2	
Check Credit Report	Yes	43.4	
	No	56.6	
Credit Card Use/Ownership	Always Payoff	39.4	
	Revolve a Balance	38.3	
	No Card	22.3	

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Other Retirement Account	Yes	34.5	
	No	65.5	
Reg. Contribute to Retirement	Yes	34.8	
	No	65.2	
Health Insurance	Yes	82.7	
	No	17.3	
Financial Fragility	Fragile	36.4	
	Not Fragile	63.6	
Difficulty Paying Bills	Yes	55.2	
	No	44.8	
Hardship Withdrawal	Yes	3.7	
	No	96.3	
Financial Shock	Yes	28.3	
	No	71.7	
Financial Satisfaction	Scale (1-10)		5.23 (2.82)
Too Much Debt	Scale (1-7)		3.93 (2.27)
Risk Tolerance	Scale (1-10)		4.81 (2.63)
Objective Knowledge	Scale (0-5)		3.23 (1.36)
Subjective Knowledge	Scale (1-7)		5.24 (1.23)
Financial Sophistication	High Objective-High Subjective	25.9	
	High Objective-Low Subjective	22.3	
	Low Objective- High Subjective	18.2	
	Low Objective-Low Subjective	33.6	

*Means are provided for continuous predictor variables. All other variables are categorical variables.

Regression Analyses

Initial analysis of the dependent variable indicated that the measure was roughly normally distributed (M = 5.23, SD = 2.82) with skewness and kurtosis falling within the acceptable ranges (skewness = -0.107, kurtosis = -1.187). Bivariate statistics were conducted for each of the independent variables, and results indicated that all of the independent variables were significantly related to financial satisfaction ($p<.001$). Correlation analysis indicated that while there were associations between the predictors included and financial satisfaction, no association exceeded the level of $r = .55$. In order to assess the overall impact of the different predictive factors hierarchical regression analysis was employed, starting with a baseline model of socioeconomic status and core demographic characteristics. Each subsequent model added an additional set of variables for the factors of financial behavior, financial strain and attitudes, and financial knowledge. Results of the four regression analyses are presented in Table 2.

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Table 2

Results of Ordinary Least Squares Regression with Financial Satisfaction as the Dependent Variable

Variable	Model I Estimate (Std. Err.)	Model II Estimate (Std. Err.)	Model III Estimate (Std. Err.)	Model IV Estimate (Std. Err.)
Intercept	4.03 (0.08)***	3.41 (0.09)***	5.34 (0.09)***	5.18 (0.09)***
Male	0.26 (0.03)***	0.19 (0.032)***	-0.05 (0.03)	0.01 (0.03)
White	-0.14 (0.04)***	-0.16 ((0.038)***	-0.10 (0.03)**	-0.03 (0.03)
Age (ref: 18-24)				
25-34	-0.55 (0.08)***	-0.33 (0.071)***	-0.15 ((0.06)*	-0.16 (0.06)*
35-44	-1.17 (0.08)***	-0.79 (0.073)***	-0.56 (0.07)***	-0.53 (0.07)***
45-54	-1.32 (0.08)***	-0.96 (0.072)***	-0.67 (0.06)***	-0.63 (0.06)***
55-64	-1.04 (0.08)***	-0.86 (0.075)***	-0.57 (0.07)***	-0.55 (0.07)***
65+	-0.32 (0.09)***	-0.50 (0.081)***	-0.29 (0.07)***	-0.29 (0.07)***
Dependent Child	-0.41 (0.04)***	-0.17 (0.038)***	-0.05 (0.03)	-0.07 (0.03)*
Income				
(ref: Less than 15,000)				
Between 15-24,999	0.25 (0.07)***	0.21 (0.07)***	0.14 (0.06)*	0.13 (0.06)
Between 25-34,999	0.62 (0.08)***	0.45 (0.07)***	0.25 (0.06)***	0.26 (0.06)***
Between 35-49,999	0.97 (0.07)***	0.69 (0.07)***	0.35 (0.06)***	0.38 (0.06)***
Between 50-74,999	1.28 (0.07)***	0.83 (0.07)***	0.33 (0.06)***	0.37 (0.06)***
Between 75-99,999	1.61 (0.08)***	0.98 (0.08)***	0.35 (0.07)***	0.40 (0.07)***
Between 100-149,999	1.99 (0.09)***	1.23 (0.08)***	0.46 (0.07)***	0.53 (0.07)***
150,000+	2.47 (0.10)***	1.52 (0.09)***	0.66 (0.08)***	0.71 (0.08)***
Marital Status				
(ref: single)				
Married	0.04 (0.05)	0.10 (0.05)*	0.19 (0.04)***	0.19 (0.04)***
Separated	-0.02 (0.14)	0.15 (0.12)	0.22 (0.11)*	0.20 (0.11)
Divorced	-0.09 (0.07)	0.01 (0.06)	0.02 (0.05)	0.02 (0.05)
Widowed	0.42 (0.10)***	0.41 (0.09)***	0.41 (0.08)***	0.39 (0.08)***
Education				
(ref: HS or less)				
Some College	-0.14 (0.04)***	-0.18 (0.04)***	-0.19 (0.04)***	-0.14 (0.04)***
College or More	0.01 (0.05)	-0.27 (0.04)***	-0.25 (0.04)***	-0.16 (0.04)**
Retirement Account	0.21 (0.04)***	0.01 (0.04)	-0.04 (0.04)	-0.01 (0.04)
Other Investments	1.26 (0.04)***	0.42 (0.04)***	0.13 (0.04)***	0.13 (0.04)***
Own Home	0.72 (0.04)***	0.36 (0.04)***	0.37 (0.04)***	0.33 (0.04)***
Emergency Fund	--	1.65 (0.04)***	0.86 (0.04)***	0.82 (0.04)***
Overdraw Account	--	-0.51 (0.04)***	-0.09 (0.04)*	-0.10 (0.04)*
Plan for Retirement	--	0.15 (0.04)***	0.12 (0.03)***	0.09 (0.03)**
Check Credit Report	--	0.03 (0.03)	0.05 (0.03)	0.01 (0.03)
Credit Card Behavior				
(ref: revolve a balance)				
Pay off cards in full	--	0.90 (0.04)***	0.38 (0.04)*	0.36 (0.04)***
No credit card	--	0.01 (0.05)	-0.06 (0.04)	-0.07 (0.04)
Other Retirement Acct	--	0.18 (0.04)***	0.04 (0.04)	0.08 (0.04)**
Regularly Contribute	--	0.16 (0.04)***	0.01 (0.04)	0.02 (0.04)
Health Insurance	--	0.38 (0.05)***	0.21 (0.04)***	0.21 (0.04)***
Financially Fragile	--	--	-0.54 (0.04)***	-0.54 (0.04)***
Difficult to Pay Bills	--	--	-1.19 (0.04)***	-1.15 (0.04)***
Hardship Withdrawal	--	--	0.58 (0.08)***	0.42 (0.08)***
Financial Shock	--	--	-0.63 (0.03)***	-0.65 (0.03)***
Too Much Debt	--	--	-0.20 (0.01)***	-0.19 (0.01)***
Risk Tolerance	--	--	0.19 (0.01)***	0.18 (0.01)***
Sophistication				
(ref: low-low)				
High Obj.-High Subj.	--	--	--	0.05 (0.04)
High Obj.-Low Subj.	--	--	--	-0.33 (0.04)
Low Obj.-High Subj.	--	--	--	0.71 (0.04)***

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Adjusted R-square	0.27	0.39	0.51	0.52

* p<.05, ** p<.01, *** p<.001

Model I provided a baseline for the study. Model I was significant (F = 298, p<.0001) with each of the independent variables contributing to the predictive model of financial satisfaction. Roughly 26% of the variance was explained in the baseline model. This is consistent with previous analysis utilizing the 2009 NFCS data (Xiao et al., 2014). Being male was associated with higher financial satisfaction, as were the factors related to positive financial status (income level, owning a retirement account, having other investments, and owning a home). Being White or older were associated with lower levels of financial satisfaction, as was the presence of dependent children in the home. Individuals with some college were less satisfied than those with a high school degree or less, whereas widowed individuals reported higher satisfaction relative to single individuals.

For Model II, eight financial behaviors were introduced, and the model was significant (F = 389, p<.0001). With the added behavioral variables, the model effectively explained 39.5% of the variance in financial satisfaction, indicating a change in R^2 of .135, which was significant (p<.0001). Effects from Model I were consistent, with the addition of significantly higher satisfaction among married persons (relative to single individuals), and lower levels of satisfaction among college educated individuals. Further, with the addition of the financial behaviors, retirement account ownership was no longer a significant predictor of financial satisfaction. All of the financial behaviors except for the obtainment of a credit report were significant predictors of financial satisfaction for Model II. Each of the positive behaviors was associated with greater financial satisfaction, whereas overdraft behavior was associated with lower levels of satisfaction.

Factors related to financial strain were included in Model III, and the results indicated that these factors were all significant predictors of financial satisfaction and that the model itself was significant (F = 523, < .0001). The inclusion of the measures related to financial strain resulted in a change in explained variance of .115 (p<.0001), with Model III explaining roughly 51% of the variance in financial satisfaction. Gender and the presence of dependent children were not significant as predictors of satisfaction when accounting for financial strain. Further, possession of some other retirement account and regular contributions to retirement were no longer significant from the available behaviors. Other effects were consistent with the prior model (II). All of the financial strain factors were associated with lower levels of financial satisfaction with the exception of taking a hardship withdrawal (positively associated with satisfaction). In addition to the measures of financial strain, the risk tolerance question was included in Model III, and this measure was positively associated with financial satisfaction.

The sophistication measure was added to generate Model IV, resulting in a final model that was significant (F = 503, p<.0001) that explained roughly 52% of the variance in financial satisfaction. The change in R^2 explained of .01 was significant (p<.001). Race was no longer a significant predictor of financial satisfaction once sophistication was incorporated into the model, though the remainder of the variables were consistent with the

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previous models, except for the fact that possession of some other retirement account regained statistical significance. In assessing the financial sophistication measure, individuals categorized as low objective-high subjective or high objective-low subjective, were significantly different from those in the reference group (low objective-low subjective). Those classified as low objective-high subjective demonstrated higher self-reported financial satisfaction relative to the control group, whereas the opposite effect was noted for those in the high-objective-low subjective group.

DISCUSSION

Early research into the nature of financial satisfaction indicated the importance of demographic variables (e.g., age, gender, and educational attainment). With the addition of complex factors such as financial behavior, financial strain, risk attitude, and financial sophistication, a more detailed picture of financial satisfaction emerges. Earlier studies that employed some of these measures took a more compartmentalized approach, providing valuable information with regard to specific factors such as financial strain (Garrett & James, 2013) or financial behavior (Xiao et al., 2014). The present model attempts to model the earlier theoretical work of Joo and Grable (2004) using a large, representative data set. Incorporating various aspects as detailed in Figure 1, findings indicate significant explanatory power for each of the factors in a comprehensive model of financial satisfaction. Whereas the first stages of the analysis (Models I and II) closely mirror results from previous research (Xiao et al., 2014), the addition of financial strain and financial sophistication provide clear improvements as predicted.

The subjective nature of financial satisfaction raises certain questions about how well this measure might explain reality for all respondents, as it is possible for some individuals to report very high satisfaction when they are not that well-positioned financially. Interestingly, many of the predictor variables included provide a consistent story regarding financial satisfaction, as individuals who are in a better financial position (whether it be owning a home or having available emergency funds) report higher levels of financial satisfaction. This is further strengthened by the largely consistent negative impact of the financial strain measures included in the model. These results provide evidence that this subjective measure may be at least somewhat grounded in objective reality for many people.

The one exception for the financial strain measure was the utilization of a hardship withdrawal from a retirement account, as respondents who employed this feature reported higher financial satisfaction. It is possible that exercising this option provides some immediate relief at a stressful time, thus it could reasonably improve short-term financial satisfaction in that respect. However, the present results are not able to consider the long-term ramifications of such actions, as timing issues cannot be explored with the present cross-sectional data. It may well be the case that hardship withdrawals serve an immediate need and are thus favorably viewed; however, the future cost of these activities may prove detrimental to future satisfaction. Another factor to consider would be the consumer's possible perception that retirement savings equate to emergency funds. The ability to tap into these funds to offset a financial strain or stressor may be seen as positive from the

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consumer's point of view, although a financial planner or therapist would not necessarily share that view when evaluating the consumer's long term financial well-being.

Both financial satisfaction and subjective financial knowledge are expressions of the individual respondent's perception of their situation at a point in time. As noted above, this perception may not align perfectly with reality, and the present study attempted to control for individuals' perceptions relative to reality with the measure of financial sophistication. Of particular interest for the present study was the existence of respondents whose perceptions were misaligned with their objective reality. These groups can be considered in turn as representing either over-confident (low objective-high subjective) or under-confident (high objective-low subjective) financial consumers. Either case may present potential difficulties for planners, counselors, and therapists. Previous exploration of over-confident group has indicated a greater likelihood to engage in high cost borrowing behavior (Robb et al., 2015), and the present findings indicate that these individuals also report higher levels of financial satisfaction relative to the least knowledgeable and least confident consumers. Overconfidence is frequently mentioned as a behavioral mechanism that leads to poor decision-making (Baker & Nofsinger, 2002; Plous, 1993; Thaler & Sunstein, 2008). It is entirely possible that overconfidence in one's financial abilities may lead to an overly optimistic assessment of one's financial situation.

On the opposite end of the spectrum, the results indicate that a significant portion of the population does not have confidence in their financial knowledge, resulting in a sub-population of under-confident consumers. Whereas there is less clear evidence regarding how this might impact behaviors or outcomes, the present results provide evidence of lower satisfaction among this group. In both cases, there is a possibility that financial therapy applications may help these individuals realign their subjective assessments with their objective reality, which could be beneficial to subjective well-being.

However, it should be noted that without a true objective assessment of an individual's financial situation (as the present data do not allow us to assess respondent's financial situation clearly), it is difficult to determine whether or not these subjective assessments are entirely accurate. If subjective assessments of financial satisfaction are systematically biased for many individuals, then the present results suggest potential avenues for financial therapists, counselors, and planners to assist clients in improving financial satisfaction, and thus overall well-being.

The findings related to under-confidence raise an interesting point about objective financial knowledge. Programs geared towards objective knowledge improvement may be sorely limited if programs are not designed to create adequate levels of confidence in that knowledge. This does not necessarily invalidate programs that seek to educate consumers, but it does raise questions as to whether simply focusing on objective knowledge is the most effective means of improving welfare. Prospective financial therapies and educational programs should consider the incorporation of specific financial practices and training in positive financial behaviors, along with methods of coping with specific financial stressors when the intent is the improvement of the individual's perceived financial satisfaction. Further attention might be directed towards helping people more effectively assess their

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own financial position, particularly in cases where there appears to be over- or under-confidence on the part of consumers.

Further research is warranted to address the limitations of this study, and to determine the direction and degree of these effects, as well as the underlying causal relationships that might exist. Due to the cross-sectional nature of these data, causality cannot be determined (that is, we cannot say that greater satisfaction is the direct result of greater financial knowledge, only that these two concepts are related) though the results are suggestive of interesting associations that may be beneficial to therapists, counselors, and planners who focus on financial issues. It should be noted that the results are based on potentially limited measures of knowledge, behavior, strain, and attitudes, and further discussion and analysis of these constructs is warranted. Do the five questions adequately represent objective financial knowledge? Do consumers really benefit from understanding the movement of bond prices with regard to interest rates, or are there other areas of knowledge that are more applicable from a general satisfaction standpoint? The selected financial behaviors and stressors do not represent the full complement of options available to consumers. Further, the present data did not provide much in the way of financial attitudes, as only risk tolerance was available for assessment. The NFCS survey did provide the necessary components for an initial test of the Joo and Grable (2004) framework, though future research should consider incorporating more complete measures of the chosen constructs.

CONCLUSIONS

Financial satisfaction is a worthy goal from both an individual standpoint and a societal perspective (Garman et al., 1996; Zimmerman, 1995). Practitioners, including financial therapists, counselors, and planners, who have the opportunity or obligation to assist individuals with their well-being must be aware of the role of financial satisfaction in well-being, and the factors that influence financial satisfaction. This preliminary research sheds some light on the factors that predict financial satisfaction and directions that can be taken to refine and improve the relationship.

It is helpful for practitioners to be aware of the impact of both positive financial behaviors and adverse financial circumstances resulting in financial strain on an individual's perception of his or her financial satisfaction, particularly relative to financial knowledge. Thus, a practitioner may wish to develop a financial therapy intervention that involves specific tasks, such as saving a specific amount of money each month for emergencies, rather than focusing on education or more conceptual issues such as the relationship between interest rates and bond prices. Likewise, educational applications can be developed around financial tasks and checklists of activities before addressing more conceptual issues such as portfolio diversification. In addition, an effective plan for improving financial satisfaction may entail strategies for coping with financial hardship, providing tools for accepting financial problems and engaging in appropriate actions to improve conditions.

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Clients who fall into the "overconfident" attitude group present a unique challenge to financial therapists, planners, and counselors. While they tended to have higher levels of financial satisfaction than other respondents, they may need an objective assessment of their financial situation and overall well-being in order to make progress. In this case, education in objective financial principles and decision-making may be called for to ground the clients and prepare them for their next developmental steps. Likewise, therapists and counselors are encouraged to take the opportunity to focus on specific behaviors such as paying credit card bills in full each month or avoiding overdrafts. An emphasis on positive behavior should have a "dual" effect, as positive behaviors enhance personal financial satisfaction while also improving financial standing and mitigating financial stress when practiced regularly. Teaching the "how" appears to be the primary action toward improving financial satisfaction, with the "why" question trailing in significance. Therapeutic interventions and educational programs targeting behaviors rather than understanding concepts are potentially more beneficial to students, clients, and other stakeholders.

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