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SIGHT Goal Setting for Future-Focused Finances

Brandy Baxter, AFC®, FFC®, Envision30

Key words: coaching, future-focused finances, goal-setting, coaching framework

Target Audience

The target audience includes financial counselors, planners and educators who work with clients in any capacity.

Objective/Purpose

The purpose of this session is to introduce a new tool for practitioners to use with their clients to set financial goals. Teaching clients to develop strategic goals provides a roadmap to success. Practitioners who attend this session will learn the following:

- Description of SIGHT Goals – What do the letters mean?
- What makes a SIGHT Goal different from a SMART goal?
- How can clients set SIGHT goals to plan for the future?
- Bonus: Strategy to train the brain to identify resources needed to reach the SIGHT goal.

Description

Traditional goal setting starts with SMART goals. While SMART goals are a good place to start, they can fall short when clients move toward action. That is where SIGHT goals come into play. Based on principles from advanced strategic planning, this method supports clients in setting goals and identifying actionable steps to reach their financial goals.

Based on strategic foresight principles, the SIGHT goal method focuses on anticipating factors that may add or detract from a goal. SIGHT goal planning is part of a four-part financial goal setting process currently being developed. Clients who learn to think strategically about their financial goals are inclined to make better financial decisions. Practitioners who use SIGHT goal setting will help their clients develop a methodical framework for establishing their financial goals. This framework will provide a strategy for clients to successfully articulate, develop, and take measurable action toward their financial goals. Financial professionals will benefit from learning this new tool.

Practitioners will be able to take this tool and begin using it immediately. The SIGHT goal process uses a worksheet to fill in details related to the letters in SIGHT (Specific, Informed, Graduated, Hard, Time-specific). The worksheet is the only resource needed. Completing the worksheet can take an hour or a few days, depending on how detailed the client chooses to be.

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So You Want to Write a Personal Finance Book?
A Primer on Publishing and Promoting Your Future Book

Axton Betz-Hamilton, South Dakota State University & Barbara O'Neill, MoneyTalk

Key words: book publishing, book marketing, media liability coverage

Target Audience
The target audience for this practitioners' forum was aspiring book authors who have a goal of publishing a book on a personal finance topic.

Objective/Purpose
The primary purpose of this practitioners' forum was to provide aspiring book authors with information regarding various options for publishing a book. Participants learned how to write a book proposal and a complete book. A secondary purpose was to share marketing strategies to promote a new book.

Description
One of the ways that financial practitioners can teach personal finance is to write a book. Writing a book is not for the faint of heart, however. It takes a lot of time, may cost money, and there is no guarantee of success. For those who proceed, publishing is a 5-step process. First, an author needs a creative title and content that is new or approached from a different vantage point than competitors. Second, a detailed proposal is needed that results in a book contract with or without the assistance of a literary agent. The contract can be with a full-service publisher or a hybrid publisher. Another option is to self-publish a book. Third, an author must outline book chapters, research content, and write the book from start to finish. This can take months, even years. Fourth, cover design and online marketing materials must be developed. Lastly, the completed book must be actively marketed by the author to boost sales.
This practitioners' forum focused on providing information to aspiring book authors in the personal finance area on how to publish a trade book for popular audiences. It was co-led by two authors who published books in 2019 and 2020. One author published a memoir and worked with a literary agent to obtain a book contract with a traditional publisher; the other author has published multiple non-fiction books with both traditional publishers and a hybrid publisher.

Information regarding traditional publishers, self-publishers, and hybrid publishers was provided, along with the presenters' experiences in working with each type of publisher. The presenters also shared strategies regarding promoting a book, and how book promotion varies between the three types of publishers. Moreover, information about authors' liability and the importance of media liability coverage was provided.

A handout regarding the pros and cons of working with each type of publisher was provided as well as an electronic copy of the presentation slides and information about book marketing. Participants were invited to ask questions and share their experiences and concerns with the publishing process. The presenters stressed that anyone can write a book, regardless of education or professional title, throughout the presentation.

Impact/Value to the Field
Information shared in this practitioners' forum will help enable aspiring personal finance book authors to better understand and navigate the options available for publishing and promoting their future books. It is hoped that additional AFCPE member authors may emerge.

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Getting Your Message Heard in a Virtual World:
Effectively Communicating Savings Messaging to Your Audience

Angela Caban, Military Saves Director & Lila Quintiliani, AFC®, Military Saves Senior Program Manager

Key words: behavioral economics, communications, reducing debt, saving

Target Audience
The target audience is organizations, researchers, and individual practitioners; anyone who seeks to communicate a specific message with their followers.

Objectives/Purpose
The current world situation calls for new, virtual ways to communicate. Military Saves, a component of America Saves and an initiative of the nonprofit Consumer Federation of America, is a research-based, social marketing campaign that has been around for nearly two decades and encourages military service members to build wealth and reduce debt. We do this by using the principles of behavioral economics, seeking to change savings behavior and motivate action.

While our program's call to action has not changed significantly over the past few months, we have evolved our existing communications by introducing new ways to talk to our savers and our partnering organizations. We developed a targeted communications plan to increase engagement with our savers. We want to share some of our successes as well as our challenges. We believe that our lessons learned can benefit practitioners, researchers, and nonprofit organizations.

Description
We will give a brief overview of our program and our communications plan, what we do, and how we differ from other organizations.

Our organization simultaneously faces two very different audiences: the first is those who we call our "savers" and consists of the military community as well as the general public; the other audience consists of organizations, which includes everything from government agencies and military installations to like-minded nonprofits, banks, and credit unions. Each audience requires a different focus, a different "voice," and sometimes even a different communications platform.

We will detail our communications strategy, particularly our core messaging, which revolves around certain themes and cornerstone beliefs. These inform all of our communications with savers and organizations. We very consciously include certain concepts and keywords in everything we do, whether it's a fun post on Instagram or a more scholarly article in a partner organization's newsletter.

We will give examples of our messaging to illustrate these points. We will detail all of our platforms and our strategies behind each one. We will also describe our methods for measuring impact and/or success. The presentation will be lively and will include takeaways that attendees can apply to their own situation.

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The Importance of Cultural Affinity in Financial Education for Hispanic Immigrants

Manuel Carvallo, Hispanic Wealth

Key words: culture, diversity, financial education, Hispanic immigrants, racial equity

Target Audience
Financial professionals and institutions serving Hispanic immigrants.

Objectives/Purpose
Demonstrate how culturally appropriate context, not just language, leads to better financial outcomes for first generation Hispanic immigrants.

Description
Cultural affinity, not simply translating programs from English to Spanish, is critical if financial professionals and institutions are to attract and educate Hispanic immigrants to develop financial stability and success. Many immigrants started families in the U.S. and now live with their U.S.-born children. As they age, questions regarding the place and resources to retire start to surface. Many of them hope to retire in their home countries one day – and many others look forward to living the rest of their lives in the U.S.. But both of these groups have something in common: They are woefully underprepared for the financial burdens of retirement. Our research conducted in collaboration with Mexican consulates (https://hispanicwealth.com/#sec-surveys) and covering more than 8,000 individuals in three different versions, provides insight into the needs of Mexican immigrants, which varies by location.
In the process of creating a financial literacy strategy for Hispanic immigrants', there is a need to consider the fact that Latin American countries have capital markets that lag about 80 to 100 years in their development relative to the United States. It is important to also consider the fact that Mexico's banks were nationalized between 1982 and 1990, a period in which financial penetration in the country receded and unchecked practices contribute to explain the mistrust many Mexican immigrants have towards banks. These realities make financial literacy among Latinos very low or non-existent. Their understanding of money is biased by fears, myths and distrust for financial institutions.

The problem is not only the lack of financial education, but that Latinos are often the target of deceitful and misleading advice regarding their finances. Mainstream financial institutions in the United States grossly underserve the Hispanic market and this lack of competitive financial products leaves open opportunities for abusive practices and predatory lenders including, regrettably, financial abuse by affinity members.

I'm convinced that in a modern society, individuals and families who do not have basic financial literacy, and do not have access to competitive financial products and services, cannot develop their full potential.

The reasons discussed in the previous paragraphs help explain why there are not enough Hispanic role-models in matters of finance. So in order to provide financial education that can reach Hispanics with the scale that is needed, we are focused on the creation of educational videos which aim to have the following characteristics; visual, well researched, free from conflicts of interest, adapted to our culture and which treat people with respect.

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The PowerPay Money Mastery Online Course™: Pilot Evaluation and Availability

Amanda Christensen & Alena Johnson, Utah State University
Luke Erickson, University of Idaho

Key words: online education, financial education, life transitions, course evaluation

Target Audience
Financial educators, counselors, coaches, Extension faculty, and parents.

Objective/Purpose
The PowerPay Money Mastery Online Course™ can be a helpful tool for financial counselors, coaches, and educators to use along with other tools to help their clients, especially those in life transitions. The purpose of this presentation is to share information about content, how to help clients sign up for the course, evaluation feedback from pilot participants, and what changes were made because of that feedback.

Description of Content and Method
Many financial counselors and educators are already familiar with the powerful debt reduction tool PowerPay™. A new online course is now available that is an extension and companion piece to that widely used tool. The PowerPay Money Mastery Online Course™ was designed to help individuals and families navigate life transitions by improving their financial situations. Available to use in counseling, coaching, or educational settings, the course includes eight modules and three bonus modules that focus on financial essentials for those in transition, such as first-time money managers, recent college graduates, newlyweds, divorcees, etc. Also, after the COVID-19 virus outbreak, some individuals may have found themselves thrown into an unexpected transition and may also benefit from the course.

Modules in the course are designed to be quick but impactful financial action plans for those "in motion." Topics include money habits and attitudes, tracking expenses, budgeting, managing debt, understanding credit, and saving. Insurance, investing, and homeownership are additional bonus modules. A certificate of achievement is provided upon completing the first eight modules and the course exit survey.

This presentation will introduce the completed PowerPay Money Mastery Online Course™, share strategies to encourage clients to sign up for the course, and present evaluation feedback from the pilot stage. A promotion code will be given to all attendees to experience the course at a discounted rate.

Impact/Value to the Field
While there are certainly many great financial resources available online, few are specifically designed for those in pivotal life transitions. The modules in the PowerPay Money Mastery Online Course™ are specifically designed to be delivered in a short amount of time and direct participants towards meaningful actions that can make lasting positive impacts on their household's finances. The online availability of this resource provides counselors, coaches, and educators a convenient way to reach those in various stages of COVID-19-related quarantine with research-based personal finance education.

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Working with Vulnerable Communities During COVID-19 and Racial Injustice

Schane D. Coker, AFC, FFC, Zeiders Enterprises; Edna Forero, AFC, FFC, Achievement Centers for Children and Families; Jessica Cherubin, Catalyst Miami; Sylvia Watford, AFC, FFC, Virginia Credit Union

Key words: COVID-19, Difficult Dialogues, Diversity, Equality, Financial Practitioners, Inclusion, Race, Racial Injustice, Representation, Vulnerable Communities

Target Audience
The target audience for this session is financial practitioners and educators who have had to adapt their engagement with clients and colleagues due to COVID-19 and increasing racial violence and protests.

Objectives/Purpose
By the end of this session the following objectives will be met:

- Identify obstacles and opportunities that financial practitioners can use to strengthen their individual practice and approach to client engagement
- Navigate through moments of technological illiteracy and access experienced by both client and practitioner
- Promote awareness and observation of financial practitioner and client personal boundaries when discussing financial matters that intersect with race and economic backgrounds
- Provide guidance on how to engage in open and honest dialogue with clients to deepen trust and build support for client success
- Understand what constitutes a vulnerable population

Description
This session will involve a roundtable discussion among financial practitioners working in the field with clients from vulnerable populations in the US and explore how the onset of COVID-19 and rapid increases in nationwide racial injustice and violence have affected their work.

The first 25 minutes of this session will focus each financial practitioner's individual experience working with their respective client population prior to the onset of COVID-19 and the highly publicized deaths of Ahmaud Arbery, George Floyd, Tony McDade, and Breonna Taylor that gave way to global outrage and protests and where they find themselves currently in their work. Topics covered will include adjusting client relationships to conform to "the new normal" of self-quarantine and social distancing, emerging issues or setbacks amplified by the recent upticks in racial violence against black and brown communities, obstacles and/or opportunities experienced to client and practitioner, and financial practitioner self-reflections of their work and understanding of the world during this time.

The remaining time will be dedicated to a "talkback" session where practitioners will engage with the facilitator, each other, and the audience regarding the topics discussed and any insights gained or developed while working to meet client needs. Audience members are encouraged to participate by engaging with the panelists and facilitator by posing questions to them about their work as well as any trials or triumphs that have been encountered either personally or while working with clients.

Attendees will leave this session with tools, tips, and new ideas of how to connect with clients during uncertain economic times while navigating new and emerging methods of communication. Attendees will also build a stronger understanding the dominant role that race plays in the daily lives of vulnerable communities and the work that needs to be done in order to remove the roadblocks that keep these communities financially stagnant.

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Homebuying 101: Helping Your Clients Achieve the American Dream

Jacqueline L. Cooper, MCP, AFC®, FFC®, Executive Director, Financial Education Associates, Inc.

Key words: homebuyer education, first time homebuyer, mortgage, down payment assistance

Target Audience

The target audiences are financial counselors and coaches who assist aspiring homeowners. Financial counselors are not generally trained in the tools necessary to assist low and moderate- income homebuyers. The goal is to share information that will make it easier to find the products and programs needed to support our clients.

Objective/Purpose

Many people have a goal of homeownership to provide a place to live for themselves and/or their family. After doing the work of cleaning up credit and stabilizing income, what is available to low and moderate-income buyers with modest savings? The objective of this presentation is to provide information on low down payment mortgage products and financial assistance programs that can assist prepared households for homeownership. These products not only have low down payments and favorable interest rates but repayment terms that help households prepare for the future.

Description

There are mortgage products that are available to first time homebuyers nationally, statewide and locally that have modest. The examples include nationally sourced mortgage products from FHA, Fannie Mae and Freddie Mac, state-sourced products from the state housing finance agencies and local products created through the Community Reinvestment Act. Financial assistance programs may be funded through HUD programs as well as state and local sources. Information on finding resources nationally will be shared.

It is important that we understand what is possible for the people who we counsel and coach. In addition, there are people who we serve that may not identify themselves as people who are eligible for a program. Teachers, medical personal, civil employees, non-profit and military personnel may qualify for these mortgage products. The information is valuable in serving potential homeowners in the high cost areas. It is also helpful information for people who are living in areas with emerging economies that are experiencing a rise in the cost of homeownership.

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Adapting to Meet the Need

Sara Croymans & Samantha Roth, University of Minnesota Extension

Key words: COVID, Extension, financial capability education, online education, webinars

Target Audience

The target audience for this conference session are those who provide financial capability education. The primary target participants for the financial capability efforts described in this proposal included residents across the state interested in increasing their financial capability knowledge and skills during these challenging times. A secondary group of participants included human service agency staff who wanted to increase their capacity to work with clients on financial capability issues.

Objectives/Purpose

The purpose of this presentation is to share our experience of adapting financial capability education from an in-person model to a virtual model utilizing social messaging and online teaching via webinars. Participants will become familiar with the delivery methods implemented and discuss the challenges and advantages of each. Together, we will consider the viability of programming efforts and necessary evaluation to document impact.

Description

At the end of January 2020 the World Health Organization declared the coronavirus (COVID-19) outbreak to be a public health emergency of international concern (WHO, 2020). By the end of February, the United States was reporting COVID related deaths (CDC, 2020). As a result of the pandemic, most states implemented stay-at-home orders for the majority of the population, with exceptions for 'essential' workers. Communities experienced closings of schools, universities, non-essential stores, and places of worship. Individuals and families were quickly impacted by the pandemic through reduced income, unemployment, housing instability, scams, food insecurity, stress and mental health concerns, as well a multitude of other financial capability challenges.

Across the nation, Cooperative Extension, a key component of land grant universities, brings together people to build a better future through university science-based knowledge, expertise and training. Extension has a history of making a difference by connecting community needs and University resources to address critical issues. As a result of the COVID-19 pandemic and the inability to provide in-person education due to university closings and mandated physical distancing, Extension Educators across the nation have had to adapt how they engage with participants to provide education and resources. This challenge was evident in all program areas, including financial capability education. This session will address how one state Extension program collaboratively adapted its financial capability education to meet the unique needs of individuals and families amid the COVID-19 pandemic.

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Effective Strategies to Identify and Mitigate Emotional and Cognitive Biases in Clients

Lucy M. Delgadillo & Erica Abbott, Utah State University

Key words: emotional biases, financial biases, financial coaching

Target Audience
Practitioners in the financial field who are interested in learning how to identify behavioral biases in clients and advance their impact and success in their professional practice.

Objective and Purposes
This session will expand attendees knowledge on four emotional (loss aversion, overconfidence, endowment and status quo) and four cognitive biases (conservatism, hindsight, anchoring and adjustment, and mental accounting), and will train practitioners to use that information to increase the impact and success when working with their clients.
1. Understand the differences between emotional and cognitive biases
2. Identify such biases in their clients and in their own professional practice
3. Collectively formulate strategies to mitigate such biases

Description: Informed by literature in behavioral finance, this session will explain eight financial biases, train attendees how to identify those financial biases in their clients, and what kind of strategies to use to de-bias them. Financial biases fall into two categories: emotional biases (EB) and cognitive biases (CB). EB are those that arise from impulse, intuition, and feelings. They result in personal and perhaps irrational decision-making. EB are impulsive, and because of that, they are harder to mitigate than cognitive biases. CB are due to belief perseverance, information processing errors or faulty reasoning. CB can be mitigated by asking the right questions, presenting the right information, and given qualified advice. **Emotional Biases:** *Loss Aversion:* Feeling greater pain for a loss than pleasure for a gain of equal value. *Overconfidence***:** Think you know more than you do (illusion of knowledge/control). Also related to *Self-attribution bias* where you take credit for the good and pass blame when bad. *Endowment bias*: See assets you own as worth more than you would be willing to pay to acquire them. *Regret Aversion:* Tendency to do nothing due to a fear of making the wrong decision. It is primarily making errors of omission instead of errors of commission. **Cognitive biases:** *Conservatism*: Emphasize old info/original more than new. *Hindsight Bias*: Selective memory. Tend to remember correct views and forget mistakes. *Anchoring & Adjustment:* Remain anchored to an initial value (expected price, forecast). It is always related to a specific number. *Mental Accounting:* Ignores the fungible nature of money. Individuals place money into various mental (and sometimes physical) categories to meet different goals/treat various sources of money differently depending on which category they are.

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Pivoting to Remote Teaching in Financial Counseling and Financial Therapy Courses

Dorothy B. Durband, Tiffany Murray, Texas Tech University, Kristy L. Archuleta, University of Georgia

Key words: communication skills, counseling skills, financial counseling, remote teaching and learning

Target Audience
Academics, financial educators, students

Objectives/Purpose
(1) Obtain ideas for teaching skills-based financial counseling and financial therapy courses in a remote format, and
(2) strategies for providing interactive course activities and assignments focused on the development of client relationship skills will be a key takeaway.

Description
Emergency remote instruction differs significantly from well-thought-out and well-planned online instruction (Hodges et al., 2020). In our forum, three instructors from two universities will share their experiences and practices in teaching undergraduate courses and a practicum in financial counseling and financial therapy via emergency remote teaching due to COVID-19 campus closures in spring 2020. This discussion will incorporate lessons learned while adapting experiential learning courses to be taught remotely, challenges that were overcome, and strategies realized for enhancing future teaching.
Session topics will include: How the needs of students were addressed, maintaining quality in the courses, and the strengths and challenges of technology used while teaching remotely with learning management systems (LMS), video conferencing platforms, and online polling software to encourage active class participation. Our experiences in restructuring group assignments and mock financial counseling sessions to optimize student learning outcomes focused on the application of non-verbal and verbal communication skills in client communication and counseling skills will also be shared.
Higher education faculty in the United States are increasingly being asked to teach online (Allen & Seaman, 2015). Given the impacts of COVID-19 on higher education, there may be a need to continue offering more courses remotely, in a hybrid modality, or moving them fully online. Additionally, given the experiential learning nature of these applied courses, lessons learned can provide valuable insights in preparing for higher quality hybrid, virtual, or on campus experiential courses in the future.

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Don’t Corona My Cash! Rapid and Meaningful Program Response to Community Needs

Luke Erickson, Andrew Bingham, & Lance Hansen, University of Idaho
Karen Richel, AFC, M.S.

Key words: financial education, COVID-19, program series, needs-based

Target Audience
Financial educators, counselors, coaches, Extension faculty

Objective/Purpose
This program series can be a used as a model for providing rapid program response to key community and national needs. This is particularly useful to practitioners but could have value for counselors and researchers in terms of demonstrating the willingness and ability to make significant adjustments in methods and priorities in order to “meet clientele where they are,” not only in location but also in terms of their changing needs. The purpose of this presentation is to share information about the rapid use of the major stages of program development including needs assessment, content design based on feedback, development of conceptual ideas, implementation of the program, and finally evaluation of the program for both impact and improvement.

Description of Content and Method
The COVID-19 pandemic of 2020 and the ensuing economic crisis have had broad health and financial impacts on Americans. Idahoans are no exception. Observing the rapid unfolding of events in March and early April of 2020, three extension educators and one state extension specialist teamed up to deliver a needs-based program series that would eventually be called “Don’t Corona my Cash!”

Because a state ordered quarantine was already in effect, the needs assessment was developed as an online survey using SurveyMonkey. Through various team member contact lists, outreach on social media community groups, and statewide requests for extension educators and university faculty to share with third-party contacts, the needs assessment produced over 50 usable responses. The feedback from clientele included not only a prioritization of suggested topics, but also open-ended feedback on additional topics that respondents felt were important to have covered in the program series. As a result, many of the topics of the online series were adjusted, combined, and reworked to address the priority needs of Idahoans. The topics included the following: How to use government stimulus funds; what to do when income drops; stress and finances; managing your career; managing your home; managing your health; investments, retirement and the economy; and, getting back to normal.

Originally the class series was planned to last 8 weeks with one class per week; however, based on feedback the team redesigned the schedule to include two classes per week. Also based on feedback the times were adjusted from noon to early afternoon. Additionally, the program series title, “Don’t Corona my Cash!” and several of the series class titles were adjusted based on feedback which made the class title catchier and more marketable. It also helped bring a positive tone we hoped to convey to our participants, many of whom were facing bleak outlooks at the time.

The class series began on May 5th and continued every Tuesday and Thursday throughout May for a total of 8 classes. The classes were taught online through Zoom, and were taught from home while the Extension educators, specialist, and participants alike were all in quarantine. The eight topics were divided equally between the four team members who each taught two classes according to his or her area of expertise and interest. As an incentive, participants were given entry into a drawing for a $25 gift card for each class session by filling out pre- and post-surveys. The Consumer Financial Protection Bureau (CFPB) Financial Wellbeing Scale – short version, was used to detect changes in financial well-being in participants as they participated in one or more classes in the series.

Attendance for each class session averaged about 45-50 participants, which included regular attendance from approximately 10-12 inmates at a northern Idaho prison. Preliminary analysis of participant pre-and post-survey data indicated 147 total responses. Over half of the responses were from those age 55 and older, representing the higher at-risk groups for COVID-19. Approximately 23% of participants were from states other than Idaho, and those in-state participants represented all four extension districts in the state.

Impact/Value to the Field

One important aspect of this program model is that it can be easily replicated and adapted in different localities across the country. This program also demonstrates that extension educators not only have the *ability*, but we also the *responsibility* to rapidly adapt our professional activities to meet the ever-changing needs of our clientele.

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How to Maximize Social Security Benefits

Keith R. Fevurly, MSU Denver

Key words: average indexed monthly earnings (AIME), earnings record, family benefit, full retirement age (FRA), primary insurance amount (PIA), provisional income (PI), "retirement income stool", Social Security Disability Income (SSDI), spousal benefit, survivors benefit, Supplemental Security Income (SSI), Windfall Elimination Provision (WEP)

Target Audience

Professional Financial Planner with 1-5 years of experience; preferably with recognized professional designation. Specialty in retirement planning or with separate retirement planning or retirement income designation helpful. Clients are in or approaching retirement period.

Objectives/Purpose

To further education of financial planning professionals in answering this frequent question of clients: How do I maximize benefits from Social Security, including when is the best time to claim retirement benefits? The answer to this question is one of six methods presented during the presentation.

Description of Content

50-minute On Demand presentation using Power Point slides covering types of Social Security benefits, when to take benefits, and how best to maximize those benefits. Specifically, presentation proffers six methods or strategies to maximize each type of benefit: 1) delaying benefits until age 70; 2) improving participant worker's "earnings record" with the Social Security Administration; 3) taking maximum advantage of spousal and survivor's benefits; 4) minimizing income taxation on receipt of Social Security benefits; 5) applying for Social Security disability income; and 6) considering Social Security as a component of a total retirement income strategy among employer-sponsored and personal savings retirement plans, the so-called "retirement income stool". Presentation also covers how to qualify for Social Security disability income (SSDI) and interaction with Supplemental Security Income (SSI). Finally, Social Security benefits are prioritized among the allocation of short-term cash alternatives during retirement.

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Fred Rogers & Financial Counseling: What Do They Have in Common?

Sasha Grabenstetter, MS, AFC®, University of Illinois Extension

Key words: Financial counseling, financial coaching

Fred Rogers famously created the children's television series "Mister Rogers' Neighborhood" which ran from 1968 to 2001, but many of the subjects and topics he discussed on his show are still relevant today. Mister Rogers demonstrates key counseling skills on his show through different forms of play, intentional listening, helping children develop understanding and problem solving, using kindness, as well as talking directly about one's feelings. "Play can continue to be an important tool for creative problem solving throughout our lives if we have been encouraged to develop our creative capacities when we were young." (Rogers & Sharapan, 1993, p.9)

While the content and messages being sent on Mister Rogers' Neighborhood is intended for young children, the concepts can be converted to one-on-one financial counseling and coaching techniques. Techniques such as using role play in a counseling session, sharpening listening skills to use with clients. Also utilizing true empathy, asking questions, using silence, discussing uncomfortable topics (such as debt, budgeting, estate planning) and tough feelings with our clientele. By examining these skills the Fred Rogers' way, we may be able to become not only better people, but better financial counselors and coaches as well.

Sometimes as financial counselors, educators, and practitioners going back and revising a skill and looking at it from another angle can be helpful in refining or updating a particular counseling tool. When working with clients, you rarely use just one particular counseling skill the whole time but bring a variety into the session in your toolbox. This session is shining a light on financial counseling through the lens of one of the most beloved television showrunners – Mister Rogers. By revisiting old counseling favorites or tried and true methods and molding, shaping, and reexamining them with the Fred Rogers' way, we may begin to understand why Fred Rogers' teaching still impacts us today.

Today, more so than ever, kindness, empathy, and understanding need to be at the core of each financial counseling or coaching session. Building trust with clients begins with empathy as well as open and honest conversations about possibly uncomfortable financial topics. Being able to help clients problem solve with you as the facilitator, will make you a better financial counselor, as well as make the clients more willing to complete the financial task at hand. Whether the content is new or a review of counseling concepts, seeing them in a new light can illuminate or give that lightbulb moment to help a client through a difficult stage of change.

The target audience for this presentation may include private practitioners, financial counselors and coaches, military members, extension professionals, student money management centers and students in accredited financial counseling programs.

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Understanding Health Insurance and the Financial Implication in Your Senior Years

Jesse Ketterman, Carrie Sorenson, Dorothy Nuckols, Lisa McCoy, Virginia Brown, Cyrstal Terhune, Jesse Jurgenson, Ali Hurtado, and Chenzi Wang, University of Maryland Extension
Maria Pippidis, University of Delaware Cooperative Extension

Key words: health insurance, long-term care, medicare

Target Audience

A multi-state team developed a module to reduce confusion around the difficult decision of selecting health insurance during the senior years. The module is grounded in health insurance literacy, social cognitive theory, and adult learning theories. The Health Care in Your Senior Years – Medicare and Other Options educational module is for audiences aged 55 and older who want to increase their understanding and confidence regarding Medicare and other health insurance options.

Objectives / Purpose

Health care in retirement from age 65 and older for a couple is estimated to cost $280,000 through their remaining lifetime. This includes Medicare premiums and other out-of-pocket costs (Fidelity.com, 2018). Understanding how Medicare works, what it covers, and other options helps individuals plan now for their retirement health care needs.

The objectives of this module are for seniors to increase knowledge and confidence regarding health care costs in senior years; know where to go for information about Medicare and supplemental health insurance options; and learn strategies and tools to help estimate health care costs. During the module, important words to know are reviewed and a case study assists in estimating costs.

Description

Certified instructors taught the module in Maryland, Delaware, and virtually between January 1, 2020 and September 2, 2020. Results of the pre and post survey (*N=101*) indicate a significant increase in knowledge and confidence in understanding health care and health care costs. There was a 21.6% increase in confidence in understanding health insurance options in senior years, a 34% increase in confidence in estimating total health care costs, 18.4% increase in knowledge in determining which health insurance option will work best for health and financial plans, and a 23.4% increase in determining how much to save to cover health care expenses.

Financial educators and counselors play an important role in assisting clients with understanding health care in their senior years and estimating health care costs. Almost 90% of adults report difficulty using health information to make an informed health decision (America's Health Insurance Plans, 2013). As adults move into their senior years, they need to make important decisions about health insurance.

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Financial Tools are NOT Enough!
Why Using Therapeutic Modalities Along with Financial Tools is a Winning Combination in the Client's Ability to Affect Change

Simi Mandelbaum, PROSPR Financial Wellness, LLC

Key words: financial therapy, financial counselling, money management, financial conflict, financial distress

Target Audience
The intended audience is other practitioners, i.e. counselors, coaches, and educators in the field.

Objective/Purpose
The objective of this seminar is to highlight the real-world impact of using therapeutic tools together with traditional financial tools in helping clients achieve and maintain their financial goals while reducing the stress they feel by helping them modify their behavior and thoughts around money.

Description
People initially come for counselling because they feel stress and anxiety relating to their finances. They feel that they do not have a handle on their money, they are out of control with their debt, or there is deep discord with their spouse, family, or partner about money.

When provided with financial tools and resources, people learn how to organize their data, watch their cash flow, and plan for their financial future. This guidance is immensely helpful in achieving a sense of knowledge and control over one's money. In addition, they often learn about financial options and resources they were unaware of and can now take advantage of them. While this aspect of financial coaching/guidance is robust, it is still limited. In most cases, it only responds to the 'how' factor of mechanically resolving financial distress. It does not resolve the stress people feel in discussing their finances with their family, or the feelings of stress in creating and following a budget that any people feel. That is why many people do not consistently maintain the processes provided to them by their coaches, teachers and mentors.

To effectively maintain positive change, it is vital for people to gain insight into the behaviors, values, and beliefs that drive their financial choices and decisions. The use of therapeutic tools such as personality games and quizzes, (Money Habitudes™ and KMSI™), motivational interviewing, magic question, and other forms of Narrative Therapy are some examples of modalities available to help explore and get to know the 'why' behind behaviors around money . Additional therapy tools include genograms which highlight 'money triggers' and reflective listening to communicate and educate the client. These therapeutic tools, and others like them, help people become aware of what is driving their personal experience and provides astounding possibility for deep change that lasts. Clients learn and understand that there are many different money values and personalities, all of which have a place in the human experience. In cases where such work would involve couples or partners, this approach is crucial to help resolve conflict and restore harmony.

Impact/Value to the Field
While educating the client in financial literacy and budgeting is certainly crucial in helping the client work towards their financial goals, we believe - and our experience continually shows - that without discussing and addressing the underlying psychological distress that people feel around their finances, we are not fully helping the client. Using financial tools/resources as the sole approach to resolving financial distress does not create deep and lasting change. By recognizing the underlying motives or behaviors that drive their financial choices, clients develop a deeper understanding of themselves and their spouses. This leaves clients with newfound freedom or resolve to make better choices, which keeps them from falling back into their old habits, patterns, and conflicts.

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Research Snapshots: Telling the Research Story in 3 Minutes with 1 Slide

Katherine S. Mielitz, Oklahoma State University, Axton Betz-Hamilton, South Dakota State University, Mary Gatti, Oklahoma State University, Nan Li, California University of Pennsylvania, Patricia M. Page, Walden University, Richard Stebbins, University of Alabama, & Jing Jian Xiao, University of Rhode Island

Key words: Research to practice, bridging the gap, public scholarship, storytelling

Target Audience
Practitioners, Educators, and Researchers

Purpose
The purpose of this dynamic session is multi-fold. First, practitioners and educators will hear the origination and findings of research in an easily-consumable format. Leaders in numerous fields use research to help guide decision-making (e.g. Petryni, n.d.; Shafer, 2016). Second, researchers will effectively communicate their work in a condensed, easy-to-understand story that non-researchers can understand. In order to make informed decisions, practitioners must be able to understand, and relate to research (Brownell, Price, & Steinman, 2013). Finally, this break-out session will contribute to the ongoing efforts of AFCPE® to bridge the gap between research and practice through methods. This is the second offering of the Research Snapshots Breakout Session.

Description
Facilitated by the AFCPE® Bringing the Gap Task Force, this session will be a highly-coordinated, rapid succession of 6 diverse researchers presenting a snapshot of their 2019-2020 *Journal of Financial Counseling and Planning* articles and 2020 Symposium presentations. Each presentation will be limited to three minutes using creative storytelling, everyday language, and a single PowerPoint slide. This simplified and succinct communication style has been shown to be impactful in engaging audiences and providing relevant research in a manageable format for researchers and non-researchers alike. Over 600 universities in more than 65 countries have adopted a similar format for a contest known as the "3MT" (Three-Minute Thesis), developed by The University of Queensland in 2004. The audience will have an opportunity to engage with researchers after the facilitated session both generally and in Zoom breakout rooms.

Accepted presenters in alphabetical order:

Axton Betz-Hamilton: *Understanding Parental Perpetrators of Child Identity Theft*
Research Title: *A Phenomenological Study on Parental Perpetrators of Child Identity Theft*

Mary Gatti: *When it Rains it Pours*
Research to Practice Title: *When It Rains It Pours—Experiencing Financial Shock*

Nan Li: *Window Dressing to get More Investors, is it Always the Case?*
Research Title: Do Equity Funds in Emerging Economy Window Dress their Quarter-End Performance? A Study of Chinese Equity Funds

Patricia M. Page: *FinLit and FinTech Go Social*
Research Title: *Parents' Perceptions of Financial Technology to Support Financial Socialization and Literacy Levels*

Richard Stebbins: *I think I can, I think I can! Linking self-efficacy and smart financial behavior*
Research Title: *Exploring the association between financial self-efficacy and desired financial behavior*

Jing Jian Xiao: *Able Debtors Worry More?*
Research Title: *Able Debtors Worry More? Debt Delinquency, Financial Capability, and Financial Anxiety*

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College Financial Decision Making Education for Teens and Parents

Dorothy Nuckols, University of Maryland Extension

Key words: student loans, financial decision-making, teens, financial literacy, student debt

Introduction

This program explores financial options for education funding and their consequences. As a live, web-hosted program, participants can engage collectively in a college decision making game, research career and salary choices in real time, and work together using a shared Google document to create a post-graduation spending plan based on the choices they make during the program. Throughout, use of on-line chat keeps participants engaged in relative anonymity. Despite remote engagement, there is still a shared community experience.

Background

Are high school students equipped to make financial decisions that will influence their life 15-30 years into their futures? Teens' decision-making can significantly impact future trajectory. Since goal setting usually involves financial considerations, financial literacy is crucial. To determine the need for a personal finance program centered on student borrowing, research was conducted by surveying guidance counselors from 30 different schools. Counselors almost unanimously agreed or agreed strongly (99%) that students would benefit from added financial education, especially on borrowing and student debt.

Relevance and Impact

High student debt levels, a myriad of confusing terms and plans, and a turbulent political environment have created a challenging situation for student borrowers. Student loan volume has quadrupled over the past 15 years and the number of borrowers has doubled (Looney and Yanaris, 2015). Economic and social ramifications are stark. Most borrowers have little savings and are postponing home buying and starting families (Hembree, 2018). While many resources exist to calculate future loan payments and define plan options, they do not place student loan repayment into the context of personal financial management. Economically disadvantaged students are disproportionally affected by uninformed student loan decisions (Boatman and Evans, 2017).

Program Content

The objectives are to:

1. Approach education choices from a financial decision-making standpoint
2. Learn the relationship between career choices and income generation.
3. Strategize alternative funding sources for post high school education.
4. Utilize hands-on activities to place future income, obligations, and expenses into a hypothetical "adult" spending plan and learn how values, goals, and financial planning interconnect.
5. Learn student loan and loan forgiveness options.

The program is unique in that it is grounded in the social-ecological framework and designed for students and parents to attend together. Post program evaluation results show that 94% of attendees intend to consider the costs of my educational choices and the impact on future goals, and 95% agreed they would pursue additional sources of funds other than student loans. Participants were racially diverse: 40% white, 25% black, 12% Asian, 10% Hispanic, and the rest were other/two or more races. The implication for future research is to determine whether financial counseling or education delivered on-line is a facilitator or a barrier to access for underserved populations.

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Action Steps for 20 Later Life Transitions

Barbara O'Neill, Ph.D. CFP®, AFC®, Money Talk: Financial Planning Seminars and Publications

Key words: financial planning, older adults, retirement, personal finance, life planning

Target Audience
The target audience is professionals who teach or counsel people about later life financial planning topics (e.g., Social Security, Medicare, investing for retirement, required minimum distributions, philanthropy, and non-financial aspects of aging) and/or those who, themselves, are making plans for their own future. The workshop will provide background and materials that can easily be replicated by attendees in their work practice setting.

Objectives/Purpose
1. Participants will learn about common personal and financial transitions in later life.
2. Participants will learn subject matter content related to later life transitions
3. Participants will learn about available resources related to later life decision-making.
4. Participants will use the information that is presented personally and/or professionally.

Description
Light switches are a good analogy for financial, social, and lifestyle transitions that occur in later life. Some changes are sudden, like "on/off" switches (e.g., deciding to leave the labor force permanently), while others are like "dimmer switches" that happen in a series of stages (e.g., gradually downsizing possessions or phasing down paid employment hours). At perhaps no other time in life do more "switches get flipped" than when people leave a long-time career after working for decades. Many new retirees need to stop, or reverse, activities they have been performing since their 20s. Happiness and financial security in later life often require a 180 degree turn away from ways that people managed their time and money previously. Some switches are voluntary (e.g., spending down or gifting accumulated savings) and some are mandatory (e.g., taking required minimum distributions or RMDs).

This workshop will share action steps from a new trade book, *Flipping a Switch: Your Guide to Happiness and Financial Security in Later Life*, about common transitions made by older adults. This session will discuss twenty transitions that people make after they leave a full-time career. The presentation will introduce each "switch" followed by recommended action steps to "flip" (i.e., proactively plan for) each switch. The focus of the presentation will be on action steps that are grounded in research and financial planning best practices.

Topics that will be discussed in the session include: psychologically transitioning from saving to spending mode, determining when you have "enough" money to live without an employer paycheck (i.e., financial independence), creating a "retirement paycheck," taking RMDs from tax-deferred savings plans, investment asset allocation, collecting Social Security and Medicare, financial simplification and consolidation, setting "through retirement" financial goals, becoming an elder orphan, interest in philanthropy, return on life expectancy (ROLE) calculations, and creating a new personal introduction to respond to the "So, what do you do?" question.

This practitioner forum will be led by a six-time book author. It will feature several interactive questions and answers and a PowerPoint slide deck. The key focus of the session will be "what comes next?" after people leave long-time careers. This topic is somewhat unique because financial practitioners often focus more attention on helping people achieve financial independence than on the transitions and decisions that come afterwards. Workshop slides and handouts will be made available to participants. Session attendees will leave with a better understanding of key later life financial decisions and an appreciation of the fact that everyone has different "switches" to flip and will need to create their own path based on personal values, interests, resources, and goals. Workshop content will help participants help their clients prepare for later life transitions and also to prepare for various life experiences themselves. For example, learning RMD rules or ways to receive an income tax benefit for charitable contributions.

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Build Your Brand and Connect, Empower, and Impact with Twitter

Barbara O'Neill, Ph.D. CFP®, AFC®, Money Talk: Financial Planning Seminars and Publications

Key words: Twitter, social media, financial education, personal finance, branding

Target Audience

The target audience for this presentation is professionals employed in a financial education, counseling , or coaching position who want to use Twitter to expand their outreach, connect online with colleagues, and empower clients.

Objectives/Purpose

5. Participants will learn the advantages of using Twitter and how to tweet and schedule tweets.
6. Participants will write a personal Twitter mission statement.
7. Participants will learn seven easy ways to create visuals for tweets (and other social media).
8. Participants will learn strategies to actively engage with other Twitter users.
9. Participants will learn strategies to measure their Twitter impact and influence.

Description

Twitter was created in 2006 and has about 330 million monthly active users in 2020. It is used by political leaders, government agencies, corporations, non-profits and professional associations, educational institutions, and ordinary citizens to educate, advocate, and motivate others. AFCPE members likely have varying capabilities with respect to using Twitter. If members are not yet using Twitter as part of their workplace "toolkit," they should be, and if they are tweeting but not proactively measuring the impact and outreach of their tweets, they need to learn how. Key advantages of using Twitter include its cost (i.e., free) and outreach potential. Both can help private practitioners "level the field" with larger organizations. Pitfalls in Twitter use can occur when users stray from their personal finance "lane" to discuss unrelated "sensitive" topics (e.g., politics) or share information that is not properly vetted. Unwanted, often divisive, tweets from social media trolls and the potential for hacking are other possible downsides.

This workshop will teach participants how to use Twitter effectively as a tool to build visibility for their personal or work setting brand and to do what AFCPE's tagline suggests: *connect* with audiences, *empower* others with information and resources, and *impact* the lives of clients, consumers, and/or the field of financial education and counseling. The presenter has been an active tweeter since 2009 and is in the top 1.5% of users worldwide (as measured by number of followers, according to analytical data compiled by Meltwater Social Solutions).

The workshop will begin by discussing benefits of using Twitter as a brand marketing and content dissemination tool. It will also cover the importance of having a Twitter "game plan" (e.g., boundaries between personal and professional use and planned frequency of tweets), mission statement (underlying purpose for tweeting), and a compelling profile that describes your work and attracts followers in 160 characters or less. Strategies to engage followers (e.g., shoutouts and direct messaging) and create attractive, no-cost graphic images and video clips (e.g., Canva, Microsoft Paint, photos, and GIFs) will also be described. Visuals for tweets are highly recommended because they make Twitter content three times more likely to be viewed than tweets with text alone.

Other topics that will be covered in the session include: Twitter influence metrics, influence monitoring tools (e.g., Kred), associated apps (e.g., Twitter "birthday"), consistent use of applications (e.g., Hootsuite) to schedule tweets, and strategies to indirectly monetize Twitter outreach through strategic links and ongoing visibility. Hands-on activities during the session include participants writing their own personal Twitter mission statement and sharing additional tips (e.g., experts to follow on Twitter, personal experiences and learning lessons, and time-saving hacks).

This workshop is designed to upgrade the skills of workshop participants. When more AFCPE members use Twitter, they will positively impact and empower their followers, including AFCPE member colleagues, for years to come. AFCPE can also retweet its members' tweets so teaching more members how to tweet effectively is a win-win-win for members, their communities, and AFCPE.

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The Human Side of Financial Literacy

Marcy A Reyes, Founder and CEO of The Financial Literacy Youth (FLY) Initiative

Key words: attitudes, beliefs, habits, self-discovery, behavioral finance, personal finance

Target Audience

The presentation is intended for practitioners, including financial counselors, educators, and financial coaches.
The Financial Literacy Youth (FLY) Initiative is dedicated to empowering underserved and underrepresented youth with culturally responsive financial education and global experiences to end generational poverty. It is our vision to improve the quality of life of underserved and underrepresented communities by empowering youth with knowledge, skills, and experience needed to ensure financial stability and socioeconomic well-being for generations to come.

The FLY program not only provides participants with the skills, knowledge and experiences to be financially successful, but is particularly attentive to the "human" side of financial literacy. The FLY program helps teens closely examine how they personally relate to money - exploring their deeply rooted attitudes, beliefs and habits that dictate how they actually behave around money. This self-discovery process sets the groundwork for more functional financial literacy learning, such as creating a budget, and allows students to engage through observation, discussion, reflection and creative activities.

Objectives/Purpose

The purpose of the presentation is to explain the importance of money personalities as a precursor to financial literacy courses - introducing clients to the human side of money by exploring the different ways people behave around money, as well as the hidden symbolism and sources of these actions. This self-awareness helps individuals become effective in discerning financial choices, communicating about money issues, and responding wisely to everyday financial challenges.

From this presentation, participants will learn:
- How socio-cultural, family, and life experiences influence individual financial behavior
- The role of individual personality and emotions in forming financial behaviors
- The difference between common “money personalities” and the advantages and disadvantages of each
- The significance of behavioral patterns relative to creating good financial habits and breaking bad ones
- How to use this information to help students and clients set and successfully achieve financial goals

Description

The presentation, with PowerPoint slides and videos, will substantiate the important role behavioral finance and money personalities play in the outcomes of financial goal setting and the attainment of wealth. Discussion will provide an overview of resources available for money personality assessment purposes, including activities, games and other supporting content.

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Managing Debt & Credit with Variable Income: Methods and Challenges of Teaching and Counseling Freelancers, Artists, Gig Workers, and Contractors

Rebecca Eve Selkowe, J.D., Rebecca Eve Financial Wellness and The Actors Fund

Key words: debt management, freelancers, gig workers, teaching methods, variable income

Target Audience

Practitioners who work with individuals and groups around debt and cash flow management; financial wellness program administrators

Objectives/Purpose

Freelancers, artists, gig workers and contractors likely represent the future world of work in our country, yet information and rules governing debt management are tied to more traditional ways of earning. As those to whom these individuals turn for support, financial counselors must be positioned to serve both as guides and as advocates.

The goal of this session is to open up a discussion of how best to support freelancers, artists, gig workers, and contractors who are struggling to manage and eliminate their debt, including ways of providing education, counseling, and needed advocacy in this area.

Description

Debt is a fact of life for many freelancers, artists, gig workers, and contractors. Because their income streams are variable, multiple, and episodic, credit cards and other forms of debt are a tempting and often necessary means to bridge gaps in their earnings. Eventually, managing this debt becomes a significant challenge. Budgeting and debt management tools that assume a consistent, predictable salary are ineffective, and many forms of debt relief requiring regular monthly payments are inaccessible.

Given current workforce trends, there is likely to be a substantial increase in the percentage of the population who belong to this "gig economy." Through a case study of performing arts professionals, this session for practitioners will be divided into three key areas of focus.

The first part of the session will cover what clients most need to know about debt and credit, and how to deliver this content in a way that is informative, engaging, and compassionate. The second part of the session will discuss the unique obstacles and challenges faced by clients with variable income and provide a framework for successful debt management, including strategies, tools, and techniques to navigate both the practical/financial and the emotional aspects of the process. The third part of the session will present questions for further exploration and advocacy.

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Money Week: Financial Education for Elementary School Students

Christopher T. Sneed & Ann A. Berry, The University of Tennessee Extension

In this session, participants will learn about The University of Tennessee Extension's newest Consumer Economics program – Money Week. This session will cover the research and foundational background of this program. Details regarding program design, implementation timeline, deliverables, and proposed evaluation methods will be shared. In addition, best practices for collaborating with local public school administrators and educators and financial institutions in the development and delivery of financial management programming will be highlighted.

Description of Content and Method

It is never too early to develop financial management skills. Indeed, acquiring the skills and knowledge for dealing with money can begin in childhood. Research has demonstrated that developing an awareness of spending and savings concepts early can lead to greater financial competence later in life. Money Week builds on this core understanding by providing financial education for limited-resource elementary school students. The education aligns with state educational standards and National Jump$tart standards.

Money Week is an educational program utilizing in-class instruction and read-aloud activities. This program will be implemented with 150 first and second graders at Greene Magnet Academy, a Title I school in Knoxville, TN. This program was designed through a collaborative effort with school administrators and educators. Administrators and educators took an active role in the development process editing and sequencing lessons, selecting appropriate money-themed books, and marketing the program to the larger school community. Teachers will be trained by Consumer Economics (CE) Extension Specialists to teach the five Money Week lessons. Lessons cover the topics of identifying money values, counting money, understanding wants and needs, using money, and managing money. A newsletter will be sent home to students' caregivers each day. The newsletters explains what the students learned that day. Each newsletter also contains a money tip that the caregivers can use. Each day during Money Week, local banking professionals will read a children's book about money to the students. At the conclusion of Money Week, each student will be given a copy of a money-themed children's book.

Objective/ Purpose

After completing Money Week, students will be able to: 1. Identify relative values of money; 2. Count currency of different denominations; 3. Explain the difference between wants and needs; 4. Identify ways money can be used; 5. Use a spend, save, share bank for managing money.

Impact/ Value to the Field

The simplicity of this intervention holds potential for national replication. Additionally, the best practices learned for collaborating with local public school administrators and educators in the development and delivery of financial management programming is of value to any organization wishing to begin or expand educational efforts in the public school setting.

Target Audience

Target audience includes first and second grade students and their adult caregivers. The program will be piloted with an inner city Title I elementary school with 150 students.

Questions or Implications for Researchers to Help further Improve the Program/ Project Tool

The program authors are particularly interested in measuring long-term knowledge gains and behavioral impacts as a result of this program. Additionally, the program authors would like to better understand the impact of a youth financial education program on parent/caregivers' financial behavior.

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Financial Abuse in Intimate Relationships

Syble Solomon, LifeWise Strategies and Jamie Ogden, SAFE (Supporters of Abuse Free Environments)

Key words: domestic abuse**,** financial abuse, financial coaching, personal finance, relationship conflict

Target Audience
Financial educators, counselors and coaches

Objectives/Purpose
The time has come for financial professionals to identify and understand financial abuse when working with clients and be able to respond appropriately to support and protect them. Participants will: (1) be aware of eight common patterns of financial abuse, (2) identify five red flags that will alert them to potential abuse, and (3) be ready with resources and strategies to support next steps for clients who are experiencing financial abuse.

Description
Financial abuse is more common than physical and sexual abuse and yet it is the least addressed form of abuse in relationships. The incidence of financial abuse in intimate relationships is so high that all financial practitioners should assume that they already have, or will have, clients coming to address typical financial issues within the context of a financially abusive relationship.

According to the 2018 National Poll on Domestic Violence and Financial Abuse by Allstate Foundation, financial abuse occurs in 99% of domestic abuse cases, yet 66% of Americans did not recognize financial abuse as a form of domestic violence. Financial abuse can immobilize survivors, keep them trapped without resources to leave, and can have a devastating long-term impact on financial wellness even after the abusive relationship ends. “Financial abuse is a tactic used by abusers to control victims by preventing access to money or other financial resources,” according to the Allstate Foundation. Like other forms of abuse, such as physical violence and emotional abuse, the intent is to trap the person in the relationship. According to a report by the Institute for Women’s Policy Research, 73% of survivors remain in abusive relationships because of economic insecurity.

The ways abusers exact financial control are many, and can include: restricting access to money, forbidding a partner to work, refusing to pay bills, maxing out credit cards in their partner’s name, making false tax claims or benefits claims, engaging in other forms of abuse – such as name-calling or emotional abuse – over financial disagreements. Like all forms of abuse in intimate relationships, there are common patterns of behavior based on power and control: the use of coercion or threats, intimidation, emotional abuse, isolation, using children, minimizing/denying/blaming, economic abuse and using male privilege.

When working with clients, financial practitioners need to be aware of these patterns and attentive to red flags such as: a client’s inability to answer general questions about finances or an inability to access financial information, a lack of knowledge about personal finances and bills, a lop-sided distribution of assets or debts, significant changes in communication or access related to money, as well as fear about addressing finances with a partner.

As a financial counselor, you can help clients achieve financial security and empowerment. Know the resources in your community to make appropriate referrals. Encourage equity by modeling and articulating relationship skills around money. Assist with how to get financial documentation. Know the do’s and don’ts so your advice does not escalate abuse. Focus on safety, choices, and building financial empowerment.

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Resources and Information for Financial Counselors and Coaches to Share with Clients Experiencing Housing Stress Post Covid-19

Cindy Stokes, Alena Johnson, Yoon Lee & Ellie Hansen, Utah State University

Key words: COVID-19 forbearance moratorium, forbearance program, housing information, loss mitigation, mortgage counseling, mortgage default, mortgage education

Description of Content and Method

Financial professionals, such as counselors and coaches, often feel challenged providing housing information to clients when the clients are experiencing financial difficulties that may lead to mortgage default. This presentation will share information in three different areas regarding mortgage default and prevention: 1) past delinquent borrowers, 2) current forbearance/loss-mitigation programs, and 3) updated resource information.

Past Delinquent Borrowers

Using data from the 2018 FINRA Investor Education Foundation's National Financial Capability Study (NFCS), this study found that poor credit card management and not having emergency savings were significant predictors of mortgage delinquents (NFCS, 2018). With the economic downturn in connection with the coronavirus outbreak, borrowers headed toward mortgage default will most likely increase significantly.

Current Forbearance Programs

The CARES Act established a Forbearance Moratorium (CFPB, 2020). To request the 180 day forbearance, homeowners must contact their servicer; at the end of the first 180 days, they can request an extension of an additional 180 days. Other than telling the servicer that they have had a pandemic-related financial hardship (cut in hours, furlough, etc.), borrowers will not need to submit any additional documentation to qualify for this forbearance. It is important for homeowners to understand that a forbearance does not erase their mortgage payment(s). It is also important for the homeowner to understand how they will be expected to repay their back payment(s). Will the repayment occur with a lump sum, extension of the mortgage term, or higher monthly payments?

Updated Program Information

This presentation provides financial professionals with updated housing information at the time of the symposium.

Objective/Purpose

This session's purpose is to update financial professionals on available programs and resources in connection with housing issues, including how to handle mortgage default situations because of COVID-19. It is an evidence based emerging trend type forum.

Impact/Value to the Field. Financial counselors and coaches need to provide updated information to clients needing help with housing issues after the economic impact of COVID-19. This presentation shares pertinent and current resources for counselors and coaches regarding housing issues during and following the coronavirus pandemic.

Target Audience

The target audience is financial counselors and coaches.

Questions or Implications for Researchers to Help Further Improve the Program/Project Tool: How has COVID-19 affected housing affordability? Who was more susceptible to housing foreclosure before the pandemic? What are some options for mortgage payment relief? What can we learn from this most recent economic downturn when it comes to housing?

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Financial Counseling and Education and the Reserve/Guard Community: The Role and Relevancy of Non-Profit Organizations

Dawn Torres-Gale, AFC®, Our Money Goals, LLC

Key words: armed forces, financial counseling, military family support, military reserves, national guard, non-profit organizations, personal financial counselor

Target Audience
Non-profit organizations that provide direct service financial counseling programs or are considering starting a program

Objective/Purpose

- Describe the unique obstacles faced by Reserve and National Guard members in accessing direct financial counseling services.
- Outline the strengths and weaknesses of the current Department of Defense (DoD) contracted Personal Financial Counselor (PFC) program
- Highlight how non-profit organizations could be a resource for Reserve and Guard members and their families whose personal finance support needs may not be met by the PFC program

Reserve and National Guard members have unique individual and family support needs, including with personal finances, that may not be fully met utilizing only DoD programs. Local non-profit organizations may be able to fill any identified unmet needs in this area. Having PFCs partner with local non-profit organizations and directly refer Reserve and National Guard members to them as needed could be beneficial for those National Guard and Reserve members facing barriers to accessing the PFC program.

Description of Content and Method
Reserve and National Guard members have direct access to an in-person PFC during drill weekends and annual training periods. The PFC offers convenient, no cost, professional military specific financial guidance without financial or insurance product sales or investment management services. Many PFCs are either veterans or military spouses who have personal experience with service member and family life that can be used to facilitate building provider-client rapport. The PFC program has an important role as the primary resource for military financial counseling and education, but it also has a few potential weaknesses that deserve attention:

Lack of Time
The ability of the Reserve or Guard member to have time to meet with a PFC during a drill or training period can be in direct competition with the time allotted for the mandatory trainings required by the Unit.

Lack of Trust
Some Reserve and National Guard members perceive using the military's on-site resources will subject them to judgment from peers and superiors and potentially affect their career prospects. This lack of trust can be an obstacle to Reserve and Guard members using the PFC program during drill/training even if time allows.

Lack of Geographical Convenience for Spouse
Reserve or National Guard members may want to include their partners in the financial counseling sessions, but the unit's geographic location may not be convenient for this purpose. Reserve and National Guard members can be very geographically diverse with some members traveling more than 100 miles from their homes to the unit.
Non-profit organizations may offer the autonomy and geographic and scheduling convenience that would meet the needs for service members not currently utilizing the PFC program.

The content of this presentation comes primarily from information from the existing literature on best practices for family support programs and services for the Reserve and National Guard.

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Presenting for Real Change: Engagement Techniques and Tools for Real Impact

Andi Wrenn, MA, AFC®

Key words: presentation, change, communicate, bias for action, engaging, tools, technique

Target Audience

This presentation has valuable information for all attendees of the symposium. Anyone who communicates a message could find value in the techniques and tools presented.

Objective/Purpose

Counselors and educators often want new and interesting ways to get the message across in a way that will make an impact on those they speak to. Something that will stick with the client or audience long after the class or session is done. Whether presenting in-person or virtually, to groups or individuals, these techniques and tools include: Opening activities that get the audience to want to know more right from the beginning; Flipping the classroom or client session; Making the most out of required materials with interactive engagements; Using resources, stories, and real examples that make an impact that lasts.

Description

Demonstration of techniques for creative and engaging ways to communicate will be used during this presentation to enhance the audience learning. Those attending this session will experience different styles of communication and walk away with real tools to use in their own work. We all want techniques and tools that create an opportunity to influence a bias for action for those attending. Anyone who communicates to share knowledge will leave with new and exciting techniques and tools that they can implement.

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Exploratory Look at Texas Teachers Retirement Readiness

Kimberlee Davis & Leslie E. Green, Texas State University

Background and Purpose

Defined benefit plans (DBPs) provide retirement income for life for those with the opportunity to participate and can be a better option than defined contribution plans. While research on retirement readiness for those with a DBP is limited, it has been found that DBPs are not fully understood by employees and they provide relatively small average pensions (Pension Research Council (PRC), 2019); there are also differences in retirement readiness by gender (PRC, 2019), race (Lusardi & Mitchell, 2007), and marital status (Lei, 2019). There is no known research that explores these issues among Texas public school teachers.

Texas public school teachers are automatically enrolled in the Teachers Retirement System (TRS), a DBP. They also have the option to participate in 403(b) annuities and mutual funds to supplement the TRS DBP. Understanding the TRS DBP is key to making informed decisions about preparing for retirement. Texas has 363,981 full-time public-school teachers (Texas Education Agency, 2019). The purpose of this exploratory study is to 1) examine the extent to which Texas public school teachers understand how their DBP works and 2) assess their perceived retirement readiness.

Research Questions

1. What percent of Texas teachers correctly understand their TRS DBP?
2. Does understanding the participation standards of the TRS DBP differ by gender? Race? Marital Status?
3. What percent of Texas teachers perceive themselves as being financially ready for retirement?
4. Does perception of being ready for retirement differ by gender? Race? Marital Status?

Methods

Texas school districts were randomly selected, and teachers were invited to participate via email. Districts provided email addresses upon request and through their websites. Data were collected in 2018 using an online survey. Variables included *TRS participation standards*, *perception of retirement readiness*, *gender*, *race*, and *marital status*. Of the 395 respondents, the majority were female (85.3%), married (59.5%), and White (50.5%) with 19.4% Hispanic and 10.6% Black. Descriptive statistics were used to address research questions 1 and 3; Chi Square was used to address research questions 2 and 4.

Results and Discussion

On 4 of the 5 items that measured understanding of the TRS, 28.3% to 41.4% of teachers correctly responded. Regarding perception of retirement readiness, 37.6% of teachers reported knowing how much they needed to retire but only 19.4% used a professional to determine that amount. Regardless of race, most teachers reported not knowing how much they needed to retire; 65% of females and 48% of males also reported not knowing how much they needed to retire. Additional results will be shared on the poster.

Conclusion and Implications

Prior literature regarding DBP and retirement readiness supports the study's findings that among most Texas teachers, retirement plan knowledge is low and steps teachers have made to prepare for retirement are modest compared to the perception. It is possible that these finding can be extrapolated as we look at knowledge of DBPs and retirement readiness across all educational and company participation in DBPs.

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University Creates Partnership with the Department of Corrections

Priscilla Graves & Chenzi Wang, University of Maryland Extension

Key words: adult education, correctional facilities**,** financial education, financial literacy, working with inmates

Without financial literacy training and education, many former offenders will be set up for failure as soon as they are released back into society, and this can only increase recidivism rates. Research shows that in order to reduce recidivism rates in prison, financial education and other life skills should be mandatory in the prison system (Richel, 2013). Additionally, research on financial literacy of incarcerated individuals is sparse. Findings indicate vast differences between the public and those within the penal institutions, particularly in financial knowledge and planning" (Glidden & Brown, 2017).

The primary purpose of the poster is to present the findings from a study that was created to explore the impact of financial education on inmates' confidence to change financial behavior. The research examined pre and post surveys of inmates in two correctional facilities. The population included 345 male and female inmates from two correctional facilities in different counties of Maryland. The goal of personal finance workshops in the correctional facilities is to provide inmates with a more secure financial future once released. The *Financial Guide to Re-Entry* curriculum, adapted from *All My Money* and *Money Smarts* has five modules. Each lesson is designed to take 60-90 minutes, includes PowerPoint presentations, lesson activities, and hands-on materials. Not all participants attended the same modules. Therefore, the total number of respondents to the surveys for all five modules were 38 for Money Services, 77 for Tracking Expenses and Creating a Spending Plan, 63 for What's In Your Credit Report, 90 for Who Am I with Money, and 72 for You Are In Control of Your Credit.

Before and after each module, a pre and then a post survey were administered to participants for evaluating their confidence change of knowledge gain in the learning objectives of each module. A total of five surveys were developed for evaluating five different modules. Face validity was conducted by content and evaluation experts to agree that the measuring instrument was valid. Cronbach's coefficient was used to calculate the internal consistency of the items included in each module survey. Results of the reliability analysis showed that all surveys had at least acceptable reliability (Taber, 2017). Data analyses were performed using SPSS version 25. Descriptive statistics including frequency, mean, and percentage change were calculated. Pre and post survey responses were evaluated for significance of difference using the non-parametric Wilcoxon signed-rank test for hypothesis testing of repeated measurements on a single sample (Taheri and Hesamian, 2013).

Inmates increased their confidence in learning and using partial or full objectives in the five modules. Compared to the other modules, You Are in Control of Credit and Tracking Expenses and Creating a Spending Plan had significant difference when analyzing the pre and post data from participants, indicating that these two were the most effective ones among all five modules, only for the participation sample in this research study.

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Comparison of Rental In-Person and Online Train-the-Trainer Workshops

Becky Hagen Jokela, University of Minnesota Extension

Key words: housing, renting, RentWise, online train-the-trainer

Target Audience

The poster will compare and contrast in-person and online teaching methods for a rental housing train-the-trainer workshop. We will discuss how each method (in-person and online) meets the needs of training participants; the difference each method makes on future educational offerings; and participant preferences.

Objectives/Purpose/Description

Participants in this session will:

- Compare and contrast in-person and online teaching methods for a train-the-trainer workshop
- Examine program follow-up survey data and impact.

Housing is a complex issue. Barriers to acquiring housing include (but are not limited to): evictions, late payments, credit issues and the inability of renters to understand leases. New renters and immigrants need to understand housing systems while homeless and previously incarcerated individuals need to find and keep affordable housing. These factors can create a safe family environment, stabilize employment and support positive educational outcomes for children (Mueller, Tighe 2007). Given this context, practitioners need a curriculum to support individuals and families' needs in the current rental crisis.

The in-person train-the-trainer takes an active-learning approach and stresses renter responsibility, including skills such as gathering information to compare rental housing, identifying changing needs and wants, practice financial tasks, and practicing positive communication skills and how to avoid eviction.

The online t-t-t workshop utilizes the same content, maintaining some of the in-person workshop components. Great care was taken to incorporate best practices in online learning design.

Canvas is the online learning management system that hosts the curriculum site for participants of both the online and the in-person train-the-trainer workshops. The data will be a comparison study of the pre- and post-survey results from in-person and online trainings.

In-person trainings are not always available to meet partner agency timelines. Online courses can meet the on-going needs of partners when in-person workshops are not available. How well do online courses meet the training needs compared to in-person experiential workshops? In the context of the recent pandemic, online courses are the only workshops available for partners to attend to access the curriculum training if needed.

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Do Student Loans Make the Grade?: The Relationship between Student Loans and GPA

Emily Shaffer Hales & Yoon G. Lee, Utah State University

Key words: GPA, college tuition, financial education, student loans

Student loan debt is a major issue with the current national student loan debt at $1.56 trillion dollars (Friedman, 2020). It is easier to take out a student loan than ever before, and many students may not mentally associate this debt with their college education. Student loan debt will affect an individual's future financial goals, but students may not realize the short-term effects student loans can have on their academic performance. The purpose of this study was to discover the association between students holding student loans and their GPA. Some students might believe that the benefits of student loans outweigh the costs; however, the stress and weight of student loans may have a greater immediate impact than these students realize (Perna, 2008).

To achieve the research objective, we employed data from an online survey distributed to students during Fall 2019 at a western university, which produced a sample size of 672 students. The measure of a student's GPA was the main dependent variable. Students were asked to select their overall college GPA (0 – 2.0, 2.0 – 3.0, 3.0 – 3.5, 3.5 – 4.0). The GPA categories were then separated into low GPA (0 – 3.0), medium GPA (3.0 – 3.5), and high GPA (3.5 – 4.0). Some demographic variables that were available in the data included gender, school year, employment status, first generation student, and responsibility for paying for college education. These variables, along with holding student loans, were included in our logistic regression model to predict the likelihood of holding a high GPA (3.5 and above).

The descriptive results show that the majority of students holding student loans were age 22 – 25 (36.6%), seniors (44.0%), students working part time (80.2%), and those who were financially responsible for 75%-100% of their tuition (62.5%). The results of the logistic regression analysis show that students with student loans were 32% less likely to have a high GPA than those without such student debts. These results indicate that holding student loans was negatively associated with student having a high GPA. We also included students' socio-demographic characteristics, as controlling variables in the regression model. The significant determinants of academic performance were first-generation and gender. For example, first-generation students were 42% less likely to have a higher GPA than second-generation students, whereas female students were 103% more likely to have a higher GPA than male students.

The findings of this study hold important implications for financial practitioners, individuals and families, and policy makers who are involved in college academia and the field of student loans. Financial educators and counselors can play a key role in a college student's knowledge of student loans and their decision in taking on this debt. Without an adequate education on the future requirements and consequences of student loans, current students may struggle academically with the underlying weight of student loans on their shoulders. By understanding the financial consequences of student loans, students could become more financially and academically responsible. Policy makers are directly involved in working on various regulations and requirements for student financial resources and academia.

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Educating Older Adults About Financial Exploitation

Jesse Ketterman, University of Maryland Extension

Key words: elder abuse, financial abuse, financial exploitation, money smart for older adults

Abstract

According to a MetLife Study of Elder Financial Abuse (2009), financial loss by victims of elder abuse is estimated at $2.6 billion. This places Baby Boomers, those between 52 to 79 years old, as an "at risk" generation for financial exploitation. The Consumer Financial Protection Bureau (2019) reports that adults over 70 years of age who reported a loss, averaged $41,800. The Consumer Financial Protection Bureau (CFPB) reports more than $6 billion in attempted or actual losses between 2013-2017.

Using the Money Smart for Older Adults curriculum by the FDIC and CFPB, this educator sought to increase awareness about financial exploitation. Money Smart for Older Adults (MSOA) is a free curriculum that includes an Instructor Guide, PowerPoint, and Resource Guide that are downloadable from consumerfinance.gov. MSOA materials are available in English or Spanish. Individuals can order the Resource Guide in bulk quantities. Topics addressed in the curriculum include common types of elder financial exploitation, identify theft, medical identity theft, scams that target homeowners, planning for unexpected life events, and being financially prepared for disasters.

The presenter sought to determine if the program was effective at increasing awareness of financial exploitation in the rural communities of western Maryland. The curriculum was presented at multiple locations in community/senior centers, libraries, and senior living facilities in western Maryland reaching 182 individuals. The post-evaluation survey (*N=88*) indicates that 96% of the individuals either agree or strongly agree in being able to recognize and reduce the risk of financial exploitation, 95% were able to guard against identity theft, and 96% were able to find helpful resources for managing money.

This study indicates the Money Smart for Older Adults is a valuable tool for financial professionals. The curriculum and the supporting materials serve as a resource to be distributed and taught to older adults therefore reducing the risk of financial exploitation.

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Age Differences in Credit Card Management Behaviors among Young Adults

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Keywords: credit card debt, credit card management, financial education, young adults

Credit card debt was $880 billion as of the first quarter of this year (Federal Reserve Bank of New York, 2020). Credit card debt in the U.S. continues to grow. This increase may be due to individuals' over-confidence in their ability to pay their bills, materialism, and/or aggressive marketing by the credit card industry. Negative outcomes are associated with unhealthy credit card use (Zhu, 2019). Therefore, it is crucial for credit card holders to wisely use and manage credit cards, but it is also important for professionals to help their clients effectively use and manage their credit card. Young adults can be more vulnerable to credit card abuse and are more likely to be at greater risk of credit card abuse as compared to older adults. It is important for young adults to develop responsible credit card behaviors and to shape good habits toward credit card use. In previous studies, little research has examined how credit card behaviors are different among young adults. Examining how young adults manage their credit cards will help financial educators understand how best to guide this population concerning credit card use.

This study employed data from the 2018 FINRA Investor Education Foundation's National Financial Capability Study (NFCS). This study examined credit card management behaviors of three age groups among young adults ages 22-37; thus, sub-samples include, young-young (22-26), young-middle (27-32), and young-old (33-37). In this study, poor credit card management behaviors were measured by the following five categories: 1) not paying their full credit card balances, 2) carrying over the balance, 3) paying only the minimum payment, 4) being charged late fees, and 5) using credit cards for a cash advance.

The findings of this study suggest that young-old (33-37) were 32% more likely to be poorly managing their credit cards than young-young (22-26). The results also show that those who had 2-8 credit cards were more likely to be poorly managing their credit cards than those who had only one. It is interesting to note that White young adults were more likely to be poorly managing credit cards than either Black or Asian/other young adults. The higher income group (over $75,000) showed poorer credit card management behaviors than either of the other income groups (less than $25,000 and $25,000 - $49,999).

This study attempted to understand to what extent young adults manage their credit cards well and examined factors associated with the likelihood of poor credit card management among young adults ages 22-37. The findings of this study provide insights for financial educators, counselors, and other financial practitioners. Young adults who possessed more than four credit cards should seek the guidance of a financial counselor to help them decide how best to correct their behaviors and improve their credit card management behaviors. Educators should implement more financial education courses in the community through outreach programs such as Extension. The findings of this study can contribute to the literature because if we can understand whether poor credit card behaviors are different across age among young adults, then we can better direct financial education for credit card basics and principles at the beginning of young adulthood.

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Mortgage Delinquents and Its Determinants

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Key words: financial behavior, financial literacy, housing education, mortgage delinquents

American households are struggling to make their mortgage payments due to over-indebtedness, lack of emergency funds, and unestablished budgets. Mortgage delinquency was low (Federal Reserve Bank of New York, 2019), but the COVID-19 pandemic may greatly increase mortgage delinquency, leading to ruined credit scores and a surge in foreclosures. This study examined factors affecting mortgage delinquents and how financial management behavior was associated. Little previous research has examined this association. Findings can provide insights for educators, counselors, practitioners, and policy makers.

Using data from the 2018 FINRA Investor Education Foundation's National Financial Capability Study (NFCS), our sample included 7,652 homeowners: Generation Xers (33.5%), Baby Boomers (36.5%), Millennials (25.4%) and Silent generation (4.5%). Half were males (50%) and half were females (50%). Most were White (79.1%), married (79%), and employed (69.6%). A large proportion had more than a college degree (46.3%) and annual income of $75,000 or more (58.2%). Management of credit cards and having emergency savings were used to measure financial management behavior. The descriptive results show that 7.1% of borrowers were late one time, whereas 7.2% were late more than once with mortgage payments; thus, 14.2% of borrowers were delinquents with their mortgage payments in 2017.

The results of the logistic regression analysis show that not having emergency savings and poor credit card management were significant predictors of the mortgage delinquents. As home borrowers had not set aside emergency funds, they were more likely to fall behind in their mortgage payments. Home borrowers with poor credit card management were more likely to be delinquents with their mortgage payments. A significant negative relationship was found between financial literacy scores and the likelihood of being delinquent, suggesting that borrowers with higher levels of financial literacy scores were less likely to be delinquents.

Socio-economic characteristics of borrowers contributed to explaining the likelihood of being delinquents. The probability of being delinquent with mortgage payments was 1621% higher for Millennials than for Silent generation; Gen-Xers were 573% more likely than Silent generation; and Baby Boomer generation were 456% more than Silent generation. Black home borrowers were 224% more likely to be delinquent than White home borrowers. Employed borrowers were 60% more likely to be delinquent than non-working borrowers. The odds of being delinquents were 35% higher for those with some college education compared to those with college or advanced degrees, and 96% higher for those with income of less than $25,000.

Findings highlight the importance of building/developing positive financial behaviors and increase awareness of signs indicating a risk of delinquency. Financial professionals may find an increase in clients facing mortgage default, especially considering the current economic downturn due to COVID-19, and the need to discuss mortgage default prevention before it is too late to repair damage. Specifically, professionals can watch for clients without adequate emergency funds who are not managing their credit cards well. The findings also imply the importance of teaching clients more about housing financial knowledge, not just general financial knowledge.

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Financial Stress and Financial Behavior among Millennials: Racial Differences

Paula Lopez & Yoon G. Lee, Utah State University

Key words: financial behavior, financial education, financial stress, Millennials, race

Financial stress has a negative impact on individuals' work performance, interpersonal relationships, mental health, and physical health (Hardie & Lucas, 2010). When individuals are anxious about finances or worry about money, they practice less positive financial behavior (Conger et al., 2010). In previous studies, little research has examined to what extent financial stress influences financial behavior of young adults. In this study, we examined the influence of financial stress on financial behavior among millennials and assessed how the association between financial stress and financial behavior was different across race/ethnicity.

Using the 2018 FINRA Investor Education Foundation's National Financial Capability Study (NFCS), we compared the effects of debt stress and emotional financial stress (anxiety, fear, worry) on financial behavior among White, Black, Hispanic, and Asian/Other millennials. As a main dependent variable, financial behavior was measured by three variables: 1) spending behavior (do you make ends meet?), 2) saving behavior (do you have emergency saving?), and 3) financial planning behavior (do you have retirement accounts?).We summed the responses of these three financial behavior variables, and created one index that measured financial behavior. In this study, to measure financial stress, we used three types of financial stress: 1) stress from debt, 2) financial anxiety, and 3) financial worry/fear. As independent variables, in addition to the race/ethnic variable, we included socioeconomic characteristics (age, gender, marital status, education, employment status, and income) as controlling variables in the OLS regression analysis.

The descriptive results show that Black millennials had the lowest levels of emotional financial stress, but reported the highest level of debt stress among the four groups. The OLS results indicate that Black millennials were more likely to show negative financial behavior than the other groups. High level of debt stress was associated with negative financial behavior, whereas high level of subjective financial knowledge was associated with positive financial behavior among all ethnic groups.

The findings of this study can contribute to the literature because if we can understand whether financial stress influences positive or negative financial behavior among millennials, then we can better direct financial education for young adults and racial minority borrowers. In addition, understanding to what extent financial stress affects their negative financial behavior, and examining the association between financial stress and financial behavior across race/ethnicity among millennials can provide insight for financial educators, counselors, and planners. The findings of this study contribute to the limited literature on financial stress and its influence on financial behavior. The findings of this study also have implications for financial professionals. Financial therapists, financial educators, and financial practitioners can benefit from the findings of this study by understanding the impact of financial stress on financial behavior among millennials, particularly ethnic minority groups. Financial therapists can better address the emotional factors such as financial anxiety, fear, or stress that influence financial behavior.

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Financial Propensity to Plan Across Parenthood

Nicole McAninch & Karen Melton, Baylor University

Key words: family life cycle, parenting, propensity to plan

In family life, financial planning is a critical process of fulfilling the needs and goals of members while maximizing immediate and future utility over the family life cycle (Lynch, Netemeyer, Spiller, & Zammit, 2010). Financial planning in parenthood is impacted by the overall expense of raising children in contemporary society, along with the complexity of changing needs and goals of members over time (Lino, Kuczynski, Rodriguez, & Schap, 2017). Given the impact of financial planning on positive financial outcomes (deRubio, 2015; O'Neil, Xiao, & Ensle, 2016), the present study seeks to identify if families actively plan family finances at different intervals and if planning family finances changes over the family life cycle. We hypothesize that parents financial planning behaviors will increase as children age (Henager & Cude, 2016).

The sample (n=933) was derived using Qualtrics and the sampling services of Survey Sample International (SSI). We stratified the sample for family life cycle; categories included: no children, do NOT ever plan to have children (n=174); no children, expect to have children in the future (n=58); oldest child aged birth to 29 months (n= 81); oldest child aged 2½ to 5 years (n= 152); oldest child aged 6 to 12 years (n=154); oldest child aged 13 to 18 years (n= 155); oldest child age 19 to 25 years (n=79); oldest child age 26+ (n=80).

The main instrument for this study was the *Propensity to Plan Finances* (PPF), an 18-item self-report using a 6-point Likert scale designed to assess individuals' tendency to plan finances at three intervals of time: PPF-*immediate* (the next few days), PPF-*short* (the next 1-2 months), and PPF-*long*-term (the next 1-2 years). To analyze the data, a confirmatory factor analytic (CFA) model with three factors was used in order to evaluate the quality of the PPF measures. The scores on the three factor scores were saved and used as the outcome variables in examining differences in the mean vectors of the eight family life cycle categories. A multivariate analysis of variance (MANOVA) was used to compare the mean between groups.

Preliminary data suggest that the family life cycle category with the highest PPF-*long* ($M = 0.13$, $SD = .65$) and PPF-*short* ($M = 0.18$, $SD = .72$) were those families whose oldest child was aged birth to 29 months. Families with the highest PPF-*immediate* were those whose oldest child was aged 2.5 to 5 years old ($M = .18$, $SD = .87$). The families who reported the lowest overall PPF were those whose oldest child was aged 26 years old or older, followed by those with children aged 19 to 26 years old. Using MANOVA and post-hoc tests, we established a significant difference between the group whose oldest child was at least 26 years old and two to four of the family life cycle groups for PPF-*short* ($F = 2.27$, $p = .027$), PPF-*immediate* ($F = 4.39$, $p < .001$), and PPF-*long* $F = 3.39$, $p = .001$).

Preliminary results indicate families' propensity to plan finances is highest at the beginning of the parenting life cycle. This suggests that the onset of parenthood provides opportunities for professionals to partner with families in providing financial education, advising, and counseling as family membership changes and families are open to planning behaviors. Further exploration is needed regarding the decrease in families' propensity to plan finances as children age.

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Assessing the Influence of Collegiate Financial Coaching and Education Programs

Taufiq Quadria, Tiffany Murray, & Dorothy B. Durband, Texas Tech University

Abstract

The purpose of the study is to identify the change in personal financial knowledge of students who receive financial education, whether through educational presentations or coaching sessions, from a peer financial coaching and education program located at a large southwestern public university. Leaning on prior studies (Britt et al., 2015; Moore et al., 2018) that focus on peer-based financial counseling, we look to enhance the current literature on collegiate financial coaching and education programs and also look forward to receiving feedback from other academics and practitioners regarding ways to improve this planned study.

Key words: financial coaching, financial education, financial knowledge

Purpose and Justification of the Research (Value and Impact to Field)

College students may lack basic personal financial knowledge which is essential to navigate through the economic environment. In lieu of a formal personal finance degree program, peer financial education and coaching can be a great option for providing financial education to college students. This study is expected to assess the influence of financial coaching and education programs at the collegiate level.

Methods/Research Procedures

Data

Pre-presentation and pre-coaching session primary data will be collected using questionnaires assessing the attendees'/clients' current level of personal financial knowledge pertaining to the educational presentation and coaching session discussion topics. Post-presentation and post-coaching session data will be collected using questionnaires assessing the change in the attendees'/clients' level of personal financial knowledge pertaining to the educational presentation/coaching session discussion topics.

Analysis

Pre- and post-treatment (educational presentation and coaching session) data will be analyzed using econometric techniques measuring the Average Treatment Effect (ATE) on the treatment group (educational presentation attendees; coaching session clients) as compared to the control group (those who never attended/scheduled similar educational presentation/coaching session) in regards to personal financial knowledge.

Proposed Timeline

Upon receiving IRB approval, a pilot study will be conducted in Spring and Fall 2021. Data from the pilot study will be analyzed to identify necessary changes in the proposed methodology. With a finalized methodology, primary data will be collected in each subsequent academic year and the findings from the analyses will be published for academic and practitioner reviews.

Conclusions/Implications

The information gathered will help the investigators learn how to assist college students with their financial knowledge, financial management, and behavior. Armed with these data, our goal is to share this information with other programs so that they can measure the services they provide as well. Additionally, this study will benefit any campuses looking to start similar programs and assess their program influence among college students.

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Skill Up Tennessee: Helping Low-Income Workers Realize Their Employment Goals

Christopher T. Sneed, The University of Tennessee Extension

Key words: employment, employment training, limited-resource, SNAP

Program Background

The Supplemental Nutrition Assistance Program (SNAP) is a vital safety net for millions of individuals and families. In addition to its focus on nutrition assistance, SNAP also includes employment and job training components designed to improve the self-sufficiency of SNAP participants, thereby reducing their need for SNAP benefits (Rowe, Brown, & Estes, 2017). Known as SNAP E&T, this program provides training and employment services to eligible SNAP participants (USDA-FNS, 2018).

In 2017, The University of Tennessee (UT) Extension became a third-party partner for the delivery of SNAP E&T services. Currently, UT Extension is the only Cooperative Extension Service that is partnering for the delivery of SNAP E&T services.

Target Audience

Eligibility is clearly defined (USDA-FNS, 2018). The target audience for this program includes individuals receiving SNAP benefits. Individuals who are receiving Temporary Assistance for Needy Families (TANF) cash benefits are not eligible for participation in the program. Additionally, program participants must be willing and able to work.

Desired Outcomes

The program's purpose is to assist SNAP participants in gaining skills, training, work, or experiences that will increase their ability to obtain regular employment (USDA-FNS, 2017).

Program Overview

Extension educators work within their assigned communities to reach and recruit participants. For those eligible to participate, Extension educators offer a menu of services including: work readiness training, career assessment and inventories, and access to adult education and vocational training.

A team of three Career Navigators, employed by Extension, provide case management services. Case management services offered can include: individual assessment and goal setting; assistance with books, supplies, transportation, and childcare; and support services to help pay for job search costs, job essential uniforms and supplies, and dependent care costs.

Program Impact/ Results

Seventy-six Extension educators partnered with 100 community organizations to recruit and pre-register 582 individuals. Of the individuals recruited, 480 met eligibility qualifications for participation in Skill Up Tennessee.

Of the 480 enrolled, 105 participated in multi-session work readiness trainings. Additionally, 173 enrolled in vocational/technical training with 16 completing the training and earning a certificate. Three enrollees participated in Adult Education. A total of 35 enrollees gained employment with 30 of those continuing their participation through post-employment job retention services. It is anticipated that additional program participants will continue to move through the system completing training and certificate programs.

Implications for the Profession

SNAP E&T offers financial educators the perfect setting for working with and educating clients on basic money management principles as clients move toward their employment goals. Additionally, financial educators may wish to explore opportunities to become SNAP E&T third-party partners thereby receiving funding and support to help limited-resource clients reach their career and financial goals.

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Financial Literacy and the First-Year University Experience: Is it a Recipe for Success?

Jacob Tenney, Ph.D., CFP® & Scott Bellamy, Ph.D., University of Charleston

Key words: financial literacy, financial capability

Many individuals are experiencing heightened responsibility for an increasingly complex financial future. Defined contribution plans, requiring more hands-on effort, are replacing defined benefit plans. Credit cards, mortgages, student loans, and many other loans are becoming more and more complex. The varieties and flavors of saving and investment vehicles are increasing in quantity and complexity. However, there is evidence to suggest that many young people are not prepared for this increased complexity and many lack basic financial literacy skills and abilities (Lusardi, Mitchell, & Curto, 2010). More research is needed around emerging adults' financial capability. This is the beginning of a study to examine whether including a financial literacy module in college students' first-year experience helps them become more financially capable adults.

This poster presents some initial findings using the Consumer Financial Protection Bureau's Youth Financial Capability Survey. Initially, this survey was administered as a trial run in the University's Financial Literacy Course. This fall the survey will be administered to all incoming first-year college students at the University of Charleston. The results of this survey will hopefully give valuable insights into how these college students perceive their financial capability. The results may help determine whether a financial literacy module in the first-year experience course is beneficial. In addition, this research may provide an opportunity for analysis to look at trends and to look for opportunities to help young adults improve their financial capability.

This study is in its infancy and this poster presents the initial findings of a beta test of the survey that was given to a select group of students. Based on the findings from this beta test, as well as feedback from the academic and professional AFCPE community, the next steps in this research project can be articulated and refined.

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Using Needs Assessments to Support Financial Literacy Programs in Non-Profit Agencies

Camaya Wallace Bechard, University of Illinois Extension

Key words: cooperative extension, community partners, needs assessment, non-profit

Needs assessments are essential tools in Cooperative Extension, and non-profit staff is instrumental in helping Extension professionals understand the needs of their communities. Needs assessments help develop sustainable relationships with community partners. They are valuable for prioritizing services and central to both organizational and community efforts (Eschenfelder, 2010). Extension's role in the community is strengthened by the relationships cultivated with community leaders; needs assessments provide the lens for Extension to build programs that support effective educational outcomes. A well-designed needs assessment is a way to show the continued value of Extension programming (Whitaker, 2018). Furthermore, a robust needs assessment sets a foundation for practical programming in Extension (Angima, Etuk, & King, 2014).

This study examines the role of needs assessments in designing or supporting financial education programs in non-profit agencies. The questions guiding this study include, how do we use needs assessments to inform our understanding of the financial education needs of clients in non-profit agencies? What are some considerations for conducting financial education-focused needs assessments with non-profit agencies that require or encourage clients to participate in money management classes? Data were collected through three separate focus group interviews with staff members from fourteen agencies in Central Illinois.

The preliminary results indicate that non-profit agency staff plays a central role in helping Extension create practical money management programming. Agency staff possesses a wealth of information and insight into the needs of their clients; the needs assessment incite discussions that allow them to take a critical look at ways to develop more holistic and effective strategies tailored to their clientele. The analyses also show that agencies are hoping for more ways to maintain relationships with Extension for mutual long-term benefits. The results affirm that these professionals understand the day-to-day concerns of their clientele. Thus, they employ real-world solutions to help them manage their economic situations and their client-based focus influence how they utilize Extension financial education resources. The analyses suggest that this type of needs assessment helps Extension understand more about community needs and incorporate the feedback of service professionals, who are aware of limitations and ways to reduce the chances of duplicating outreach efforts.

Consistent with previous perspectives (Donaldson & Franck, 2016; Whitaker, 2018), this study found that practical needs assessments provide valuable information for Extension programming. This study has implications for Extension to find more innovative ways to incorporate financial activities into existing or new programs. Since many agencies have built-in, funded programs, educators have the opportunity to work with staff to understand their approach to teaching financial education through needs assessments. Even though key informants have a wealth of knowledge about client needs, it is essential to use needs assessments as a way to determine how best to establish meaningful collaborative goals between Extension and community partners. Future studies should include clients and patrons who benefit from non-profit agencies to discover different viewpoints and address assumptions about client-needs. Future focus on needs assessment should continue to explore approaches that foster community engagement and support the direct concerns of community members.

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Does Investment in Financial Literacy Substitute the Financial Planning Service?

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Abstract

This paper studies the relationship between investment in financial literacy and financial planning services. While the existing literature on this topic considers financial literacy as exogenously given, we propose that it is endogenously determined through the consumer's investment in financial literacy. Our simple theoretical model suggests that in this case, investment in financial literacy and financial planning services are substitutes.

We test this hypothesis using data from the 2016 Survey of Consumer Finances, which is also confirmed in the matched sample using the propensity score matching method to control for self-selection bias.

Key words: financial literacy, financial planner

Introduction

In the aftermath of the 2008 financial crisis, it became evident that financial products had become increasingly more complex, while many consumers lack basic financial literacy (Lusardi and Mitchell, 2011; Atkinson and Messy, 2012). A lack of financial literacy may negatively impact consumers in a variety of ways, such as lower retirement savings (Lusardi and Mitchell, 2007), portfolio under-diversification (Guiso and Jappelli, 2008; Abreu and Mendes, 2010) or over-indebtedness (Lusardi and Tufano, 2015). Whether these effects of low financial literacy will negatively affect consumers' investment and life goals depends on whether they instead seek advice from financial planners.

The question whether financial literacy and financial advice-seeking are substitutes or complements has been widely studied in the literature (Calcagno and Monticone, 2015; Debbich, 2015). Some papers consider delegation of financial decisions, while others study demand for advice or whether agents follow professional advice.

The main contribution of our paper is that it develops a theoretical model in which financial literacy is a choice variable, rather than an exogenously determined parameter. We hence include a variable that captures investment in financial literacy in our empirical model. We also include other measurements of financial literacy such as measured financial literacy and self-acknowledged financial literacy. To account for the self-selection bias due to financial literacy being endogenized, we use the propensity matching score method.

Theoretical Model

We will consider the following two-period model, which we base on the model in Jappelli and Padula (2013): Consumers earn income *y* in period 0 and live in retirement until the end of period 1. The consumer has an initial stock of financial literacy $\Phi_0 \geq 0$, which captures individual characteristics related to the consumer's educational background such as schooling or parental background. In period 0, the consumer chooses investment in additional financial literacy at cost *p*, which is the cost of financial literacy relative to the consumption good. The stock of financial literacy at the beginning of period 1 thus is equal to

$$\Phi_1 = (1 - \delta)\Phi_0 + \phi$$

where $\phi \geq 0$ denotes the investment in financial literacy and $\delta \in [0,1]$ is the depreciation rate of the initial stock of financial literacy over time.

We assume that the interest factor rate that the consumer earns on her savings increases in the stock of financial literacy at the beginning of period 1, as more financial knowledge leads to better investment opportunities. Additionally, the consumer also chooses whether to purchase financial advice from a financial planner for a fee $F \geq 0$. Good advice further increases the consumer's interest factor on savings, while bad financial advice can negatively impact the consumer's gains on savings. Specifically, following the specification of the gross portfolio return in Jappelli and Padula (2015), we will assume that

$$R(\Phi_1, \varphi) = \begin{cases} \Phi_1^{\alpha}(1 + \gamma r\varphi) \text{ with probability } \mu(\Phi_1) \\ \Phi_1^{\alpha}(1 - r\varphi) \ \ with\ probability\ 1 - \mu(\Phi_1) \end{cases}$$

where $\varphi \in \{0,1\}$ indicates whether the consumer purchased financial advice, $\alpha \in (0,1)$, $\gamma > 0$ and $r \in [0,1)$. We will assume that $\mu(\cdot)$ is increasing and concave in Φ_1. Like in Bucher-Koenen and Koenen (2015), this assumption of complementarity between good advice and financial literacy can be motivated with the idea that more knowledgeable consumers have better options besides the adviser, which incentivizes the financial planner to provide better advice to more financially literate consumers. Alternatively, the intuition behind this assumption can also be explained by the consumer recognizing misalignment between their own investment goals and the adviser's incentives. $r \in [0,1)$ allows for "bad" financial advice that reduces the interest factor rate on savings from the consumer's own financial knowledge yet guarantees that the marginal return of financial literacy remains non-negative. For the case of "good" advice, γ allows the interest factor to increase beyond *r* if $\gamma > 1$. If the consumer does not purchase advice from the financial planner, $\varphi = 0$ and the interest factor rate reduces to Φ_1^{α}.

This highlights an interesting trade-off: investment in financial literacy increases the rate earned on savings and hence the consumer's incentive to additionally pay a financial adviser decreases. On the other hand, increasing financial literacy increases the consumer's probability of receiving good advice should she choose the financial adviser, which suggests complementary effects.

If the consumer decides not to seek advice from the financial adviser, she chooses savings s and investment in financial literacy ϕ to maximize

$$u^0 = \max_{s,\phi} \ln(y - s - p\phi) + \beta \ln(\Phi_1^{\alpha} s),$$

where $\beta \in (0,1)$ denotes the discount factor of future consumption. If purchasing advice from the financial planner, she maximizes

$$u^1 = \max_{s,\phi} \ln(y - s - p\phi - F) + \beta E_0 \ln(R(\phi_1, 1)s)$$

After solving the model numerically, we find that investment in financial literacy is higher when the consumer does not seek advice from a financial planner. Based on these implications of our theoretical model, we hypothesize that investment in financial literacy and financial planning services are substitutes.

Empirical Model and Results

This study uses data taken from the *2016 Survey of Consumer Finances (SCF)* to analyze the relationship between financial literacy and demand for financial planning advice. The main dependent variable in this study is whether or not households would choose to use financial planners when making investment decisions. Choice of using financial planners was used as a dummy variable equal to "1" for respondents answered, "using financial planners" and "0" otherwise. In this study, we considered three types of financial literacy: 1) investment in financial literacy; 2) measured financial literacy; and 3) self-acknowledged financial literacy. To determine whether financial literacy is a substitute or complement for the probability of seeking help from financial planners conditional upon a number of other controlled variables, a Probit model was used.

The results from baseline model confirmed our most important hypothesis from the theoretical model: investment in financial literacy was negatively correlated to seeking advice from financial planners, indicating investment in financial literacy was a substitute for seeking advice from financial planners. The results also showed a significant positive relationship between measured financial literacy and seeking advice from financial planners but found no significant association between self-acknowledged financial literacy and seeking advice from financial planners.

Contemplating the possibility of investing in financial literacy might suffer from self-selection bias since it is a choice variable, we should be careful interpreting the relationship between investing in financial literacy and seeking investment advice from financial planners as a causal relationship. Following previous research (Kim, Pak, Shin, & Hanna, 2018; Robinson & Sanderford, 2016), propensity matching scoring technique was used to attempt to reduce this non-random selection issue. The sign of the variable investment in financial literacy was still negative. The magnitude of the variable investment in financial literacy did not change very much as well. This result indicated that after controlling the selection bias, investment in financial literacy was still shown significantly as a substitute for using financial planners in investment decision-making.

Discussion and Implication

In this paper, we revisit the question of whether financial literacy and seeking advice from financial planners are substitutes or complements. Our results suggest that when investment in financial literacy is chosen by individuals, seeking advice from financial planners can serve as a substitute. This study further reveals that consumers' general education achievement and measured financial literacy play a positive role in consumers' decisions regarding seeking help from financial planners. These findings contribute to the recent literature on the relationship between financial literacy and financial advice seeking and provide important implication to consumers, financial planners and policy makers.

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Policy to Protect Financially Vulnerable Populations: A Look at the Military Lending Act

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Key words: consumer protections, financial regulation, locational exposure, payday lending

Introduction

In the early 2000s, the United States Department of Defense (DoD) noticed a growing problem: high-interest lenders were cropping up around military bases like "bears on a trout stream" (Graves & Peterson, 2005, p. 824; Petraeus, 2013). Almost overnight, predatory lending practices began to threaten the financial standing of many enlisted servicemembers (United States Department of Defense [DoD], 2006). In response, Congress enacted the Military Lending Act (MLA) in 2007, a law that designated a 36% "Military Annual Percentage Rate" to cap fees and interest on short-term consumer loans to active duty servicemembers and their dependents. In theory, this interest rate cap should effectively make military consumers an unviable market for payday lenders. While payday lenders did make fewer payday loans to military servicemembers after the law was passed (Fox, 2012), an internal DoD survey shows that payday lenders also began marketing alternative high-cost loan products to servicemembers, allowing them to evade regulation and continue to profit from military borrowers (DoD, 2014). In 2016, the cap was expanded to cover a more extensive set of loan products in an effort to strengthen the law. It remains unknown whether the MLA successfully limited access to predatory financial services by reducing servicemembers' geographic *exposure* to payday lenders. In other words, did the law, either in its initial form or with its substantive 2016 revision, get rid of the bears on the trout stream?

Our findings to date suggest that neither the 2007 MLA nor its 2016 revision were effective in reducing payday lender presence in military areas, but state-wide laws protecting all consumers did reduce lenders across the state, including in military communities. While the revision extended protections to more loan products, the target population remained the same. Our analyses indicate that policies may be most effective in protecting financially vulnerable populations if they are enacted through broader regulations and/or support the development of low-cost public alternatives that apply to all consumers.

Purpose

This study has important implications for policy debates about high-interest lending. Credit has become a fundamental part of household finance within the United States in recent decades (Krippner, 2017), but access to and the terms of credit products are highly unequal (Dwyer, 2018). Payday lenders, which offer short-term small-dollar loans at high interest rates, seek customers who have a steady paycheck and bank account, but who experience liquidity constraints in which short-term loans may serve as a stop-gap between paychecks (Stegman, 2007). As a result, they tend to cluster in areas with higher shares of lower-income households (Burkey & Simkins, 2004; Gallmeyer & Roberts, 2009).

The spatial concentration of high-interest lenders near financially vulnerable populations can compound socioeconomic disadvantage within communities and households (Friedline et al., 2017; Gallmeyer & Roberts, 2009; Melzer, 2011). Reducing exposure has been an important component of many state policy efforts (e.g., Barth et al., 2016). In considering the MLA in tandem with state-level policy efforts, we contribute to this policy work by examining whether and under what conditions targeted policy for vulnerable populations is more effective in reducing exposure, relative to more universal policy efforts.

Conceptual Background

The geographic concentration of military servicemembers with low but steady paychecks has been a draw for payday lenders. High-interest lending companies see military communities as good business locations and have disproportionately clustered near military bases (Carrell & Zinman, 2014; Graves & Peterson, 2005). The DoD (2006) overtly describes high-interest loans as predatory and harmful to servicemembers in their report to Congress. Unlike most civilians, a military service member's default on financial obligations can result in direct and significant career consequences, including denial of required security clearances, court martial, and/or dishonorable discharge from military service (DoD, 2000, Article 34). Of import to practitioners, the DoD devoted training and resources to financial education initiatives and loan relief programs for servicemembers in response to the rise of predatory lending, but they emphasized that this would not be sufficient. The DoD urged Congress to take action, which resulted in the MLA and its landmark interest rate cap for loans made to active duty servicemembers.

The "bears on a trout stream" metaphor, coined by Graves and Peterson (2005) and echoed in government testimony (Petraeus, 2013), underscored that the military perceived both the loan products and the physical clustering of payday lenders as threats to the financial wellbeing of servicemembers. In seeking protections, the DoD devoted an entire section of their report to Congress to their concerns about the spatial proximity and prevalence of payday lenders and other high interest lenders (DoD, 2006, pp.10-22). This concern about physical proximity aligns with research showing that an increase in the number of alternative financial service providers within a community is associated with increases in the likelihood and frequency of use of the products, especially among lower-income households (Friedline & Kepple, 2017; Melzer, 2011). Yet, to date there has been no causal assessment of whether the original or revised MLA was successful in reducing the number of high-interest lenders near bases.

Research Questions and Hypotheses

Did the original 2007 MLA or its 2016 revision successfully limit access to predatory financial services by reducing servicemembers' geographic exposure to payday lenders? How do these effects compare to payday regulations issued at the state level that applied to all consumers (not solely servicemembers)? If the MLA is effective in reducing the presence of payday lenders near military bases, it is expected that, following the implementation of the law, the probability of closures would be higher for payday lenders near military bases, relative to payday lenders elsewhere, all else equal. If more broadly applied state-wide regulations are successful, it is expected that a disproportionate number of closures will occur within the state after the implementation of these laws, relative to states where no regulatory changes were made, all else equal. With effective state-wide laws, it is anticipated that there would be widespread closures across the state, including in military areas, thereby indirectly resolving the military concern of clusters near military bases.

Methodology

Data and Method. To examine the effects of the MLA on payday lending storefront closures, we take advantage of state-level variation in payday lending laws. With the exception of the federally mandated MLA, payday lending is primarily regulated at the state-level and variations in state laws impact the number of payday lenders operating within each state over time (Barth et al., 2016; McKernan et al., 2013). For our analysis, we study changes in payday lender activity in Colorado, Washington, and Oregon between 2004 and 2018, which includes activity before and after the 2007 MLA, its 2016 revision, and state policy changes during this time. Together, these three states provide useful contexts for analytic comparison. Prior to 2007, they had substantively similar regulatory environments with few payday loan laws. In 2007, they begin to differentiate: Colorado and Oregon enacted policy changes while Washington made no changes. Notably, Oregon mandated a state-wide interest cap of 36% for all consumer loans at the same time that the MLA was introduced.

We combine geographic location data collected from the three states and the DoD with Census data to create a unique dataset that allows us to examine payday lender activity between 2004 and 2018 and account for local socio-economic and demographic conditions. Analysis is at the payday-year level; the final analytic sample results in 13,871 payday storefront-years (2,427 storefronts).

We use a quasi-experimental study design to test the efficacy of the original MLA and its revision, as well as state-specific policy changes. Because the MLA was federally mandated and applied to all payday lenders across all states, it is not possible to identify a group of payday lenders that does not receive the policy "treatment." However, it is possible to use heterogeneity in treatment intensity by considering a payday lender's distance to a military base.

Distance to Nearest Base as Measure of Treatment Intensity. The specifications of the MLA and its revision suggest that the law's effects would intensify for payday lenders located near military bases and be minimal for payday lenders not located near a base because the law only applies to loans for active duty military members and dependents. This is because most servicemembers live on or very near military bases (Bissell et al., 2010), resulting in a higher concentration of military borrowers in these markets. For analysis, we consider a number of different distance measures, sorting payday lenders by their distance from a base at various thresholds (e.g., lenders within a five-mile radius versus those outside that threshold).

States as a Second Treatment. In addition to the federal level 2007 MLA and 2016 revision, which are expected to primarily affect payday lenders near military bases, we take the opportunity to examine the efficacy of the servicemember focused MLA in comparison with the efficacy of more broadly applied state-level policy changes that were also implemented in 2007 and 2010. In 2007, Oregon introduced a state-wide interest rate cap on all consumer loans, a strong policy change. Colorado limited the number of rollovers that a borrower was allowed to take, a moderate policy change. In 2010, both Washington and Colorado strengthened existing state laws by extending the time to repay the loans. In Washington, this extension was optional upon the borrower's request, and in Colorado it was required that payday lenders provide a six-month window instead of the typical two to four weeks.

Model Specification. For this analysis, we combine data across states and estimate a fixed effects linear probability model that also includes time-varying socio-economic and demographic factors that may influence payday storefront closures. We jointly consider the original 2007 MLA, the 2016 revision, and state policies that occurred between 2004 and 2018. The preliminary model for this analysis is:

$Y_{it} = \beta_1 PolicyPeriod_t + \beta_2 (Dist_i X PolicyPeriod_t) + \beta_3 (State_i X PolicyPeriod_t) + \beta_4 (Dist_i X PolicyPeriod_t\ State_i) + \alpha_i + \varepsilon_{it}$

Where Y is predicted probability of closure for payday lender *i* in time *t. Dist* represents the distance threshold (where 1 = within the specified radius, 0 = outside). The *PolicyPeriod* variable includes four distinct policy periods. Policy Period 0 (reference) refers to the 2004 – 2006 baseline period. Policy Period 1 refers to 2007 – 2009 which follows the MLA, the Oregon interest rate cap and Colorado restrictions, as enacted in 2007. Policy Period 2 refers to 2010 – 2015, which follows on state law changes that moderately restrict payday lending in Washington and Colorado in 2010. Finally, Policy Period 3 refers to 2016 – 2018, which follows the enactment of the 2016 MLA revision. No state law changes were made during this final period. *State* is a three-level categorical variable with Washington as the reference state. Current models exclude time varying controls (in development); subsequent analyses will include these measures.

Results

Regression results underscore the inefficacy of the Military Lending Act and, in contrast, highlight the efficacy of state-wide interventions. There are no substantive or statistical differences in the predicted likelihood of closure based on distance from the military base for Policy Period 1, indicating that the 2007 MLA had no effect on closures. This finding holds when testing three-, five- and ten-mile thresholds and when using a continuous measure of distance. Alternative specifications that account for fuzzy distance thresholds, base size, and company-level fixed effects also show no substantive differences in findings. In addition, models demonstrate that the 2016 MLA revision (Policy Period 3)—which expanded the suite of products the law applied to—did not substantively impact the probability of storefront closures near military bases.

In contrast, the coefficients for the state and policy interactions tell a very different story. For example, the difference between post-treatment probabilities of closure in Oregon after it passed a state-wide interest rate cap in 2007 and the other two states is striking in magnitude. On average, in Policy Period 1 after this state law was enacted, Oregon payday lenders have a 57% chance of closure, whereas Washington and Colorado payday lenders each have less than a 15% chance. Other state-level policy changes that occurred in Policy Periods 2 and 3 (e.g., limiting the number of times a loan could be rolled over) also have moderate impacts on the presence of payday lenders in the state, but none were as strong as the effect of the Oregon interest rate cap.

Taken together, these results highlight the inefficacy of the MLA by placing it in stark contrast to the state-wide interest-rate cap in Oregon, which was the most effective policy measure for reducing the number of storefronts. In Oregon, the predicted probability of closure increased dramatically for payday lenders both near and far from military bases because the interest rate cap made payday lender business in the state unviable.

Discussion

The 2007 MLA and its 2016 revision did not remove the bears from the trout stream; it just extracted a few of their teeth by placing restrictions on a limited set of loan products for active duty servicemembers. In contrast, Oregon's state-wide interest rate cap demonstrated success in reducing Oregonians' exposure to high-interest loans, including military servicemembers living and working there. Together, these suggest that policies seeking to protect financially vulnerable populations may be most effective if laws apply to all consumers.

State and federal regulatory bodies have the ability to set basic lending protections but developing the right solutions to protect vulnerable groups from high-cost credit can be difficult. By assessing the 2007 and 2016 MLA in tandem with more broadly applicable state policies, this study provides insights on best paths forward for practitioners with regards to the structure and scope of consumer protection for financially vulnerable populations. As indicated by the DoD (2006), individual counseling is helpful, but not sufficient. Importantly, this study underscores that to best protect financially vulnerable populations from predatory lending, lending policies and regulations and/or the availability of low-cost alternatives should apply to all consumers. This study considers payday lenders, but there are other high-cost lenders that are of concern, such as auto-title lenders and rent-to-own stores, which also cluster near bases. Practitioners working on behalf of military families should consider working with state and federal policy makers to enact broader restrictions from which the military community can also benefit.

Another promising option is the development of low-cost public alternatives to payday lending such as postal banking. These alternatives may be of interest to financial counseling and planning practitioners as a means to better support individuals and families with their financial service needs. Building on existing services offered such as money orders, postal banking would expand the non-bank financial services available at post offices—for example—to include basic check cashing, savings accounts, prepaid cards, and small loans (Baradaran, 2018). The United States Postal Service (2014) notes that 59% of post offices are in zip codes that have either no bank branches or just one bank branch; making basic financial services available at the post office would help improve accessibility in these areas.

While the military currently offers Military Relief Services that provide on-base access to short-term loans at low costs, an internal survey found that a majority of servicemembers (60%) felt they would be "embarrassed" to use this service and half thought that their commanding officer would find out (DoD, 2014, p. 12). Low-cost credit services available through routine transactions at the post office on base could provide a new on-base alternative that may alleviate stigma and concerns about disciplinary action in accessing short-term loans. Our findings show that the best protections may be the ones that are available for all consumers. Indeed, the development of a low-cost, public alternative could be the best way to ensure all consumers, regardless of location, can access quality financial services.

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A Comparison of the Financial, Emotional, and Physical Consequences of Identity Theft Victimization Among Familial and Non-Familial Victims

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Abstract

Identity theft victims often experience negative financial, emotional, and physical consequences. Many cases of identity theft are perpetrated by family members, yet little is known about the consequences familial identity theft victims experience and how they may differ from those who were victimized by a non-relative. The purpose of this study was to examine potential differences in the consequences of identity theft victimization among familial and non-familial identity theft victims.

Data were obtained from the 2016 National Crime Victimization Survey—Identity Theft Supplement (ITS) (United States Department of Justice, 2016). A total of 142 respondents indicated a family member had stolen their identity and 513 identified a non-relative as the identity theft perpetrator. Data were analyzed using a MANOVA and a series of binomial logistic regressions.

Findings indicate younger familial identity theft victims are more likely to experience feelings of worry and anxiousness due to victimization, relative to non-familial identity theft victims. No differences were found among familial and non-familial identity theft victims regarding physical consequences of victimization, nor were any differences found in the amount of financial losses incurred.

This study extends the nascent research on familial identity theft but has limitations due to missing data. While missing data may bias the results, as noted by Navarro and Higgins (2017), this is outweighed by gaining access to otherwise unavailable data on familial identity theft victims. It is difficult to recruit participants for studies on financial abuse perpetrated by family members (Betz-Hamilton, 2018). No other publicly available datasets contain data on familial identity theft victims. The missing data limited the number of cases that could be used. Moreover, the sample was majority White, female, and married.

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Do Equity Funds in Emerging Economy Window Dress their Quarter-End Performance? A Study of Chinese Equity Funds

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Abstract

Equity funds in US or other mature economy often window dress their performance on their quarterly reports. This adds extra and unnecessary transaction costs on the shoulder of their investors, and also makes selecting mutual fund a tougher job for new investors. As more people turn to foreign stock markets to diversify their investment portfolio, will they get more ripped off from window dressing activities in less developed and regulated countries? In this paper, we investigated this potential issue using Chinese equity funds as a sample. Surprisingly, we found no systematic window dressing activities found among these mutual funds. This and additional findings reveal more light on the characters of emerging market investment.

Keywords: emerging market, equity fund, enhanced index fund, quarter-end abnormal return, window dressing

Introduction

Abnormal return on an investment that can't be explained by existing pricing models is called as an "anomaly". Most stock market anomalies are the result of investors' irrational behavior. Equity funds (i.e. stock mutual funds) as institutional investors are often caught window dressing their performance at quarter end. This is done by buying up stock price and generating abnormal return at the end of a quarter and then selling them back to the market at a loss at the start of the next quarter. In this way, they can present better performance on their quarterly reports. Because these activities are carried through the buying and selling of certain types of stocks, some scholars call it "Trader-based Manipulation".(Allen & Gale (1992)

Comparing to ordinary small investors, equity funds have more capability and resources to make wise investment decisions on behalf of their clients. Yet, researchers have often found them in various window dressing behaviors. Quarter-end window dressing, called "painting the tape", is one example. (Carhart et al. (2002)) Behind this phenomenon is the "agent-and-principal" problem between fund managers and their clients (i.e. investors who buy equity funds). As an "agent", a fund manager has the tendency to put their own interest above their investors'.

With the lack of financial market development and informational efficiency, agency problem is usually more severe in emerging economy. Chinese stock market, for example, is fairly young, started in the 1990's. The first equity fund did not appear till year 1997. The first comprehensive law on equity fund was enacted 7 years later. As a relatively young market, Chinese stock market often experiences high stock turnover and volatile price movement. Irrational trading behaviors are rampant.

Since window dressing is a typical irrational behavior, one would suspect that this issue must be more severe in emerging market like China. Diversifying investment portfolio internationally may have more side effect than we know of. In this paper, we use database of Chinese financial market, to examine the similarities and differences of window dressing behavior between emerging economy and developed economy. Our study contributes to existing literature on equity fund window dressing and literature on emerging economy.

Literature Review

Institutional Investors' Window Dressing Behavior

Scholars firstly found window dressing issue at year end in equity funds (Musto(1997), Sias and Starks (1997), Zwig(1997)), pension funds (Lakonishok et al. (1992), money market funds (Musto(1997)), bond funds (Ortiz, Sarto, and Vicente (2012), Morey and O'Neal (2006)), and hedge funds (Bollen and Pool (2009), Ben-David et al. (2013)). Later, window dressing behavior is also captured at quarter-end among equity funds.

Carhart et al. (2002) first address this using the US equity funds; and call it as "painting the tape". Bernhardt and Davis (2005) add a theory to explain this anomaly. Other scholars continue to provide additional direct and indirect evidences (Gallagher et al. (2009), Duong and Meschke (2015), etc.). Their key findings are as follows:

(1) There is unexplainable abnormal positive return on equity funds at each quarter end, followed with reverted return at the start of the following quarter (Carhart et al. (2002)).
(2) Window dressing is found more significant among (a) top performing funds and large cap funds (Carhart et al. (2002) and Ben-David et al. (2013)); (b) poor performing funds (Gallagher et al. (2009); (c) funds that have the greatest incentives to improve their performance (Ben-David et al. (2013)).

(3) Illiquid stocks that are already held overweight tend to be the target purchase by fund managers (Carhart et al. (2002), Gallagher et al. (2009)).
(4) Trading on the chosen stocks clustered during the last half hour (Ben-David et al. (2013)).
(5) This abnormal fund performance increase and stock price spike are responsive to increased regulatory attention and improved market liquidity. (Gallagher et al. (2009) and Duong and Meschke (2015).

Because equity funds' performance anomaly at year end might be driven by multiple factors, such as tax-loss selling, quarter-end anomaly serves a better study tool for window dressing behavior. To better understand China's equity funds' window dressing behavior, we focus on their quarter-end's anomaly, leaving year-end anomaly for another study.

Incentives of Fund Performance Manipulations

The causes of window dressing have been well studied in the last two decades. The major reason is rooted in principal (equity fund investors) and agent problem (fund managers). Fund managers receive their compensation and reward based on the performance of portfolios that they managed. Literature confirm that highly ranked mutual funds attract more fund inflow from their clients, and increasing fund inflow positively affects fund performance. This motivates them to window dress their fund return and ranking. Since hedge fund managers are more heavily rewarded by their fund performance than mutual fund managers, window dressing is more prevalent among hedge fund managers (Agarwal et al. (2003), Agarwal et al. (2011), etc.).

Distinguished Features of Chinese Equity Funds

Compared to the studies of equity funds' behavior in developed economy, scholarly works on those in emerging economy are sparse. Cao and Peng (2009) finds that China's equity funds' performance is not highly correlated with their money flow; and investors are not sensitive to fund ranking. A phenomenon that is totally different from their US peers. Moreover, it is found that China's funds face the dilemma of "redemption abnormality": better performing funds are punished for being good, as more of their shares are redeemed by their clients and trigger more money outflow (Xue et al (2012)). Lee et al (2014) also documents that investors prefer to redeem winning funds especially when stock market is stable. These features are totally opposite to those of the equity funds in developed economy.

In March 2010, the China Securities Regulatory Commission (CSRC) started experimentally to allow investors to do short selling and margin trading on a small group of stocks. With short selling, investors sell borrowed shares of stock, later buy back and return the shares. This allows investors to profit from a declined market by selling high first and then buying back low. Short selling trades add more selling pressure on a stock, causing its price decline. Whereas, margin trading enables investors to borrow money easily and buy more shares of a stock, thus adding more buying pressure on a stock and causing its price to rise. The two types of trades have the opposite impact on stock price. Study indicates Chinese investors prefer margin trading rather than short selling, and the impact of margin trading is more significant (Xu and Chen (2012)). The introduction of short selling and margin trading has helped Chinese market more in preventing stock price from sharp decline, than from sharp increase.

Research Contribution

As a typical issue in emerging economy, the Chinese equity fund industry underwent a period of mismanagement and scandals in its earlier years, and the stock market is still less efficient than those of mature economy. If window dressing is a common theme among equity funds in the U.S., could it be more rampant in developing countries such as China, since there is a lack of market development and regulation? With this question, we examine China' equity funds behave in their quarter-end performance, and to what extent they will window dress their investment return. This paper contributes to the literature on equity fund's irrational behavior, in particular on window dressing, and the studies on financial market in emerging economy.

Data and Methodology

Compared to the stock markets in developed economy, Chinese financial market has newer and more advanced trading system, but its informational efficiency is much lower. In China stock market, the percentage of market value held by individual investors outnumbers that of institutional investors. Chinese stock market often shows higher trading turnover rate, higher market volatility, higher price inflation, and greater level of herding.

This leads us to suspect that the presence of window dressing among China's equity funds could also be stronger and broader than those in developed markets. Secondly, since stock price inflation is the common way to window dress equity funds' performance, we want to see if the experimentally enacted short selling and margin trading features on a stock would make it harder or easier to inflate stock price. Thirdly, small cap stocks have low market value and are easier to be manipulated, so they may be a better target for equity fund window dressing. Lastly, are low turnover stocks more likely targeted by them in window dressing?

Based on each question above, we construct our hypotheses:

Hypothesis: Chinese funds have window dressing behavior near the end of each quarter

The quarter end trading days are defined as one-day, two-day, three-day, four-day, or five-day trading period at the end of each quarter. Each trading period is tested, respectively.

Data

There were only a few China's equity funds as the industry firstly started in the 1990's. Until year 2001, there were only 49 closed-end funds. Open-end funds started to emerge thereafter. Data sample spans from January 1st 2006 to December 31st 2014, in order to avoid the law implementation for the industry in 2004 and to catch the majority of the equity funds. Most equity funds in China are open-end equity funds; they therefore will be our research focus. Because each new fund has a half year time to establish its portfolios, we exclude the data points during this time period. Funds that are created less than a half year by the end of the sample period are also excluded from the data sample for the same reason. In sum, we will focus on China's equity funds with 3 investment styles: 88 aggressive growth funds, 280 stable growth funds and 35 enhanced index funds. Equity fund investment style is classified according to RESSET standard.

The common stocks included in the study are the collection of the reported top 10 stock holding of each equity fund disclosed in its quarterly reports. Stocks are removed from the dataset if their data is truncated, or if their trading halted during the sampled period. Moreover, stocks' first trading day data is removed as its trading range is not unbounded by 10% rule. Lastly, data points are removed if the sampled stock's price is increased or decreased by more than 8% on that trading date. This is because stocks with greater than 8% daily price movement are very likely the companies experiencing significant change in its fundamentals. Both equity fund and stock related data are daily data and extracted from WIND database.

Data description (from **Tables 1.1–1.3**) displays clear evidence of supernormal fund performance at quarter end. All of the fund groups have shown a much higher abnormal daily return at quarter end than other trading days. The best performance appears on the last day of each quarter, where each fund group has an approximately 10 times higher abnormal return and a lower risk (standard deviation), than a normal day.

Check on the performance difference among the three fund groups, aggressive and stable growth funds have higher abnormal return and greater risk (standard deviation) both at quarter end and during normal day than enhanced index funds. It is in line with the nature of growth funds, as they invest in growth stocks that have higher return and higher risk.

Methodology

1. *Examine the existence of Chinese fund quarter-end window dressing*

To test the existence of quarter-end window dressing among equity funds, we use the model established by Carhart et al. (2002). Using equity funds' daily performance, we construct three equally weighted fund indices, one for each fund group: aggressive growth funds group, stable growth fund group and enhanced index fund group. The daily abnormal return on fund index f at day t is denoted as $AR_{f,t}$. We then test to see if there is significantly high abnormal return at the end of each month, quarter and year, and then reversing low return at the beginning of the following month, quarter or year. If this is found true, China's equity funds could be window dressing their performance just like their Western peers. The following is the regression model used in this test:

$$AR_{f,t} = c + b_1 \times ME_t + b_2 \times MB_t + b_3 \times QE_t + b_4 \times QB_t + b_5 \times YE_t + b_6 \times YB_t + \varepsilon_{i,t} \qquad (1)$$

The right-hand-side variables are dummy variables with value equal to 0 or 1. ME_t's value is 1, if day t is one of the last N trading days of a month excluding quarter end and year end). MB_t's value is 1, if day t is one of the first N trading days of a month, excluding quarter beginning and year beginning. QE_t is 1 if day t is among the last N trading days of a quarter except for year end. QB_t is 1 if day t is among first N trading days of a quarter, except for year beginning. YE_t is 1 when t is one of the last N trading days of a year. YB_t is 1 when t is among the first N days of a year.

Since Chinese market embedded different characters from the US, its window dressing activities may also behave differently. To conduct a more exclusively study on the issue, we not only use the last and the first trading day of each month, quarter and year in the test; we also extend the test window to include up to 5 trading days at the end and at the beginning of each month, quarter and year. Our purpose is to find if Chinese funds manipulate their performance at quarter end, and whether they do it the same way as their Western colleague.

Daily abnormal return on each fund index $AR_{f,t}$ is constructed using fund index's daily return $Returnratio_{f,t}$ minus the daily return on stock market index $Returnratio_{m,t}$. $Returnratio_{f,t}$ is the return on our constructed fund style index, including index value's daily change (F_t- F_{t-1}) and dividend reinvestment (Div). $Returnratio_{m,t}$ is the daily return on stock market index.

$$AR_{f,t} = Returnratio_{f,t} - Returnratio_{m,t} \qquad (2)$$

$$Returnratio_{f,t} = \frac{F_t - F_{t-1} + Div}{F_{t-1}} \times 100 \qquad (3)$$

Alternative dependent variables: Instead of using an equity fund group's abnormal daily return as the major of fund performance, we use the percentage of the number of equity funds that have a daily return beating the stock market index, out of the total number of equity funds within the same fund group. This is to examine if a window dressing is a common practice among all the funds or just an activity of a few funds.

2. *Study on Chinese fund's stock price inflation at quarter end*

To further examine equity funds' way to window dress their performance, we examine the change in the price of the stocks that are held by the funds around each important calendar day. First thing to check is whether the price of equity funds' stock holdings is inflated at quarter end and therefore provides a return significantly higher than other stocks in the market. Our hypothesis H_0 is there is no significant difference in the stock return between the stocks held by equity funds and other stocks,

H_0: $\mu_1 - \mu_2 = 0$,

Where μ_1 is the average return of the stocks equity funds held the most; μ_2 is the average return on other stocks. If T test result is indeed significant, it could strongly argue that it is the equity funds that cause these stocks' price inflation at the end of each quarter.

Second, the fund-held stocks are divided by two groups using various criteria: their trading turnover level, stock capitalization level, or short selling qualification. This is to examine the characteristics of the window dressing behavior, based on the claims addressed in previous studies on equity fund industry and Chinese market.

Regression and Testing Result

1. Quarter-end window dressing behavior was not found among Chinese equity funds.

Using model (1), we examine Chinese equity funds' performance to see if there is evidence of window dressing at the end of a quarter. The results show in Table 2, and the results are mixed. Enhanced index funds have statistically significant abnormal return at the last one or three trading days of a quarter, but their quarter-start return reversal is not statistically significant. Whereas, among aggressive growth funds and stable growth funds, quarter-end abnormal return is not statistically significant, but their quarter-start return reversal is significant. This is different from the finding in the US market, where equity funds have both significant abnormal returns at quarter end and return reversal at quarter start.

Since window dressing behavior is a short-term, speculative behavior. Quarter-start return reversal is one of the two key characteristics. Without this evidence, equity fund's quarter-end performance anomaly may not be a window dressing behavior; it could be simply a routine portfolio rebalancing. Our regression results caution us to call the enhanced index funds' quarter-end behavior as window dressing. We will use the tests on the characteristics of the stocks held by these funds to further our investigation.

2. Year-end loss found in all fund groups, with aggressive growth funds being the worst

A stronger finding is that all the equity fund groups show significant negative performance at year end. Enhanced index funds have the least negative return at year end, and aggressive growth funds have the most negative performance. Compare these three fund groups, aggressive growth funds are the most aggressive in taking risk and profiting capital gain return. They often display the best performance than stable growth funds and enhanced index funds. This finding is the opposite of the findings in the US market. So, what cause this contradicting year-end performance in China?

Cao & Peng (2009) and Lee et al (2014) document a "redemption abnormality" in China's equity fund industry. That is Chinese investors tend to redeem equity fund winners to cash out their profit, causing best performing funds to experience negative fund flow. This gain sale could be most severe at year end, as investors needing of more money for holiday shopping or celebration. Another cause of year-end poor performance could be the tax-driven sale of stock losers initiated by the equity funds themselves, so that they can receive tax credit or pay less tax. Roll (1983) presented this argument in his research.

3. Robustness checks

a. Greater number of enhanced index funds outperforming at quarter end than other trading days. But, year-end below-the-market fund performance is not widespread

b. Regression result persists when using different stock market indices

Conclusion

Using Chinese market data, this study didn't find significant evidence of equity funds manipulating their quarter-end performance. The only type of funds that have abnormal quarter-end return is enhanced index funds. But they don't have return reversal which makes window dressing hypothesis unverified.

China's equity funds, though being caught on various types of market manipulation, display a significant yet distinguished quarter-end return anomaly. It again reminds us that not all markets are the same, not all irrational behaviors alike. Market mechanism and microstructure have great impacts on mutual funds' behavior. The findings of this study contribute to the literature of equity fund window dressing, and the characteristics of emerging market.

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Young Adults' Financial Advice-Seeking Behavior: The Role of Mother's Involvement in Financial Socialization during Adolescence

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Key words: financial advice-seeking, financial socialization, mother involvement, parenting style

Young adults have been found in general lacking fundamental financial knowledge (Lusardi, Mitchell, & Curto, 2010) and having a higher likelihood to suffer from financial vulnerability and financial stress (Bethune, 2015). Therefore, seeking proper external financial advice may help these young adults better behave financially. Meanwhile, parental socialization and involvement in early life can affect financial attitude, behaviors, and outcomes in adulthood (Gudmunson & Danes, 2011; Kim & Chatterjee, 2013; Tang 2017; Tang, Baker, & Peter, 2015). Specifically, the mother's involvement plays a critical role in children's positive financial attitudes and savings behavior (Agnew, Maras, & Moon, 2018). The purpose of this study is to examine young adult's financial advice-seeking behavior and the long-term influences of maternal involvement during the early financial socialization process, directly and indirectly through psychological traits and risk tolerance.

Using the National Longitudinal Survey of Youth 1997, we found that maternal parenting styles and monitoring during adolescence were directly associated with certain personality traits and risk tolerance development of young adults, all of which indirectly influenced financial advice-seeking behavior in adulthood. These findings emphasized the significance of the mother's involvement and financial socialization during adolescence on later adulthood financial advice-seeking behavior. This study provides insights for the practitioners on the client's psychological characteristics from a human developmental and lifespan perspective when working with young clients.

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An Exploration of the Association between Spousal Perceptions of Partner Spending and Saving Behavior and Financial Satisfaction

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Abstract

The purpose of this study is to describe the relationship between spousal perceptions of a partner's spending and saving behavior and perceived financial satisfaction. Data for the study were obtained from an online survey of 216 married adults. Spousal perceptions were evaluated using a scale developed by Kruger (2019), whereas financial satisfaction was measured using a 10-point subjective evaluation. Respondents were categorized into four groups based on income: (1) income $0 to $30,000, (2) income $30,001 to $70,000, (3) income $70,001 to $100,000, and (4) income above $100,000. It was determined that perceiving one's spouse as a spender was not associated with the financial satisfaction of the respondent. However, perceiving one's spouse as a saver was found to be negatively associated with financial satisfaction among those in the middle-high to high income groups. This finding suggests that those with high household income may believe that living with a spouse who is a frugal saver limits consumption, which then reduces overall financial satisfaction.

Introduction

There is an age-old adage that goes like this: perceptions shape reality. This is particularly true in marital dyads when partners subjectively evaluate the spending and saving behavior of their significant other when estimating their own degree of financial satisfaction. As will be discussed later in this paper, there are a number of factors that are known to help describe a person's level of financial satisfaction. Variables such as sex, age, and household income have generally been found to be associated with subjective financial satisfaction assessments. It is worth noting, however, that although perceptions of one's spouse's spending and saving behavior are often discussed as being an important descriptor of satisfaction, few studies have included this variable in empirical analyses of financial satisfaction. The primary reason is that until recently, there has not been a reliable and valid scale that can be used to evaluate spending and saving perceptions.

Cognitive role theory provides an insight into explaining how perceptions, role expectations, and behavior are adopted by those in a marriage. In this theory, perceptions are intertwined with what one expects of a significant other. In this regard, Kenny and Acitelli (2001) found that devoted partners often assume that their significant other holds the same thoughts and feelings and, therefore, the other person depends on their own feelings to judge how their partner feels (Byram, 2020). Perceptions then inform feelings of satisfaction and behavior (Biddle, 1986). Rotter (1954) and Kelly (1955) argued that anticipatory role expectations, rather than normative expectations, describe how people feel in relation to themselves and others. Each person in a marriage, for example, holds beliefs about the way tasks should be completed and how their spouse should conduct themselves. This means that everyone holds two beliefs: one's belief(s) about their own behavior and one's belief(s) about the appropriateness of the behavior of others. In the context of this study, this means a husband and wife (i.e., actors), as separate actors, view and evaluate their own spending and saving behavior, as well as that of their spouse, and derive a perception of the appropriateness of the behavior, which then informs the actor's degree of satisfaction. It is the perception of the other actor (i.e., spouse) that plays an important role in the formulation of satisfaction. As stated by Kouros and Papp (2019, p. 180) the ability to be in tune with and accurately perceive one's partner's thoughts and feelings has been linked with positive relationship outcomes, including greater accommodative behavior during conflict, better communication, providing deeper emotional support, and higher marital satisfaction (Byram, 2020).

The purpose of this study was to test a relatively new scale—the Spender-Saver Perception Scale (Kruger 2019) as a tool informed by cognitive role theory—to determine if perceptions of one's partner's spending and saving behavior can be used to explain subjective financial satisfaction. This paper adds to the existing literature by showing how the perceptions of a significant other's spending and saving behavior can be used to describe the financial satisfaction of the partner who makes the perception assessment. Findings from this study can be used to inform the way marital and financial therapists, financial counselors, and financial educators assess and interact with couples who are in a marital relationship. Findings may help financial and relationship advisors (e.g., financial counselors, financial planners, financial therapists) facilitate improvements in financial satisfaction by decomposing perceptions into positive (saving) and negative (spending) elements.

Literature Review

The outcome variable of interest in this study is financial satisfaction. Financial satisfaction can be conceptualized as the level of contentment a person has with their financial situation (Archuleta, Britt, Tonn, & Grable, 2011). This type of assessment is a subjective evaluation (Joo & Grable, 2004). The study of financial satisfaction is important for numerous reasons. First, financial satisfaction is known to be positively related with quality of life indicators (Andrew & Withey, 1976), and second, financial satisfaction is thought to be positively associated with measures of consumer financial health, well-being, self-efficacy, and household stability (Fan & Babiarz, 2019).

Numerous household-level characteristics are known to be associated with the formulation of financial satisfaction (Prawitz, Garman, Sorhaindo, O'Neill, Kim, & Drentea, 2006). Of particular importance are perceptions of one's financial situation (Grable, Cupples, Fernatt, & Anderson, 2013; Sumarwan & Hira, 1993). Perceptions are subjectively derived interpretations or mental impressions of what someone believes to be reality (Gager & Sanchez, 2003). Generally, when someone holds a positive perception of a person, place, or thing, the person will report a correspondingly high degree of satisfaction. When perceptions are negative, however, levels of satisfaction directed at the object are likely to be lower.

Weiss (1980) and Gottman (1993, 1994) were among the first researchers to note that spousal perceptions help describe marital and household outcomes. The perception a spouse holds of their significant other's behavior, be it positive or negative, forms the basis of the relationship's stability and satisfaction (Uebelacker, Courtnage, & Whisman, 2003; Weiss, Carrere, Buehlman, Gottman, Coan, & Ruckstuhl, 2000), with perceptions working to create a sense of identity for the partner making the assessment (Oggins, Veroff, & Leber, 1993). Within a marital relationship, husbands and wives hold perceptions and expectations regarding the quality of their partner's actions. This quality assessment likely extends to an evaluation of financial satisfaction. It is important to note, however, that marital partners do not always hold the same perceptions (Cottle, 1976). According to Blumstein and Schwarz (1983), couples dissatisfied with their financial situation frequently consider their entire relationship a failure. In this regard, the following hypotheses were tested in this study:

> H_1: A spouse's perception of their significant other's spending and saving behavior will be associated with the spouse's level of financial satisfaction.
>
> H_2: A spouse who perceives their significant other as a saver will report higher levels of financial satisfaction compared to a spouse who perceives their significant other as a spender.

Other personal and household characteristics are also thought to be associated with financial satisfaction. Males tend to exhibit greater financial satisfaction (Hira & Mugenda, 2000; Xiao, Chen, & Chen, 2014), although there is no consensus on the reason for the relationship (Hira & Mugenda, 2000; Sumarwan & Hira, 1993). Age and financial satisfaction have been found to be positively associated (Archuleta, 2013; Hansen, Slagsvold, & Moum, 2008; Hira & Mugenda, 1998; Sumarwan & Hira, 1993). The relationship may be explained by conceptualizing age as an indicator of financial capacity or experience (Hansen et al., 2008; Hsieh, 2003). The relationship between financial satisfaction and race/ethnicity is less well defined (Hsieh, 2001; Joo & Grable, 2004), although there is some evidence that those who are White/Caucasian report higher levels of satisfaction than others (Lincoln & Chae, 2010; Zurlo, 2009).

Household income and financial satisfaction are thought to be positively associated (Grable et al., 2013). Income appears to enhance financial capabilities, which in turn improves feelings of satisfaction (Archuleta, 2013; Liang & Fairchild, 1979; Sumarwan & Hira, 1993). It is worth considering that the relationship may not be based strictly on the nominal dollar amount of a household's income but rather on a household's relative level of income. Education is another variable that is thought to be associated with feelings of satisfaction. The direction of the relationship is less clear. Some have argued that those with more education are more likely to report high financial satisfaction (e.g., Joo & Grable, 2004), whereas others (e.g., Fan & Babiarz, 2019) have noted a negative association between educational attainment and financial satisfaction. It is possible that those with more education have higher aspirational levels, which then reduces satisfaction when reality fails to match up to aspirations. Household size is another variable that has an observed relationship with financial satisfaction. Archuleta (2013) noted that financial satisfaction is highest among couples with no children in the household. Fan and Babiarz (2019) also found that smaller households report greater financial satisfaction.

The following hypothesis was tested in regard to financial satisfaction and personal and household characteristics:

> H_3: Financial satisfaction will be associated with gender, age, race/ethnicity, household income, education, and household size.

A positive association between and among financial risk tolerance, financial knowledge, and financial satisfaction has also been reported in the literature. While a possible endogeneity effect is present among these relationships, the general consensus is that those who exhibit greater risk tolerance and more knowledge of basic financial concepts also report more satisfaction with their financial situation (Aboagye & Jung, 2018; Jeong & Hanna, 2004; Joo & Grable, 2004). Similar income, financial risk tolerance may be an indicator of greater financial capability (Finke & Huston, 2003), which may be the reason a relationship with financial satisfaction has been noted in the literature. Similarly, financial knowledge may be an indicator of financial capacity that increases reports of financial satisfaction (Coskuner, 2016). The following hypotheses were tested in relation to these attitudinal constructs:

H_4: Financial satisfaction will be positively associated with financial risk tolerance.

H_5: Financial satisfaction will be positively associated with financial knowledge.

The remainder of this paper describes the methodology that was used to test the Spender-Saver Perception Scale (Kruger 2019) as a tool to determine if perceptions of one's partner's spending and saving behavior can be used to explain subjective financial satisfaction. A presentation of results follows this discussion, which is followed by a summary of findings with implications for those who provide financial and relationship advice and education to married couples.

Methods

Data Collection and Sample

Data for this study were collected in late 2019 from an online survey of adults from the general population. The sample was administered by Dynata using Qualtrics. In order to be included in the sample, a respondent needed to be aged 18 or older and married at the time of the study. The sample included 253 respondents. The survey and data analysis process was approved by the research team's university institutional review board. The survey included questions related to respondent feelings, attitudes, and perceptions, as well as demographic and investment behavioral assessments. Although the profile of the sample was similar to the US population, the sample was not intended to be nationally representative. The sample was over-weighted by age and marital status. Descriptive statistics for the sample and the variables used in this study are provided in Table 2.

Measures

Financial satisfaction, as the outcome variable in this study, was measured using the following question: How satisfied are you with your present overall situation? Respondents were asked to indicate their subjective feeling on a 10-point scale, with 1 = extremely dissatisfied and 10 = extremely satisfied.

Perceptions that one's spouse was a spender or saver was assessed using a new nine-item scale developed by Kruger (2019). The items comprising the scale are shown in Table 1. The following statement prefaced the list of statements: "The following questions ask you to provide information about your spouse or significant other." The response to each question was measured on a seven-point Likert-type scale where 1 = strongly disagree to 7 = strongly agree. The possible range of scores was 9 to 63 with lower scores indicating a perception that one's spouse is a spender and higher scores indicating a perception that one's spouse is a saver.

Table 1. Nine Item Spender-Saver Perception Scale

Item	**Code**	**Statement**
1		Is more frugal than I am
2	R	Cannot control his/her spending
3		Is frugal
4		Is strongly committed to saving money
5	R	Spends more money than we earn
6		Accounts for every dollar that this household spends
7		Is more of a saver than a spender
8	R	Seems to always be spending money
9	R	I often worry that my spouse or significant other is not able to control his or her spending

Note: R refers to an item that was reverse coded.

When developing the scale, Kruger (2019) used a Principal Components Analysis (PCA) to confirm the uni-dimensionality of the scale. A correlation analysis was then conducted by Kruger to validate the scale. She found scale scores to be positively associated with net worth, income, financial stress, and financial knowledge. She also noted that scale scores were positively associated with evaluations of financial satisfaction. Kruger concluded that those who perceive their spouse to be more of a saver than a spender are more likely to be satisfied with their current financial situation. In the current study, respondents were separated into two groups: (1) those who perceived their spouse as a spender and (2) those who perceived their spouse as a saver. The classification was based on recoding scale scores dichotomously based on the scale median score (*mdn* = 33). Those with a scale score equal to or less than 33 were coded as s*pouse spender* (coded 1), whereas those whose score was greater than 33 were coded as *spouse saver* (coded 2).

The demographic and attitudinal variables described in the review of literature were used as control variables in this study. Financial knowledge was assessed as a self-assessment using the following question: "How knowledgeable are you about personal finance topics.?" Respondents were asked to indicate their knowledge level using five-point Likert-type answer choices that ranged from 1 = not knowledgeable at all to 5 = extremely knowledgeable. Financial risk tolerance was assessed using a propensity scale developed by Grable and Lytton (1999). Scale scores were estimated by summing answers to 13 items. Scores ranged from 13 to 41, with higher scores being indicative of greater risk tolerance. Sex was coded 1 = male and 2 = female. Age was assessed by asking each respondent to indicate their age in years. Household size was evaluated by asking each respondent how many people lived in the respondent's household. Household income was assessed using the following 11 categories: 1 = none, 2 = less than $20,001, 3 = $20,001 to $30,000, 4 = $30,001 to $40,000, 5 = $40,001 to $50,000, 6 = $50,0001 to $60,000, 7 = $60,001 to $70,000, 8 = $70,001 to $80,000, 9 = $80,001 to $90,000, 10 = $90,001 t $100,000, and 11 = above $100,000. Attained education was evaluated on an ordinal scale ranging from (a) some high school or less, (b) high school graduate, (c) some college/trade/vocational training, (d) Associate's degree, (e) Bachelor's degree, and (f) graduate or professional degree. The some high school or less and high school graduate categories were combined in the final analysis and used as the reference category in the analytic models. Respondents were asked to indicate their racial/ethnic background based on the following categories: (a) Caucasian/White, (b) African-American/Black, (c) Hispanic/Latino/LatinX, (d) Native American, (e) Asian or Pacific Islander, and (f) other. Because of low response rates, the Native American and other category were combined into one classification. The Caucasian/White category was used as the reference group in the analyses.

Methods of Analysis

Descriptive statistics were used to describe the sample. A correlation test was used to evaluate the level of association between and among the independent variables of interest in this study and to screen the data for possible multicollinearity. An ordinary least squares multivariate regression model was then estimated to test the association between spender/saver perceptions and financial satisfaction controlling for variables known to be associated with financial satisfaction. This test was followed by a series of robustness checks to further describe the association. The following discussion summarizes the results from these tests.

Results

Table 2 displays the descriptive statistics for the variables evaluated in this study. On average, respondents self-identified as relatively financially satisfied. Respondents indicated holding an above-average level of financial knowledge and an average degree of financial risk tolerance. Although all respondents were married at the time of the survey, the majority of those in the sample were older males. The majority of respondents also self-identified as Caucasian/White. Respondents reported relatively high household incomes. Additionally, it was determined that respondents were more likely to have a college degree. Respondents indicated that respondents perceived their spouse, on average, to be more of a spender than a saver.

Table 2. Variable and Sample Descriptive Statistics

	M	*SD*	*Frequency*
Financial Satisfaction	7.020	2.450	
Financial Knowledge	3.490	1.021	
Financial Risk Tolerance	25.069	5.323	
Sex			
Male			41.0%
Female			59.0%
Age	50.611	15.154	
HH Size	2.850	1.127	
HH Income	8.260	3.048	
High School			13.8%
Some College			23.2%
Associate's Degree			9.7%
Bachelor's Degree			30.6%
Graduate Degree			22.7%
White/Caucasian			73.6%
Black			5.1%
Hispanic/LatinX			9.3%

Asian	7.4%
Other Race	4.6%
Spender/Saver Classification	
Spender	50.2%
Saver	49.8%

Table 3 shows the bivariate correlation coefficient estimates among the variables of interest in this study. Financial satisfaction was found to be positively associated with financial knowledge, financial risk tolerance, household income, and holding a graduate degree level of education. Financial satisfaction was negatively related with being female, household size, self-identifying as Black, and perceiving one's spouse as a saver. Perceiving one's spouse as a saver, on the other hand, was found to be positively associated with financial risk tolerance and holding a Bachelor's degree level of education. While other variables were found to be statistically associated, none of the effect sizes were large, which was interpreted to mean that multicollinearity was not an issue of concern in the study.

Table 3. Correlation Coefficients Across Study Variables

	Financial Satisfaction	Financial Knowledge	Financial Risk Tolerance	Sex	Age	HH Size	HH Income	Some College	Associate's Degree	Bachelor's Degree	Graduate Degree	Black	Hispanic/LatinX	Asian	Other Race	Spender/Saver
Financial Satisfaction	1.000															
Financial Knowledge	.444**	1.000														
Financial Risk Tolerance	.175**	.348**	1.000													
Sex	-.123*	-.178**	-.239**	1.000												
Age	.102	-.107	-.274**	-.182**	1.000											
HH Size	-.142*	-.018	.164	.152*	-.429**	1.000										
HH Income	.370**	.184**	.121*	-.261**	.138*	-.135*	1.000									
Some College	-.082	-.014	-.106	.098	.096	.014	-.055	1.000								
Associate's Degree	-.086	-.095	-.054	-.021	.051	-.123*	-.167**	-.180**	1.000							
Bachelor's Degree	.101	.019	.005	-.106	.017	-.038	.170**	-.364**	-.218**	1.000						
Graduate Degree	.167**	.143*	.166**	-.161**	-.026	-.017	.306**	-.297**	-.178**	-.359**	1.000					
Black	-.149*	-.111*	-.110*	.191**	-.044	.049	-.103	.023	-.076	-.017	.025	1.000				
Hispanic/LatinX	-.055	-.027	.080	.090	-.196**	.312**	-.091	-.024	.111	-.039	-.097	-.074	1.000			
Asian	.077	.091	.123	.086	-.094	.037	-.019	-.029	.027	.004	.016	-.066	-.090	1.000		
Other Race	.007	.025	.014	.084	-.063	-.010	.032	-.016	.002	-.003	-.014	-.051	-.070	-.062	1.000	
Spender/Saver	-.176**	-.051	.175**	-.136*	-.044	.031	-.096	-.047	.009	.130*	-.060	.038	.024	.092	.016	1.000

Table 4 shows the results from the regression analysis that was undertaken to determine the association between perceptions of a spouse's spending or saving behavior and financial satisfaction. The model was statistically significant, $F_{15,237} = 6.720$, $p < .001$. The model provided a relatively robust level of explained variance in the outcome variable ($R^2 = .335$). It was determined that financial satisfaction was positively associated with financial knowledge and household income. Financial satisfaction was also found to be negatively associated with perceiving one's spouse as a saver. None of the other variables in the model were statistically significant.

Table 4. OLS Regression Describing the Association between Spousal Perceptions of Partner Spending/Saving Behavior and Household Financial Satisfaction

	b	Std. Error	B	t	Sig.
(Constant)	1.585	1.567		1.011	.313
Financial Knowledge	.881	.153	.367	5.762	.000
Financial Risk Tolerance	.033	.031	.072	1.049	.295
Sex	.292	.332	.059	.880	.380
Age	.018	.011	.111	1.621	.107
HH Size	-.162	.147	-.075	-1.101	.272
HH Income	.187	.056	.233	3.353	.001
Some College	-.177	.507	-.031	-.349	.727
Associate's Degree	-.067	.612	-.008	-.109	.913
Bachelor's Degree	.425	.512	.080	.831	.407
Graduate Degree	.320	.555	.055	.577	.565
Black	-.760	.671	-.068	-1.132	.259
Hispanic/LatinX	.180	.532	.021	.337	.736
Asian	.521	.561	.056	.928	.354
Other Race	-.057	.685	-.005	-.083	.934
Spouse is Perceived as a Saver	-.704	.300	-.144	-2.347	.020

Several robustness checks were made based on the findings from Table 4. It was thought that the direction of the association between spending/saving perceptions and satisfaction noted in Table 4 might be explainable, in part, by differences in the way perceptions are conceptualized by husbands and wives. Britt, Hill, LeBaron, Lawson, and Bean (2017) reported that financial satisfaction for husbands tends to be associated with the perception that their wife is a saver rather than a spender; however, Britt et al. noted that perceptions are not as important for wives. A general linear model and two regression models were estimated to determine whether the direction and strength of the perception variable differed based on the sex of the respondent. The general linear model used financial satisfaction as the outcome variable. The analysis was based on recoding the sex and spender/saver variable as follows: 1 = males who perceived their spouse as a spender, 2 = males who perceived their spouse as a saver, 3 = females who perceived their spouse as a spender, and 4 = females who perceived their spouse as a saver.

Table 5 shows the descriptive statistics associated with the recoded variable. The general linear model was statistically significant, $F_{3,249} = 6.506$, $p < .001$. Males who perceived their spouse as a spender reported the highest level of financial satisfaction. Females who perceived their spouse as a saver exhibited the lowest level of financial satisfaction. Based on Bonferroni post-hoc tests, it was determined that the mean difference in satisfaction for these categories was statistically significant. It was also determined that females who perceived their spouse as a spender reported higher financial satisfaction compared to females who perceived their spouse as a saver.[1]

[1] These results were further evaluated in a regression analysis where financial satisfaction was the outcome variable and the four categories were included as independent variables, controlling for the variables in Table 4. Each category was entered as a dichotomous variable, coded 1 otherwise 0. Based on a backwards stepwise regression technique, financial knowledge and household income were found to be positively associated with financial satisfaction. Household size was found to be negatively associated with financial satisfaction. Females who perceived their spouse as a spender reported the highest levels of financial satisfaction. These results, although

Table 5. Descriptive Statistics of Males and Females who Perceived Their Spouse as a Spender or Saver

	N	Mean	Std. Deviation	Std. Error
Male, spouse is spender	68	7.75	2.215	.269
Male, spouse is saver	73	6.88	2.101	.246
Female, spouse is spender	64	6.95	2.693	.337
Female, spouse is saver	48	5.69	3.012	.435

These findings suggest that males tended to be more satisfied but that both males and females were more satisfied when they perceived their spouse as a spender. Two regression models were estimated to explore this issue in more detail. The first regression model included only data from wives. The second model included only data from husbands. In other respects, both models were similar to the regression shown in Table 4.

Table 6 shows the test results. While financial knowledge remained statistically significant across the two models, the spender/saver variable was only significant for the female respondents. The direction of the coefficient matched the overall model. The spender/saver variable was not significant for the male respondents. Household income was found to be positively associated with financial satisfaction among the male respondents. Although not conclusive, these findings do suggest that there likely are differences in the way perceptions are conceptualized between females and males. Females do appear to view their saving partner in a way that dampens financial satisfaction. An additional regression model was tested to explore this notion. The model shown in Table 7 used scaled spender/saver scores as the outcome variable. In the model, sex was significant, with females perceiving their husbands as spenders. It is possible then that the sex effects noted in the overall and wife models relates specifically to females who perceive their husbands as savers. Those fitting this profile were less satisfied.

counter to what Kruger (2019) reported, support the notion that perceptions of spending and saving do describe self-reported financial satisfaction.

Table 6. OLS Regression Describing the Association between Spousal Perceptions of Partner Spending/Saving Behavior and Household Financial Satisfaction by Wife and Husband

	Wife Model					Husband Model				
	b	**Std. Error**	**B**	**t**	**Sig.**	**b**	**Std. Error**	**B**	**t**	**Sig.**
(Constant)	2.772	2.283		1.215	.228	2.832	1.633		1.734	.086
Financial Knowledge	1.035	.273	.381	3.790	.000	.634	.178	.291	3.564	.001
Financial Risk Tolerance	.019	.050	.037	.382	.704	.003	.042	.008	.083	.934
Age	.027	.020	.142	1.329	.188	-.001	.013	-.008	-.095	.925
HH Size	-.176	.215	-.085	-.819	.416	.009	.220	.004	.043	.966
HH Income	.147	.092	.174	1.600	.114	.241	.068	.298	3.520	.001
Some College	.332	.793	.054	.418	.677	-.518	.702	-.095	-.737	.462
Associate’s Degree	.090	1.030	.009	.087	.931	.157	.763	.022	.206	.837
Bachelor’s Degree	.095	.849	.015	.112	.911	.835	.670	.183	1.245	.216
Graduate Degree	-.603	.960	-.077	-.628	.532	.894	.690	.186	1.295	.198
Black	-.655	.873	-.072	-.751	.455	-2.328	1.304	-.134	-1.785	.077
Hispanic/LatinX	-1.237	.884	-.148	-1.399	.166	1.376	.661	.163	2.080	.040
Asian	.172	.907	.019	.190	.850	1.125	.689	.119	1.634	.105
Other Race	.275	1.053	.025	.261	.795	-.879	.910	-.071	-.966	.336
Spouse is Perceived Saver	-1.162	.569	-.205	-2.043	.045	-.406	.334	-.094	-1.213	.228
					$F_{14,112} = 3.384$, $p < .001$					$F_{14,112} = 6.168$, $p < .001$
					$R^2 = .390$					$R^2 = .435$

Table 7. OLS Regression Describing the Relationship between Sex and Spender/Saver Scale Scores

	b	**Std. Error**	**B**	**t**	**Sig.**
(Constant)	41.414	7.719		5.365	.000
Sex	-4.766	1.694	-.216	-2.814	.005
Financial Knowledge	-1.226	.783	-.115	-1.565	.119
Financial Risk Tolerance	.206	.160	.101	1.289	.199
Age	-.039	.057	-.054	-.685	.494
HH Size	-.032	.760	-.003	-.042	.966
HH Income	-.489	.285	-.137	-1.716	.088
Some College	1.004	2.609	.039	.385	.701
Associate’s Degree	.285	3.157	.008	.090	.928
Bachelor’s Degree	4.036	2.616	.171	1.543	.124
Graduate Degree	.897	2.863	.035	.313	.754
Black	-.717	3.452	-.015	-.208	.836
Hispanic/LatinX	-.239	2.745	-.006	-.087	.931
Asian	3.618	2.878	.087	1.257	.210
Other Race	.828	3.529	.016	.235	.815
					$F_{14,238} = 1.537$, $p = .101$
					$R^2 = .097$

Discussion

Mixed support for the tested hypotheses was observed in this study. In regards to the first hypothesis, a spouse’s perception of their significant other’s spending and saving behavior was found to be associated with the spouse’s level of financial satisfaction; however, it was determined that a spouse who perceives their significant other as a saver did *not* report higher levels of financial satisfaction compared to a spouse who perceives their significant other as a spender. This finding was the opposite of that reported by Kruger (2019). This was particularly true among those in the middle-high to high income groups. When evaluated based on husband and wife models separately, females who perceived their husbands as savers reported lower levels of financial satisfaction. No husband effect was noted. As such, the second hypothesis was rejected. A general lack of support was noted for the third hypothesis. In this regard, household income was the only respondent characteristic to be associated (positively) with financial satisfaction. The fourth hypothesis, which stated that financial satisfaction will be positively associated with financial risk tolerance, was rejected; however, support was noted for the fifth hypothesis that stated financial satisfaction will be positively associated with financial knowledge.

The key findings from this study suggest the while perceptions of one's spouse's spending and saving behavior are directly associated with financial satisfaction, the relationship is not what one might expect. In this study, respondents who viewed their spouse primarily as a saver reported lower levels of financial satisfaction. Aspiration level may help explain this finding. It has been reported in the literature that financial satisfaction increases in line with income, but not when income aspirations exceed income (McBride, 2010). The same may be true in relation to saving perceptions. When one spouse believes that their significant other is a "tightwad" (Britt et al., 2017), this perception may be acted on negatively. The spouse who holds this perspective may come to believe that the saver spouse places too many restrictions on spending in pursuit of saving. Rather than being viewed in a way that leads to increased financial satisfaction, being married to someone who is perceived as a saver may dampen enthusiasm for one's financial situation. The robustness checks described in the results section provide additional support for the notion that the way perceptions work to describe financial satisfaction do appear to be gender oriented. It would be extremely valuable for future studies to explore this possibility.

Another explanation for the findings from this study can be found in cognitive role theory. Biddle (1986) argued that role conflict arises when someone's consensual expectation for another person's behavior differs from their own. When this occurs, symptoms of incompatibility can emerge, which, in this study, was evident by the finding that those who perceive their spouse as a saver also reported lower financial satisfaction. Biddle noted that when a person is subjected to conflicting pressures, the person will likely suffer stress. In this study, low levels of financial satisfaction can be seen as a proxy for stress. In the end, the marital dyad becomes disrupted. Whether the perceptions are accurate or not, role conflict can emerge. Such conflict appears to be effect females more so than males (Skinner, 1980; Stryker & Macke, 1978; Sumra & Schillaci, 2015).

The results from this study add to the existing literature by showing that a spouse's perception of their partner's spending and saving behavior is associated with self-reported financial satisfaction, but not necessarily in a way that is intuitive. Future research is needed to examine this issue in more detail. Future studies using larger samples would be beneficial in verifying the results from this study. Additionally, more studies are needed to validate the spender/saver scale used in this study, especially as it relates to financial knowledge and other constructs, such as marital satisfaction. It would be particularly useful if future studies gathered spender/saver data from both partners in a marital dyad and controlled for each spouse's income. It is possible that the differences between husbands and wives observed in this study were due, in part, to disparities in personal earned income. Collecting additional partner, income, and attitudinal data on this important topic can provide insights into these issues and provide marital and financial therapists, financial counselors, and financial educators useful guidance when working with married couples.

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Health-Related Debt and Health Savings Accounts Over Time

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Abstract

This study examines Health Savings Account (HSA) effects on health-related debt outcomes. Applying the health lifestyles theory, a subset of 12,686 respondents from three years (2010, 2012, and 2014) of secondary quantitative data from the National Longitudinal Surveys of Youth (NLSY) was drawn. The sample included respondents who answered survey questions about owning an HSA, chronic disease status, health behavior, and health-related debt. Descriptive, bivariate, and generalized estimating equation (GEE) analyses were conducted. Results indicate HSA ownership status (p=.76) is not significantly associated with reporting health-related debt. Implications for financial practice are discussed.

Key words: chronic disease, Health Savings Accounts, health debt, health status

Introduction to Health Savings Accounts (HSAs)

Health Savings Accounts (HSAs) are a response to push individual consumers to pay for their own health care expenses, rather than rely on government health care services (Buchmueller, 2009; Hanvoravongchai, 2002; Schweitzer et al., 1996). To be eligible to own an HSA, an individual must be enrolled in a High Deductible Healthcare Plan (HDHP), not receive Medicare, or be claimed as a dependent on another's tax return (U.S. Department of the Treasury. Internal Revenue Service, 2018). Contributions made to an HSA are tax deductible and anyone (employer, relative, friend) may deposit on behalf of the account owner (U.S. Department of the Treasury. Internal Revenue Service, 2018). Funds held in an HSA account are restricted to the use of eligible health care expenses, such as prescriptions and copayments for doctor visits (U.S. Department of the Treasury. Internal Revenue Service, 2018). If an individual changes jobs or moves, their HSA can move with them and the funds held in the account can be rolled over into the following tax year without penalties (U.S. Department of the Treasury. Internal Revenue Service, 2018). For the tax year 2018, an individual could contribute \$3,500 to an HSA and a family could contribute \$7,000 (U.S. Department of the Treasury. Internal Revenue Service, 2018). At the end of 2018, there were approximately 25 million HSAs with an average balance of about \$15,000 in each account (Robb & Remjeske, 2019, p. 3).

The Social Work Response to HSAs

Previous literature indicates Health Savings Accounts (HSAs) are created for healthy, high income earners (Gorin, 2006; Park & Greenstein, 2006) deeming them a poor fit for many populations social workers serve. However, higher income populations may need social workers to help them navigate the complexities of health insurance, including HSAs, now more than ever. A group of researchers comparing health care use by low and high income adults found that having a higher income made no difference in health care usage (Ross et al., 2006). Another group of researchers examined the role of social workers assisting clients suffering from cancer and the financial burden of health care costs (Smith et al., 2014). Qualitative interviews revealed social workers were gatekeepers of financial resources and matched available resources with client's needs (Smith et al., 2014). Social workers also advocated for adequate financial resources, better insurance coverage, practical eligibility criteria and processing to connect clients to resources (Smith et al., 2014). In another study, social workers responded to and helped clients with chronic diseases, such as cancer or diabetes, navigate financial barriers to health care (Hageman et al., 2018). Other researchers exploring the financial burden of health care for higher income populations found HSAs may help remove financial barriers to health care access (Hageman & St. George, 2019).

HSA Ownership and Debt

Currently, few studies examine HSA ownership and health-related debt. In one study, Zhang et al. (2018) evaluated the effect of HDHPs paired with HSAs on health care expenses related to health care use. Results indicated that after one year of enrollment in a HDHP, respondents reported a mean marginal increase of \$285 in health care spending compared to respondents enrolled in traditional health insurance plans (Zhang et al., 2018). Respondents in the lower income and chronic disease groups reported a mean marginal increase of \$306 and \$387, respectively, in health care spending compared to those enrolled in traditional health insurance plans (Zhang et al., 2018).

A different group of researchers examined the impact of high out-of-pocket costs for health care on health and financial outcomes (Grande et al., 2013). Qualitative interviews completed with 33 participants reporting a chronic disease revealed higher amounts of out-of-pocket costs led to significant amounts of debt (credit card, etc.) and interruptions in health care service (Grande et al., 2013). Another group of researchers examined the impact of a health event (diagnosis of a chronic disease) on unsecured debt and whether out-of-pocked health costs add to unsecured debt (Kim et al., 2012). Using six waves of data including respondents ages 50 and older from the Health and Retirement Study (HRS), the researchers found that a health event added to unsecured debt by more than 6% and out-of-pocket costs added an additional 20% to unsecured debt (Kim et al., 2012). Using this previous research to inform this study, the health lifestyle theory (Cockerham, 2005, 2013) was applied to operationalize variables to examine HSA effects on health-related debt.

The Health Lifestyle Theory

The health lifestyle theory (Cockerham, 2005) was applied to inform the connection between health-related debt and HSA ownership status. The components of the health lifestyle theory (Cockerham, 2005, 2013) include demographic variables, socialization experience, life choices (or the process of action an individual takes), life chances in terms of structure (for example, advantages and disadvantages of belonging to a particular ethnicity or socio-economic status), interplay or the balance between an individual's choice (action) and chance (structure) options, dispositions to act (the outcome of the interaction of choices and chances that lead to repeated behavior), and resulting practices or outcomes of behavior (Cockerham, 2005, 2013). The research question for this study is whether HSA ownership status is associated with respondent health-related debt?

Methods

Dataset and Variables

The National Longitudinal Survey of Youth (NLSY79) **(**NLSY79) is comprised of a nationally representative sample of 12,686 individuals age 14 to 24 years old that responded to the first data collection interview in the U.S. in 1979 (U.S. Bureau of Labor Statistics, 2016). A secondary data analysis was conducted using data from the NLSY. A subset of the 12,686 respondents were drawn for this research to include respondents who answered the survey questions from 2010 to 2014 about owning an HSA (n=4,823 for 2010; n=7,263 for 2012; and n=7,024 for 2014), having or not having one or more chronic diseases (diabetes, cancer, heart problems (heart disease, stroke, etc.) and/or arthritis (Centers for Disease Control and Prevention, 2019), and answered the SF-12 physical and mental component questions (n=4,784 for 2010; n=7,248 for 2012; and n=7,016 for 2014), answered the health behavior questions (drinking alcoholic beverages (beer, wine, or liquor) during the last 30 days; frequency of 6 or more drinks on one occasion in last 30 days; current daily smoking status; frequency eating fast food; frequency engaging in light/moderate activities; frequency engaging in vigorous activities) (n=2,600 for 2010; n=4,018 for 2012; and n=3,860 for 2014), and answered the debt question (owe money to any other businesses, such as stores, doctor's offices, hospitals, or banks) (n=936 for 2010; n=853 for 2012; and n=1,080 for 2014).

The demographic items include family size, marital status, race and ethnicity, gender, type of residence respondent is living in, region of current residence, whether respondent's current residence is urban or rural, age of respondent at the time of interview, highest grade completed as of May 1st survey year, and total net family income in the past calendar year (U.S. Bureau of Labor Statistics, n.d.-a). Data for all demographic variables were available for the years 2010 to 2014. The final sample for all variables of interest (owning an HSA and health-related debt questions) is 936 for 2010; 853 for 2012; and 1,080 for 2014. All study procedures were reviewed and approved by the University of Maryland, Baltimore Institutional Review Board (IRB) on September 14, 2018.

Data Analysis

Sample Weights and Analyses of Time

Sampling weights were constructed each survey year and provide an estimate of the number of individuals in the U.S. each respondent represents (U.S. Bureau of Labor Statistics. National Longitudinal Survey Program, n.d.-b). The individual case weights included three adjustments (a) reciprocal of the probability of selection at first interview, (b) cooperation rates for screening and interviews, and (c) correction for random variation association with sampling as well as sample "undercoverage" (U.S. Bureau of Labor Statistics. National Longitudinal Survey Program, n.d.-b). Sample weights were readjusted to account for non-interviews each survey year (U.S. Bureau of Labor Statistics. National Longitudinal Survey Program, n.d.-b). A custom weight program was used to calculate the sample weights by creating a new list of respondents that meet inclusion criteria for this study (U.S. Bureau of Labor Statistics. National Longitudinal Survey Program, n.d.-b). Two variables from the restricted Geocode data set were used to adjust for the multi-stage clustered sample, the "Within Stratum Replicate Of Primary Sampling Unit" and "Stratum Number for Primary Sampling Units" (U.S. Bureau of Labor Statistics. National Longitudinal Survey Program, n.d.-b). Missing observations were determined to be missing at random.

The *lag* function using SAS Version 9.4 was applied to relate the value of a variable in the current observation to the value of the same or another variable in the previous observation (Tian, 2009). In this study, the *lag* function was used to assess the respondent prior and later health-related debt and HSA ownership status.

Descriptive, Bivariate and Generalized Estimating Equations Analyses
Descriptive statistics were used as the first step to analyze the data. Descriptive statistic results are organized by HSA ownership status from 2010 to 2014 for the NLSY79 samples. Bivariate analyses were conducted. Generalized estimating equations (GEE) was conducted to determine whether HSA ownership status was associated with respondent health-related debt. Quantitative data from the NLSY79 dataset years 2010, 2012, and 2014 was entered and recoded using SAS Version 9.4. Descriptive frequencies were conducted on all variables.

Results

Descriptive Results by Year

Across all three years, more than 60% of respondents who indicated they owned an HSA identified as Non-Black, Non-Hispanic. Repeated measures data revealed respondents inevitably aged over time - the average age of HSA owners in 2010 was 47.18 (*SD*=1.33), in 2012 the average age was 51.20 (*SD*=2.24), and in 2014 HSA owners indicated their average age as 53.43 (*SD*=2.22) years. Across all three years, almost 70% of respondents who indicated they owned an HSA also reported they were married. More than 92% of both HSA and non- HSA owners reported owning a home. Roughly 60% of both HSA and non- HSA owners reported living in the North Central or South regions and about 80% of all respondents reported living in an urban environment. More than 67% of HSA owners indicated they attended college across all three years and the average income for HSA owners in 2010 was $110,810 (*SD*=84,851), in 2012 it was $120,307 (*SD*=$103,085), and in 2014 it was $128,577 (*SD*=$124,952).

In terms of Chronic Disease status, more than 72% of HSA owners indicated they did not have a Chronic Disease in 2010, 2012 or 2014. More than 66% of HSA owners across all three years indicated they drink alcohol while less than 7% of HSA owners reported they binge drink for each year measured (2010, 2012 and 2014). Less than 60% of HSA owners indicated they did not smoke at all for 2010, 2012, and 2014 while at least 92% of HSA owners reported they eat fast food never or 1-3 times per week. At least 32% of HSA owners indicated they engaged in light/moderate/vigorous exercise one to three times per week in 2010, 2012, and 2014.

In 2010, about 41% of HSA owners reported they had health-related debt, and in 2012 about 17% of HSA owners indicated they had health-related debt, while in 2014, more than 30% of HSA owners reported they had health-related debt. The range of health debt was $8,000-$8,999 in 2010, $2,000-$2,999 in 2012 and $6,000-$6,999 in 2014 for HSA owners. Descriptive statistics by HSA ownership status for the years 2010, 2012, and 2014 are presented in Table 1.

Bivariate Results

The association between Chronic Disease status and health-related debt was significant for respondents who owned an HSA in 2010, 2012, and 2014 (the time lagged HSA variable) (χ^2=4.46, p<.05) as well as for respondents who did not own an HSA in 2010, 2012, and 2014 (χ^2=100.96 p<.001). The association between Chronic Disease status for 2010, 2012 and 2014 (the time lagged Chronic Disease variable) and health-related debt was significant for respondents who owned an HSA (χ^2=6.37, p<.05) and for those who did not own an HSA (χ^2=54.35, p<.001). The association between Chronic Disease status for 2010, 2012 and 2014 and health-related debt (χ^2=57.73, p<.001) was significant for respondents who did not own an HSA in 2010, 2012, and 2014.

The relationship between health-related debt in 2010, 2012, and 2014 (the time lagged health-related debt variable) with Chronic Disease status was significant for respondents who owned an HSA (χ^2=11.95, p<.001) and for respondents who did not own an HSA (χ^2=91.97, p<.001). The association between health-related debt in 2010, 2012, and 2014 with Chronic Disease status was significant for respondents who owned an HSA in 2010, 2012, and 2014 (χ^2=11.30, p<.001) and for respondents who did not own an HSA in 2010, 2012, and 2014 (χ^2=100.40, p<.001). The association between Chronic Disease status for 2010, 2012 and 2014 and health-related debt 2010, 2012, and 2014 was significant for respondents who owned an HSA (χ^2=16.87, p<.001) and for those who did not own an HSA (χ^2=59.29, p<.001).

Generalized Estimating Equations Results

The Variance Inflation Faction (VIF) to assess for multicollinearity among HSA ownership status, health-related debt and all covariates was assessed and met (VIF<2). HSA ownership status (p=.76) was not significantly associated with reporting health-related debt. Gender, Average Age, Separated and Widowed Marital Status, Northeast Region of Residence, Urban/Rural, Chronic disease status, Diet (i.e. eating fast food), and Light/Moderate and Vigorous Exercise were significantly associated with reporting health-related debt. Men were estimated to be 1.35 times more likely than women to report health-related debt (p<.001, 95% CI=1.15-1.58). For each unit increase in Age, the odds of having health-related debt increased by 1.05, indicating that aging was associated with having Debt (p<.01, 95% CI=1.02-1.08). A Separated person was estimated to be 1.43 times more likely than a Never married person to report health-related debt (p<.01, 95% CI=.86-2.39). A Widowed person was estimated to be 1.02 times more likely than a Never married person to report health-related debt (p<.001, 95% CI=.65-1.59). A person living in the Northeast Region was 1.73 times more likely than a person living in the West Region to report health-related debt (p<.05, 95% CI=1.37-2.19). Respondents living in an Urban area were .81 times less likely to have health-related debt compared to those living in a Rural area (p<.05, 95% CI=.68-.97).

Respondents reporting a Chronic Disease were 1.31 times more likely to have health-related debt than those who did not have a Chronic Disease (p<.01, 95% CI=1.11-1.55). For each unit increase in Diet (Eating fast food), the odds of reporting debt increased by 1.12, indicating that Eating fast food more frequently was associated with reporting health-related debt (p<.05, 95% CI=1.01-1.24). For each unit increase in Light/Moderate Exercise, the odds of having health-related debt increased by 1.06, indicating that exercising at a Light/Moderate level more frequently was associated with having health-related debt (p<.05, 95% CI=1.01-1.11). In comparison, for each unit decrease in Vigorous Exercise, the odds of having health-related debt decreased by .94, indicating that exercising Vigorously less often was associated with reporting health-related debt (p<.05, 95% CI=.89-.99).Table 2 presents the GEE estimates controlling for other covariates.

Discussion

Results revealed HSA ownership status (p=.76) was not significantly associated with reporting health-related debt. The results of this study revealed that men, older individuals, separated and widowed individuals (compared to never married individuals), those living in the Northeast (compared to the West region) and those living in an Urban area were more likely to report health-related debt. Those respondents reporting a Chronic Disease and eating fast food more frequently per week also reported having health-related debt. Interestingly, engaging in Light/Moderate Exercise more frequently and engaging in Vigorous Exercise less often was associated with having health-related debt.

Research related to HSAs may inform social work practice and policies that directly impact vulnerable populations, regardless of income level. In practice, social workers may serve as gatekeepers for resources that alleviate health and financial burdens. Many social service, government and private sector agencies are deeply connected to public and private health insurance. Social workers employed in these institutions are well positioned to advocate for protections from health-related debt for their sick clients. For instance, social workers may assist clients access direct financial assistance to pay health care costs, health care debt, and/or apply for adequate health insurance coverage.

Many populations social workers often serve may not have access to or want an HSA because they may not pay taxes or not have enough income left over to pay for health care (Clary & Riley, 2017). HSAs are attractive to households that want to save money without paying taxes (Clary & Riley, 2017). But perhaps revising the structure and eligibility criteria to own an HSAs would broaden the scope of their impact on health-related debt outcomes. The results of this study may be used to explore the potential to modify HSAs to reduce health-related debt. New partnerships with government, nonprofit and for-profit agencies that provide HSAs may be formed to replicate the results of this study as well and even expand the availability of HSAs to populations living high amounts of health-related debt.

Study Strengths and Limitations

This study was one of the few to address the relationship between HSAs and health-related debt using a longitudinal, nationally representative sample and the health lifestyle theory (Cockerham, 2005, 2013). GEE was applied to test associations between health-related debt and HSA ownership status and accounted for the clustering of occasions within respondents. Due to the limitations of the dataset used, just three data points at two-year increments were available. Datasets containing health-related debt and HSA variables with more than three timepoints may further inform the connection between health-related debt and HSA ownership status. Additionally, the causal order of the association between HSA ownership status and health-related debt status is inconclusive. Hence, no evidence was found to determine whether HSA ownership status has an effect on health-related debt or whether it is health-related debt status that has an effect on HSA ownership status. In addition, only one question about HSAs was available while the dollar amount held in each account was not available in the dataset used for this study. Further, the health-related debt question includes categories besides health-related debt, such as owing money to stores or banks. Future studies may consider using primary data collection methods to include additional questions about HSAs, the dollar amount held in HSAs, and health-related debt questions that focus solely on debt resulting from health care expenses.

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Table 1.

Descriptive Statistics by HSA Ownership Status (2010, 2012, and 2014)

	HSA					
	2010 (n) (%)		2012 (n) (%)		2014 (n) (%)	
	Yes	No	Yes	No	Yes	No
Gender						
Male	499 (44.95)	3137 (49.02)	569 (48.06)	2933 (48.25)	569 (46.34)	2812 (48.52)
Female	611 (55.05)	3262 (50.89)	615 (51.94)	3146 (51.75)	659 (53.66)	2984 (51.48)
Race/Ethnicity						
Hispanic	145 (13.06)	1294 (20.22)	167 (14.10)	1237 (20.35)	154 (12.54)	1185 (20.45)
Black	226 (20.36)	2113 (33.02)	277 (23.40)	1996 (32.83)	279 (22.72)	1952 (33.68)
Non-Black, Non-Hispanic	739 (66.58)	2992 (46.76)	740 (62.50)	2846 (46.82)	795 (64.74)	2659 (45.88)
Average Age (*SD*)	47.18 (1.33)	47.19 (1.34)	51.20 (2.24)	51.36 (2.23)	53.43 (2.22)	53.48 (2.22)
Marital Status						
Never married	100 (9.01)	1151 (18.00)	111 (9.38)	1068 (17.57)	109 (8.88)	1006 (17.36)
Married	773 (69.64)	3379 (52.83)	821 (69.34)	3105 (51.09)	857 (69.79)	2915 (50.29)
Separated	30 (2.70)	359 (5.61)	24 (2.03)	360 (5.92)	22 (1.79)	319 (5.50)
Divorced	185 (16.67)	1376 (21.51)	215 (18.16)	1386 (22.81)	217 (17.67)	1371 (23.65)
Widowed	22 (1.98)	131 (2.05)	13 (1.10)	158 (2.60)	23 (1.87)	185 (3.19)
Family Size						
1 person	171 (15.41)	1531 (23.93)	197 (16.64)	1550 (25.50)	218 (17.75)	1666 (28.74)
2 persons	263 (23.69)	1748 (27.32)	347 (29.31)	1860 (30.60)	436 (35.50)	1932 (33.33)
3 persons	242 (21.80)	1310 (20.47)	277 (23.40)	1253 (20.61)	247 (20.11)	1087 (18.75)
4 persons	276 (24.86)	1076 (16.82)	223 (18.83)	865 (14.23)	225 (18.32)	689 (11.89)
5 or more persons	158 (14.23)	734 (11.47)	140 (11.82)	551 (9.06)	102 (8.31)	422 (7.28)
Residence						
Owns home	1081 (98.45)	5899 (92.90)	1171 (98.90)	5705 (93.86)	1216 (99.02)	5553 (95.86)
Does not own	17 (1.55)	451 (7.10)	13 (1.10)	373 (6.14)	12 (0.98)	240 (4.14)
Region						
Northeast	181 (16.32)	936 (14.77)	186 (15.75)	890 (14.78)	180 (14.68)	843 (14.70)
North Central	336 (30.30)	1391 (21.95)	340 (28.79)	1319 (21.90)	390 (31.81)	1213 (21.15)
South	413 (37.24)	2729 (43.06)	452 (38.27)	2603 (43.22)	470 (38.34)	2493 (43.47)
West	179 (16.14)	1281 (20.21)	203 (17.19)	1210 (20.09)	186 (15.17)	1186 (20.68)
Urban/Rural						
Urban	777 (78.09)	4473 (77.66)	971 (82.85)	4646 (78.99)	989 (81.27)	4470 (78.99)
Rural	218 (21.91)	1287 (22.34)	201 (17.15)	1236 (21.01)	228 (18.73)	1189 (21.01)
Education: College						
Did not attend	339 (30.54)	3656 (57.13)	372 (31.42)	3488 (57.38)	394 (32.08)	3263 (56.30)
Attended	771 (69.46)	2743 (42.87)	812 (68.58)	2591 (42.62)	834 (67.92)	2533 (43.70)
Income (*SD*)	110,810 (84,851)	64,613 (66,428)	120,307 (103,085)	66,678 (74,251)	128,577 (124,952)	66,184 (82,370)
Chronic Disease status						
Yes	304 (27.51)	1965 (30.84)	294 (24.85)	1912 (31.50)	302 (24.61)	1841 (31.76)
No	801 (72.49)	4406 (69.16)	889 (75.15)	4158 (68.50)	925 (75.39)	3955 (68.24)
SF-12 Physical Health Score average (*SD*)						
Age 40 survey	53.12 (6.40)	51.69 (8.25)	53.48 (6.07)	51.82 (8.15)	53.75 (5.77)	51.80 (8.09)
Age 50 survey	51.95 (7.32)	48.57 (10.63)	52.36 (6.82)	48.49 (10.67)	52.44 (6.81)	48.50 (10.64)
SF-12 Mental Health Score average (*SD*)						
Age 40 survey	53.78 (6.89)	52.89 (8.55)	53.66 (7.45)	52.84 (8.52)	53.40 (7.59)	52.86 (8.48)
Age 50 survey	54.00 (7.52)	52.82 (9.22)	54.03 (6.86)	52.68 (9.18)	53.89 (7.39)	52.64 (9.16)

Alcohol: Drinks alcohol						
Yes	740 (66.73)	3407 (53.63)	827 (69.91)	3132 (51.79)	844 (68.59)	3049 (52.83)
No	369 (33.27)	2946 (46.37)	356 (30.09)	2915 (48.21)	380 (31.05)	2722 (47.17)
Binge drinks alcohol						
Yes	56 (5.05)	466 (7.28)	60 (5.07)	451 (7.42)	81 (6.60)	443 (7.64)
No	1054 (94.95)	5933 (92.72)	1124 (94.93)	5628 (92.58)	1147 (93.40)	5353 (92.36)
Smoking						
Not at all	335 (67.81)	1814 (49.23)	357 (70.55)	1874 (52.88)	397 (71.15)	1907 (57.34)
Occasionally	45 (9.11)	411 (11.15)	50 (9.88)	392 (11.06)	52 (9.32)	401 (12.06)
Daily	114 (23.08)	1460 (39.62)	99 (19.57)	1278 (36.06)	109 (19.53)	1018 (30.61)
Diet: Eats fast food times per week						
Never	407 (36.67)	2266 (35.41)	506 (42.74)	2368 (38.95)	550 (44.79)	2412 (41.61)
1-3	621 (55.95)	3560 (55.63)	608 (51.35)	3206 (52.74)	600 (48.86)	2929 (50.53)
4-6	62 (5.59)	354 (5.53)	48 (4.05)	336 (5.53)	59 (4.80)	288 (4.97)
6 or more	20 (1.80)	219 (3.42)	22 (1.86)	169 (2.78)	190 (1.55)	167 (2.88)
Exercise times per week: Light/Moderate						
No exercise	179 (16.13)	1254 (19.60)	164 (13.85)	1117 (18.37)	164 (13.36)	1050 (18.12)
Less than 1	74 (6.67)	677 (10.58)	63 (5.32)	471 (7.75)	74 (6.03)	510 (8.80)
1 to 3	387 (34.86)	1586 (24.79)	395 (33.36)	1504 (24.74)	395 (32.17)	1490 (25.71)
3 to 5	152 (13.69)	694 (10.85)	172 (14.53)	634 (10.43)	174 (14.17)	633 (10.92)
5 or more	318 (28.65)	2188 (34.19)	390 (32.94)	2353 (38.71)	421 (34.28)	2113 (36.46)
Exercise times per week: Vigorous						
No exercise	185 (16.67)	1478 (23.10)	172 (14.53)	1400 (23.03)	227 (18.49)	1465 (25.28)
Less than 1	118 (10.63)	930 (14.53)	113 (9.54)	784 (12.90)	121 (9.85)	784 (13.53)
1 to 3	416 (37.48)	1858 (29.04)	473 (39.95)	1794 (29.51)	435 (35.42)	1686 (29.09)
3 to 5	204 (18.38)	746 (11.66)	216 (18.24)	681 (11.20)	222 (18.08)	601 (10.37)
5 or more	187 (16.85)	1387 (21.68)	210 (17.74)	1420 (23.36)	223 (18.16)	1260 (21.74)
Health-Related Debt: Owes money						
Yes	455 (41.21)	2347 (37.10)	203 (17.23)	1324 (21.96)	369 (30.22)	1658 (28.89)
No	649 (58.79)	3979 (62.90)	975 (82.77)	4705 (78.04)	852 (69.78)	4082 (71.11)
Average range of debt owed	\$8,000-8,999	\$6,000-6,999	\$2,000-2,999	\$3,000-3,999	\$6,000-6,999	\$5,000-5,999

Note. Yes or No=HSA Ownership Status.

Table 2.

Generalized Estimating Equations of HSA Ownership Status and Debt (n=6,387)

Variables	β	SE_β	Z	*p*	Odds ratio	CI 95%
Intercept***	-3.05	.85	-3.58	.000	--	-4.71- -1.38
Gender***	.30	.08	3.69	.000	1.35	1.15-1.58
Race/Ethnicity (Non-Black, Non-Hispanic ref)						
Hispanic	-.11	.11	-1.06	.29	1.20	.95-1.51
Black	.07	.09	.74	.46	1.12	.91-1.38
Average Age**	.05	.01	3.42	.001	1.05	1.02-1.08
Marital Status (Never married ref)						
Married	-.01	.23	-.07	.94	1.49	.99-2.26
Separated**	.38	.13	2.87	.004	1.43	.86-2.39
Divorced	.34	.20	1.71	.09	1.78	1.17-2.69
Widowed***	.56	.14	3.95	<.001	1.02	.65-1.59
Family Size	.02	.04	.53	.60	1.02	.95-1.10
Home Ownership	.25	.19	1.27	.20	1.28	.87-1.87
Region (West ref)						
Northeast*	-.31	.14	-2.24	.02	1.73	1.37-2.19
North Central	.24	.12	1.96	.05	1.42	1.13-1.79
South	.04	.12	.36	.72	1.36	1.04-1.78
Urban/Rural*	-.21	.09	-2.45	.02	.81	.68-.97
Education	.002	.09	.02	.98	1.00	.85-1.18
Income	-.004	.01	-.59	.56	1.00	.98-1.01
Chronic Disease status**	.27	.09	3.15	.002	1.31	1.11-1.55
SF-12 Physical Health Score average						
Age 40 survey	-.07	.06	-1.14	.25	.93	.83-1.05
Age 50 survey	-.05	.05	-.98	.33	.95	.86-1.05
SF-12 Mental Health Score average						
Age 40 survey	.02	.06	.35	.73	1.02	.91-1.14
Age 50 survey	-.10	.05	-1.98	.05	.91	.82-1.00
Drinks Alcohol	.001	.08	.01	.99	1.00	.85-1.17
Binge Drinks Alcohol	.19	.12	1.56	.12	1.21	.95-1.55
Smoking (Daily ref)						
Not at all	-.02	.09	-.25	.80	1.11	.88-1.40
Occasionally	.08	.12	.68	.50	1.02	.86-1.21
Diet: Eats fast food*	.12	.05	2.22	.03	1.12	1.01-1.24
Exercise: Light/Moderate*	.06	.03	2.26	.02	1.06	1.01-1.11
Exercise: Vigorous*	-.06	.03	-2.45	.01	.94	.89-.99
HSA ownership status	.03	.10	.30	.76	1.03	.84-1.27

Note. Health-Related Debt status frequency (yes=1,672; no=4,715).
* $p<.05$; ** $p<.01$; *** $p<.001$

Consumer Finance Scales Published in the *Journal of Financial Counseling and Planning*: A Literature Review

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Abstract

The purpose of this literature review is to document consumer finance scales published in the *Journal of Financial Counseling and Planning*, describe features of each scale and provide implications for both researchers and practitioners. *JFCP* publishes peer-reviewed articles which include the use and development of scales within their 31 years of publication. 15 scales published in 13 different papers were collected through the AFCPE® website and analyzed based on target population, number of factors and items, reliability measures and use of validity. Scales were divided into six categories based on the topic of the paper and scale. Implications for researchers and practitioners are discussed.

Key words: content analysis, consumer finance, journal review, scale

Background

Money market fluctuations are not uncommon in today's society. Practitioners in this field such as financial planners, financial counselors and financial educators assist individuals, families and business owners on a daily basis. Research has increased in order to better understand society, culture and the use of money and to understand consumer financial behavior. Equipped with research-based evidence, practitioners such as financial planners and counselors work to help people looking to plan for their future, trying to create or improve a credit line, and attempting to make positive financial decisions.

To assist their practice and help their clients, a key tool for researchers and practitioners to use is a scale. A scale is used to measure variables that would otherwise be unobservable (Fayers & Hand, 2002). There are a variety of measurements, variables and research designs that can be used to create a scale. Common examples of these include Likert scales, qualitative and quantitative research designs, nominal, ordinal or interval/ratio levels of measurement and the creation of variables appropriate to the research. In particular, scales are useful when asking a client to self-report their behavior such as their spending habits or personality traits (Tay & Jebb, 2017).

A researcher not only chooses a target audience to work with, but also determines which items and dimensions are appropriate for the creation of an effective scale. Analyzing a scale provides researchers the opportunity to assess correlations between measures and values, create item pools, assess reliability and validity of their obtained measures and can be repeated on different occasions

When choosing what scale to utilize for a study, it is important to determine the dimensionality of the construct; the items that make up the scale or the construct (Bhattacherjee, 2012). A unidimensional scale is a construct that has only one single dimension (Bhattacherjee, 2012). In other words, by using a single scale or test, one construct can be measured. Multidimensionality, though, means a scale has two or more dimensions so it can be used to measure multiple items (Bhattacherjee, 2012).

Theory is also important to keep in mind when using or developing an appropriate scale for a study. The use of a theory allows researchers and practitioners to input their conceptual framework when creating a scale (Bhattacherjee, 2012; Nilsen, 2015). A theory having a set of analytical principles, helps researchers and practitioners develop a better system to observe, understand, and explain predetermined central phenomena. (Nilsen, 2015). Furthermore, a theory provides a possible explanation for the relationship between variables and could help a researcher formulate their hypothesis, creation of variables and setting up the relationship between their variables (Nilsen, 2015).

The *Journal of Financial Counseling and Planning* is the official research journal of AFCPE® and been published since 1990 (Xiao et al., 2020). Scales used within the *Journal of Financial Counseling and Planning* provides researchers and practitioners the opportunity to use a reliable source of measurement and allows them to better examine and understand the published scales. Each paper collected discusses their research problem and purpose of the research as well as describing the development of their instrument. Each scale serves its own purpose and the researchers go in depth to explain why their scale is practical.

Purpose

The purpose of this research is to conduct an in-depth look at the financial scales published in the *Journal of Financial Counseling and Planning.* Each scale that has been published in *JFCP* has been compiled into a comprehensive list of 13 articles. The primary goal is to compile a list of the 15 scales published in *JFCP* and provide a comprehensive list and descriptions of features. A secondary goal of this study is to provide practical implications for both researchers and practitioners. The analysis of the scales published in the *Journal of Financial Counseling and Planning* will create more awareness when investigating how scales have been used previously, the purpose of the scales, how they are used, the results of the scale use and implications for future use of the scales. The intent is to gain a better understanding of the reliability of the scales, who the targeted population is and how the scales were used in each study. By doing so, there will be a better understanding that the scales found within the *Journal of Financial Counseling and Planning* serve a larger purpose.

Conceptual Framework

Tay and Jebb (2016) define scale development as a "reliable and valid measure of a construct in order to assess an attribute of interest". One method to create a scale involves using a deductive approach in which the developer focuses on theory and the pre-conceptualized constructs. A scale can also be developed utilizing an inductive approach where there is uncertainty in the construct or dimensionalities of the construct (Tay & Jebb, 2016). Regardless of the approach, a critical aspect of the development is a clear, accurate definition of the construct being used. In creating a scale, a number of factors have to be taken into consideration according to Tay and Jebb (2016): the target population, what the items pertain to, considering the differences in how respondents interpret the items, type of scale format and the applicability of reverse scoring. The factors listed by Tay and Jebb (2016) provide an outline in determining which variables will be analyzed when examining each individual scale.

Each scale published in the *Journal of Financial Counseling and Planning* pertains to consumer science and holds implications for both researchers and practitioners. Consumer science is a broad topic that focuses on the interactions between people and their environment and encompasses financial wellbeing, financial behaviors and financial attitudes. It also includes financial literacy and behaviors towards resource management (Consumer Financial Protection Bureau, 2015). The framework used in this research is based on Xiao's 2015 article *Consumer Economic Wellbeing* and Tay and Jebb's book chapter on *Consumer Economic Wellbeing* and Tay and Jebb's article on *Scale Development* (2016).

Some scales analyzed used theory as their framework while others used the concepts of financial decisions, behaviors or attitudes. A common theory used is Bandura's Social Learning Theory. A number of scales and researchers use this theory in the development of their measures regarding self-efficacy. Some of these researchers include Lown and Nguyen. Other researchers such as Ksendzova et al. (2017) use the Life Cycle Theory in the development of their Brief Money Management Scale. This is important because theory provides a definition or explanation of the particular concept or phenomenon the researchers are examining.

Within consumer science, there are both objective and subjective measures.
It is impossible to quantify people's financial behaviors and attitudes without the use of tools such as scales. Self-reporting is objectively measuring individuals' financial behaviors and attitudes. Table 1 in *Consumer Economic Wellbeing* outlines that objective measures can include income, debt, expenditure, assets, net worth and consumer rights (Xiao, 2015). This allows researchers and practitioners to better understand the individuals they are studying and the behaviors they are working to measure.

Each component that is measured by one of the 15 scales has to do with an individual's financial behavior. These components include but are not limited to financial wellbeing, financial self-efficacy and financial behaviors. Furthermore, scales help consumers achieve financial wellbeing and achieve desirable or positive financial behaviors. Financial wellbeing is defined as a subjective measure of economic satisfaction based on perceived income, financial behaviors and knowledge (Xiao, 2015). An individual's wellbeing is related to their behaviors and attitudes. If, for example, an individual makes a poor choice, they are more likely to have a negative perception of their own wellbeing. Financial behaviors and attitudes encompass the decisions and choices individuals make based on their finances. Scales such as Nyugen's Women's Financial Self-Efficacy Scale quantifies self-efficacy which is defined as "an individual's self-perceived ability in managing their finances" (Nguyen, 2019). Each term and definition introduced by the scales published in *Journal of Financial Counseling and Planning* connect and build off of one another to better understand financial behavior and financial wellbeing. Each of these terms and definitions influence one another and overlap one another in one way or another. This analysis of scales will help individuals better understand their own behaviors and attitudes towards finances and could help them achieve positive financial outcomes.

Research Question

For this research, an in-depth, comprehensive look at the scales published within the *Journal of Financial Counseling and Planning* is presented. Therefore, three research questions were posted: 1) What consumer finance research scales are published within the *Journal of Financial Counseling and Planning*? 2) What are the contents of the scales? 3) What are the implications of the scales for researchers and practitioners? The intended purpose of the literature review is to create a better understanding of the scales that have been published within the *Journal of Financial Counseling and Planning*.

Methodology

Scales used in this literature review has been published in the last 31 years of the *Journal of Financial Counseling and Planning*. Keywords such as *construct, instrument, scale* and *measure* on the AFCPE® website are used to identify different scales (https://www.afcpe.org). From the results, a list of 13 articles discussing 15 different scales over the last 31 years of *JFCP* were documented. From there, a more in-depth analysis of each article took place. Variables such as targeted population and the number of items and dimensions were recorded. Other distinctions made included the type of scale used, scale reliability, and validity measures. Scales were divided into six categories based on the research purpose of the journals from which they were obtained. Following a similar outline of Aghdam et al.'s (2019) article, each scale was categorized based on the topics it covers. This allows more of an understanding of the purpose of each scale as well as the population and researchers and practitioners the scales best suit. Furthermore, the analysis allowed us to develop implications for researchers and practitioners in the consumer finance field.

Results

There were a total of 15 scales in 13 different papers within *Journal of Financial Counseling and Planning.* Each scale had its own, unique purpose and served various target populations. The studies published utilizing the scales had sample populations ranging from 80 participants up to 1,300 participants. There were a number of topics addressed with the scales. The 15 scales were categorized based on the topics they address: financial wellbeing or strain scales, financial self-efficacy scales, financial behavior, financial management and decision styles, financial attitudes and special purposes. Table 1 shows the compilation of the articles along with details about the variables that were analyzed.

1. **Financial wellbeing or strain scales**

    a. **Financial Strain Survey** (Aldana & Lijenquist, 1998): This scale was developed with the purpose of developing a measure of financial strain that could be used in identifying people who could be suffering from financial strain and accompanying negative health effects. Using the Delphi research method, participants had to fill out the survey as well as self-report their mortgage/rent, total credit card payments and car payments. The initial sample was 153 people that could provide information on five factors (relationships, physical, credit card use and meeting obligations and education). The scale had a total of 18 items and used a 5-point Likert scale. The scale's reliability measures ranged from .62-.89 and the researchers used concurrent, criterion and predictive validity strategies.

    b. **InCharge Financial Distress/Financial Well-Being Scale (**Prawitz, et. al., 2006): The InCharge Financial Distress/Financial Well-Being Scale based their study on Porter and Garman's (1993) conceptual framework of financial wellbeing, Garman's 1996 list of bad financial behaviors and other notable frameworks included Prochaska-Cue (1993) and Beutler and Mason (1987). The purpose of the original study was to outline and describe the development of the scale in order to measure a person's stress and well-being based on their financial conditions. Using the Delphi research methods, researchers focused on financial wellbeing and financial distress. The initial study consisted of 1,300 participants. There was one factor, eight items and a 10-point response scale was utilized. The reliability was .956 and the study used criterion and content validity.

2. **Financial Self Efficacy Scales:**

a. **Financial Self-Efficacy Scale** (Lown, 2011): Lown used Bandura's concept of self-efficacy and Prochaska's Transtheoretical Model of Behavior Change in her development of a self-efficacy scale. The purpose of Lown's paper is to develop measures of self-efficacy that are specific to financial behaviors. Scale items used were adapted from Schwarzer and Jerusalem's 1995 General Self-Efficacy Scale. In the initial study, there were 510 participants. This scale has three factors (confidence/willingness, stigma tolerance and self-sufficiency), 16 items and used a 4-point Likert scale. Researchers used content, criterion and construct validity and the scale's reliability ranged from .65-.78.

b. **Women's Financial Self-Efficacy Scale** (Nguyen, 2019): The purpose of Nguyen's original study was to develop and examine the validity and reliability of the Women's Financial Self-Efficacy Scale and was one of a few scales who had a specific target audience. Nguyen used Bandura's (2006) suggestions of developing self-efficacy scales as a framework. The initial study had 299 participants, four factors (saving and investing, knowledge about financial resources, financial goals achievement and cash flow management and credit basis), 21 items and used a 4-point Likert scale. The reliability factor was .93 overall and Nguyen used construct and criterion validity.

3. **Financial Behavior:**

a. **Compulsive Spending Scale** (Edwards, 1999): Prior to the creation of this scale, there was no scale to understand compulsive spending. In the creation of this scale, Edwards used Albanese' 1998 theoretical framework of the relationship between personality and compulsive spending. The purpose of this scale creation was with counselors and therapists in mind; helping them to identify and determine the severity of compulsive spending habits in clients. There were 104 participants in this study who self-identified as compulsive buyers and the scale had five factors (tendency to spend, compulsion/drive to spend, feelings about shopping and spending, dysfunctional spending and post-purchase guilt) and 13 items. Researchers used a 5-point Likert scale with construct validity and had reliability ranging from .76-.91.

b. **The Financial Management Behavior Scale** (Dew & Xiao, 2011): Dew and Xiao's *Financial Management Behavior Scale* aimed to develop and look at the psychometric properties of financial management behaviors. The initial study had 1,011 participants recruited from the Familial Response to Instability Study and is the only scale to use a nationally represented population. The scale uses a behavioral hierarchy as framework and has 4 factors (cash management, credit management, savings and investment and insurance) and 15 items. The researchers used a 5-point Likert scale, the scale had a reliability that ranged from .57-.78 and used face, content, construct, convergent, divergent, criterion and external validity.

c. **Brief Money Management Scale** (Ksendzova, Donnelly & Howell, 2017): The purpose of the Brief Money Management study was to replicate and understand the relationships between types of money management and financial outcomes in addition to personality and demographics. Using the Life Cycle Theory as framework, the original study had 1,078 participants. Participants also completed the Big Five Inventory to assess personality traits, the Material Values Scale and the Financial Products Knowledge Scale. The final scale consisted of four factors (savings management, cash management, credit management and insurance and investment management), 18 items and used a Likert scale. The scale's reliability measures ranged from .79-.89 and the researchers used concurrent validity.

4. **Financial Management and Decision Styles:**

a. **Financial Decision Making Styles** (Rettig & Schulz, 1991): The purpose of Rettig and Schulz' paper was to describe the development of their Financial Decision Making Styles scale while providing the results of their initial study and provide future directions for research. The researchers used Rettig's 1988 study that dealt with family managerial decision styles and the pragmatist thinking styles of Harrison and Bramson (1982). The initial study had 80 participants, two factors (analyst-synthesist and realist-pragmatist) and 22 items using a 6-point Likert scale. There was a reliability measure ranging from .75-.81 with no reported validity measures.

a. **Prochaska-Cue Inventory of Financial Style** (Prochaska-Cue, 1993): The purpose of Prochaska-Cue's article was to develop an instrument to measure personal financial management styles resulting in the creation of a new scale. Prochaska-Cue used two scales in their study basing them around the Cognitive Styles Theory. All data was drawn from work which used the model of personal financial management styles.

i. **Analyzing Scale:** The first scale measured financial management styles using an analyzing approach that had 128 participants, three factors and 14 items. Using a 6-point Likert scale, it had a .88 reliability and the researchers used face and content validity.

ii. **Holistic Scale:** The second scale measured financial management styles using a holistic approach. For this, there were 128 participants, three factors and eight items using a 6-point Likert scale. It had an overall reliability measure of .67 and researchers used face and content validity.

5. **Financial Attitude Scales**

a. **Financial Counseling Attitude Scale (**Lown & Cook, 1990): The purpose of Lown and Cook's paper was to evaluate and redesign a tool to examine attitudes towards seeking help with financial troubles. Lown and Cook use Ajzen and Fishbein's theory of reasoned action (1980) as framework and adapts Rimm's 1975 scale, to measure financial self-efficacy for the use of financial counselors to fit the use of the Financial Counseling Attitude Scale. 726 participants were used. There was one factor, six items and 4-point Likert scale was used. Using criterion validity, the scale's reliability measure was .76.

b. **Retirement Risk Tolerance Measure** (Hanna, Gutter & Fan, 2001): Using the Economic Theory and Economic Model as framework, Hanna, Gutter and Fan wanted to test an improved version of the Barsky et al. (1997) risk aversion measure and relate it to the Barsky measure and the SCF measure. Their purpose was to create an improved instrument and measure risk tolerance with the use of their new tool. This study had 390 participants, one factor and six items with no reported Likert scale. There were no reported reliability measures though it used face, content, construct, criterion and external validity.

6. **Special Purposes**

a. **New Adolescent Money Attitude Scale: Entitlement and Consciousness** (Beutler & Gudmunson, 2012): Beutler and Gudmunson's paper was one of two studies which incorporated two scales. The purpose of the study was to develop a way to measure consciousness and entitlement and to better understand an adolescent's development and attitudes towards money. These scales used an inductive process with initial testing on three pilot groups. The average age of respondents were 16.5 years of age.

i. **Entitlement Scale**: As defined by the researchers, entitlement is "an attitude in which adolescents feel their parents are obligated to provide and pay for the things they want or believe they deserve" (Beutler & Gudmunson, 2012). The Entitlement Scale has 1 factor, six items and used a 1-4 point Likert scale. It uses 265 participants and its validity measures included convergent and discriminatory while its reliability was .76.

ii. **Consciousness Scale**: Consciousness was defined in the study as "restricted to adolescents' acknowledgment of responsibility toward their parents for how they spend money allocated to them" (Beutler & Gudmunson, 2012). This was the second scale in Beutler's article. Similar to the Consciousness Scale, there were 265 participants. The study had one factor and six items. It used a 0-4-point Likert scale, had a reliability of .82 and used convergent and discriminatory validity.

b. **Financial Transparency Scale (**Koochel et al., 2020): The purpose of Koochel at al.'s study was to develop the Financial Transparency Scale to examine financial transparency and how it pertains to married partners. The researchers used the social exchange theory as their framework and used 183 heterosexual couples. In addition to the questionnaire the researchers sent regarding financial transparency, couples also had to fill out the Kansas Marital Satisfaction Survey, Shared Goals and Values Scale, Frequency of Financial Management Scale and the Communications Patterns Questionnaire. The final scale has three factors, 32 items with a 5-point Likert scale. Its reliability ranged from .76-.91 and used a construct validity.

Discussions and Implications

When examining the 15 scales published in the 13 papers in the *Journal of Financial Counseling and Planning*, a number of similarities and differences were noted. While these scales each looked at different topics in the consumer science field to measure variables such as financial attitudes or financial behaviors, each scale was analyzed based on seven different factors: the scale's target population, the sample size in the original study, the number of factors in the scale, the number of items the scale has, the type of scale the original study used, the reliability measure and the type of validity the researchers used. All of these variables were recorded in Table 1. There were two major findings from this compilation of scales and analysis. The first finding is the similarities and differences there are within the variables examined in each scale. The second major finding is the understanding of each scale and its individual purpose in order to provide implications to researchers and practitioners.

Each scale had a unique purpose that was created from specific features as well as the intended audience. Of the 15 scales, only three specific target audiences. Beutler and Gudmunson's *New Adolescent Money Attitudes Scale: Entitlement and Consciousness* was made for the adolescent population. They wanted to better understand adolescents' development and attitudes towards finances. The average age of respondents in their study was 16.5 years. A second scale to have a specific audience was Koochel et al.'s (2020) *Financial Transparency Scale*. This scale was designed for married partners and the initial study's participants included heterosexual married partners who had been married for less than five years. The third and final scale in this review to have a targeted audience was Nguyen's (2019) *Women's Financial Self-Efficacy Scale*. Nguyen designed this study using women over the age of 18 in hopes of understanding their levels of self-efficacy when it comes to finances.

Another factor analyzed when looking at the scales was the measures of reliability and validity. Reliability measures ranged from .57 to .956. The majority of reliability scores were within the .7 range. The validity measures were similar across the 15 scales. Six scales used criterion validity while five scales used content validity. Construct validity was used four times while concurrent validity, convergent validity and face validity were each used three times. Predictive validity, discriminatory validity, divergent validity and external validity were each used once.

There was a relatively small range in the number of factors each scale used and a large range in the number of items each scale used. A total of five scales used one factor and four scales used three factors. Three scales used four factors. Two scales used five factors and one scale used two factors. As for the number of items used in each scale, it ranged from four items to 32 items. Three scales used six items. Two scales used 18 items and two scales used eight items. Other items ranged from 4-22.

A common trend among the 15 scales was the use of scales within the original study. With the exception of one, each study used some form of a Likert scale. A 5-point Likert scale, a 6-point Likert scale and a 4-point Likert scale were each used in three different studies. One study used a 10-point response scale, one study used a 0-4 point Likert scale and one study used a 1-4 point Likert scale. Another study briefly mentioned the use of a Likert scale but did not specify how many points.

Finally, a large variance was found in each sample size. Some samples came from classroom focus groups while other participants were recruited from listservs sent to people in the United States and university employees. Others were selected randomly from different areas within the United States. Dew and Xiao's (2013) *Financial Management Behavior Scale* was the only study to use a nationally represented population. The sample sizes ranged from 80-1,300. The majority of the studies were a few hundred participants (104-390), one used 510 while another used 726. Three studies used more than 1,000 participants (1,011, 1,078, 1,300). When comparing the 13 papers, the average number of participants was 479.

Implications

Implications for Researchers

There are three implications for researchers. First, these scales provide a strong starting point if a researcher is working towards creating their own scale. They can use this paper and these scales as a model and framework in developing their own tools. Secondly, researchers can examine the research gap in the scales. By assessing each scale and understanding its purpose and function, a researcher can see what is missing and what needs to be added to the consumer science scales. A third and final implication for researchers is the use of theory. A number of scales published in *JFCP* use theory as their framework for an experimental design. Researchers can take a deeper look at theory, see how other researchers incorporated scales and theory and use this as a theoretical framework.

Implications for Practitioners

Practitioners, like researchers, can benefit from the scale published in the *Journal of Financial Counseling and Planning*. These scales can be used for practical purposes. First, a practitioner can use one of the scales to assess a client's behavior and identify their behaviors or attitudes. Second, a practitioner can use the scales for educational purposes. A third implication for practitioners is the ability to modify or combine scales. These scales can be changed or used simultaneously for a number of purposes in order to best serve a practitioner and client's individual needs.

Limitations and Future Directions

While there were 13 papers compiled and 15 scales analyzed, a limitation of this paper is the scope. This paper was limited to one journal instead of multiple journals. Another limitation of the study is the lack of critical analysis. While each scale was analyzed and organized into a category and compared, there was no statement of the strengths or weaknesses of the scales. These two stated limitations could serve as future directions for this research. More journals could be analyzed and more scales could be collected. This would provide more data to better understand the use and practicality of consumer science scales. It would also be beneficial to have a deeper understanding of the scales by examining the strengths and weaknesses.

Citation	Topic	Target Pop.	Sample #	Factor #	Item #	Type	Reliability (α)	Validity
Aldana & Liljenquist (1998).	Financial Strain	General	153	5	18	5-point Likert	.62 - .89	Concurrent, predictive
Beutler & Gudmunson (2012).	Entitlement	Adolescents	265	1	6	1-4 point Likert	0.76	Convergent, discriminatory
Beutler & Gudmunson (2012).	Conscientiousness	Adolescents	265	1	4	0-4 point Likert	0.82	Convergent, discriminatory
Dew & Xiao (2011).	Financial behavior	General	1,011	4	15	5-point Likert	.57 - .78	Face, content, construct, convergent, divergent, criterion, external
Edwards (1993).	Compulsive Buying	General	104	5	13	5-point Likert	.76 - .91	Construct
Hanna, Gutter, & Fan (2001).	Risk Tolerance	General	390	1	6	N/A	N/A	Convergent
Koochel, Markham, Crawford, & Archuleta, (2020).	Financial transparency	Married partners	183	3	32	5-point Likert	.83 - .93	Concurrent
Ksendzova, Donnelly, & Howell, (2017).	Financial behavior	General	1,078	4	18	Likert	.79 - .89	Concurrent
Lown (2011).	Financial Self-Efficacy	General	726	1	6	4-point Likert	0.76	Criterion
Lown, & Cook (1990).	Financial counseling attitude	General	510	3	16	4-point Likert	.65 - .78	Content, criterion, construct
Nguyen (2019).	Women's Financial Self-Efficacy	Women	299	4	21	4-point Likert	0.93 overall	Construct, criterion
Prawitz, Garman, Sorhaindo, O'Neill, Kim, & Drentea (2006).	Financial Wellbeing/Financial Distress	General	1,300	1	8	10-point response scale	0.956	Criterion, content
Prochaska-Cue (1993).	Financial Management Style - Analyzing	General	128	3	14	6-point Likert	0.88	Face, content
Prochaska-Cue (1993).	Financial Management Style - Holistic	General	128	3	8	6-point Likert	0.67	Face, content
Rettig, & Schulz (1991).	Financial Decision Style	General	80	2	22	6-point Likert	.75 - .81	Not reported

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Money Management Practices: Exploratory Study of State Fair Goers

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Key words*:* CFPB financial well-being, financial knowledge, financial literacy, money and technology

The impact after an economic downturn can have both social and economic consequences for individuals and their families (Schmitt & Baker, 2008). Although it appears that the economy has improved with housing values on the rise and home foreclosures on the decline along with unemployment numbers going down and the stock market improving (Currier et al., 2015), many Americans are not optimistic about their financial future and many are still feeling insecure with their families' finances (Currier et al., 2015) and are not prepared financially to cover an emergency (Bricker et al., 2014; Currier et al., 2015).

State fairs in the Midwest are a cherished experience that many of their state residents look forward to attending each summer. In many Midwestern states, fair goers will attend this large gathering each summer regardless if the economy is performing well or poorly. In one Midwestern state, this popular summer gathering attracts more than two million fair goers each year and is held for 12 days leading up to and including Labor Day weekend (MSF, n.d.). Those attending the state fair vary in age range, social and economic backgrounds, and represent diverse backgrounds.

The current study examines the personal financial management practices of fair goers attending the 2019 Minnesota State Fair. Researchers surveyed fairgoers (N = 664) about their financial management practices to better understand such things as their financial well-being, knowledge and how technology perform in their day-to-day financial management experience a decade after the Great Recession. Findings are informative for financial professionals such as financial advisors, educators, and counselors who work with individuals and families.

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Collegiate Financial Wellness: The Role of Financial Literacy

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Abstract
Examining the role of financial literacy among college students is key to supporting collegiate financial wellness. In this study, the responses of 13,331 college students are examined. Results from a probit model suggest that, all else equal, students with high financial literacy include those who receive advice from financial advisors before and during college, students who have taken a personal finance course before or during college, business majors, students with higher grade point averages, students enrolled in four-year institutions, married students, whites and men.

Key words*:* collegiate financial wellness, financial education, financial knowledge, financial literacy

Background
Student wellness is an important topic on college campuses nationwide (Heckman, Lim, & Montalto, 2014). Financial wellness is an aspect of student wellness and includes financial literacy. Lusardi (2019) advised that, overall, financial literacy affects everything from day-to-day to long-term financial decisions, and this has implications for both individuals and society. According to the Financial Literacy Annual Report (2019) produced by the Bureau of Consumer Financial Protection, fewer than half of Americans set aside money for their children's college education, and more people are reaching retirement with savings that simply will not meet their needs. Additionally, according to Federal Reserve Board Report on Economic Well-Being in U.S. Households (2019), almost 40% of Americans, having no other option, would need to turn to credit to cover a $400 emergency.

Purpose and Research Question
Montalto, Phillips, McDaniel, and Baker (2019) suggested, to effectively plan and implement financial wellness initiatives on a college campus, understanding the needs of students and how finances influence their day-to-day lives is critical. The 2017 Study of Collegiate Financial Wellness Survey, used in this study, assists in that effort by examining college students in the areas of self-reported levels of financial education and financial knowledge. This paper makes an important contribution to the literature in that it uses this unique dataset that explicitly surveys the financial attitudes, practices, and knowledge of college students to answer the question: What are the characteristics of students with high financial literacy? Additionally, studying the characteristics among college students with higher financial literacy may provide insights to colleges and universities who would like to assist with financial wellness initiatives towards students most able to benefit.

Conceptual Background and Theory
When referring to topics that pertain to an individual's personal finances, three terms tend to be used interchangeably: financial education, financial knowledge, and financial literacy. Becker (2009) stated that education is one of the most important investments in human capital because obtaining high school and college education increases one's income significantly. Because of its ability to increase human capital, financial education can be defined as increasing knowledge about personal finances. Financial education encompasses personal finance topics such as cash management, risk management, education planning, tax planning, investment planning, retirement planning, and estate planning. Financial knowledge is the information gained through learning about each of these personal finance topics, and financial literacy is the understanding and use of this knowledge when answering personal finance-related questions.

Lusardi, Mitchell, and Curto (2011) showed that financial literacy is low among young adults and that fewer than one-third of young adults possess a basic knowledge of interest rates, inflation, and risk diversification. Durband and Britt (2012) advised that financial education programs, delivered at the collegiate level, offer opportunities to address personal finance issues relevant to students. In addition to noting the value of financial education programs, Lusardi et al. (2011) warned that financial mistakes made early in life can be costly and that it is critical for researchers to explore the financial knowledge of young adults.

When looking at differences in financial literacy among college students, Chen and Volpe (2002) and Murphy (2005) found that women generally have less knowledge about personal finance topics than men. Women generally have less enthusiasm for, lower confidence about, and less willingness to learn about personal finance topics than men (Chen & Volpe, 2002). In addition to gender, Murphy (2005) found that older students have more financial acumen than younger students and that non-white students have less financial knowledge than their white counterparts.

Seeking ways to improve students' financial literacy, Seyedian and Yi (2011) found that taking finance courses affects students' financial literacy positively. They also found that job experiences, financial background, attitude and behavior, and the class participation and motivation of college students determine their amount of learning. Peng, Bartholomae, Fox, and Cravener (2007) found that participating in personal finance classes in college improves investment knowledge. These results highlight the need for financial literacy education among college students.

Borden, Lee, Serido, and Collins (2007) looked for ways to change students' financial knowledge, attitudes, and behavior and developed a pilot study to examine what type of education will be helpful for students dealing with personal finances. A financial education seminar was presented, with a pre- and post-test given to determine the effectiveness of this method. At the conclusion of the seminar, students reported that they intended to engage in significantly more effective financial behaviors and fewer risky behaviors. While they advised that their research warranted future longitudinal evaluation, Borden et al. (2007) suggested that their proposed seminar format may be useful for college students.

Fernandes, Lynch, and Netemeyer (2014) suggested that both financial education and coaching might be helpful if delivered properly. Just-in-time financial education is offered as a solution that can assist clients as it provides specific information that clients may need to make any upcoming financial decisions. For example, if clients are interested in creating a spending plan or if they are looking into various credit cards, they would be able to get education from a coach right before they would look to act. Fernandes et al. (2014) also mentioned that coaching has the advantage of high relevance, with lower chances of forgetting information between receipt and behavior, and that coaching offers opportunities to learn from feedback. Both financial coaching and financial education can help students with their personal finances.

Past research suggested that financial education is a method available for practitioners, educators, and policy makers to improve financial satisfaction and overall consumer well-being of individuals and families (Bernheim, Garrett, & Maki, 1997; Joo & Grable, 2000). With the abundance in types and the accessibility of credit cards, financial education delivered to college students can assist those who have financial concerns. In addition to providing information about credit cards and debt, other topics such as budgeting, financial aid, and goal setting can help to increase responsibility among college students. Because college students may bring college debt and financial insecurity with them into adulthood, understanding financial well-being among college students can help educational loan providers, financial counselors, college administrators, and parents to better understand students' current and future financial challenges and needs (Leach, Hayhoe, & Turner, 1999).

Methodology

Conducted online, the 2017 Study on Collegiate Financial Wellness (SCFW), developed by The Ohio State University, was administered to undergraduate students at 90 U.S. institutions represented by two-year and four-year public and private colleges and universities during the 2017 spring semester. Of the 271,191 invited students, 28,539 responded, for a response rate of 10.5%.

The SCFW contains questions about a wide array of topics including paying for school, student loans, credit cards, financial behaviors, stress about finances, financial knowledge, financial education, and financial self-efficacy. The questions used in this study gauge whether college students can answer specific personal-finance questions measuring students' understanding of compound interest, inflation, average investment returns, loan repayment, take-home pay, and credit score, thus proxying for their financial literacy.

Descriptive Statistics

Females represent 66% of the sample, followed by males at 34%. Of the students, 68% are white and 32% are non-white. Single students make up 91% of the sample. Students who answered five to six financial literacy questions correctly make up 27% of the sample.

Students enrolled in 4-year institutions and 2-year institutions made up 88% and 7% of the sample, respectively. The remaining students advised they are in certificate programs or programs listed as other. Students within the age range of 18-23 make up 83% of the sample, followed by 17% of students who are 24 or older. Over half (54%) of students are employed part-time. Students who have a GPA within the range of 3.00 – 3.99 make up 70% of the sample. Twenty-seven percent of students were majoring in STEM, followed by 16% majoring in arts/humanities, and then 16% and 16% of students majoring in health and business, respectively.

When asked about advice received concerning finances, 59% of students had never received financial advice from a financial aid counselor, 88% had never received advice from a peer counselor, and 73% had never received advice from a financial advisor. Pertaining to financial education received before college, 77% of students had not taken any personal finance classes and 85% of students have not taken any recurring personal finance classes before college. Pertaining to financial education received in college, 84% of students had not taken a personal finance class in college and 91% of students had not taken a recurring personal finance class in college.

For each question in this study, where there was no response or the students answered don't know or they prefer not to answer, observations were removed. This resulted in over 5% of the total sample being thrown out, with usable observations decreasing from 22,933 to 13,331. The results of the t-tests, comparing the full and analysis sample, indicate significant differences by marital status, gender, age, and ethnicity, suggesting that the sample of complete responders that are analyzed are not representative of the full sample. Thus, caution must be taken when making inferences from the analyzed sample.

Model
The dependent variable is an indicator variable for whether or not a student answered five to six financial knowledge questions correctly. To examine the factors associated with high financial literacy, the independent variables of financial advice, financial education, major, GPA, years of enrollment, employment status, degree type, enrollment status, marital status, gender, age, and ethnicity are included in the model.

Results and Implications
As expected, compared to students who have never received financial advice from a financial advisor, students who did receive advice from financial advisors before and while attending college have higher reported financial literacy. Surprisingly, compared to those who have never received financial advice from a peer financial counselor, receiving advice from a peer financial counselor before and during college is associated negatively with high financial literacy. Compared to those who have never received financial advice from a financial counselor, receiving advice from a financial counselor was associated negatively with high financial literacy. These results may be due to the differences in information being asked of the financial and peer counselors as the information requested and received may not be reflected in the specific questions asked in this study.

Consistent with human capital theory, compared to those who did not take a recurring personal finance class before college, students who took a recurring personal finance class in high school have higher financial literacy. Compared to those who did not take a recurring personal finance class during college, students who took a recurring course (but not through their specific college) have higher financial literacy. However, students who took a recurring course both through and outside of their college have a lower financial literacy. Compared to those who did not take a one-time personal finance class before college, students who took a course through their high school have higher financial literacy. Additionally, compared to those who did not take a one-time personal finance class before college, students who took a course (but not through their high school) have higher financial literacy.

Students majoring in business, compared to other majors, have higher financial literacy. Business students often take more math-intensive or finance classes that may help with their level of understanding some of the concepts asked in this survey including interest, inflation, and compounding. As Becker (1993) posited, human capital increases with education. Receiving education geared toward the topics asked by the questions in this survey may directly improve their financial literacy.

Compared to students with grade-point averages in the range of 0.00 – 0.99, students within a range of 3.00 – 3.99 and students with a 4.0-grade point average have high financial literacy. Compared to first-year students, students who have been enrolled for three years or more have a higher probability of having high financial literacy. Efforts might be made to specifically target first year students. Compared with students who are 24 or older, students who are 18-23 have a lower probability of having high financial literacy.

Compared to students working towards a 4-year degree, students who in a 2-year or certificate program have a lower probability of having high financial literacy. Efforts might be made to specifically target students in 2-year degree programs and certificate programs.

Compared to students who are employed full-time, students who are employed part-time or not employed have a lower probability of having high financial literacy. Students who are employed full-time can earn more money than part-time students and those who are not employed, and due to this may have greater knowledge about personal finance. Those employed full-time also may be exposed to more complex financial decisions.

Compared to married individuals, the results show that there is a negative association between being single and high financial literacy. This finding suggests that two heads may be better than one. Students who are having to make decisions on their own may not have the same financial knowledge as students who are married. This is similar to findings that couples are more likely to be successful in executing their plans regarding financial decision making (Van Rooij, Lusardi, & Alessie, 2012). Divorced students have a higher probability of having high financial literacy.

Being female is associated negatively with high financial literacy. This is similar to the results of Chen and Volpe (2002) where they found that women have less willingness to learn about personal finance topics. Efforts might be made to specifically target females.

Compared to white students, African Americans, Asian Americans, Hispanics, and those who identify as other have a lower probability of having high financial literacy. This is similar to findings that African Americans and Hispanics display the lowest level of financial knowledge in the U.S. context (Lusardi & Mitchell 2007, 2011).

Based on these findings, recommendations include implementing financial education in high school and at the collegiate level. College administrators may also consider policies that would make a personal finance course a requirement for graduation. Furthermore, as shown in the results, efforts specifically targeting groups such as students who attend two-year institutions, females and first year students may also be helpful. These suggestions may be the key to increasing collegiate financial literacy, which may ultimately help with achieving collegiate and lifetime financial wellness.

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Parents' Perceptions of Financial Technology to Support Financial Socialization and Literacy Levels

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Key words: family financial socialization, financial literacy, financial technology, personal finance education

Background

Existing research and media coverage is replete with dueling perspectives on the effectiveness of classroom-based financial literacy education, the value of which is mired by contrasting definitions of what constitutes literacy, inconsistent measurement systems, varying levels of instructional rigor, and differences in teacher confidence and capability with personal finance matters and content instruction. What researchers do agree upon is that financial education begins in early childhood and financial literacy imprints are imparted intentionally or tacitly by parents through their narrative and behaviors. There are also some common, positive inputs that support measured progress in financial literacy–specifically, involvement of family members, access to financial services and products, and experiential learning opportunities. Financial literacy cognition begins in the home, may be augmented with classroom curricula, but it is contextually and situationally applied and experienced through in-person, and more often, online transactions using frictionless payment systems.

Researchers have discussed the potential implications of a shift in financial education delivery models away from classroom-based financial literacy toward an authentic, technology-facilitated approach to building financial capability. The existing body of literature points to the potential value of fintech in supporting financial socialization processes within the family construct, promoting productive money-oriented attitudes and behaviors, and elevating financial literacy levels. This study connects the disparate research on family financial socialization; situated, experiential learning; and financial literacy facilitated through and by financial technology. Equally important, it may inform future policy and programmatic initiatives related to purposeful parental involvement in financial education and the use of financial technology to promote financial socialization and experiential financial learning.

Purpose of the Study

The purpose of this qualitative study was to explore parents' experience with and perceptions of the use of a fintech tool to support family financial socialization and the associated financial literacy levels of parents and children. An open-ended set of interview questions that focused on family financial literacy and money-based conversations, interactions, and decisions between the parent and child(ren) was used to capture differences in financial literacy levels that parents perceive as a result of using of a family-managed, virtual bank (FMVB). The study site, hereafter referred to by the pseudonym of FMVB, is an integrated mobile banking, budgeting, and payment application that parents co-manage with their child(ren), which is designed to develop financial skills through hands-on experience.

Research Questions

RQ1—What are parents' experiences with the use of a fintech tool to interact with their child(ren) about financial concepts and decisions?
RQ2—What are parents' perceptions of how the use of a fintech tool supports conversation and transaction-based financial socialization activities between a parent and child?
RQ3—What differences in financial literacy levels do parents perceive based on their tandem use of a financial technology application with their child(ren)?

Conceptual Framework

The conceptual framework for this study is rooted in components of Gudmunson and Danes' family financial socialization theory, specifically how financial attitudes, behaviors, and associated financial literacy levels are shaped intentionally and unintentionally through family dynamics and experiences. In addition, situated cognition theory undergirds the authentic, digital-based, financial-learning and decision-making context of the study. In combination, parent-child social interactions situated in real-time and technology-supported financial decisions have the potential to promote financial literacy levels.

Methodology

Research Design and Rationale

The central phenomena of this qualitative study were parents' perceptions related to their experience using a fintech tool to interact with their child(ren) about financial concepts and decisions in support of financial literacy levels. Accordingly, qualitative research was employed since its design and associated approaches provide a descriptive frame and contextualized meaning to interactions among individuals and their environment. In the current study, these interactions occurred between the parent and child(ren) with and through the use of the FMVB fintech tool. All study participants were active adult-subscribers to FMVB. Each of the 16 participants engaged in an in-depth, semi-structured interview that lasted a minimum of 40 minutes. At the time of the interviews, seven of the 16 participants had been using the platform for 3 or fewer months, and 13 had been using it for 1 year or less. The longest subscriber had been using FMVB for 4 years. The average and median age of a child-subscriber was 13 and almost evenly split between gender with 14 females and 15 males. At the time of this study, none of the children had taken a personal finance class or had explicit classroom-based instruction in personal-finance-related topics.

Data Analysis Method

Theoretical analysis, a form of thematic analysis, was used to examine the data. First, a set of terms and preliminary categories were created, which were grounded in the study's conceptual framework, research questions, and codes from related prior research. From there, an inductive approach was employed to identify recurring patterns based on similarities, differences, frequency, sequence, or relationship among the categories. For the final iteration, a deductive approach was overlaid using the themes that emerged as part of the literature review to confirm the inductive analysis.

Both semantic and latent analysis techniques were incorporated into the next phase of the analysis. Codes were grouped into categories that emanated from the conceptual framework and extant literature while also capturing the relationship among the codes as expressed by the participants. From the categories, candidate themes were then developed. These themes are rooted in the data, align with the conceptual framework, speak separately to the study's phenomenon of interest, and weave a concise story that underscores the relevance and implications of a theme in relation to the study's purpose. Table 1 reflects the progression and refinement from codes to categories to candidate themes.

Table 1. Categories, themes, and associated research questions.

Results and Discussion

CODE	THEME	RESEARCH QUESTION
Cash or Credit Alternative	Parents use fintech to facilitate timeless financial lessons	RQ1: What are parents' experiences with the use of a fintech tool to interact with their child(ren) about financial concepts and decisions?
Decisions and Transparency		
Lessons and Messages		
Intentional or Unintentional		
Age-appropriate		
Authentic		
Manual Systems		
Reciprocal		
Structured vs Adhoc		
Conflict and Objectivity	Perceived shifts in family financial interactions that parents attribute to FMVB	RQ2: What are parents' perceptions of how the use of a fintech tool supports conversation and transaction-based financial socialization activities between a parent and child?
Conversations		
Different Abilities and Attitudes		
Socialization Agents & Influencers		
Norms: Generational, Social, Cultural		
Adult-subscriber's Childhood Socialization		
Value(s)		
Orientation and Attitude		
Accountability and Autonomy	Parents' proxy measures of financial literacy	RQ3: What differences in financial literacy levels do parents perceive based on their tandem use of a financial technology application with their child(ren)?
Financially literate		
Capable		
Confident		
Goal oriented		
Savings		

RQ1: What are parents' experiences with the use of a fintech tool to interact with their child(ren) about financial

concepts and decisions? The parent-subscribers first experienced the FMVB platform as a solution to an existing problem (e.g., the arguments around chores, limited accountability or accounting for spending, and no mechanism to access funds safely). They subsequently found that FMVB's functionality lends itself to facilitating broader conversations and financial literacy lessons centered on the concept of value and longer-term savings. Parents noted that the app-accessible, real-time data tied to savings, payments, and allowances/chores makes the seemingly nebulous and complex concepts of value and budgeting more visible and tangible. This finding and the study participants' collective experience stands in contrast to the warning that the lack of physical connection to money may exacerbate deleterious financial behaviors.

The structure and transparency that FMVB brought to daily payment transactions and money transfers by and between family members also created an opening for parents to focus on their own financial planning and goals. A majority of the parents in the study found that through their use of FMVB they now had the motivation and foundational skills to better manage their own spending patterns, formulate a household budget, and focus long term. This positive cross-generational effect of purposeful family financial socialization is corroborated by teams of researchers who have also questioned why most financial education programs fail to include the family.

RQ 2: What are parents' perceptions of how the use of a fintech tool supports conversation and transaction-based financial socialization activities between a parent and child? Parent-participants admitted that the content of their conversation-based lessons, which in many instances transitioned into one-sided lectures, either reflected or attempted to compensate for their childhood introduction to personal finance. This group also acknowledged that the enduring lessons on sound financial practices may be timeless, but maintained that the sit-and-listen and paper-and-pen approach to conveying those lessons is outdated and ineffective with their children. The parent-participants often felt that external financial socialization agents, in particular peers and social-media influencers, were undermining their efforts That being said, the parents in this study experienced and researchers contend that the process of engaging in financial activities, which in this instance is through the FMVB fintech tool, may compensate for and improve parent-child dynamics, limited family financial socialization, and the parents' lack of confidence with financial content.

RQ3: What differences in financial literacy levels do parents perceive based on their tandem use of a financial technology application with their child(ren)? In this study, parents used their subjective assessment of the following factors as a composite benchmark for perceived short-term differences in financial literacy levels, which they attribute to the use of FMVB:

- depth of financial conversations,
- demonstrated capability to use the data and calculators on FMVB to make financial decisions, and
- confidence in the current level of financial knowledge and skill to support an informed decision-making process.

All the parent-participants highlighted positive differences they perceived, from both the parent and child side, in relation to the data-driven content and complexity of the conversations facilitated by FMVB. Yet, responses from the parent-participants did vary when they discussed factors that they perceive contribute to financial confidence. For several parents, their renewed financial confidence was the anthesis of conflict avoidance given the pre-FMVB history of contentious conversations around household responsibilities and spending. Other parents alluded to how the shared used of the platform gave them the confidence and information they need to be able to teach their children age-appropriate, accurate information on topics such as budgeting. Most related their child(ren)'s increased confidence to the autonomy and accountability their child(ren) now have over their money.

Parents in this study did qualify their assessment of present-day differences in financial literacy levels in terms of longer-term objectives backed by the use of FMVB. They spoke of their intention to foster responsible money management skills through FMVB that hopefully carry forward to more complex decisions and translate into a life-long orientation toward saving for goals. The research literature is mixed as to how childhood or proximal financial socialization activities and orientations shape distal financial attitudes and behaviors.

Interpretation of the Findings in Relation to the Conceptual Framework
Parent-subscribers consistently cited how the objective data generated by the shared use of FMVB with their child(ren) changed some combination of the tone, content, and depth of their personal-finance related interactions. Financial socialization theory purports that most practices undertaken by the family are non-purposive and part of

perfunctory daily activities. That supposition stands in contrast to the findings from this study in which the parents highlighted how the real-time data and tools embedded in FMVB shifted their intentional money-centered conversations and lessons from a one-sided, compartmentalized exchange about a singular transaction or decision to a more purposive, goal-oriented interaction that was now often initiated by the child.

Although technology as a socialization practice or platform was not specifically addressed in initial iterations of the family financial socialization conceptual model, subsequent application of the model did account for changes in financial socialization agents that occur across life stages, i.e., friends, teachers, and media. In effect, the introduction of family-managed financial technology in the context of this study serves to expand the list of socialization agents and anchors the relevance of family financial socialization in the evolving digital financial landscape.

The theory of situated cognition professes that knowledge or cognition is constructed individually or socially. Parent interview responses suggest that knowing discrete personal finance concepts is not their intended goal. Rather, their objective is to have their child(ren) learn how to apply that knowledge to increasingly complex financial situations that accompany each life stage. The parents have, in effect, situated that content knowledge with the learning environment of FMVB to support the transition from decontextualized financial definitions and mantras to authentic application. Parents have positioned FMVB as a cognitive apprenticeship through which they are assimilating the family members into social interactions and authentic financial practices that form the basis of applied financial literacy.

The FMVB archetype facilitates family financial socialization and provides the authentically-situated, digital context to apply financial knowledge and skills. It supports the organic interplay of family and situational factors that account for the differences in financial literacy that parent-participants perceived.

Relevant Recommendations

The role of fintech in relation to the broader base of research on personal finance education and the effectiveness of financial literacy interventions is an emerging area of research. According, the following recommendations are based on the findings, the limitations of this present study, and related recommendations from the literature.

Although this study included short-term subscribers to FMVB, 13 of the 15 families with children haves been using it for less than 1 year and none of the children had taken a formal personal finance class, it could not fully account for additional factors that may have influenced the parents' perceptions of differences in financial literacy levels that they attributed to FMVB. Accordingly, it is recommended that future studies include a randomized controlled trial in which FMVB or a comparable fintech tool is positioned as an intervention with the objective of measuring its effectiveness to support measured changes in financial literacy levels.

Future studies might also explore the potential application of FMVB and similar fintech tools to support the elderly, individuals with addiction, and those with developmental, behavioral, and social challenges, who would benefit from fintech-enabled and managed autonomy in their daily financial transactions. This recommendation emanates in part from this study's one, discrepant case, which involved an adult FMVB subscriber who had positioned his spouse as the parent to provide accountability and oversight of his spending as part of his ongoing recovery from a gambling addiction. This recommendation also honors a request made by several parent-participants who have a spouse and/or child with ADHD or Asperger's. They asked that their positive experience with FMVB be conveyed in hopes of helping others in comparable situations who are trying to bring routines, structure, and consistency to financial lessons and transactions.

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A Case for Utilizing Home Equity in Retirement

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Abstract
As life expectancies continue to rise, home equity may increasingly become a much-needed resource for retirees to finance late-life consumption. This study hypothesizes that a higher ratio of home equity relative to net worth creates resource constraints, resulting in disutility for individuals in retirement. The findings of this study suggest that, even when controlling for net worth, income, and health, increases in a retiree's ratio of home equity to net worth is associated negatively with a satisfactory retirement. The findings suggest that individuals should consider responsibly utilizing home equity to reduce resource constraints and promote a more fulfilling retirement experience.

Key words: financial planning, home equity, retirement adequacy, retirement income

Introduction

The number of U.S. individuals that are aged 65 and older is expected to grow to 83.7 million by 2050 (Ortman et al., 2014). As the older segment of the U.S. population continues to grow and transitions into retirement, capital accessibility to finance consumption is a consideration that many retirees face. When compared to other resources that finance consumption, home equity is often an overlooked resource. This may be because home equity is relatively illiquid when compared to other assets that may finance consumption during retirement. Resource constraints that are a byproduct of "house-rich" retirees may be preventative in achieving a fulfilling retirement experience.

This study highlights two important issues. The first issue is that, for many retirees, home equity is inefficient in promoting a better retirement experience. Building home equity in retirement and not unlocking home equity in retirement to finance consumption is counterintuitive to the consumption life-cycle stage in the consumption over the life-cycle hypothesis. The second issue is systemic. Retirees may lack knowledge of the available tools to access home equity. This study shows how unlocking home equity promotes gains in utility, and that efforts should be made to promote these tools as a part of an individual's plan for retirement.

Literature Review

Over 95% of Americans that are age 75 or older want to remain in their current residence as long as possible (Venti & Wise, 2000). An AARP (2000) study shows that respondents over the age of 45 (65) have an 80% (82%) desire to remain living in their current residence. The desire for residential continuity may explain why older Americans continually build substantial equity in their homes (Venti & Wise, 1989; Feinstein & McFadden, 1989; Sabia, 2008; Munnell et al., 2007; Venti & Wise, 2000; Megboluge, 1997), and why the majority of older Americans own their home (U.S. Census Bureau, 2000) and 85% have no lien on their home (U.S. Census Bureau, 2005).

Consumption over the life cycle suggests that all resources that are accumulated are done so to finance late-life consumption. However, much of the current literature provides evidence suggesting a retirement consumption puzzle, which suggests that transitioning into retirement results in consumption declines (Hurd & Rohwedder, 2003; Haider & Stephens 2007; Fisher et al., 2008; Aguila et al., 2011). Utilizing data from the American Housing Survey, Davidoff (2004) shows that homeowners over 75 routinely spend less year over year compared to younger homeowners. A potential explanation to the retirement consumption puzzle could be retirees' resistance to utilize home equity to finance consumption (Chen & Jensen, 1985).

Financing consumption by utilizing home equity can be achieved through the use of home equity lines of credits (HELOCs), refinancing, and reserves mortgage (Mitchell & Piggott, 2004). Artle and Varaiya (1978) show that relaxing liquidity constraints by borrowing against home equity in retirement can smooth late-life consumption. Strategic use of a reverse mortgage can improve retirement outcomes (Pfau, 2015; Nakajima & Telyukova, 2017; Yogo, 2009). Using Monte Carlo simulations, Pfeiffer et al. (2014) show that using Home Equity Conversion Mortgage (HECM) can drastically increase the likelihood that a retiree has the financial capability to make it through retirement. Mayer & Simons (1994) show that reverse mortgages would allow over 1.4 million elderly persons to raise their incomes above the poverty line.

Behavioral, social, and other impediments may be preventative for individuals in utilizing home equity to finance late-life consumption. Using structural modeling, Nakajima & Telyukova (2019) show that homeowners are reluctant to use home equity because they prefer to stay in their house and cannot easily borrow against it. Mental accounting provides behavioral reasoning why households "hold" different asset classes in separate mental accounts (Thaler, 1990). Individuals may view a stock gain as having more discretionary spending power than a gain in home equity. Households also may view home equity as consumption insurance, and this viewpoint of home equity may affect asset consumption different when compared to other assets (Piazzesi et al., 2004; Lustig and Van Nieuwerburgh, 2005; Agarwal & Qian, 2017). In the case of reverse mortgages, homeowners, generally, utilize reverse mortgages only as a last resort (Leviton, 2002; Jester et al., 2006; Pearson, 2020).

This study, to the author's knowledge, is the first study to estimate retirees' ratio of home equity to net worth and examine its association with utility, measured in this study as retirement satisfaction. This study adds value to the existing housing and aging literatures in two ways. First, this study highlights how substantial home equity relative to total assets increases retiree resource constraints that result in disutility for retirees. Second, this study shows that utilizing home equity to finance late-life consumption offers an opportunity for retirees to have a better retirement experience.

Data

The data utilized are collected from the 1992-2016 RAND HRS longitudinal file of the Health and Retirement Study (HRS) [2]. The HRS is sponsored by the National Institute on Aging (grant number NIA U01AG009740) and is conducted by the University of Michigan. This data and other information provided by the HRS are collected through survey questions and recorded responses. The HRS has a participation sample of approximately 20,000 and collects data at both the respondent and household levels. The data that are collected are published every 2 years. The HRS collects data from survey participants on a variety of topics related to health and retirement. The purpose of the data collection is to provide data for research on health and aging in the United States. The sample is limited to the subset of HRS respondents that respond 'retired' when asked, "Are you working now, temporarily laid off, unemployed and looking for work, disabled and unable to work, retired, a homemaker, or what?" Observations that report responses other than "retired" and missing values are dropped. There are 60,825 retirees that are studied over 12 waves (24 years).

The dependent variable is retirement satisfaction. Table 1 provides the retirees' retirement satisfaction levels. The 60,825 retirees in this study rank their level of retirement satisfaction between 1 and 3, with 3 representing 'Very satisfied,' 2 representing 'Moderately satisfied,' and 1 representing 'Not at all satisfied.' 'Moderately satisfied' and 'Not at all satisfied' responses are combined into one satisfaction ranking, 'Moderately & Not at all satisfied.' 'Very satisfied' and 'Moderately & Not at all satisfied' and have a reported response of 36,358 (59.77%) and 24,467 (40.23%), respectively.

The independent variable of interest is estimated from the retirees' ratio of home equity to net worth (HEtNW). The HEtNW is estimated by the equation below:

$$HEtNW = \frac{Home\ Equity}{Net\ Worth}$$

The net worth denominator is created by summing the retirees' total assets and subtracting the retirees' total liabilities. The home equity numerator is created by subtracting the retirees' mortgage debt associated with the retirees' primary residence from the value of the retirees' primary residence. The values of other residences and the values of debts are not considered. The retirees' average home equity is $170,817. The retirees' average HEtNW is 51%. The level of HEtNW suggests that roughly half of the retirees' total net worth is in home equity. The level of HEtNW is similar to the findings from Hanewald et al. (2016), who shows that U.S. households' primary residence equity value for those aged 65 and over comprises on average (median) 49 percent (52 percent) of their total net worth.

[2] [RAND HRS 2016 Fat File (E2A)]. Produced by the RAND Center for the Study of Aging, with funding from the National Institute on Aging and the Social Security Administration. Santa Monica, CA ([May 2019]).

Table 2 provides the descriptive statistics of the retirees. The variables married, white, and male are coded as "1" if respondent is married, white, and male in a given wave, respectively. A "0" is coded otherwise. Age, income, and net worth are continuous measures. 67.2% of the retirees are married, 84.1% of the retirees are white, and 44.3% of the retirees are male. Average age is 72 and average years of education is 12.8. Average income is $52,640 and average net worth is $563,605.

Methods

To test the hypothesis, a random-effects probit regression model with a Mundlak correction estimated on an unbalanced panel:

$$SAT_{it}^{*} \;=\; \beta_{0i} + \beta_1 HEtNW_{it} + \beta_j DV_{it} + \beta_k meantv(DV_{it}) + \alpha_i + e_{it}$$

$$SAT_{it} = 0 \text{ if } SAT_{it}^{*} \;<\; \mu_1 \; (Not\ at\ all\ satisfied)$$
$$SAT_{it} = 0 \text{ if } \mu_1 \leq \; SAT_{it}^{*} \;<\; \mu_2 \; (Moderately\ satisfied\ )$$
$$SAT_{it} = 1 \text{ if } \; \mu_2 \leq \; SAT_{it}^{*} \;\; (Very\ satisfied\ )$$

Where SAT_{it}^{*} is a latent measure of retiree i's satisfaction in wave t. The unknown thresholds, μ_1 and μ_2, are estimated and associated with responses to the question, "All in all, would you say that your retirement has turned out to be very satisfying, moderately satisfying, or not at all satisfying?"

The variable $HEtNW_{it}$ measures retirees' ratio of home equity to net worth. DV_{it} is a vector of demographic variable. Utilizing the Mundlak approach for random-effects modelling (Mundlak, 1978), the vector $meantv(DV_{it})$ is included, which is a vector of panel-level means of the time-varying co-variates[3].

β_0 represents the y-intercept of the model. β_1 is the coefficient associated with the explanatory variable $HEtNW_{it}$. β_j is a vector of coefficients associated with the DV_{it} matrix. β_k is a vector of coefficients associated with the $meantv(DV_{it})$ matrix. The error term is assumed to follow the standard normal distribution. The variable $HEtNW_{it}$ is measured continuously. Increases in $HEtNW_{it}$ suggests that retirees have a higher percentage of their net worth in the form of home equity. Home equity is considered illiquid. Holding a higher percentage of net worth in the form of illiquid assets restricts access to capital to finance consumption. The lack of access to resources to finance consumption is a resource constraint. An increase in resource constraints is expected to result in disutility. Thus, $HEtNW_{it}$ is expected to have a negative association with SAT_{it}^{*}.

The demographic variables included are married, net worth, income, age, age^2, white, education, male, and health. Married is an indicator variable coded as a "1" if the retiree is married and coded as a "0" otherwise. White is an indicator variable coded as a "1" if the retiree is white and coded as a "0" otherwise. Male is an indicator variable coded as a "1" if the retiree is male and coded as a "0" otherwise. Age, income, and net worth are continuous measures. Education is measured continuously as the number of years of education the respondent has completed. Health is a series of dummy variables that corresponds to health status as being poor, fair, good, very good, and excellent. The reference category, poor, is the health status the other health statuses are compared to.

Results and Discussion

The average marginal effects and standard errors from the random-effects probit regression are reported in Table 3. An increase in $HEtNW$ is associated negatively with a retiree being satisfied with retirement. This result is statistically and economically significant. Holding a larger percentage of assets in the form of home equity creates resource constraints for retirees who may need access to capital to finance consumption. Based on the regression results, the findings suggest that this is likely to result in retiree disutility.

The retirement consumption puzzle suggests that retirees decrease consumption in retirement when compared to the time period before retirement. If retirement is an expected event, this is contradictory to the consumption over the life cycle hypothesis, which suggest that individuals' smooth consumption over their lifetime. In the absence of non-

[3] The panel-level average of the time-varying covariates are regressed on the time-varying means and covariates on SAT_{it}. A robust estimator of the variance-covariance matrix is used. There is evidence that the panel-level means are jointly zero (χ^2 = 1,025.3)

labor income sources, such as Social Security income, pension income, and annuity income, that meet the retirees' consumption need, retirees utilize saved assets to finance consumption in retirement[4]. In the absence of financial assets to finance consumption, retirees are forced to lower their consumption to a level predicated by their budget constraint. Decreases in consumption provide disutility for retirees. Thus, the ability to unlock home equity to finance consumption could be paramount in promoting a better retirement experience. Options for retirees to unlock home equity to finance consumption include reverse mortgages, HELOCs, and refinancing home loans.

Reverse mortgages allow individuals over the age of 62 to access home equity, either as a lump sum payment or a fixed monthly payment. The major benefit of a reverse mortgage is the elimination of mortgage payments and the access to home equity. The elimination of monthly mortgage payments and access to home equity decreases resource constraints. This decrease in resource constraints helps retirees to finance consumption. Thus, a greater ability to access resources results in a utility gain. The major disadvantage of a reverse mortgage is that home ownership is transferred to the lending institution upon the death of the owner(s). Bequest motives may help provide an explanation for the low demand for reverse mortgages (Rasmussen et al., 1995; Chiang & Tsai, 2016).

HELOCs allow individuals to "withdraw" from home equity in the form of a loan with required principal and interest payments. The major advantage of a HELOC is that the retirees' residence is not forfeited upon the death of the owner(s), allowing any remaining home equity to pass to the beneficiaries of the homeowner(s). HELOCs may provide benefit to retirees for large-unexpected expenses, but the required payments may result in increased pressure on a retiree's budget constraint. The increase in the number of required payments that result from HELOC usage may produce long-term disutility, potentially making HELOCs a less-than-optimal option for retirees.

Refinancing may increase retiree utility in two ways. The first way is that retirees have the opportunity to lower monthly payments by extending the terms of repayment. An increase in the number of payments on an existing mortgage debt amount is expected to lower monthly payments. A lower monthly payment decreases resource constraints by decreasing monthly expenses. The second way is that retirees can refinance to a debt amount that is larger than their existing mortgage balance. Refinancing to a debt amount that is larger than a retiree's existing mortgage balance unlocks capital for retirees to finance consumption. However, increasing existing mortgage debt to an amount larger than the original mortgage may increase the amount of the required mortgage payment. The increase in a retiree's required mortgage payment as a result of refinancing may produce long-term disutility by increasing expenses.

A Case for Refinancing

The results from the random-effects probit regression suggest that substantial home equity relative to net worth provides disutility in retirement. Table 4 provides two hypothetical scenarios that provides evidence that refinancing may decrease a retiree's resource constraints.

Scenario 1

Scenario 1 shows a retiree that has a $200,000 30-year mortgage note and the retiree has completed 20-years worth of payments. Assuming no additional principal contributions were made, the outstanding mortgage debt is $101,224[5]. Assuming the retiree can receive loan terms similar to the original mortgage, the retiree may be able to access $98,776 worth of home equity by refinancing to a $200,000 loan amount. Refinancing to a $200,000 loan amount leaves the retiree's mortgage payment amount unchanged. The resulting $98,776 of unlocked home equity provides the retiree with liquidity, resulting in a decrease in resource constraints.

Scenario 2

[4] This sample is fully retired and the average age is 72. Given the older age of the retirees, it is unlikely that this set of retirees will seek employment for the purposes of labor income to finance consumption.

[5] *Based on a 5% annual interest rate, 30-year loan payment, 12 payments per year, $200,000 loan amount, $250,000 residence value, and assumes no additional principal payments are made. The resulting $1,074 monthly mortgage payment from the $200,000 loan assumes principal and interest payments only.*

Scenario 2 uses the same assumptions from Scenario 1 and inflates the retiree's home value from the original \$250,000 primary residence value to \$398,290[6]. Assuming the same \$101,224 mortgage debt and that the retiree is required to maintain an 80% loan-to-value ratio, the retiree may be able to access \$217,408 to finance consumption. Assuming the retiree can receive loan terms similar to the original mortgage, the \$1,074 required monthly (annual) mortgage payment increases by \$636 (\$7,632). If the retiree invests the \$217,408 and the assets return 6% year-over-year, the retiree will return, on average, \$1,087 (\$13,044) monthly (annually). This improves the retiree's monthly (annual) cash-flow by \$451 (\$5,412) with no reduction in the investment principal.

This solution may be optimal for retirees with bequest motives for two reasons. First, the \$217,408 in invested principal is not consumed and is available for inheritance by the retiree's beneficiaries. Secondly, the remaining home equity is available for inheritance by the retiree's beneficiaries. Although this solution initially decreases the amount of home equity substantially, the mortgage payments will regrow the amount of home equity by decreasing the retiree's mortgage debt. Potential property appreciation may also increase the home equity that is available for the retiree's beneficiaries.

Scenario 2 may not be optimal for retirees who have a greater need for guaranteed income. Table 5 presents a situation where a retiree utilizes the \$217,408 of unlocked home equity to purchase a single life (joint life) single premium immediate annuity[7][8][9]. The estimated monthly income from the annuity is \$1,293 (\$1,033). The new monthly payment amount that results from refinancing is \$1,710. The \$1,293 (\$1,033) in annuity income offsets the \$636 increase in mortgage payment and improves cash-flow by \$657 (\$397).

Why are Retirees not Utilizing Home Equity?

The question begged is why retirees are not utilizing home equity to finance consumption? It is possible that negative-social stigmas may be preventative in utilizing home equity to finance consumption. Davidoff et al. (2014) shows that the psychological motivations of elderly borrowers create a barrier to utilizing home equity. Future research can explore opportunities to destigmatize home equity as a tool for retirement planning.

Limited product awareness also may help explain why retirees do not utilize their home equity to finance consumption. Retirees are likely to be aware of home equity access tools but are unlikely to have knowledge of their operational terms and accessibility (Davidoff et al., 2014; Dillingh et al., 2013). This lack of knowledge may translate into misconceptions about home equity access tools. Leviton (2002) shows that product misconceptions help explain the low demand for reverse mortgages. Increases in the public's awareness of home equity access tools and their benefits may increase product demand.

Efforts going forward should highlight the positive benefits of utilizing home equity as a tool for retirement planning. The results of this study show that a higher ratio of home equity relative to net worth is ineffective in promoting a satisfactory retirement experience. Individuals should consider utilizing home equity as a part of their plan for retirement.

Conclusion

This study examines how retirees' ratio of home equity relative to net worth is associated with retirement satisfaction. The findings suggest that a higher ratio of home equity relative to net worth creates resource constraints for retirees, resulting in disutility. Other findings show that, in some situations, retirees may be able to increase retirement income by refinancing mortgage debt. Efforts going forward should highlight the positive benefits of utilizing home equity as a retirement planning tool.

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[6] Inflation rate of 2.36% is based on 2000-2020 raw Consumer Price Index data from U.S. Bureau of Labor Statistics for *Housing.*

[7] Estimates based on Charles Schwab's Income Annuity Estimator.

[8]Assumes Single Life and Single Premium Annuity based on \$217,408 premium. Assumes a birthday of 01/01/1949 (70 years old) and a male annuitant. Income start date is set to begin 01/01/2020. Texas is selected as the state that the premium estimate is based in.

[9]Assumes Joint Life and Single Premium Annuity based on \$217,408 premium. Assumes male annuitant birthday of 01/01/1949 (70 years old) and male annuitant birthday of 01/01/1949 (70 years old). Income start date is set to begin 01/01/2020. Texas is selected as the state that the premium estimate is based in.

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Everyone Else is Making a Mistake: Effects of Peer Error on Saving Decisions

Elizabeth Perry, Thrift Savings Plan

Abstract

The power of social influence to affect our choices is well-documented in the behavioral science literature. However, social influence has been less reliable in financial contexts, where multiple studies have found that it either makes no difference or even backfires. This paper describes three interventions to increase retirement saving among nearly 10,000 federal employees. We explore whether letting people know about the *mistakes* of others can be effective in financial contexts. All three interventions led to significantly more people adjusting their savings rates compared to the baseline, raising new questions about the nuances of social influence.

Key words: behavioral science, peer influence, retirement saving, retirement contributions

Introduction and Literature Review

The power of social influence to affect our choices is well-documented in the behavioral science literature. For example, if we're told that our peers are donating to charity or reducing energy consumption, we are more likely to do the same (Frey and Meier, 2004; Allcott, 2011). However, social influence has been less reliable in financial contexts, where multiple studies have found that it either makes no difference or even backfires.

For example, Duflo and Saez (2002) found that participation in a retirement plan at a large university varied significantly by department, suggesting that people shared information and made similar decisions as their colleagues. However, another landmark study found the opposite: Beshears, Choi, Madrian, and Milkman (2015) sent manufacturing employees mailings with the percentage of coworkers near their same age who were contributing to their firm's retirement plan. Among those who were not saving, people who received this peer information were significantly *less* likely to enroll in the plan than those who did not receive it.

Relatedly, after sending various letters to 35,050 individuals who were eligible for the Earned Income Tax Credit but had not claimed it, Bhargava and Manoli (2015) found that describing a social norm ("Usually, four out of every five people claim their refund") backfired: Response rates among those who received this information were slightly lower than in the control group. Finally, in a follow-up to Chojnacki et al.'s (2016) work, Amin, Chojnacki, Perez- Johnson, Darling, Moorthy, and Lefkowitz (2017) informed 765 federal employees that the majority of their coworkers were saving at least 5 percent of salary for retirement. This did not appear to improve response rates when compared to an email without peer information.

Newcomb (2018) suggests that the *type* of peer plays a role. Analyzing survey data on the financial behaviors of 581 people, the author found that those who compared their financial status with people they thought were doing better than themselves ended up more stressed. "Most of us," the author writes, "appear to be actively making ourselves feel bad about our own financial circumstances by always looking up at people who have more."

This insight might have been key in Newall and Parker's (2018) study of 1,003 Mechanical Turk users, which found positive peer influence effects. Participants warned that "Some people invest based on past performance, but funds with low fees have the highest future results" were almost twice as likely to minimize fees when choosing virtual investments. In other words, rather than comparing participants to those who were better off, the researchers referenced peers who were making a sub-optimal decision and explained how to make a better one.

Purpose

This paper explores whether letting people know about the *mistakes* of others can be effective in financial contexts. This is a new theory that, to our knowledge, has not been tested in the financial literature outside of our work. The topic has wide implications for financial planners and counselors hoping to find resonant messaging to encourage optimal saving among clients.

We aim to answer the following questions:

1) Does knowing what other people have missed in matching inspire those contributing below the match threshold in their retirement accounts to increase their saving?

2) Does knowing what other people have missed in matching inspire those who are over-contributing to their

retirement accounts to adjust their saving?

Method

We describe three randomized field interventions among a total of nearly 10,000 federal employees participating in the Thrift Savings Plan, the 401(k)-type plan for federal employees and members of the uniformed services. In all three, we reviewed TSP records to determine the total in each group that had adjusted their contributions at follow-up, using both Chi square and two-sample proportion analyses (two-tailed) to determine statistical significance.

The first intervention (n = 1,254; median age: 36) targeted those who were relatively new to the plan and were not saving enough to get the full match available to them. The outreach encouraged these individuals to increase their contributions. Roughly one-third of the participants were informed how much *other* people in the same position had missed in matching on average. The second intervention involved similar outreach to 6,466 participants (median age: 42) who were also saving below the full match threshold but had been with the plan as far back as 2010. Again, about one-third of participants were informed how much other people in the same position had missed in matching on average. With interventions 1 and 2, we followed up after three months to determine how many in each group had increased their contributions.

Finally, while the first two interventions involved those who were not saving enough, the third targeted participants who were saving too *much*. We encouraged 1,602 employees younger than 50 (median age: 44) who were on track to reach the annual IRS elective deferral limit early to reduce their contributions and, in turn, avoid missing matching. (Generally, participants younger than 50 who reach this limit before the end of the year must stop contributing. Thus, they cannot receive matching.) Roughly one-third of participants received an estimate of what others who reached the IRS limit early had missed in matching the previous year.

Results and Discussion

After three months, those who received the peer information in the first intervention were 2.5 times more likely to increase their contributions compared to those who received no outreach ($p < 0.0001$). Similarly, in the second intervention, those who learned what their peers missed were more than twice as likely to increase their contributions ($p < 0.0001$). Finally, those who learned what others who reached the IRS limit early had missed were almost 29% more likely to successfully adjust their contributions and miss no matching compared to those who received a general education email ($p < 0.04$).

All three interventions led to significantly more people adjusting their savings rates compared to the baseline. (It is important to note that these interventions went to federal employees, who have a relatively stable source of income and matching structure within their retirement plan; thus, the findings may not generalize to all population segments.) Our results support previous conclusions that email offers a low-cost, scalable option for communicating about retirement saving, a relevant strategy for financial professionals. The magnitude of the increases (especially in the first two interventions) is also noteworthy as many previous email interventions found smaller relative effects (Amin et al., 2017; Chojnacki et al., 2016; Clark et al., 2017).

Moreover, these positive results were surprising considering the historically mixed results associated with social norms in financial contexts (Beshears, Choi, Madrian, and Milkman, 2015; Bhargava and Manoli, 2015, for example). Nuances raised by Newall and Parker (2018) and Newcomb (2018) offer a potential explanation: Rather than comparing participants to people who were doing better, this intervention stressed that others were missing out on something and provided clear instructions for how to get it. This distinction might empower recipients rather than demoralizing them.

In conclusion, the findings raise interesting questions about the nuances of peer influence, which financial planners and counselors should keep in mind: Although invoking social norms has been effective in areas ranging from energy consumption to menu choices, such attempts have been less reliable in financial contexts. The difference might lie in the type of comparison. Contrasting participants with peers they believe are doing better financially can be demotivating (Newcomb, 2018), but informing them of peers' mistakes—and providing simple steps to avoid those mistakes—might inspire.

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Assessing the Influence of Collegiate Financial Coaching and Education Programs

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Abstract

The purpose of the study is to identify the change in personal financial knowledge of students who receive financial education, whether through educational presentations or coaching sessions, from a peer financial coaching and education program located at a large southwestern public university. Leaning on prior studies (Britt et al., 2015; Moore et al., 2018) that focus on peer-based financial counseling, we look to enhance the current literature on collegiate financial coaching and education programs and also look forward to receiving feedback from other academics and practitioners regarding ways to improve this planned study.

Key words: financial coaching, financial education, financial knowledge

Purpose and Justification of the Research (Value and Impact to Field)

College students may lack basic personal financial knowledge which is essential to navigate through the economic environment. In lieu of a formal personal finance degree program, peer financial education and coaching can be a great option for providing financial education to college students. This study is expected to assess the influence of financial coaching and education programs at the collegiate level.

Methods/Research Procedures

Data

Pre-presentation and pre-coaching session primary data will be collected using questionnaires assessing the attendees'/clients' current level of personal financial knowledge pertaining to the educational presentation and coaching session discussion topics. Post-presentation and post-coaching session data will be collected using questionnaires assessing the change in the attendees'/clients' level of personal financial knowledge pertaining to the educational presentation/coaching session discussion topics.

Analysis

Pre- and post-treatment (educational presentation and coaching session) data will be analyzed using econometric techniques measuring the Average Treatment Effect (ATE) on the treatment group (educational presentation attendees; coaching session clients) as compared to the control group (those who never attended/scheduled similar educational presentation/coaching session) in regards to personal financial knowledge.

Proposed Timeline

Upon receiving IRB approval, a pilot study will be conducted in Spring and Fall 2021. Data from the pilot study will be analyzed to identify necessary changes in the proposed methodology. With a finalized methodology, primary data will be collected in each subsequent academic year and the findings from the analyses will be published for academic and practitioner reviews.

Conclusions/Implications

The information gathered will help the investigators learn how to assist college students with their financial knowledge, financial management, and behavior. Armed with these data, our goal is to share this information with other programs so that they can measure the services they provide as well. Additionally, this study will benefit any campuses looking to start similar programs and assess their program influence among college students.

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The Role of Social, Psychological, and Financial Capital in Perceived Financial Well-Being

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Abstract

Social and psychological capital can help translate human capital into financial capital while also contributing to perceived financial well-being. This study utilized data from 2016, 2012, and 2008 waves of the Health and Retirement Study (HRS) and employed a longitudinal structural equation mediation model with a confirmatory factor analysis measurement model. The results provide evidence that both psychological capital and financial capital have a direct positive effect on perceived financial well-being. This study also found evidence in favor of a mediation effect facilitated by financial capital between psycho-social capital and perceived financial well-being, utilizing an autoregressive approach.

Keywords: social capital, psychological capital, financial capital, perceived financial well-being, construal theory of happiness

Background

Bourdieu and Richardson (1986) first defined social capital as a stock of social resources that originate from a durable network of institutionalized relationships of mutual acquaintance and recognition. Coleman (1988) viewed social capital from a more functional perspective and addressed it is the facilitator of intra-network actions and expected outcomes for members of a group. Putnam's (2000) classification of social capital as bonding capital and bridging capital is widely used in social capital literature. Bonding social capital accrues from the networks of homogeneous people (i.e., family and friends), whereas bridging social capital accrues from the network of heterogenous people (i.e., engagement with people outside of family and friends; Putnam, 2000).

Seligman (2002) first posed the idea that psychological capital exists and can have a significant influence on individuals' overall well-being. Luthans, Youssef, and Avolio (2007) took Seligman's (2000) cue and defined psychological capital, referring to it as *PsyCap*, as follows: "PsyCap is an individual's positive psychological state of development and is characterized by (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success" (p. 3).

Luthans et al. (2006) argued that psychological capital can depict an individual's possible self by explaining his/her actual self. Avey et al. (2010) identified that positive psychological capital is associated with individuals' higher levels of perceived well-being over time. Li et al. (2014) found a positive association between psychological capital and subjective well-being.

The Consumer Financial Protection Bureau (2015) defined financial well-being as the state of possessing financial security and freedom of financial choice. Hence, perceived financial well-being, which contributes to one's happiness and overall well-being (Mugenda et al. 1990; Easterlin 2001), is referred to as the subjective evaluation of one's financial condition and the adequacy of financial resources. According to Xiao (2013), individuals tend to have higher levels of subjective financial well-being when they believe to have sustainably adequate economic resources (i.e., financial capital). Lersch (2017) identified a positive association between perceived financial well-being and higher wealth levels.

Luthans et al. (2006) suggested that social capital explains *who you know* and psychological capital explains *who you are*. Joo and Grable (2004) and Woodyard and Robb (2016) stated that one's subjective evaluation of financial condition represents their personality, attitude, and knowledge. This assertion suggests that an individual's perceived financial well-being is influenced by social and psychological capital.

Purpose

Even though an abundance of research shows the relationship between financial capital and perceived financial well-being, very few studies investigate the relationship of social capital and psychological capital with perceived financial well-being, and whether these relationships are influenced by financial capital (i.e., wealth). The purpose of this study is to build upon the literature by investigating how perceived financial well-being is affected by social capital and psychological capital.

This study also builds upon the subjective financial well-being literature by investigating whether financial capital plays a mediating role between psycho-social capital (i.e., psychological and social capital) and perceived financial well-being.

Theory

A construal theory of happiness presents the lens in which to view the relationship among social capital, psychological capital, financial capital, and perceived financial well-being. According to a construal theory of happiness, how people construe and interpret the world around them determines their level of happiness (Lyubomirsky, 2001). Elliot and Coker (2008) stated, "a construal theory of happiness emphasizes the role of hedonically relevant cognitive and motivational processes (e.g., social comparison, dissonance reduction, self-reflection, and self-rumination) as mediating the effects of person and situation factors on the perception of happiness" (p. 127).

The incremental accrual of social and psychological capital, as defined by the existing literature, can significantly capture hedonically relevant cognitive and motivational processes, and thereby affect the subjective evaluation of the financial situation. A construal theory of happiness also provides the theoretical framework for investigating the potential for financial capital mediating the relationship between psycho-social capital and perceived financial well-being, because financial capital can become the parameter for social comparison as well as the subject of dissonance and self-rumination.

Hypotheses

Based on the existing literature and the theoretical framework, the following hypotheses were investigated:

<u>Direct Effects with Perceived Financial Well-being</u>

H1: Social Capital is positively associated with Perceived Financial Well-being.
H2: Psychological Capital is positively associated with Perceived Financial Well-being.
H3: Financial Capital is positively associated with Perceived Financial Well-being.

<u>Indirect Effects with Perceived Financial Well-being</u>

H4: Financial Capital facilitates a mediation effect between Social Capital and Perceived Financial Well-being.
H5: Financial Capital facilitates a mediation effect between Psychological Capital and Perceived Financial Well-being.

Methodology

Data Source

Data were utilized from 2016, 2012, and 2008 waves of Health and Retirement Study (HRS). The 2016 RAND HRS Fat File (e.2A), 2012 RAND HRS Fat File (f.2A), 2008 RAND HRS Fat File (f.3A) and RAND HRS Longitudinal File 2016 (v.1) were merged together. The predictor and outcome variables were constructed from the Psychosocial and Lifestyle questionnaires, located within the HRS Fat Files. The mediator and all the control variables were constructed from the 2016 RAND HRS Longitudinal File.

Variables

The first predictor, 'Social Capital' was estimated as a second-order latent construct from the following first-order latent constructs as indicators: 'Bonding Capital – Family', 'Bonding Capital – Friends', and 'Bridging Capital'. The second predictor, 'Psychological Capital' was estimated as a second-order latent construct from the following first-order latent constructs as indicators: 'Positive affect', 'Meaning of Life', and 'Perceived mastery'. The indicators used for constructing the first-order latent constructs and respective factor loadings for all the first-order and second-order latent constructs are listed in Table-1. Indicators were parceled for constructing several latent variables according to recommended methodology (Little, 2013).

The mediator, 'Financial Capital,' is a continuous manifest variable constructed by first summing the respondent's total wealth including secondary residence and the amount in nominal dollars that both the respondent and the spouse have in a defined contribution pension plan account from their current employer, and then taking the inverse hyperbolic sine of that sum-total. The inverse hyperbolic sine transformation permits the use of both positive and negative values. The outcome variable, 'Perceived Financial Well-being' was included in the model as a categorical variable capturing how satisfied the respondent is with his/her present financial situation, ranging from completely satisfied to not at all satisfied. The respondents' age, gender, race, education, work-status, couple-status, and health-status were included in the model as control variables.

Sample Characteristics

The full sample from all combined waves consisted of 10,898 observations. Sixty percent of the respondents were female, while 72% were white. The majority of the respondents were aged above 50 years, and the average age was around 65 years in the first and second wave, and close to 67 years in the third wave. 53% of the sample had a college degree and almost half were in the workforce during all three waves. Around two-thirds of the sample were either married or partnered during all three waves. The sample characteristics of scales and continuous variables are presented in Table 2, and the sample characteristics of the categorical variables are presented in Table 3.

Analysis

This study employed a longitudinal structural equation mediation model with a confirmatory factor analysis measurement model. According to Hoyle (1999), the causal effect of a predictor variable on an outcome variable is transmitted through a mediator or intervening variable. This study evaluated the mediation effect facilitated by Financial Capital between Social Capital and Perceived Financial Well-being as well as Psychological Capital and Perceived Financial Well-being utilizing an autoregressive approach suggested by Cole and Maxwell (2003). Figure 1 depicts the autoregressive mediation model framework utilized in this study with the defined parameters for the hypothesized direct and indirect paths. A maximum-likelihood estimator was employed for model estimation to facilitate testing of the indirect effects with 1,000 bootstraps using the Lavaan package in R-studio (Little 2013, 296-301; Shrout & Bolger 2002, 442-445).

Results

Regression results are presented in Table 4. No statistically significant association was found between social capital measured in wave 1 and perceived financial well-being measured in wave 3, after controlling for the changes in perceived financial well-being over time. Hence, no evidence was found in favor of hypothesis one. The results do show a statistically significant positive association between psychological capital measured in wave 1 and perceived financial well-being measured in wave 3, after controlling for the changes in perceived financial well-being over time. Hence, there is evidence in favor of hypothesis two and causal inference can be drawn. The results also show a significant positive association between financial capital measured in wave 2 and perceived financial well-being measured in wave 3, after controlling for the changes in perceived financial well-being over time, which is in favor of hypothesis three. A statistically significant positive association was also found between social capital measured in wave 1 and financial capital measured in wave 2, as well as psychological capital measured in wave 1 and financial capital measured in wave 2, after controlling for changes in financial capital over time.

The indirect effect facilitated by financial capital measured in wave 2 between social capital measured in wave 1 and perceived financial well-being measured in wave 3 was estimated by taking the product of the direct effect of social capital measured in wave 1 on financial capital measured in wave 2 and the direct effect of financial capital measured in wave 2 on perceived financial well-being measured in wave 3. The indirect effect facilitated by financial capital measured in wave 2 between psychological capital measured in wave 1 and perceived financial well-being measured in wave 3 was estimated by taking the product of the direct effect of psychological capital measured in wave 1 on financial capital measured in wave 2 and the direct effect of financial capital measured in wave 2 on perceived financial well-being measured in wave 3. Bootstrap estimation results with 1,000 draws provided support for the significance of both these indirect effects because the confidence interval for each effect did not contain zero (Shrout & Bolger 2002, 442-445). Therefore, the results provide evidence in favor of financial capital mediating the effect between psycho-social capital (i.e., psychological capital and social capital) and perceived financial well-being (H4 and H5). Figure 2 illustrates the longitudinal mediation model with the non-significant paths pruned and standardized regression estimates.

Implications and Conclusion

The results of this study are consistent with a construal theory of happiness and provide evidence in favor of the primary hypotheses, within the theoretical framework. Both social capital and psychological capital accrue incrementally through the hedonically relevant cognitive and motivational processes, which make them malleable and subject to change over time. Social and psychological capital can help translate human capital into financial capital while contributing to perceived financial well-being. By providing evidence in favor of financial capital (i.e., wealth) playing a mediating role between psycho-social capital and perceived financial well-being, this study addresses a gap in the subjective financial well-being literature and generates implications for financial counseling and planning.

Even though many studies have shown that financial capital and financial well-being are positively associated, there exists a hand full of studies that found only weak or no association between them. Sometimes even a negative association can be observed between wealth and perceived financial well-being by financial counselors and planners, and this phenomenon can be well explained by the indirect effects between social and psychological capital and perceived financial well-being through financial capital. Lower levels of psycho-social capital will not only have a direct negative effect on perceived financial well-being, but the indirect effect through financial capital will also be negative. Therefore, financial counselors and planners can help clients by supporting social and psychological capital if the end goal is to generate higher perceived financial well-being. This support may prove particularly beneficial for an older adult population—the target sample for this study—as older adults tend to reduce their social networks (Luong et al., 2011), and undergo significant psychosocial change as a result of the retirement transition (Rosenkoetter & Garris, 2001). Additional psychosocial support may help older adults develop increased financial well-being during the retirement transition and phase of life.

Table-1: Latent constructs and factor loadings (standardized)

Latent Construct	Indicator	Factor Loading	Std. Error	z - Value	P(> |z|)
Positive Affect 16	PA116	0.816	0.014	80.824	0.000
	PA216	0.853	0.015	79.912	0.000
	PA316	0.874	0.013	85.027	0.000
Positive Affect 12	PA112	0.828	0.012	86.987	0.000
	PA212	0.853	0.013	86.357	0.000
	PA312	0.873	0.012	92.414	0.000
Positive Affect 08	PA108	0.837	0.012	34.293	0.000
	PA208	0.836	0.011	35.439	0.000
	PA308	0.872	0.012	33.490	0.000
Meaning of Life 16	ML116	0.656	0.020	58.483	0.000
	ML216	0.579	0.020	56.087	0.000
	ML316	0.704	0.017	73.391	0.000
Meaning of Life 12	ML112	0.630	0.018	62.183	0.000
	ML212	0.622	0.017	69.275	0.000
	ML312	0.731	0.016	82.160	0.000
Meaning of Life 08	ML108	0.657	0.016	20.079	0.000
	ML208	0.603	0.017	19.065	0.000
	ML308	0.724	0.020	18.377	0.000
Mastery 16	Ma116	0.814	0.013	83.653	0.000
	Ma216	0.812	0.012	89.615	0.000
	Ma316	0.814	0.013	91.903	0.000
Mastery 12	Ma112	0.838	0.012	90.126	0.000
	Ma212	0.824	0.011	98.421	0.000
	Ma312	0.834	0.012	100.117	0.000
Mastery 08	Ma108	0.819	0.017	46.782	0.000
	Ma208	0.825	0.018	45.233	0.000
	Ma308	0.810	0.018	49.625	0.000
Bonding Capital - Family 16	BoFa116	0.757	0.039	29.509	0.000
	BoFa216	0.811	0.043	32.311	0.000
	BoFa316	0.868	0.045	32.387	0.000
Bonding Capital - Family 12	BoFa112	0.763	0.026	40.183	0.000
	BoFa212	0.801	0.029	43.535	0.000
	BoFa312	0.861	0.031	44.040	0.000
Bonding Capital - Family 08	BoFa108	0.766	0.012	51.051	0.000
	BoFa208	0.800	0.015	49.421	0.000
	BoFa308	0.878	0.014	56.166	0.000

Table-1: (Continued)

Latent Construct	Indicator	Factor Loading	Std. Error	z - Value	P(> |z|)
Bonding Capital - Friends 16	BoFr116	0.758	0.041	31.632	0.000
	BoFr216	0.785	0.044	32.949	0.000
	BoFr316	0.848	0.048	34.004	0.000
Bonding Capital - Friends 12	BoFr112	0.762	0.013	77.044	0.000
	BoFr212	0.776	0.012	91.620	0.000
	BoFr312	0.843	0.013	97.658	0.000
Bonding Capital - Friends 08	BoFr108	0.753	0.011	44.336	0.000
	BoFr208	0.766	0.012	45.327	0.000
	BoFr308	0.846	0.014	44.917	0.000
Bridging Capital 16	BrC116	0.543	0.047	24.615	0.000
	BrC216	0.532	0.061	28.166	0.000
	BrC316	0.463	0.076	30.662	0.000
Bridging Capital 12	BrC112	0.574	0.036	29.536	0.000
	BrC212	0.553	0.045	34.149	0.000
	BrC312	0.455	0.054	36.205	0.000
Bridging Capital 08	BrC108	0.524	0.009	25.649	0.000
	BrC208	0.548	0.017	27.516	0.000
	BrC308	0.446	0.020	28.338	0.000
Social Capital 16	BCFa16	0.697	0.033	31.703	0.000
	BCFr16	0.393	0.029	32.954	0.000
	BrC16	0.540	0.011	90.839	0.000
Social Capital 12	BCFa12	0.735	0.040	22.935	0.000
	BCFr12	0.500	0.023	39.385	0.000
	BrC12	0.633	0.024	44.164	0.000
Social Capital 08	BCFa08	0.640	0.064	12.938	0.000
	BCFr08	0.499	0.037	15.627	0.000
	BrC08	0.604	0.039	19.493	0.000
Psych. Capital 16	PA16	0.862	0.006	164.720	0.000
	ML16	0.921	0.011	98.445	0.000
	Ma16	0.649	0.014	75.530	0.000
Psych. Capital 12	PA12	0.858	0.004	221.470	0.000
	ML12	0.901	0.009	106.365	0.000
	Ma12	0.611	0.013	76.302	0.000
Psych. Capital 08	PA08	0.849	0.060	26.798	0.000
	ML08	0.899	0.121	16.942	0.000
	Ma08	0.612	0.028	27.820	0.000

Table-2: Sample characteristics of scales and continuous variables

Wave - 1: 2008								
	n	**mean**	**sd**	**min**	**max**	**skew**	**kurtosis**	**se**
Scales								
Positive Affect	6307	10.71	2.4	3	15	-0.39	-0.27	0.03
Meaning of Life	6517	14	2.79	3	18	-0.46	-0.31	0.03
Mastery	6769	14.21	3.43	3	18	-1.09	0.79	0.04
Bonding Capital - Family	6357	8.67	2.64	3	12	-0.54	-0.67	0.03
Bonding Capital - Friends	6277	9.16	2.25	3	12	-0.5	-0.47	0.03
Bridging Capital	5918	10.73	2.56	3	18	0.13	-0.65	0.03
Perceived Financial WB	6812	3.44	1.15	1	5	-0.31	-0.62	0.01
Health Status	3464	3.35	1.01	1	5	-0.29	-0.39	0.02
Continuous Variables								
Financial Capital	10898	3.79	6.2	-13.91	17.42	0.8	-0.88	0.06
Age	3466	64.78	8.66	26	90	-0.1	-0.19	0.15

Table-2: (Continued)

Wave - 2: 2012								
	n	**mean**	**sd**	**min**	**max**	**skew**	**kurtosis**	**se**
Scales								
Positive Affect	6441	10.63	2.46	3	15	-0.36	-0.34	0.03
Meaning of Life	6812	13.8	2.83	3	18	-0.45	-0.25	0.03
Mastery	6940	14.06	3.54	3	18	-1.09	0.78	0.04
Bonding Capital - Family	6622	8.72	2.6	3	12	-0.55	-0.63	0.03
Bonding Capital - Friends	6418	9.23	2.25	3	12	-0.57	-0.37	0.03
Bridging Capital	6387	9.94	3.1	3	18	-0.06	-0.61	0.04
Perceived Financial WB	7064	3.32	1.15	1	5	-0.22	-0.65	0.01
Health Status	5103	3.25	1.02	1	5	-0.23	-0.51	0.01
Continuous Variables								
Financial Capital	10898	4.93	6.9	-14.91	17.45	0.12	-1.17	0.07
Age	5108	65.39	10.2	27	95	0.16	-0.6	0.14

Wave - 3: 2016								
	n	**mean**	**sd**	**min**	**max**	**skew**	**kurtosis**	**se**
Scales								
Positive Affect	5537	10.71	2.43	3	15	-0.38	-0.34	0.03
Meaning of Life	5894	13.83	2.8	3	18	-0.44	-0.27	0.04
Mastery	6069	14.31	3.38	3	18	-1.13	0.93	0.04
Bonding Capital - Family	5688	8.64	2.63	3	12	-0.52	0.7	0.03
Bonding Capital - Friends	5479	9.23	2.24	3	12	-0.55	-0.4	0.03
Bridging Capital	5455	9.99	2.99	3	18	-0.06	-0.61	0.04
Perceived Financial WB	6071	3.24	1.14	1	5	-0.19	-0.63	0.01
Health Status	6198	3.14	1.02	1	5	-0.14	-0.53	0.01
Continuous Variables								
Financial Capital	10898	6.11	7.02	-13.56	18.03	-0.17	-1.27	0.07
Age	6202	66.77	11.24	26	98	0.22	-0.69	0.14

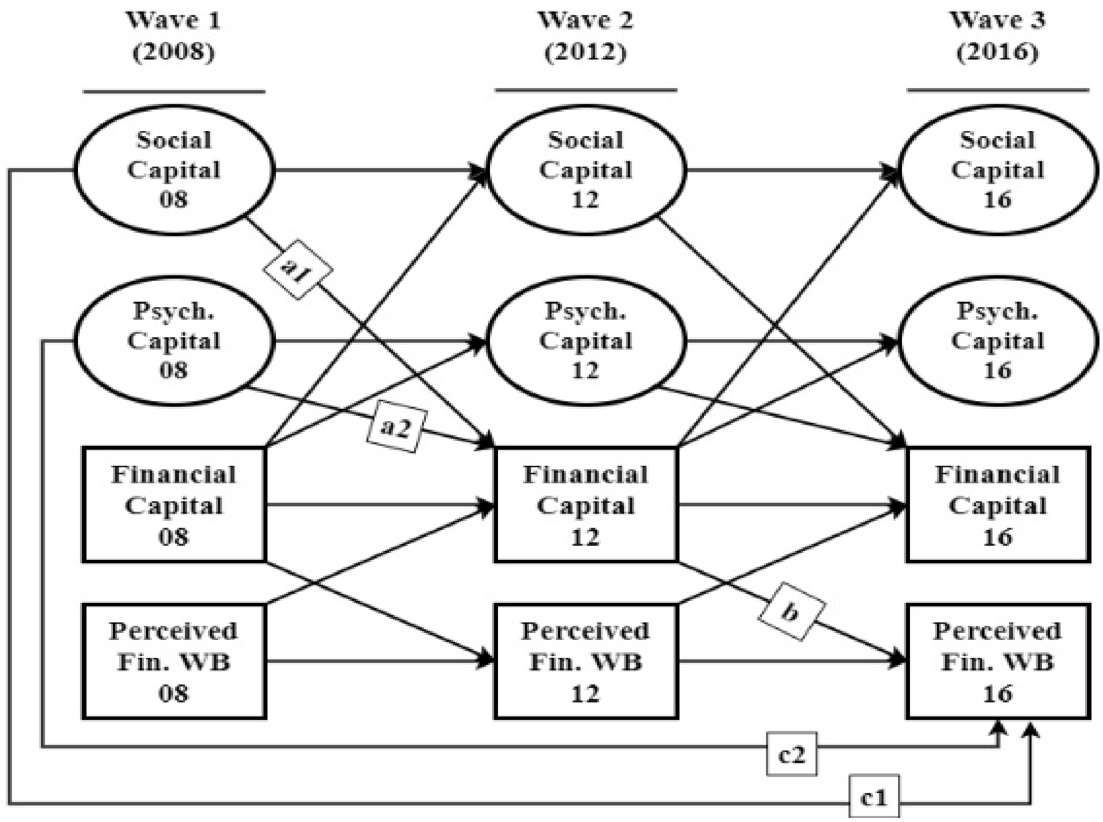
Table-3: Sample characteristics of the categorical variables

Variables	**n**	**%**
Female (0 = Male, 1 = Female)	6202	60%
Rwhite (0 = White, 1 = Non-white)	6181	72%
Edcoll (0 = No College Degree, 1 = Has College Degree)	6201	53%
Work08 (0 = Not in the Work-force, 1 = In the Work-force)	3466	46%
Couple08 (0 = Not married/partnered, 1 = Married/Partnered)	3466	71%
Work12 (0 = Not in the Work-force, 1 = In the Work-force)	5108	45%
Couple12 (0 = Not married/partnered, 1 = Married/Partnered)	5108	67%
Work16 (0 = Not in the Work-force, 1 = In the Work-force)	6202	43%
Couple16 (0 = Not married/partnered, 1 = Married/Partnered)	6202	63%

Table-4: Regression Results with standardized estimates

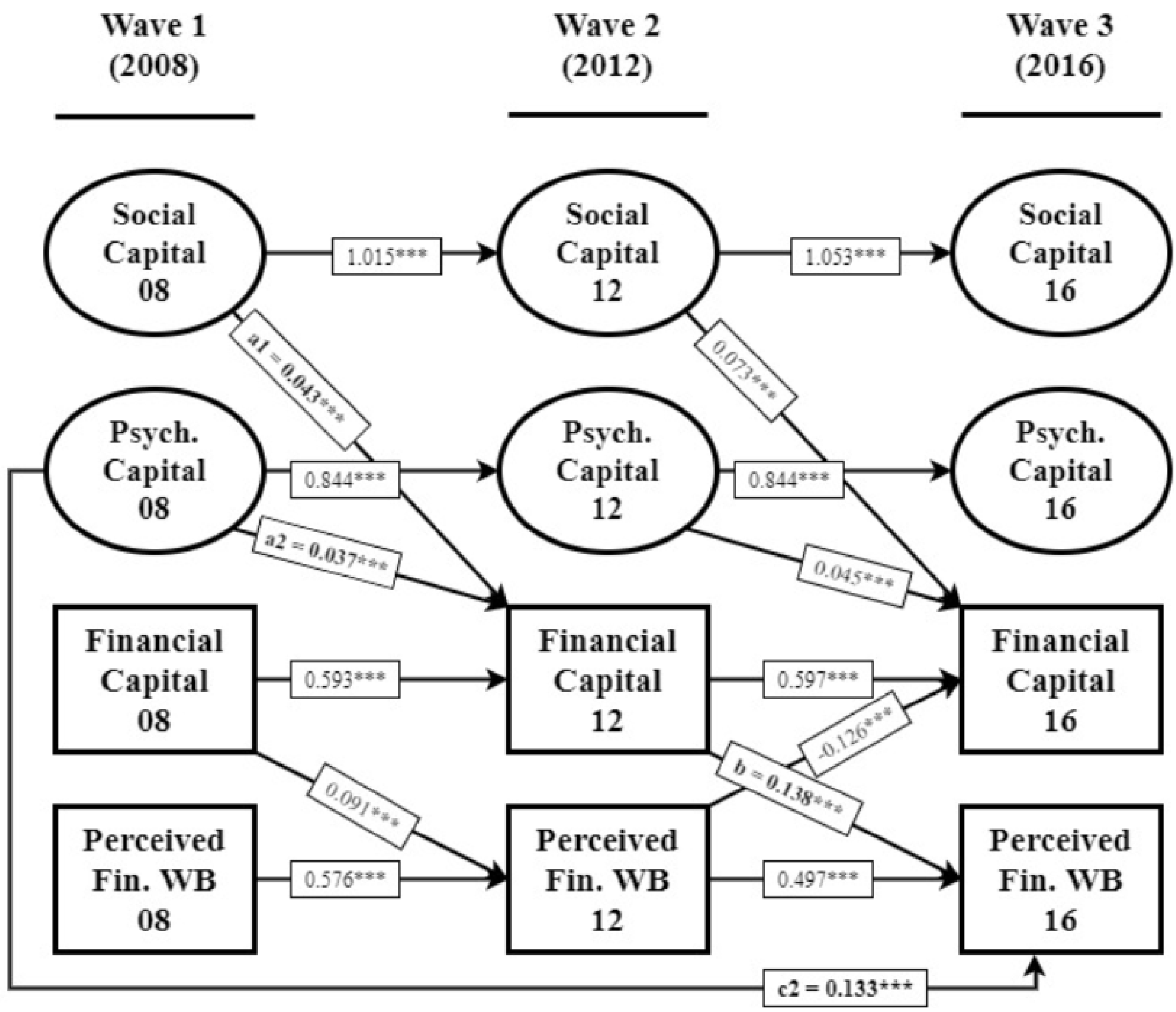
Regression Paths	Standardized Estimate	Standard Error	Confidence Interval (lower)	Confidence Interval (upper)
Social Capital 08 → Financial Capital 12 **(a1)**	0.043***	0.098	0.110	0.471
Psychological Capital 08 → Financial Capital 12 **(a2)**	0.037***	0.099	0.074	0.463
Social Capital 08 → Perceived Financial Well-being 16 **(c1)**	0.029	0.025	-0.012	0.090
Social Capital 08 → Perceived Financial Well-being 16 **(c2)**	0.133***	0.024	0.101	0.192
Financial Capital 12 → Perceived Financial Well-being 16 **(b)**	0.138***	0.002	0.017	0.027
Social Capital 08 → Financial Capital 12 → Perceived Financial Well-being 16 **(a1*b)**	0.006***	0.002	0.003	0.011
Psychological Capital 08 → Financial Capital 12 → Perceived Financial Well-being 16 **(a2*b)**	0.005**	0.002	0.001	0.011

Figure-1: Longitudinal mediation model framework



Note: *p < 0.05, **p < 0.01, ***p < 0.001. All the results were computed using the Lavaan package in R-Studio. The indirect effects were tested using a bootstrap estimation approach with 1,000 draws. The bootstrap draws were executed in R (lavaan) with the Full Information Maximum Likelihood (FIML) estimator; CI = 95% confidence interval for standardized estimates.

Figure-2: Longitudinal Mediation model with standardized regression estimates



* *Note:* All paths shown are significant at **p < .05 or less.* Model Fit Indices: χ^2(df 2141) = 213,941.799, p = <.001; RMSEA = .028, 90% CI [.028, .029], CFI = .912, TLI = .904; SRMR=.077. All results were computed in R (lavaan) with a maximum likelihood (ML) estimator to facilitate testing of the indirect effects with 1,000 bootstrap draws (Little, 2013; Shrout & Bolger, 2002), therefore the HRS weights and complex sample design were not incorporated into these results due to the use of the ML estimator and the need to test the indirect effects with a bootstrapping technique in R (lavaan). Parameter estimates are in standardization. The structural model was estimated with indicators from the measurement model for the latent variables and included control variables according to the full partial method (Little, 2013): age, gender, race, education, couple status, work status, and self-reported health status.

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Exploring the Association Between Financial Self-Efficacy and Desired Financial Behavior

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Abstract

This study used the 2018 National Financial Capability Study dataset to investigate the association between financial self-efficacy and financial behavior. The results of three ordered logits found a negative relationship between financial self-efficacy and short, long, and any desired financial behavior. Financial knowledge was found to play an important role in financial behavior.

Key words: self-efficacy; financial behavior; financial knowledge; National Financial Capability Study

Background and Purpose

This study investigates financial self-efficacy as a contributing factor associated with the desired financial behaviors of US households. The main contribution of this study is to construct a measure of financial self-efficacy using the nationally representative dataset based on the framework of Lown (2012). For empirical analyses, we used the 2018 National Financial Capability Study (NFCS) dataset. Further, the desired financial behavior is defined as three forms as follows; (1) short-term, (2) long-term and (3) any desired behavior. This study provides important insights for financial counselors and educators.

Theoretical Background and Research Hypotheses

Self-efficacy is a person's belief in their ability to succeed at a given task (Bandura, 1977). Self-efficacy has been linked to aspirational goals, job performance, and commitment (Gist, 1987). Studies have shown that the lower a person's self-efficacy, the more likely they are to avoid a challenge or give up quickly (Bandura, 1977, 2012). Based on these studies, an individual with high self-efficacy will be more optimistic about dealing with adversity and will be more likely to persist and succeed at a difficult task (Bandura, 1977, 2012). Financial self-efficacy takes the general idea of self-efficacy and focuses on a person's perception of ability in financial tasks (Lown, 2012).
Based on empirical studies and theoretical background, we constructed three research hypotheses as follows.

> Respondents with a higher level of financial self-efficacy will be more likely to engage in desireable short-term financial behavior.
>
> Respondents with a higher level of financial self-efficacy will be more likely to engage in desireable long-term financial behavior.
>
> Respondents with a higher level of financial self-efficacy will be more likely to engage in any desireable financial behavior.

Methods

Dataset and Sample Selection

The 2018 National Financial Capability Study (NFCS) dataset, generously sponsored by FINRA Investor Education Foundation, was used for this study. The survey was conducted from June to October of 2018 and has a total sample size of 27,091. The non-probabilty quota sampling provides 500 respondents from each state with an oversampling of Oregon and Washington. Our final analytic sample excludes some respondents with missing responses to our dependent and independent variables.

Dependent Variable: Desired Financial Behavior

Extended from previously developed indices of financial behavior (Henager & Cude 2016; Kim, Anderson & Seay), we defined financial behaviors in three forms; (1) short-term, (2) long-term and (3) any desired behavior (sum of short-term and long-term). The short-term financial behaviors include four behaviors such as saving for emergency, underspending, not overdrawing a checking account and use of a budget. The long-term financial behaviors include calculating the necessary saving amount for retirement, retirement pension ownership, investment ownership outside of retirement account and having a will. Each answer was coded as a binary variable and responses were summed to construct three induces; short-term (0-4), long-term (0-4) and any desired behavior (0-8).

Key Independent Variable: Financial Self-Efficacy

Following the earlier work (6 item measure) on financial self-efficacy by Lown (2012), we constructed a measure of financial self-efficacy using the 2018 NFCS dataset. Given the availability of variables, we matched four components including spending plans, ability to accomplish financial goals, financial management and retirement planning as described in Table 1. The mean score of financial self-efficacy was 11.8 out of 23.

Financial Knowledge and Financial Education

Financial knowledge was measured in two ways, objective and subjective. Here, objective financial knowledge was a summated variable with a maximum score of 6. This score was created by coding respondent's answers to six financial knowledge questions as a 1 if correct or a 0 if incorrect. Subjective financial knowledge was based on the respondent's answer to "On a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge?" Financial education was a binary variable that included financial education a respondent might have received from school, college, or an employer.

Control Variables

This study included a set of control variables such as age, gender (male, female), marital status (married, single, separated/divorce/widow), presence of dependent children (yes, no), race/ethnicity (White, Black, Hispanic, Asian/others), employment status (full-time worker, self-employed, part-time worker, homemaker, student, disabled, unemployed, retired), presence of dependent children (yes, no), education (high school diploma or lower, some college, associate degree, bachelor degree, post-bachelor degree),, household income, and state of residence (i.e., state code).

Empirical Model Specification

Given the ordered nature of dependent variables, we conducted three ordered logistic regressions. In particular, empirical models are specified as follows.

Model 1: The likelihood of short-term planning = f (financial self-efficacy, financial knowledge, financial education, socio-economc variables, state of residence)

Model 2: The likelihood of long-term planning = f (financial self-efficacy, financial knowledge, financial education, socio-economc variables, state of residence)

Model 3: The likelihood of any desired planning = f (financial self-efficacy, financial knowledge, financial education, socio-economc variables, state of residence)

Results

Descriptive Results

Respondent financial self-efficacy ranged from 4 to 23 with a mean score of 11.75. Positive short-term and long-term behavior scores had a possible range of 1 to 4 with mean short-term behavior at 2.1 and long-term behavior at 1.8. Combined, the mean for any positive financial behavior was 3.9. Objective financial knowledge had a mean score of 3.18 while subjective financial knowledge had a mean of 5.19. Almost 76% of the sample had never received financial education.

Multivariate Results

Table 3 shows results from ordered logistic regressions on three induces of desired financial behaviors. The financial self-efficacy was negatively associated with the likelihood of performing higher level of short-term, long-term and any financial behaviors. Both objective and subjective financial knowledge were positively related to the likelihood of performing desired financial behaviors across three induces. Having financial education increased the likehood of performing higher level of long-term and any financial behaviors, but not significantly related to short-term behaviors.

With respect to control variables, age and being were positively associated with likelihood of performaing desired financial behaviors. Singles were more likely to perform higher level of short-term behaviors while less likely to perform long-term behvaiors than married couples. The presence of dependent children was negatively associated with the likelihood of performing short-term behaviors while positively associated with the likelihood of performing long-term behaviors. Respondents with bachelor degree or higher were more likely to perform higher level of three induces of desired financial beahviors. Lastly, being a full-time salary worker and income were positively associated with the likelihood of performing higher level of desired financial behaviors.

Discussion and Implications

The purpose of this study was to examine the association between financial self-efficacy and financial behavior. A key finding of this study is that financial self-efficacy is negatively associated with performing desired financial behavior. This implies that there is a divergence between perceived financial ability and actual financial behavior. In addition, both objective and subjective financial knowledge play an important part in financial behavior, particularly long-term financial behavior. Similar to Kim et al. (2019), this study finds that financial knowledge plays on important role in desireable long-term financial behavior although there was not a significant impact on short-term financial behavior. Financial counselors would do well to spend time educating clients on the reasoning behind a debt payment plan or budget to illustrate the impact of a proposed change in financial behavior.

A limitation of this study is the inability to assign causation using cross-sectional data from the NFCS. It could be that financial behavior feeds into a respondent's reported financial self-efficacy. Despite this limitation, this study adds to the literature by addressing the paradox between financial self-efficacy and financial behavior. Similar to subjective financial knowledge, financial self-efficacy scores may be reflective of overconfidence rather than ability.

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Table 1. Description of financial self-efficacy

Lown (2012)	2018 NFCS	Mean (S.D.)
1. It is hard to stick to my spending plan when unexpected expenses arise.	J42_2 'My finances control my life (1-5)	2.99 (1.26)
2. It is challenging to make progress toward my financial goals.	J43 'If you were to set a fin goal for yourself today, how confident are you in your ability to achieve it?' (1-4)	1.95 (0.88)
3. When unexpected expenses occur I usually have to use credit.	N/A	-
4. When faced with a financial challenge, I have a hard time figuring out a solution.	N/A	-
5. I lack confidence in my ability to manage my finances.	M1_1 I am good at dealing with day to day financial matters (1-7)	2.23 (1.52)
6. I worry about running out of money in retirement.	J33_1) I worry about running out of money in retirement (1-7)	4.57 (2.06)
	Financial self-efficacy index (4-23)	11.75 (4.05)

Note: J43 and M1_1 are coded reversely.

Table 2. Descriptive statistics of selected variables, 2018 NFCS

Variables	Percentage or Mean (S.D.)
Dependent variables	
Short-term behavior (1-4)	2.10 (1.33)
Long-term behavior (1-4)	1.81 (1.38)
Any desired behavior (1-8)	3.90 (2.32)
Financial self-efficacy (4-23)	11.75 (4.05)
Financial knowledge	
Objective financial knowledge (0-6)	3.18 (1.62)
Subjective financial knowledge (1-7)	5.19 (1.36)
Financial education	24.1%

Weighted results.

Table 3. Ordered logits on desired behaviors, 2018 NFCS dataset

Variables	Short-term financial behaviors			Long-term financial behaviors			Any desired financial behaviors		
	Coef.	S.E.	p-value	Coef.	S.E.	p-value	Coef.	S.E.	p-value
Financial self-efficacy	-0.2333	0.0041	<.0001	-0.0611	0.0039	<.0001	-0.1891	0.0039	<.0001
Financial knowledge									
Objective financial knowledge	0.0670	0.0094	<.0001	0.1587	0.0095	<.0001	0.1418	0.0091	<.0001
Subjective financial knowledge	0.1684	0.0110	<.0001	0.3026	0.0116	<.0001	0.2796	0.0107	<.0001
Financial education (ref: No)	-0.0378	0.0313	0.2279	0.4286	0.0316	<.0001	0.2516	0.0302	<.0001
Age	0.0033	0.0012	0.0069	0.0194	0.0012	<.0001	0.0141	0.0012	<.0001
Gender (ref: female)	0.0332	0.0277	0.2312	0.0769	0.0280	0.0061	0.0730	0.0267	0.0063
Marital status (ref: Married)									
Single	0.0968	0.0365	0.0080	-0.1466	0.0368	<.0001	-0.0233	0.0352	0.5083
Separated/divorce/widow	-0.0351	0.0405	0.3858	-0.2955	0.0408	<.0001	-0.2209	0.0390	<.0001
Presence of a dependent child/children (ref: No)	-0.4511	0.0310	<.0001	0.1278	0.0314	<.0001	-0.2108	0.0299	<.0001
Race/Ethnicity (ref: White)									
Black	-0.3883	0.0427	<.0001	0.0770	0.0434	0.0762	-0.2171	0.0413	<.0001
Hispanic	-0.0091	0.0373	0.8070	-0.2301	0.0383	<.0001	-0.1550	0.0361	<.0001
Asian/others	0.0919	0.0479	0.0552	-0.0870	0.0484	0.0722	0.0084	0.0462	0.8552
Education of respondent (ref: High school diploma or lower)									
Some college	-0.0418	0.0345	0.2264	0.1087	0.0353	0.0021	0.0433	0.0334	0.1959
Associate degree	-0.0181	0.0461	0.6942	0.2213	0.0465	<.0001	0.1208	0.0446	0.0067
Bachelor degree	0.2288	0.0410	<.0001	0.3645	0.0411	<.0001	0.3771	0.0395	<.0001
Post-bachelor degree	0.1367	0.0495	0.0057	0.5708	0.0494	<.0001	0.4551	0.0475	<.0001
Employment status (ref: Salaried worker, full-time)									
Self-employed	-0.0260	0.0515	0.6142	-0.0877	0.0514	0.0882	-0.0561	0.0496	0.2587
Salaried worker (part-time)	-0.0694	0.0488	0.1548	-0.1567	0.0496	0.0016	-0.1006	0.0473	0.0333
Homemaker	-0.2413	0.0568	<.0001	-0.5122	0.0580	<.0001	-0.4730	0.0551	<.0001
Student	0.0361	0.0713	0.6124	-0.3657	0.0756	<.0001	-0.1361	0.0696	0.0506
Disabled	-0.6289	0.0670	<.0001	-0.8900	0.0718	<.0001	-0.9299	0.0651	<.0001
Unemployed	-0.3928	0.0661	<.0001	-0.8503	0.0734	<.0001	-0.6574	0.0645	<.0001
Retired	-0.1296	0.0464	0.0052	0.2826	0.0461	<.0001	0.1170	0.0445	0.0085
Household income (ref: Less than $15,000)									
$15,000-$24,999	0.0563	0.0568	0.3212	0.4699	0.0624	<.0001	0.2641	0.0554	<.0001
$25,000-$34,999	0.2644	0.0577	<.0001	0.7842	0.0622	<.0001	0.5763	0.0564	<.0001
$35,000-$49,999	0.5050	0.0551	<.0001	1.2820	0.0595	<.0001	1.0349	0.0541	<.0001
$50,000-$74,999	0.7836	0.0552	<.0001	1.6039	0.0596	<.0001	1.4237	0.0545	<.0001
$75,000-$99,999	1.0491	0.0600	<.0001	2.1720	0.0642	<.0001	1.9646	0.0593	<.0001
$100,000-$149,999	1.2151	0.0638	<.0001	2.0592	0.0672	<.0001	1.9908	0.0625	<.0001
$150,000 or more	1.4546	0.0770	<.0001	2.3150	0.0790	<.0001	2.3405	0.0742	<.0001
State fixed effect	Included			Included			Included		
Model fit									
Mean concordant	78.0%			79.8%			80.4%		

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Able Debtors Worry More? Debt Delinquency, Financial Capability, And Financial Anxiety

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Abstract

This study was to examine the association between debt delinquency and financial anxiety and the moderating role of financial capability in the association. With data from the 2018 U.S. National Financial Capability Study, multivariate regression results showed that payment delinquencies of mortgage, credit card and student loans were positively, while financial capability was negatively associated with financial anxiety. Further, surprisingly, we found only among consumers with debt delinquencies, financial capability was positively associated with financial anxiety. For consumers without debt delinquencies, financial capability was negatively associated with financial anxiety. Results of this study have implications for consumer financial service practitioners.

Key words: debt delinquency; financial anxiety; financial capability; National Financial Capability Study

Introduction

Debt is an indicator of resource deficiency and negatively associated with subjective wellbeing or positively associated with financial distress (Tay et al., 2017) and distresses (Brown et al., 2005). In the literature of economic psychology, factors are identified to help reduce distress or improve mental health such as financial capability (Talor et al., 2011) and family financial efficacy (Stevenson et al., 2020). Researchers also find that positive financial behaviors such as making ends meet is an important mediator to help reduce financial worry (de Bruijn & Antonides, 2020). Research on the association between debt behavior and subjective wellbeing is emerging but still limited. To our knowledge, research on the association between debt behavior and subjective wellbeing is emerging but no studies focused on the association between debt payment delinquency and financial anxiety, which is the topic of this study.

Debt holdings are common among American households. Based on the 2018 National Financial Capability Study (NFCS), 35% of American families held mortgage, 37% held credit card debt, and 26% held student loans (FINRA IEF, 2019). Also, consumers worry about personal finance issues and expressed financial anxiety. In 2018, 53% of respondents reported that “Thinking about my personal finances can make me feel anxious” and 44% said “Discussing my finances can make my heart race or make me feel stressed” (FINRA IEF, 2019). Debt delinquency is an indicator of financial burden that may hurt consumer financial and overall wellbeing. The current COVID-19 crisis makes the situation worse. Many earlier indicators show the substantial decline of economy that will worsen economic statuses of consumers. Research shows positive associations between debt and distress, financially or non-financially (Tay et al., 2017). In this study, debt delinquency refers to being late in debt repayment and financial anxiety refers to worries about financial issues. It is important to understand to what extent that debt delinquency is associated with financial anxiety and identify factors that can help mitigate the association and reduce financial anxiety. This study focuses on one of such factors, financial capability.

The purposes of this study were to examine the association between debt payment delinquency and financial anxiety and explore the moderating role of financial capability in the association. Specifically, we examined delinquencies in three types of debts: (a) mortgage, (b) credit card, and (c) student loan.

Following previous studies and theoretical background, we propose the following hypotheses:
H1: Debt delinquency is positively associated with financial anxiety.
H2: Financial capability is negatively associated with financial anxiety.
H3: The moderating effect of financial capability in the association between debt delinquency and financial anxiety is ambiguous and determined by empirical analyses.

Unique contributions of this study included that we examined the association between debt delinquency and financial anxiety, and the moderating role of financial capability in the association between debt delinquency and financial anxiety, which is understudied in the literature. In addition, we constructed a more comprehensive measure of financial anxiety based on newly available variables from the 2018 National Financial Capability Study, which provides new information for this important topic. Based on results of this study, we discussed implications for consumer financial educators, counselors, and other financial service practitioners.

Results

Descriptive Results

As shown in Table 1, the average score of financial anxiety variables were 4.53 (FA1), 4.49 (FA2) and 4.08 (FA3). The mean of composite financial anxiety index (z-score index) was zero with a range of -4.89 to 3.82. About 12.7% of respondents had credit card payment delinquency in the past 12 months, followed by student loan delinquency (8.1%) and mortgage delinquency (6.1%). The mean score of financial capability index (z-score index) was zero with a range of -10.68 to 5.19.

Multivariate Regression Results

Table 2 shows results from four multivariate OLS regressions on financial anxiety. The coefficients were standardized by subtracting the mean from the variable and dividing by its standard deviation (results of raw coefficients estimates are available from authors upon requests). Respondents with delinquency problems such as mortgage, credit card and student loans had higher level of financial anxiety consistently across four regression models. Specifically, those with mortgage delinquency had higher financial anxiety score by 0.0826-0.0955 followed by 0.0595-0.0922 (credit card delinquency) and 0.0223-0.0382 (student loan delinquency), consistent with H1. The findings suggest that mortgage and credit card debts may increase more worries than student loan debt by comparing the coefficient estimates. For example, in model 4 (FA4), the estimates of mortgage and credit card debt are triple (.0955/.0308=3.1) or almost triple (.0846/.0308=2.7) of that of student loan debt. The financial capability index was negatively associated with financial anxiety, confirming H2. Interesting to see that the coefficient estimates of the financial capability index were 2.8-8.8 times (.2716/.0955=2.8, .2716/.0846=3.2, .2716/.0308=8.8) of those of debt delinquency variables in model 4 (FA4). The findings suggest that positive effects of financial capability are much greater than negative effects of debt delinquencies.

Among control variables, males and minorities had lower while those with dependent children had higher level of financial anxiety than their counterparts. Education, being full-time employees, experiencing substantial income shock, being banked and student loan ownership were positively while higher income ($75,000 or above) and homeownership were negatively associated with financial anxiety across four regression models consistently. Recipients of financial education had lower score of financial anxiety than those without financial education, but it was found to be significant only in FA1 (financial worry about retirement security) and FA3 (Discussing finances can make heart race).

Table 3 presents regression results with interaction terms between debt delinquency and financial capability. Given consistent patterns of results across four regressions, we focused on the composite index of financial anxiety. Similar to results in Table 2, delinquencies of mortgage, credit card and student loan debts were positively associated with financial anxiety (the estimated standardized coefficients were 0.0876, 0.1088, and 0.0440, respectively). Financial capability was negatively associated with the level of financial anxiety. These results confirmed H1 and H2 again.

Based on H3, the effect of interaction term between debt delinquency and financial capability will be decided by empirical analyses. The results are unexpected. When the study was designed, we expected that financial capability could mitigate the positive association between debt delinquency and financial anxiety and hoped the coefficient estimates would be negative. However, the results showed positive values for these interaction terms in both standardized and raw coefficient estimates (Table 3). The results suggest that among consumers with debt delinquencies, financial capability may increase financial anxiety. Results in Table 3 suggest financial capability play different roles for consumers with or without debt delinquencies. For consumers without debt delinquencies, financial capability may decrease anxiety at much larger rates than debt delinquency variables. For consumers with debt delinquencies, financial capability adds more anxieties plus the anxieties originally caused by debt delinquencies.

To consider some consumers may have several debt delinquencies at the same time, we conducted more analyses by adding more refined delinquency variables to the regression models. The results are shown in Table 4. Multiple delinquency variables (i.e., more than one delinquency) were positively associated with financial anxiety. The largest effect was the combination of all three delinquencies (mortgage, credit card and student loan delinquency) compared to no delinquency (the estimated standardized coefficients was 2.2074). Comparisons of standardized coefficient estimates suggest that the three delinquency combination had the largest effect, .1023, then credit card debt delinquency only (.0998) and mortgage and credit card debt delinquency (.0753). With respect to interaction terms between multiple delinquency problems and financial capability, we found positive moderating effects of financial capability in associations between debt delinquency and financial anxiety across all delinquency variables. By adding the interaction terms, the standardized coefficient estimate of financial capability decreased to .0081, much smaller than those of other delinquency variables and delinquency and capability index interaction variables. The findings suggest that among consumers with multiple debt delinquency problems, more important factors to reduce anxiety may be factors beyond financial capability.

Discussions

This study used a large scale of survey data representative of American consumers to examine the association between debt delinquency and financial anxiety and explore if financial capability could moderate the association. Results show that debt delinquencies, or more specifically, delinquencies of three types of debts, mortgage, credit card, and student loan, are positively associated with financial anxiety, suggesting being late in repaying these types of debts may result in financial distress. In addition, results show that financial capability is negatively associated with financial anxiety, suggesting financial capability may reduce financial anxiety since it can help consumers better manage debts so that reduce distress caused by debt problems. Finally, financial capability shows a positive moderating effect in the association between debt delinquency and financial anxiety, surprisingly suggesting that among consumers with debt delinquencies, higher financial capability may be related to more financial anxiety. The findings support the three proposed hypotheses, consistent with previous research on similar topics and contributing to the literature with new information. Previous research documented that the negative association between debt and subjective wellbeing or positive association between debt and distress (Tay et al., 2017, also see the literature review section of this paper). This study provided another piece of supporting evidence showing the positive association between debt delinquency and financial anxiety, a measure of subjective financial wellbeing. The findings also suggest that impacts of delinquencies may vary among debt types. Based on the findings reported in Table 5, the estimated coefficients of mortgage is the largest, that of credit card debt is the second largest, and that of student loan is the smallest (almost half the size of credit card debt), suggesting mortgage delinquency may hurt consumer subjective financial wellbeing most compared to other debts. In a similar vein, results from an additional regression show that the estimated coefficients of multiple delinquency problems with mortgage payment is larger than other combinations of delinquency problems.

Results also show the negative association between financial capability and financial anxiety, consistent with previous research that financial knowledge contributes to financial behaviors (Henager & Cude, 2016) and financial capability contributes to subjective financial wellbeing (Xiao & Porto, 2017). Findings of this study provided supportive evidence to show financial capability may reduce financial anxiety, which implying increasing subjective financial wellbeing.

Results highlight the moderating role of financial capability in the association between debt delinquency and financial anxiety, which is the unique contribution of this study to the literature since previous research did not focus on this topic (Tay et al., 2017; Xiao et al., 2019; Xiao & Yao, 2020). Surprisingly, the results suggest that among consumers with debt delinquencies, higher financial capability is associated with higher financial anxiety. The moderating roles of financial capability vary too among three types of debts; the largest effect is found in mortgage, then credit card, then student loan. The results are unexpected that need future research to explain the mechanisms behind it. Possible explanations may be that more financially capable consumers, when they face debt delinquencies, are more aware of the consequences of the problems and worry more financially. Note that this surprising finding is only for consumers with debt delinquencies. For consumers without debt delinquency problems, financial capability is still negatively associated with financial anxiety, implying financial capability could reduce financial distress. Limitations of this study need to be acknowledged before implications are discussed. First, this study used cross-sectional data so that findings cannot be interpreted as direct evidence of the causality between debt delinquency and financial anxiety. Second, the dataset used has only information about debt ownership and delinquency. If information about debt amount is available, more detailed research can be done. Third, the data only has consumer self-reported behavior and perception information. To thoroughly understand consumer debt behaviors and their consequences on consumer financial wellbeing, data from diverse sources such as administrative data or observational data may be utilized. Fourth, as discussed before, the surprising result of the positive association between financial capability and financial anxiety among consumers with debt delinquencies should be further explored with other datasets and with different analytic procedures and see if it is a general fact. If so, more research is needed to see if this is a good sign or bad sign for consumer financial wellbeing. These limitations can be addressed in future research with different datasets and research designs.

Implications for Practitioners

Findings have implications for consumer financial counselors, educators, and other financial service practitioners who work with clients having debt problems.

Beware of the consequences of debt delinquency on financial distress. Both previous studies and current research show that debt delinquencies are related to financial anxiety, an important source for financial distress. Then to reduce financial distress, financial practitioners working with consumers with debt problems need to help their clients understand negative consequences of repaying debt late. Results also show that delinquencies in different types of debts have different degrees for financial distress. Potential increases of financial anxiety by mortgage and credit card debt delinquencies are much larger than that of student loan delinquency. Practitioners may beware of these findings and deal their clients with different debt problems with different strategies. Consumer financial practitioners should emphasize the negative consequences of debt delinquency when they counsel, educate, and work with consumers with debt problems.

Understand the potential positive impacts of financial capability on subjective financial wellbeing. Results of this study, consistent with previous research, show that financial capability, the ability to apply appropriate financial knowledge and perform desirable financial behavior, help reduce financial anxiety, implying that financial capability may be a cure for relieving financial distress. In addition, results show that potential effects of financial capability on financial anxiety are much larger than those of debt delinquency variables, suggesting greater potential of financial capability in reducing financial distress. When financial practitioners counsel, educate, and work with consumers with debt issues, they may emphasize the knowledge about debt management and encourage their clients to engage in desirable debt management behaviors, such as making more than minimum payment, make payment on time, and being mindful in paying debt bills.

Beware of the moderating role of financial capability in the relationship between debt delinquencies and financial anxiety. A surprising finding of this study is that among consumers with debt delinquencies, financial capability and financial anxiety are positively associated. As we discussed in before, this finding is unexpected, and more research should be done to confirm if this is a fact in general. If this is the fact, financial practitioners may need to first acknowledge the fact and then work with their clients to try to solve the debt delinquency issues to reduce financial anxiety. Given other conditions, because of worry, raising consciousness and being mindful may be good to prepare for behavior change to reduce debt and improve financial wellbeing (Xiao et al., 2004).

Consider other factors besides financial capability to reduce financial distress. The results of this study suggest that improving financial capability may be helpful in improving both debt management behavior and subjective financial wellbeing. But practitioners may also want to understand the limitation of financial capability and consider other factors to reduce financial distress, such as family resource levels and individual personalities. Results of this study, consistent other studies, suggest that debt delinquencies are not only associated with financial capability but also other factors such as family economic resources (families with income over $50,000 tend to have lower scores of financial anxiety). Certain psychological attributes may also cause responsible or irresponsible debt behaviors that are not shown in this study because of data limitation. However, previous research shows that consciousness is positively associated with wealth accumulation (Letkiewicz & Fox, 2014) and self-efficacy is related to help-seeking behavior (Lim et al., 2014). These factors may also be considered when consumer financial practitioners help consumers with debt problems.

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The full paper is available from authors upon requests.

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Table 1. Descriptive statistics of selected variables, 2018 NFCS

Variables	Mean (S.D.)	Percentage
Dependent variables: Financial anxiety (FA)		
FA1: Worry (1, 7)	4.5294 (2.0547)	-
FA2: Anxious (1, 7)	4.4932 (2.0464)	-
FA3: Stressed (1, 7)	4.0793 (2.1006)	-
FA4: Composite index (-4.89, 3.82)	0 (2.6986)	-
Debt payment delinquency		
Mortgage payment delinquency	-	6.12%
Credit card payment delinquency	-	12.67%
Student loan payment delinquency	-	8.14%
Financial capability index (-10.68, 5.19)	0 (2.9099)	-

Unweighted results.

Table 2. Ordinary least squares regressions on financial capability, 2018 NFCS

Variables	FA1: Worry		FA2: Anxious		FA3: Stressed		FA 4: Composite index	
	Stand. Coeff.	S.E.	Stand. Coeff.	S.E.	Stand. Coeff.	S.E.	Stand. Coeff.	S.E.
Debt payment delinquency								
Mortgage payment delinquency	0.0831***	0.0626	0.0826***	0.0588	0.0919***	0.0603	0.0955***	0.0761
Credit card payment delinquency	0.0595***	0.0444	0.0765***	0.0417	0.0922***	0.0428	0.0846***	0.0540
Student loan payment delinquency	0.0223**	0.0582	0.0228**	0.0547	0.0382***	0.0561	0.0308***	0.0708
Financial capability index	-0.1874***	0.0061	-0.2660***	0.0057	-0.2796***	0.0059	-0.2716***	0.0074
Age of respondent	0.0839***	0.0013	-0.0318**	0.0012	-0.0180	0.0013	0.0126	0.0016
Male (ref: female)	-0.0609***	0.0281	-0.0784***	0.0264	-0.0750***	0.0271	-0.0794***	0.0341
Marital status (ref: married)								
Single	-0.0005	0.0385	0.0010	0.0361	-0.0045	0.0370	-0.0015	0.0467
Separated/divorce/widow	0.0079	0.0404	-0.0039	0.0380	-0.0032	0.0389	0.0003	0.0491
Presence of dependent child (ref: No)	0.0551***	0.0322	0.0490***	0.0302	0.0537***	0.0310	0.0585***	0.0391
Race/ethnicity (ref: White)								
Black	-0.0768***	0.0501	-0.0741***	0.0471	-0.0754***	0.0483	-0.0839***	0.0609
Hispanic	-0.0193**	0.0505	-0.0196**	0.0475	-0.0212***	0.0487	-0.0223***	0.0614
Asian/others	-0.0142*	0.0536	-0.0204**	0.0503	-0.0045	0.0516	-0.0145*	0.0651
Education (ref: high school diploma or lower)								
Some college	0.0361***	0.0372	0.0378***	0.0349	0.0321***	0.0358	0.0393***	0.0452
Associate degree	0.0071	0.0490	0.0163*	0.0460	0.0118	0.0472	0.0130	0.0595
Bachelor degree	0.0186*	0.0411	0.0352***	0.0386	0.0166*	0.0396	0.0261***	0.0499
Post-bachelor degree	0.0159	0.0488	0.0345***	0.0458	0.0192*	0.0470	0.0258***	0.0593
Employment status (ref: full-time employee)								
Self-employed	-0.0257***	0.0531	-0.0129*	0.0499	-0.0162*	0.0511	-0.0203**	0.0645
Part-time employee	-0.0402***	0.0510	-0.0172**	0.0479	-0.0179**	0.0491	-0.0279***	0.0620
Homemaker	-0.0517***	0.0564	-0.0297***	0.0530	-0.0300***	0.0543	-0.0413***	0.0685
Student	-0.0430***	0.0826	-0.0233***	0.0776	-0.0229***	0.0795	-0.0331***	0.1003
Disabled	-0.0127	0.0685	0.0254***	0.0644	0.0265***	0.0660	0.0145*	0.0833
Unemployed	-0.0179*	0.0726	0.0028	0.0683	-0.0032	0.0700	-0.0068	0.0883
Retired	-0.2217***	0.0455	-0.1081***	0.0427	-0.0954***	0.0438	-0.1576***	0.0552
Income (ref: less than $15,000)								

Variables	FA1: Worry		FA2: Anxious		FA3: Stressed		FA 4: Composite index	
	Stand. Coeff.	S.E.	Stand. Coeff.	S.E.	Stand. Coeff.	S.E.	Stand. Coeff.	S.E.
$15,000-$24,999	0.0190*	0.0611	0.0216**	0.0574	0.0031	0.0589	0.0162*	0.0743
$25,000-$34,999	0.0232*	0.0622	0.0123	0.0584	0.0124	0.0599	0.0177*	0.0755
$35,000-$49,999	0.0045	0.0606	0.0029	0.0569	-0.0034	0.0584	0.0015	0.0736
$50,000-$74,999	-0.0168	0.0611	-0.0224*	0.0574	-0.0208	0.0589	-0.0223*	0.0743
$75,000-$99,999	-0.0385***	0.0664	-0.0300**	0.0624	-0.0251*	0.0640	-0.0347**	0.0807
$100,000-$149,999	-0.0685***	0.0697	-0.0504***	0.0655	-0.0487***	0.0671	-0.0621***	0.0847
$150,000 or more	-0.1102***	0.0798	-0.0926***	0.0750	-0.0725***	0.0768	-0.1020***	0.0970
Had unexpected large drop in income in past 12 months (ref: No)	0.1403***	0.0360	0.1562***	0.0338	0.1557***	0.0347	0.1675***	0.0438
Banking status (ref: No)	0.0205**	0.0610	0.0417***	0.0573	0.0311***	0.0588	0.0346***	0.0742
Financial education (ref: No)	-0.0212**	0.0318	-0.0079	0.0299	-0.0011***	0.0306	-0.0112	0.0386
Homeownership (ref: No)	-0.0278***	0.0346	-0.0415***	0.0325	-0.0344*	0.0333	-0.0384***	0.0420
Credit card ownership (ref: No)	0.0056	0.0426	-0.0140	0.0400	-0.0152	0.0410	-0.0088	0.0518
Student loan ownership (ref: No)	0.0543***	0.0379	0.0679***	0.0356	0.0651***	0.0365	0.0694***	0.0461
Constant	0.0000***	0.1204	0.0000***	0.1132	0.0000***	0.1160	0.0000	0.1464
State fixed effect	Included		Included		Included		Included	
Adjusted R-squared	0.2071		0.2944		0.2962		0.3211	
F-value	61.19***		97.11***		97.95***		109.97***	

Unweighted results. Coefficients are standardized. Significance level: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

Table 3. Ordinary least squares regressions on financial capability, interaction terms, 2018 NFCS

Variables	FA 4: Composite index		
	Coefficient	Standardized Coefficient	S.E.
Debt payment delinquency			
Mortgage payment delinquency (MD)	0.9870***	0.0876	0.08
Credit card payment delinquency (CCD)	0.8826***	0.1088	0.0579
Student loan payment delinquency (SLD)	0.4340***	0.0440	0.0781
Financial capability index (FCI)	-0.3136***	-0.3382	0.0081
Interaction terms			
MD*FCI	0.2337***	0.0534	0.0289
CCD*FCI	0.1950***	0.0773	0.0185
SLD*FCI	0.1548***	0.0493	0.0226
Constant	-0.3506***	0.0000	0.1454
Control variables	Included		
State fixed effect	Included		
Adjusted R-squared	0.3334		
F-value	112.37***		

Unweighted results. Control variables are the same as Table 2. Significance level: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

Table 4. Ordinary least squares regressions on financial capability, multiple delinquency problems, 2018 NFCS

Variables	FA 4: Composite index		
	Coefficient	Standardized Coefficient	S.E.
Debt payment delinquency (reference: No delinquency problem)			
Mortgage payment delinquency (MD) only	1.0527***	0.0565	0.1169
Credit card payment delinquency (CCD) only	1.0025***	0.0998	0.0675
Student loan payment delinquency (SLD) only	0.4768***	0.0350	0.1032
MD and CCD only	1.6266***	0.0753	0.1407
MD and SLD only	1.6288***	0.0539	0.1827
CCD and SLD only	0.9262***	0.0438	0.1659
MD, CCD, and SLD	2.2074***	0.1023	0.1512
Financial capability index (FCI)	-0.3132***	0.0081	-0.3378
Interaction terms			
MD only*FCI	0.1917***	0.0443	0.0270
CCD only*FCI	0.2224***	0.0213	0.0720
SLD only*FCI	0.1616***	0.0294	0.0396
MD and CCD only*FCI	0.3739***	0.0491	0.0489
MD and SLD only*FCI	0.5383***	0.0817	0.0386
CCD and SLD only*FCI	0.2223***	0.0475	0.0360
MD, CCD, and SLD*FCI	0.6572***	0.0659	0.0660
Constant	-0.3483	0.0000	0.1455
Control variables	Included		
State fixed effect	Included		
Adjusted R-squared	0.3340		
F-value	103.43***		

Unweighted results. Control variables are the same as Table 2. Significance level: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$