Journal of Financial Therapy

The Official Publication of the Financial Therapy Association

Volume 5, Issue 2

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Institute of Personal Financial Planning
School of Family Studies and Human Services
Kansas State University
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Editorial

Practitioner Reviewers

Kristy L. Archuleta, Ph.D.

Recently, I have received some important questions about practitioners' roles in the *Journal of Financial Therapy* (*JFT*). The main question comes specifically from practitioner reviewers. In general, the question typically goes something like this: "I am not sure how I can contribute or what I am supposed to contribute, as I am not an academic and I have never reviewed this type of paper before. I am happy to review it, but could you provide me some guidance?" This issue's editorial is inspired by questions like this – and the emphasis is on the importance of practitioners' involvement in a scholarly publication like the *JFT*.

To begin to address the importance of practitioner involvement in *JFT*, it is imperative to understand why *JFT* was created and its mission. The *Journal* was established in 2010 as a way for scholars and practitioners to communicate to each other about empirical and theoretically-supported information, especially in regards to outcome-based or evidenced-based clinical, experimental, and survey research (both qualitative and quantitative) (see Volume 1, Issue 1 Editorial). In order to build a field, it is essential to be grounded in empirical research and theory. Britt, Archuleta, and Klontz (2015) just published a chapter in their *Financial Therapy: Theory, Research, and Practice* textbook on the importance of the integration among theory, research, and practice where theory informs quality research and practice, research guides theory development and informs the applications in practice, and practice informs theory development and what needs to be researched. This approach has become a central focus of financial therapy as practitioners and researchers collaborate on projects that develop the field.

When *JFT* was first initiated, a conscious decision was made to develop an open access journal where information could be accessed by anyone anywhere, without barriers. This was a way to not only serve the members of the Financial Therapy Association, but also any scholar or practitioner who was interested in the intersect between money and behavior, cognitions, and relationships. As a result, *JFT* publications are widely downloaded by both scholars and practitioners, and have even been featured in the mainstream press. Many hear about financial therapy for the first time as a result of accessing *JFT's* articles.

At the core of the question posed at the outset of this Editorial is that academics and practitioners often speak two different languages. For these two types of professionals to truly communicate with each other both scholars and practitioners are needed to review the manuscripts so that articles are relevant and helpful to both types of readers. For *JFT* to

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be a credible source in the academic community, articles must achieve a high level of methodological and statistical rigor that applies to the scholarly development of the financial therapy field. For *JFT* to be a useful publication to the practitioner community, articles must also provide pertinent information that aids in understanding clients and/or can be implemented into practice. In the past, *JFT* has published articles that are geared more towards the academic audience, and some articles that have been directed more towards the practitioner audience. Yet, the overall goal is to publish articles that are significant for both audiences. In order to do so, the *Journal* strives to have at least one practitioner review scholarly submissions.

If you are a practitioner, you may be asking the same question: "What do I do as a reviewer?" Depending on your expertise and what you feel comfortable addressing, constructive feedback on the following items is appreciated:

1. Is the purpose of the paper clear? If not, explain.
2. Is the purpose of the paper/research question/theoretical piece/literature review relevant to practitioners (e.g., mental health or financial) associated with financial therapy? Is the paper appropriate for *JFT* readers?
3. Is the paper well-organized (*JFT* follows APA guidelines)? Explain.
4. Is the literature review helpful, relevant, and understandable? Explain.
5. Do the methods, statistics, and results make sense? Explain.
   This is a question that will depend upon the reviewer's familiarity with research methodologies and statistics. Regardless of experience and whether the scientific methods and statistics are fully understood, what the authors are trying to convey should be clear to any reader.
6. Does the discussion section highlight relevant findings in a way that can be understood to the practitioner community? Explain.
7. Are limitations of the study or practice model presented and clearly articulated? Explain.
8. Are the implications clearly identified and described? In other words, have the ways the findings can be applied been clearly and coherently communicated? Are the implications relevant to practitioners, educators, scholars, and/or policymakers (will depend upon the purpose of the study)?
   The implications section is the most important section of the entire paper. Research and theory development should aid practitioners' work with clients, scholars' research and theory development, educators' tutelage of students, and/or policymakers' development of laws and guidelines.
9. Are all references cited within the paper and in APA format?
10. Is the grammar and spelling excellent? How or how not?
11. Are APA style guidelines followed? How or how not?
12. Does the paper as a whole make sense? Why or why not?

Although they may not be able to comment on each of these questions, it is suggested that practitioner reviewers focus on the areas they can address. A practitioner's review of the

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readability, coherency, and implication sections are the most important, so begin with those items.

If you are a practitioner, you are invited to become a reviewer. You are strongly encouraged to identify your specialty area, which may be financial counseling, financial coaching, areas of financial planning (i.e., tax, estate planning, insurance, investments, comprehensive planning), financial social work, mental health issues as they relate to money, couple relationships, financial socialization, financial education, financial literacy, client-practitioner communication, family relationships, etc.—the list is ongoing. You are not only invited to be a reviewer, but you are also encouraged to work with a scholar to conduct empirical research relevant to practitioners, such as testing a treatment model or intervention, writing a manuscript that is descriptive about your practice model and it's theoretical underpinnings, or a literature review that provides new information to the field. You could also start by submitting a review about a book that you read that was helpful to you and your work with clients.

Whether you are a scholar or a practitioner, please join us as an author or reviewer in our efforts to communicate across disciplines with both practitioners and academics! We continue to solicit quality papers that feature financial therapy practices, experiments, and other research related to financial therapy. For those who reviewed in 2014, THANK YOU! Your time and diligence is acknowledged and much appreciated!

In closing, I invite you to submit a proposal to the next annual conference of the Financial Therapy Association, July 9-11, 2015. The deadline for submissions is February 9. This is a great forum to network with and learn from other scholars and practitioners who have a passion for financial therapy and related issues. This year's conference is sure to be a hit as it will be hosted by one of our practitioner reviewers and a member of the FTA Board of Directors, Marcee Yager, along with her conference committee team. The conference is currently (at the time of the writing of this Editorial) planned to be held in beautiful San Jose del Cabo, Mexico. For conference information, please go to: www.financialtherapyassociation.org.

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The following individuals have identified themselves as providing services that promote a vision of financial therapy. The Financial Therapy Association cannot guarantee the services of those listed in the FTA Network. For more information and to view these professionals' profiles, visit http://www.financialtherapyassociation.org.

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Financial Anxiety, Physiological Arousal, and Planning Intention

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Recipient of the 2014 Financial Therapy Association's Annual Conference Outstanding Research Paper Award

Results from this exploratory clinical study indicated that financial anxiety—holding an unhealthy attitude about one's financial situation—and physiological arousal—the physical precursor to behavior—play important roles in shaping consumer intention to engage in future financial planning activity. Findings suggested that those who are most likely to engage the services of a financial adviser exhibit low levels of financial anxiety and moderate to high levels of physiological arousal. The least likely to seek the help of a financial adviser were those who exhibited high financial anxiety and low physiological arousal. Results supported findings documented in the literature that high anxiety levels often lead to a form of self-imposed helplessness. In order to move those experiencing financial anxiety towards financial solutions, financial advisers ought to take steps to simultaneously reduce financial stressors and stimulate arousal as a way to promote behavioral change and help seeking.

Keywords: stress; anxiety; financial stress; psychophysiological; economics; financial anxiety

INTRODUCTION

Imagine the following situation. A financial counselor has been invited to make a presentation about retirement planning issues to a firm's employees during a lunch time seminar. The room is full because the firm's owner has strongly been encouraging her employees to attend. At the end of the session, a few of the attendees approach the counselor and ask for a business card. Now, consider a situation where a financial planner is meeting with a prospective client. The prospect has reached out to the planner based on a family member's referral. It quickly becomes apparent to both the prospect and planner

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that the financial planner has the tools, skills, and products to help the prospect. Weeks go by, but the prospect never returns. Also consider a situation when a financial therapist assigns specific homework for her client that should be completed by the next session. When the next client-therapist meeting occurs, the therapist learns that the client has failed to take action on the homework assignment.

These examples represent some of the frustrations faced by those working in the financial counseling, financial planning, and financial therapy domains. The common thread among these examples is the apparent lack of action on the part of the client or prospective client. Consider again the counselor who has just finished a review of retirement planning issues. The body of literature on information search and help-seeking behavior indicates that individuals engage in initial self-diagnosis and cost/benefit calculations as the first step in determining whether to engage in any behavior, including meeting with a financial adviser (broadly defined in this paper as a financial counselor, financial planner, or financial therapist) (Johansen, 2013; Ratchford, 1982; Seiler, 2013). That is, someone may be faced with numerous financial challenges, but until that person judges these issues as personally threatening, they will be unlikely to seek help (Grable & Joo, 2001). In this example, a few people in the audience recognized that they had retirement concerns. They further calculated that the benefits associated with reaching out to the counselor outweighed the costs (e.g., time, effort, cost, etc.) associated with the behavior. It is also possible that some attendees felt that it was not the right time or that the service being offered was inappropriate. While the counselor may be pleased that some in the audience were interested in learning more, she may also be perplexed that the majority of attendees failed to take advantage of the opportunity to improve their current and future financial situation. The planner in the second example is likely equally confused. The initial meeting seemed to go well. The prospective client appeared to be engaged in the process by answering questions openly and honestly. The prospect even made an appointment to return, but ultimately did not. The financial planner likely chalked this experience up as a lost opportunity and wondered what he could have done differently. Similarly, the financial therapist may feel perplexed at her client's inaction on behavior that was designed to improve attitudinal and behavioral outcomes.

While the information search and help-seeking literature provides useful insights into what prompts someone to initially seek help, the literature is relatively silent in explaining what drives people to take future action on intended behavior. For example, the literature provides little guidance to help a financial counselor encourage those in a seminar to follow up with a one-on-one meeting. Likewise, there is little empirical evidence to help a planner understand what client factors should be assessed or what actions need to occur to promote follow-up action on the part of a prospective client. The same holds true for financial therapists who may be frustrated with the lack of or inconsistent implementation on the part of some clients.

This paper uses an exploratory data analysis to help address this gap in the literature; namely, this paper helps explain what prompts some individuals to take future financial counseling/planning/therapy action. In order to address this issue, this study looks at the ways financial anxiety and physiological arousal are related to the likelihood

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and intention of engaging in financial planning, where financial planning is specifically tied to meeting with a financial adviser in the future. This paper provides a matrix of planning intention based on anxiety and arousal levels as a model to help financial advisers better understand how to generate action among current and prospective clientele.

CONCEPTUAL FRAMEWORK

Recently, a few researchers have moved into the space of trying to explain what occurs both attitudinally and physiologically when a financial adviser meets with a current or prospective client. Although very small in numbers, these researchers and publications have led to the development of a burgeoning field of study called psychophysiological economics. According to Grable (2013), psychophysiological economics research is focused on the assessment and evaluation of psychological and physiological events as they pertain to economic behavior. Theoretically, those who study psychophysiological economic phenomenon presuppose that behavior and cognitive processing are linked and that behavioral, cognitive, and physiological tools can be combined to explain and predict behavior, as well as to create interventions that improve the economic well-being of consumers (Kandasamy et al., 2014). Models of psychophysiological economics attempt to relate the peripheral nervous system to economic behavior. As a refresher, the peripheral nervous system includes the spinal and cranial nerves (Rickles, 1972). The Autonomic Nervous System (ANS) regulates glands and other internal organs (i.e., visceral structures). Together, these structures control involuntary physiological activities and behavior. Psychophysiological researchers measure the sympathetic nervous system as a person responds to stressors within the environment. As noted by Grable, “It is precisely how someone reacts physiologically to specific economic stressors, rather than how they plan to react, that is of interest to psychophysiology economics researchers” (p. 16).

Physiological reactions to stressors tend to be situational (Sapolsky, 1994). Two people may experience the same stressor, yet the level of arousal caused by the stressor can be quite different. When stress does occur, mostly involuntary responses follow. Consider the way in which stressors are processed in the human brain, as described by Everly and Sobelman (1987). The brain stem administers initial information. The reaction is almost instantaneous. People experience this type of stress reaction whenever they are surprised or caught off guard (e.g., feeling a spider crawl across your arm). Information is then forwarded to the limbic system. If a person perceives the stressor as a threat, the limbic system is engaged so that the body is prepared to exert excess energy. The brain will flood the body with chemical instructions that cause a person’s internal glands and organs to almost immediately increase heart rate and breathing. These chemicals also cause the overproduction of sweat (skin conductance), as well as reducing peripheral blood flow, which, in turn, reduces skin temperature. If, on the other hand, a stressor produces little arousal or is perceived as non-threatening, then other stress responses come into play.

One of the first psychophysiological economics studies was conducted by Britt and Grable (2012). Their experimental study revealed that the way a financial planner’s office is designed has a direct influence on the physiological stress experienced by prospective clients. They noted that financial advisers who want to control the stress levels of clients should remove barriers between the client and adviser. They recommended designing an

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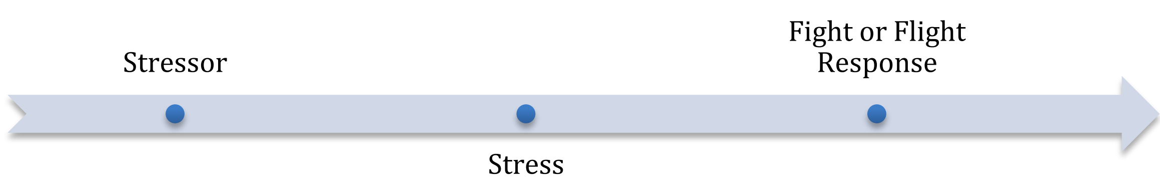
office space that includes comfortable chairs and low tables. Grable and Britt (2012a) also documented that financial news can influence the physiological stress experienced by clients. Interestingly, they found that positive financial news, rather than negative or bearish news, produced the greatest stress response. They concluded that business news programs, general news, and other potential stressors be removed from client waiting room areas.

In a review paper, Grable and Britt (2012b) explained why financial advisers should be interested in psychophysiological studies. Essentially, they noted that the human stress response may be the key to understanding why some people willingly engage in financial counseling/planning/therapy and others do not. Further, what has since been termed psychophysiological economics appears to offer a relatively robust explanation as to how behavioral intention and action can be promoted. Unfortunately, however, none of the psychophysiological or neuro-finance studies published to date have specifically tested the relationships among anxiety, arousal, and future counseling/planning/therapy behavior.

The links among stressors, stress, and behavior have been hypothesized as shown in Figure 1. This original hypothesis, while somewhat naive, was based on the work of Selye (1974) and others (e.g., Everly & Sobelman, 1987). The notion underlying the hypothesis, as applied to the delivery of financial advice, is that once someone begins to feel anxious or stressed as the result of their financial situation or environment (i.e., stressor), a "fight or flight" physiological response will kick in (i.e., stress response). Based on the hypothesis, the greater the stress, the less likely a current or prospective client will want to engage in proactive counseling/planning/therapy. If the hypothesis is true, then financial advisers should do everything possible to control or minimize stress experienced in the working environment.

Figure 1. Original hypothesized psychophysiological behavioral associations



As suggested above, the "fight or flight" hypothesis, as it relates to financial counseling/planning/therapy situations, may be naive in failing to consider that stressors can be both positive and negative. From media (e.g., newspapers, radio, and television) reports, one might assume that stress responses are always a bad thing. The term distress is so widely used that many people today assume that all stressors lead to distress, which, in turn, leads to negative behavioral outcomes. However, it is important to note that stress can often be a good thing. Psychophysiologists refer to positive stress as eustress. Malmo (1962) documented that rather than being linear, as suggested in Figure 1, the stress response resembles an inverted-U relationship (Figure 2). Imagine, for example, an athlete who is about to engage in a rigorous physical activity. If the athlete's level of stimulation is

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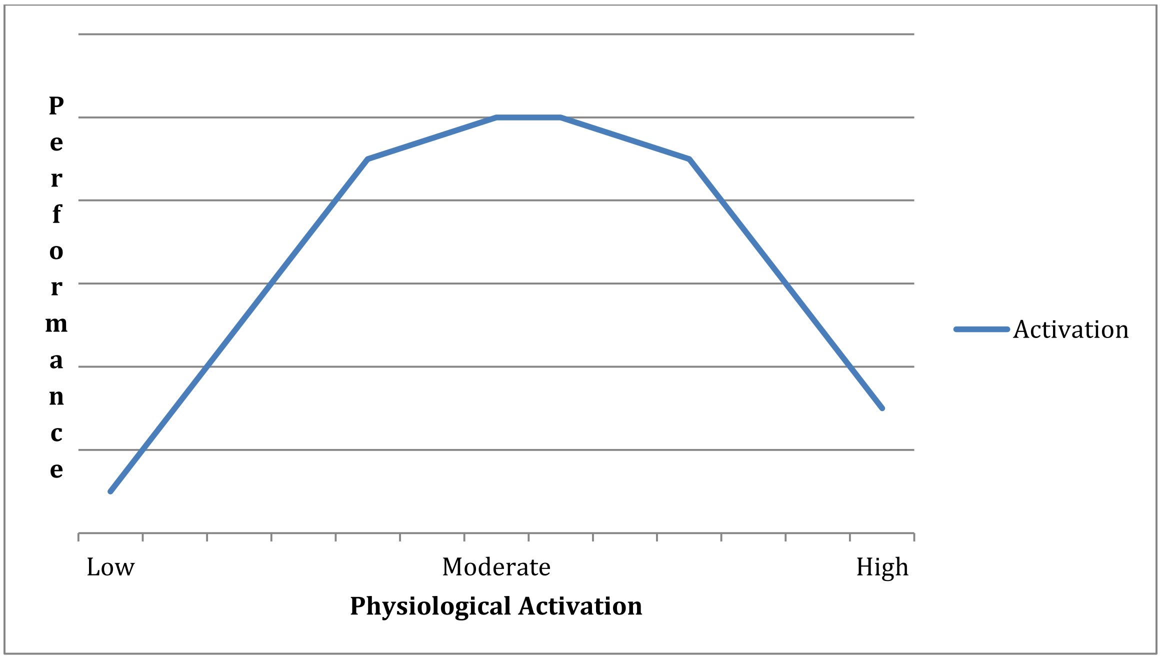
low, then performance will also be low. On the other hand, an athlete that is overstimulated will exhibit less than optimal performance. Athletes need more than moderate stimulation to achieve optimal performance. It is reasonable to hypothesize that within the domains of financial counseling/planning/therapy a similar relationship may exist. More specifically, performance can be replaced by planning likelihood and intention, while stimulation/activation can be substituted with the dual concepts of financial anxiety and physiological arousal. The following literature review is devoted to defining the concepts of financial anxiety and physiological arousal.

Figure 2. Relationship between physiological activation and performance



REVIEW OF LITERATURE

The question of what prompts someone to take action to meet with a financial adviser is one that has received very little attention in the literature. Firms spend millions of dollars attempting to arrive at an answer to this question, but for the most part, this line of research tends to be very proprietary and unpublished. Within academia, this line of inquiry has received little empirical investigation primarily because the fields of financial counseling, financial planning, and financial therapy are so new that researchers have had to devote much of their time describing behavior rather than explaining or predicting behavior. Additionally, some in academia look at the notion of help-seeking research as manipulative and counter to the consumer interest (DeLiema, Yon, & Wilber, 2014). That is, some view models that explain factors that can help promote help-seeking behavior and/or recommendation implementation as controlling and somewhat unethical (DeLiema et al.; Pope & Vetter, 1992). While there is always the possibility that an unscrupulous adviser may use a tool, technique, or model in a manipulative manner, it is also true that without explanatory models of behavior financial advisers will be left to their own creative devices

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to move people beyond intention to action. Whether these approaches are useful, efficient, or ethical will remain undocumented until basic research is undertaken.

Financial Anxiety

According to the American Psychological Association (2013b) *Stress in America Survey*, the majority of Americans living today experience some degree of anxiety. The top source of anxiety, according to the *Stress in America Survey*, is money, followed closely by work and the economy. These three factors clearly are causes of financial anxiety, which is defined to mean a psychosocial syndrome that results in someone having an unhealthy attitude toward thinking about, engaging with, or administering their personal financial situation in an effective manner (Burchell, 2003). When asked, most people indicate that they do a relatively good job at managing their overall feelings of anxiousness. It is common for people to report managing anxiousness and stress by reading, spending time with friends and family, exercising, and shopping.

Researchers often measure overall anxiety, and financial anxiety in particular, using subjective evaluations (Archuleta, Dale, & Spann, 2013). For example, the American Psychological Association (2013a) promotes a 10-point scale to evaluate general anxiety levels. As expected, individual responses tend to be well distributed along this scale. While the majority of Americans today report low to moderate levels of anxiety, approximately 20% to 25% of the population report a great deal of anxiousness (American Psychological Association, 2013b). Most often, those in the highest anxiety categories also exhibit stress to such an extent that their situation can be categorized as chronic, which means that their stress situation is ongoing, unresolved, long-lasting, and illness inducing (American Psychological Association, 2013b).

It has been relatively well established in the literature that effective financial decision making is related to both financial competencies and levels of financial anxiety (Shapiro & Burchell, 2012). Research suggests that those experiencing financial stress have a difficult time making decisions (Ackert, Church, & Deaves, 2003). Shapiro and Burchell (2012) noted that individuals who experience financial anxiety have a subliminal bias in processing financial information. They also noted that those with an anxious disposition toward a cognitive engagement with their finances are more likely to use avoidance mechanisms, which is a defense procedure. While anxiety certainly can lead to other behaviors, the finding reported by Shapiro and Burchell fits well with a hypothesis that high levels of anxiety can lead to a form of learned helplessness (Porges, 2011). That is, rather than deal directly with the cause of one's financial anxiety, those who are financially anxious often avoid or dismiss the cause entirely.

Physiological Arousal

Within the physiological and psychological fields, the term arousal is often used interchangeably with intensity and activation. Arousal refers to a person's physiological preparation for overt behavior (Duffy, 1972). In effect, arousal is a precursor to behavior or activity. It is worth noting that someone can experience arousal without ever engaging in

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activity. Arousal varies by degree. This is illustrated in Figure 3. At any given time, a person may be totally relaxed or excited or they may exhibit an intermediate arousal condition. The degree of arousal has a direct influence on subsequent action. High levels of arousal lead to physiological expenditures of energy in preparation for high output physical exertion. What is most interesting, however, is that the way in which the body prepares for overt action, based on arousal, is the same regardless of the potential activity (Sapolsky, 1994).

Figure 3. Phases of arousal

The notion that the body's (and mind's) first and primary reaction to an arousal stimulus occurs through sympathetic nervous system processes associated with the transfer of energy has profound implications for financial advisers. Suppose, for example, that two people experience a stressor. The stressor for one person may be the surprise of being approached by a stranger on a deserted city street. The other person's stressor may be hearing that a stock held within their portfolio lost 20% of its value overnight. Although the stressors are different—one physical and the other emotional—the initial physiological reaction is the same (Sapolsky, 1994). The mind sends signals to the body to prepare for the immediate expenditure of energy to prepare for future action. It does not matter that in the first case this response (i.e., preparation for physical action) is appropriate, but not suitable in the second situation. In either case, the overt action taken by these individuals will depend on their level of arousal and stressor perception.

An urban mythology has dominated thinking about the common stress response and arousal. Today, it is a challenge to find someone who has not heard of the "fight or flight" response. This phrase was coined by Cannon (1932). Based on clinical tests, Cannon documented how the mind and body work together to categorize stressors and develop stress responses. The concept of "fight or flight" traditionally holds that when a person experiences a high level of arousal, their physiological response will tend to be one of fleeing the situation or confronting the source of the stress. Consider again the person who is approached by a stranger on a lonely city street. If the approaching person is viewed dangerously, the "fight or flight" response may, in fact, come into play. If, on the other hand, the approaching stranger is quickly determined to be a police officer, a reaction other than the "fight or flight" response will occur (Sapolsky, 1994). This story illustrates that how a person responds to arousal is very complex. Within the context of financial therapy, the onset of declining equity prices may prompt a "fight or flight" stress response in some clients. If, on the other hand, a temporary decline in equity prices can be reframed as an opportunity, rather than an imminent threat, the stress response may be different.

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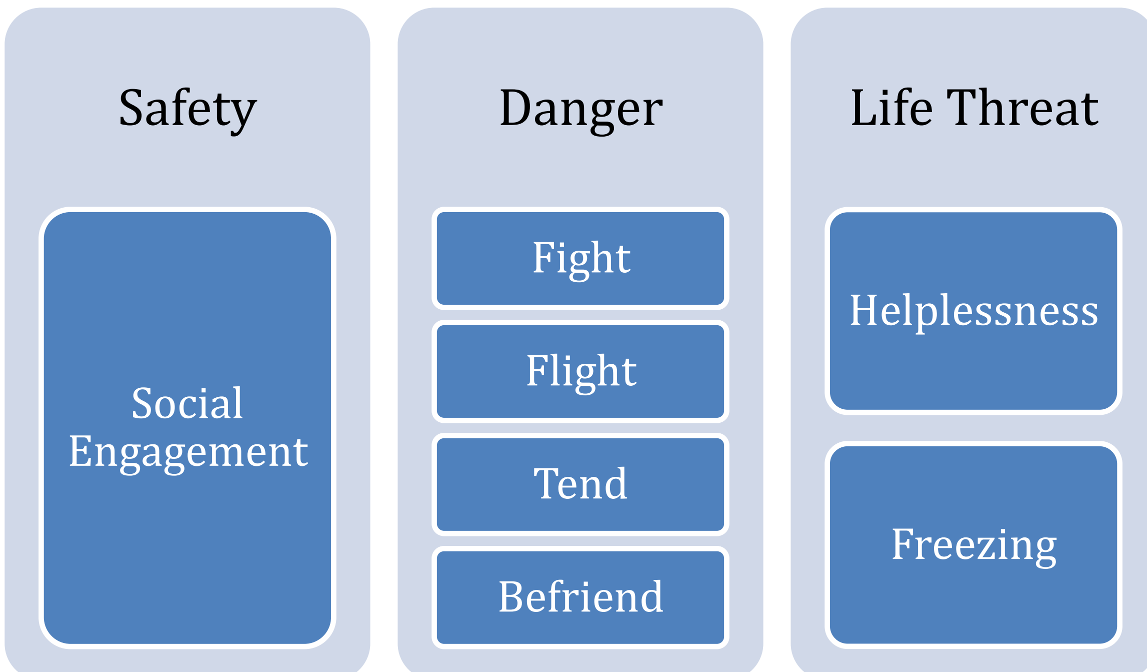
As shown in Figure 4, stressors can be grouped into one of three perception categories: (a) safety, (b) danger, or (c) life threat. Stressors related to perceptions of trust can create arousal that results in a physiological response of social engagement. In effect, social engagement acts as a mechanism of stress reduction. According to Porges (2011), the Vagus Nerve provides a pathway that carries messages from the brain stem to the body (e.g., heart, lungs, intestines). When someone experiences feelings of safety (e.g., meeting a smiling stranger or encountering someone who is calm in the midst of chaos), confidence, and engagement they tend to exhibit less fear and anger.

Figure 4. Outcomes associated with physiological arousal



Those who perceive a stressor in terms of danger are most likely to exhibit one of four responses (Porges, 2011). The "fight or flight" response is quite common, especially among men (Sapolsky, 1994). Surprisingly, others respond to dangerous stressors in what is known as a "tend or befriend" manner. Rather than fight or flee a stressful situation, some people use the source of stress, and the accompanying arousal state, as a mechanism to help others. This pattern of stress-related behavior is often seen among women who have experienced horrific events or in situations where a mother becomes overly protective of a child who is experiencing danger or harm (Taylor, 2002).

When someone experiences what they consider to be a life threatening stressor, which results in a high level of arousal, it is possible for the mind and body to shut down. Learned helplessness is often seen in clinical studies where animals are subjected to repeated situations in which they cannot escape or win. In these situations, animals (including humans) exhibit signs of helplessness. Sometimes animals (including humans) will use forms of immobility or freezing to either send a signal to others that they are

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incapable of dealing with a stressor or as a means of reducing the anticipated outcome associated with a stressor. This type of stress response is sometimes exhibited by those who have encountered several serious financial stressors concurrently (e.g., loss of job, illness, divorce, foreclosure).

Summary

The literature is clear in showing that individuals respond differently to similar stressors. The notion that "fight or flight" behavior is the primary outcome associated with stress has been replaced with descriptions of stress responses that range from relatively benign to helpful to helplessness. The literature also suggests that anxiety and physiological arousal may combine to influence financial decision making and planning intention. The remainder of this paper describes the research hypotheses, methodology, and findings associated with this study.

Research Hypotheses

The purpose of this study was to test the association between financial anxiety and planning intention and physiological arousal and planning intention. A second purpose was to develop categories of planning intention based on anxiety and arousal levels. The following hypotheses were tested:

H_1: The likelihood of planning is associated with financial anxiety.
H_2: The likelihood of planning is associated with physiological arousal.
H_3: Categories of planning intention are associated with financial anxiety and physiological arousal, as evidenced by the following:

H_{3a}: Financial anxiety is associated with level of planning intention.
H_{3b}: Physiological arousal is associated with level of planning intention.

The likelihood of planning was defined in this study as a person's prospect of meeting with a financial planner in the near future; likelihood was defined on an ordinal scale. Planning intention, on the other hand, was defined dichotomously as someone's intention to meet with a financial planner or otherwise.

METHODS

A clinical technique was used to test the research hypotheses. Financial anxiety was measured using an item that was hypothesized to represent longer-term financial stress. Physiological arousal was prompted through a clinical intervention and measured by changes in peripheral skin temperature. Measurement of these variables is described below.

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Participant Sample

Twenty individuals were recruited to participate in a community outreach clinic assessment interview. The clinic serves a diverse population in a mid-sized city in the southeastern United States. Clinic services include marriage and family therapy, nutritional support, financial counseling, financial planning, financial therapy, and legal guidance. Participants were recruited with fliers distributed within walking distance of the clinic and through person-to-person solicitations. Upon completing the study, participants received a $15 payment. The project was approved by the research team's university human subjects IRB office.

The sample was representative of the community. Approximately 55% of participants were male. Ages ranged from 20 to 63, with a mean and standard deviation of 31 and 11 years, respectively. The majority of participants were married or living with a significant other. Racial and ethnic background was diverse. Approximately 40% of participants were White, with the remainder indicating being either African American/Black or Asian. The majority were also employed either full- or part-time, although three participants were unemployed. Earnings ranged from $0 to over $20,000 per month, with a mean and median reported income of $2,138 and $1,233, respectively (*SD* = $4,960).

Measurement of Financial Anxiety

Each participant completed an intake questionnaire that was designed to assess subjective indicators of personal and financial anxiety, wealth, risk tolerance, and financial knowledge, as well as other demographic and socioeconomic factors. Of primary importance to this study, participants were asked to indicate their current level of financial anxiety. A 10-point response scale was used, with 1 being the lowest score and 10 indicating the highest tally. The mean, median, and standard deviation for the item was 4.95, 4.50, and 1.91, respectively. The mean score matched almost precisely with the American Psychological Association's (2013b) average stress score for Americans (i.e., 4.9 on a 10-point scale).

Answers to the financial anxiety question were hypothesized to represent longer-term financial stress. This assumption was tested by correlating participant anxiety scores to a financial stress scale (see Archuleta et al., 2013). Scores on the scale were estimated by summing responses to the following seven items: (a) I feel anxious about my financial situation; (b) I have difficulty sleeping because of my financial situation; (c) I have difficulty concentrating on my school/or work because of my financial situation; (d) I am irritable because of my financial situation; (e) I have difficulty controlling worrying about my financial situation; (f) My muscles feel tense because of worries about my financial situation; and (g) I feel fatigued because I worry about my financial situation. Participants were asked to answer using a scale where 1 indicated always and 7 represented never. The mean and standard deviation scores for the summated scale were 38.55 and 9.01, respectively. Given the scale's coding, lower scores represent greater anxiety. The scale's

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Cronbach's alpha was .95. The single item anxiety measure was found to be significantly correlated with scores on the anxiety scale ($r = -.65$, $p < .01$).

Measurement of Physiological Arousal

After completing the intake questionnaire, each participant was relocated from the clinic's waiting room to one of the clinic's interview rooms. Each participant was told that they were going to meet with a clinic staff person for a short meeting. At this time, participants were connected to a Bio-Infinity® physiological assessment device that measured peripheral skin temperature. The same room was used for all 20 participants. After baseline measurements were achieved (i.e., stable temperature), the clinic staff interviewer entered the room. The participant and staff member sat across from each other at a small round table at a 45-degree angle. The staff person then asked a series of questions that required participants to either answer using a 10-point scale or through open-ended dialogue.

Likelihood of Planning and Planning Intention

At the end of the interview, participants were asked, "On occasion, the clinic offers financial planning services to the community. If an opportunity arose to meet with a financial planner, on a scale of 1 to 10, with 10 being absolutely certain and 1 being very unlikely, how likely is that you would be willing to set up an appointment to meet with a financial planner?" Scores ranged from 2 to 10. The mean, median, and standard deviation of scores was 6.78, 7.50, and 2.29, respectively. In general, participants were interested in returning to the clinic for financial planning services. Even so, 20% of those who participated in the study reported being unlikely to return to obtain planning services; these participants responded with a score of 2, 3, or 4. Group characteristics (e.g., employment status, income, gender, and age) were found to be similar across categories. Participants were re-categorized into one of the following two groups for analysis purposes: (a) those likely to meet with a financial planner, and (b) those unlikely to meet with a financial planner. This new variable was titled planning intention.

Data Analyses

Tests were made to assess the level of association among the three variables of interest in this study. The hypotheses that stated, "The likelihood of planning is associated with financial anxiety" and "The likelihood of planning is associated with physiological arousal" were evaluated using independent samples Mann-Whitney U tests. The third hypothesis, which stated that "Categories of planning intention are associated with financial anxiety and physiological arousal" was tested by categorizing participants into one of four groups based on their median anxiety and arousal scores: (1) low anxiety and low arousal (LL), (2) high anxiety and low arousal (HL), (3) low anxiety and high arousal (LH), and (4) high anxiety and high arousal (HH). Once the model was developed, the framework was tested using both a Kruskal-Wallis and multivariate analysis of variance (MANOVA) test. The Kruskal-Wallis non-parametric test was employed to determine if the distribution in financial anxiety and physiological arousal scores were the same across the

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four categories of planning. MANOVA was used as an extension of traditional ANOVA analyses by evaluating group differences across more than one dependent variable. This approach was appropriate in this study because two interrelated dependent variables were evaluated. The power of the test was improved over conducting multiple ANOVA tests.

RESULTS

A key question of interest in this study was whether or not the likelihood of planning is associated with financial anxiety and physiological arousal. Given the sample size and the exploratory nature of this study, a non-parametric Mann-Whitney U test, with a maximum p-value of .10, was used as the primary analysis tool to address this question. The median anxiety score for those likely to see a planner was 4.00, whereas the median score for those who were unlikely to meet with a planner was 6.50. The difference was significant. As such, the first hypothesis was supported.

The relationship between arousal and likelihood of planning was tested using changes in peripheral skin temperature among participants. Changes in skin temperature were calculated by subtracting end of session temperature (group Mdn = 82.66) from participant baseline temperatures (group Mdn = 83.50). This approach was used to evaluate change in arousal over the entire session. Those who were likely to see a financial planner exhibited increased arousal as measured by a reduction in skin temperature (Mdn = -1.84). Those who were less likely to make an appointment to see a planner experienced less negative arousal (Mdn = 1.32). Given these initial results, hypothesis 2 was accepted.

Tests of the first and second hypotheses provided confirmation that both financial anxiety and arousal in this study were associated with the likelihood of planning. Based on this evidence, participants were grouped into categories of planning intention as shown in Table 1: (a) low anxiety and low arousal (LL), (b) high anxiety and low arousal (HL), (c) low anxiety and high arousal (LH), and (d) high anxiety and high arousal (HH). Those whose financial anxiety score was below the median (Mdn = 4.50) were classified as having lower financial anxiety. Conversely, those with scores higher than the median were coded as having higher financial anxiety. Participants whose change in skin temperature was above the median (Mdn = -0.28) were categorized as having lower physiological arousal. Alternatively, those with scores below the median were defined as having higher physiological arousal. For example, suppose a participant's anxiety score was 3.00 and their change in skin temperature was -0.50. In this case, they would have been placed into the LH category.

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Table 1
Categories of planning intention

	Less Financial Anxiety	More Financial Anxiety
Less Physiological Arousal	**(LL)**	**(HL)**
More Physiological Arousal	**(LH)**	**(HH)**

The categories of planning intention were evaluated using a Kruskal-Wallis test, which is the nonparametric equivalent to ANOVA. In these tests, the four categories, as shown in Table 1, were used as the grouping variable. Financial anxiety was found to be significantly associated with category membership, $H_3 = 14.91$, $p < .01$. Similarly, physiological arousal was associated with category membership, $H_3 = 15.47$, $p < .01$. A subsequent MANOVA test was used to confirm that a significant relationship existed among and between categories, financial anxiety, and physiological arousal. Anxiety and arousal scores were entered concurrently as dependent variables. Category membership was used as the independent variable. The MANOVA was statistically significant, $F_{3,16} = 13.90$, $p < .001$ (Pillai's trace, $V = 1.46$, $F_{3,16} = 14.48$, $p < .001$), with Box's M and Levene's Test of Equality of Error Variances both being not significant. Overall, category membership explained approximately 75% and 72% of the variance in financial anxiety and physiological arousal, respectively.

In some ways, results from the Kruskal-Wallis and MANOVA tests were expected based on the coding used to create the categories. As a follow up, a Cramer's V strength of association test was used to evaluate the relationship between categories and planning intention. A 2 x 4 contingency table was developed with being likely or unlikely to see a planner as the columns and the four categories as rows. The results of the nominal by nominal test was significant at the $p < .05$ level, $\chi^2 = 7.50$, Cramer's $V = 0.61$. The Cramer's V statistic indicated a moderately strong strength of association. Note that while the χ^2 was significant, given the sample size, the model violated the general rule that cells should have an expected count greater than 5.0; however, the test was useful as a way to confirm grouping of participants. Although preliminary, the evidence provided support for the validity of a model of planning intention described by financial anxiety and physiological arousal. Additional support was also noted for the hypotheses that financial anxiety is associated with level of planning intention and physiological arousal is associated with level of planning intention.

Summary

Table 2 summarizes this study's results. Those who had the highest planning intention (lower left quadrant) exhibited less financial anxiety and more physiological

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arousal (LH). Those in the lowest planning intention category (upper right quadrant) exhibited more financial anxiety and less physiological arousal (HL). More financial anxiety and more physiological arousal (HH) was related to moderate planning intention (lower right quadrant). Those with less financial anxiety and less physiological (LL) arousal were categorized as having only some planning intention (upper left quadrant).

Table 2
Planning intention categorization based on financial anxiety and physiological arousal

	Less Financial Anxiety	**More Financial Anxiety**
Less Physiological Arousal	**(LL) Some Planning Intention**	**(HL) Lowest Planning Intention**
More Physiological Arousal	**(LH) Highest Planning Intention**	**(HH) Moderate Planning Intention**

DISCUSSION

The key takeaway from this exploratory study is that the intention to engage in future financial planning appears to be linked with financial anxiety and physiological arousal. However, the association between planning intention and these two variables is not as straightforward as previously thought. There are some in the financial planning and investment advisory industry that believe financial anxiety and activation of stress responses help trigger planning behavior and product implementation. Consider the following often used life insurance sales tactic: reinforce the belief in social and moral obligations associated with being a parent as a way to instill fear (i.e., a form of physiological arousal) of premature death in order to prompt the sale of insurance. It turns out that this century old sales technique is not entirely incorrect; however, this sale's approach is not nearly as nuanced as it could be.

Also consider how results from this study contradict, in some respects, earlier psychophysiological economics hypotheses that assumed a 'fight or flight' response among consumers when faced with either financial anxiety or physiological arousal resulting from thinking about or acting on financial issues. The original hypotheses reported in some early studies were based on the assumption that someone who exhibited strong arousal would attempt to escape the situation and be unlikely to seek the help of a financial planner or to take proactive planning action. Results from this study, while preliminary, help to synthesize these original notions. Specifically, short-term arousal itself may, in fact, help focus attention and promote action. It is not, however, arousal alone that matters. It is the interrelationship with financial anxiety—or longer term financial stress—that appears to shape planning intention.

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Individuals who are experiencing high levels of financial anxiety, with little corresponding physiological arousal, tend to be apathetic in relation to financial planning behavior. This finding fits well with the existing stress response literature that shows people who are experiencing longer-term anxiety or chronic stress also have difficulty sleeping and concentrating. They also are more likely to report being fatigued, sore, worried, irritable, and tense. In some ways, the apathetic response to planning intention is indicative of someone who views their financial situation as very threatening. As with other forms of long-term stressors, a common response is to exhibit helplessness. Rather than 'fighting or fleeing,' those with financial anxiety, but little physiological arousal, often do little to improve their situation. Evidence from this study supports this notion.

One might have guessed that if high financial anxiety, coupled with low arousal (HL), leads to low levels of planning intention, that low financial anxiety should prompt intention for planning. This thought is not entirely correct. Again, it does not appear that anxiety (or arousal) alone is sufficient to move a person towards or away from planning. Consider those who had low financial anxiety and low physiological arousal (LL). These individuals were found to have only limited intention of planning. That is, their intention was lukewarm at best. In practical terms, they might or might not actually make an appointment. A similar situation existed among those who had both high financial anxiety and physiological arousal (HH). Unlike the HL group, arousal appears to prompt some action among this otherwise apathetical group. Those fitting this profile reported moderate intention of engaging a financial planner in the future. Had the study actually been a clinical exercise, results from this study suggest that clinic staff would benefit by confirming a future appointment during the meeting. Allowing someone in the HH group to leave could cause their arousal intensity to return to a baseline level; this might shift the person from the HH group to the HL category, which would result in no later action.

The group with the highest intention of future planning included those who had lower levels of financial anxiety and higher levels of physiological arousal (LH). In many respects, this represents the profile of existing financial planning firm clientele. That is, those in this group are not experiencing long-term crippling financial stress. They are more relaxed and at peace with their financial situation. It does appear that it takes some physiological arousal to prompt these otherwise less worried individuals to focus on their financial situation. Once aroused, they are the most likely to want to engage in future planning.

Findings from this study hint at several practice management implications. First, financial advisers should not expect those who are experiencing longer-term financial anxiety to enthusiastically demand planning services. In some respects, highly financial anxious individuals may be the most difficult to move towards planning and implementation activities. Without an adjustment to reduce anxiety levels, the financial adviser may be forced to increase physiological arousal to prompt a focused reaction among this group. This, of course, could backfire and create a counterproductive stress response (Grable & Britt, 2012b). Financial therapy may be the intervention technique best suited to address anxiety and arousal issues.

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Second, the cleanest path towards generating an intention to plan appears to be related to helping prospective clients reduce financial anxiety. Financial therapy, counseling, and coaching strategies can be instrumental in this regard. Once financial anxiety has been reduced, it may be necessary to induce some physiological arousal related to financial planning in order to promote planning intention. This does not mean scarring a person or inflicting physical harm. Rather, physiological arousal, among the majority of clients, can be created simply by helping clients focus their thinking on the following issues:

- The client's level of financial knowledge and experience;
- The client's level of financial satisfaction;
- The client's financial risk tolerance;
- The client's short-, intermediate-, and long-term financial goals; and
- The client's life and legacy dreams.

Third, because financial anxiety and physiological arousal are dynamic factors, advisers (including financial therapists) should assume that a prospective or current client's situation will change over time. As such, it is important for financial advisers to regularly gauge each client's level of financial anxiety. As anxiety increases, it is likely that a client's behavior will change correspondingly. Understanding the role of physiological arousal is also important. It is imperative to note that while arousal was found to enhance planning intention, results from this preliminary study should not be used as evidence that placing clients under ongoing physiological stress is appropriate. Future studies are needed to determine if and/or how much physiological arousal is needed in ongoing planning relationships. It may turn out that physiological arousal is only a key determinant of initial planning behavior, and that advisers need to manage stressors in their work environment as a way to improve the client-adviser relationship (Britt & Grable, 2012).

In conclusion, this exploratory clinical study shows that a relationship among financial anxiety, physiological arousal, and planning intention likely does exist. Results add to the growing body of psychophysiological economics literature. Financial advisers should not simply assume that longer-term financial anxiety or physiological arousal results in a 'fight or flight' response in relation to planning intention. The relationship among these factors is much more nuanced. Those who report the highest planning intention levels tend to have low financial anxiety and higher physiological arousal. The lowest planning intention levels are held by those who are experiencing high financial anxiety and low physiological arousal. Future studies are needed to both replicate and extend the findings from this study. As noted above, this clinical study was exploratory in nature. The relatively small sample size limited the majority of statistical tests to non-parametric tools. Sample size constraints also created measurement issues related to testing the categories of planning intention. Future studies are needed to extend this study to include a larger participant pool. Given the overall strength of the findings, further research is warranted to examine the interrelationships between and among financial anxiety, physiological arousal, and financial planning behavior.

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ISSN: 1945-7774

Sibling Position and Risk Attitudes: Is Being an Only Child Associated with a Person's Risk Tolerance?

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The influence of birth order on personality has been studied for several decades, but little research has been conducted on the association between sibling position and risk tolerance. The purpose of this study was to examine the relationship between being an only child and risk-taking attitudes. Data from the 2010 National Longitudinal Survey of Youth, 1979 sample was used to test the hypotheses that only children and first borns are similar, only children exhibit a lower risk tolerance when compared to those with siblings, and only children exhibit a lower risk tolerance when compared to those with siblings when first borns are removed and only borns are compared with later borns. Results did show that only children are similar to first borns in nearly every domain of risk tolerance considered. Furthermore, they do not exhibit dramatically different risk attitudes than those with siblings when the variables of sex, locus of control, and net worth are controlled.

Keywords: risk tolerance; birth order; self-assessed risk; life change risk

INTRODUCTION

The notion that family of origin variables play a role in shaping risk-taking attitudes has been of interest to not only behavioral economists and psychologists for several decades (e.g., Lawson & Brossart, 2004; Mazumder, 2008; Sampson & Hancock, 1967), but also more recently to the emerging field of financial therapy (Grable & Britt, 2011). Economists are interested in the potential association between family structure and risk-taking as a way to explain why some individuals are more inclined to save and invest. Psychologists are interested in how family structure influences a child's cognitive growth

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and personality and how early childhood experiences shape later life choices. Similarly, financial therapists are also interested in this concept. If negative cognitive beliefs about money are reinforced during childhood, this may carry emotional triggers well into adulthood that lead people to make poor money decisions. Furthermore, the possibility that sibling position may shape personality and play a part in determining a person's overall financial well-being is thought-provoking.

The psychological and financial intersection of family structure research, in relation to risk attitudes, is most evident in the domain of birth order. The concept that birth order (i.e., being born first, in the middle, or last) may influence psychological maturity and attitudinal development was first postulated by Alfred Adler (1964). Adler's original hypothesis was that parents treat children born at different times in diverse ways. Changes in parenting are based on past experiences, behavioral modifications, and parental expectations. Roszkowski (1999) summarized the situation this way:

> In general, it is thought that parents exert greater control over the early life of the firstborn child and instill in him or her the need to be dependable and act responsibly. To the child, this means not taking unnecessary chances (p. 167).

Although birth order research is widespread in the psychological literature, there is a distinct lack of similar research in the economics, finance, financial planning, and financial therapy literature. The general consensus among those who have tested the direct association between birth order and risk attitudes is that birth order appears to be related to risk tolerance, which is broadly defined as the willingness to engage in behavior when the outcome may potentially be negative and unknown (Grable, 2008). For instance, first borns are generally thought to exhibit less risk tolerance (i.e., be more risk averse) compared to younger (later born) siblings in the same family (Gilliam & Chatterjee, 2011). Sulloway (1997) observed that first born children tend to be less willing to accept high risks compared to their younger siblings. His explanation was that the oldest child most often identifies with his/her parents, and as such, is more likely to support authority figures and respect the status quo. On the other hand, younger siblings (i.e., later borns) are generally considered more likely to rebel against their parents and authority. Liberalization in parenting style may also exacerbate this tendency (Koselka & Shook, 1997).

Nearly all attempts by economists, and those interested in adapting psychological and therapeutic concepts into risk-tolerance research, have addressed the birth order and risk attitude question very broadly. Therefore, the purpose of this study is to move deeper into the analysis of the association between birth order and risk tolerance. More specifically, this study was designed to test the association between being an only child and the degree to which a person is willing to take risk. As discussed later in the paper, it is generally thought that only children are most similar to first born children in larger families. If true, then the risk attitudes of only children should lean towards being more conservative. This possibility is examined in this study.

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LITERATURE REVIEW

The Case For Birth Order Effects

Birth order research has historically been premised on the concept that there are meaningful and significant differences among first born, second born, middle, and last born children. What started out as a family structure hypothesis, (see Adler, 1964) has since become a pop culture assumption describing reality (Ernst & Angst, 1983). Adams (1972) and Sulloway (1995) both provided an excellent overview of the personal characteristics linked with birth order. For instance, first born children are thought to be assertive, authoritative, and responsible. Second born and middle children tend to be more competitive and unique in their approach to solving choice dilemmas. Psychologically, second born and middle children are thought to sometimes feel overlooked, which causes them to be more competitive and interested in receiving complements and support. Last born children are often marked as being socially oriented and having high self-esteem, which results from extra attention being paid to them in traditional households. This often also fosters a sense of self-entitlement in youngest children, and they occasionally attain the labels of being bossy and critical.

Much of the existing literature linking birth order to risk tolerance shows that younger siblings are more risk tolerant than first born children (Gilliam & Chatterjee, 2011; Roszkowski, 1999). Some have indicated that this willingness to engage in risk-taking activities results from an upbringing where the youngest in a family is typically rescued financially, physically, and emotionally by others in the household if their decision leads to a negative outcome (Podaras, 2013). Podaras (2013) also pointed out that as these children mature physically, they sometimes forget that their parents and older siblings are no longer there to rectify a poorly made decision. Older siblings, on the other hand, are often found to be risk averse. This may result from childhood experiences, which indicate that being patient leads to better outcomes, whereas for later born children, being patient often leads to suboptimal allocations between and among siblings (USC, 2009).

Only children effects. The existing literature on only children is often conflicting. There are those who argue that only children are most closely aligned with older children who have siblings. As such, only children are thought to share attributes with first borns, such as respect for authority (Gilliam & Chatterjee, 2011). Only children and first borns are also thought to share similar intellectual development (Falbo Polit, 1986). After all, someone is an only child only until another sibling enters the family. Others suggest that only children resemble last born children in the sense that only children are often self-centered, egotistical, and exhibit patterns of criticism and perfectionism. Additionally, like last borns, only children are also known to display a high degree of self-entitlement (Adams, 1972).

Other researchers maintain that only children are unique and are no more or less closely linked with large family definitional tendencies. Falbo and Polit (1986) asserted these wide range of opinions are due to researchers trying to explain differences with only children that have been erroneously assumed after studies are complete. Their meta-

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analyses showed that the key ingredient to the success of only children stems from parent-child relationships that occur when more attention and resources are allocated to one child. Falbo and Polit (1986) tested birth order effects against achievement, adjustment, character, intelligence, and sociability, and in each situation, only children were found to be at a significant advantage relative to their peers with siblings. Only children also tend to be goal-oriented and more likely to invest in their human capital compared to others.

In relation to risk tolerance, there have been few published records documenting how only children differ from children born into families with multiple children. Additionally, the bulk of literature on only children has been motivated by curiosity and convenience rather than formal theory (Falbo & Polit, 1986). This is an intriguing line of study because data from such studies, if more readily available, may provide insight into the relation to the association between only child status and risk tolerance.

Theoretical orientations. There are numerous theoretical reasons why birth order should be related to a person's willingness to take risk. Adams (1972) identified a number of theoretical justifications, linking birth order to individual differences. The first is related to differences in achievement based on intrauterine or physiological differences produced at birth. Using this theoretical perspective, individual differences can be traced back to the greater attention given by a new mother during her first pregnancy. Theoretically, the first-born fetus receives more attention and nutrients from the mother that helps the child grow to be healthier, stronger, and more intelligent. Later born children, on the other hand, must be more creative and willing to take risk to advance in the family unit.

Another theoretical justification for birth order differences can be found in Adler's (1928) notion of dethronement. This theoretical framework suggests that older children are subject to competition for a parent's attention, and as such, they become independent earlier in life, whereas younger children do not encounter such competition. This helps explain birth order differences in larger families. Some theorists have attempted to explain birth order patterns by attributing personal differences to parental styles. Within this framework, it is assumed that older children receive more intense, but less consistent, attention from parents. As more children enter a family, parental styles tend to become more relaxed and consistent as parental anxiety declines. This helps explain why younger children tend to be less dependent on others.

Sibling influence theory offers a related explanation. Using this framework, some researchers have argued that younger children learn life roles by competing with siblings for resources. It is possible to explain a tendency for younger children to be willing to take excessive risks as a response to the influence of older siblings.

Family economic theories have also been used to explain birth order differences. Unfortunately, the economic perspective has been inconsistently applied. Some have argued that older children have access to more family wealth, whereas others have noted that younger children benefit from accessing resources from parents and older siblings. Some have used the family economic perspective to suggest that birth order differences are associated with family socioeconomic status. In wealthier families, older children receive

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more parental encouragement of financial support. In low socioeconomic households, the youngest child receives more benefits once his or her older siblings leave the household.

The Case Against Birth Order Effects

Existing psychological research on birth order and only children effects is often conflicting. As discussed above, some researchers strongly believe that birth order has a meaningful impact on attitudes and behaviors (Sulloway, 1995; 1997). Others are less certain. In their landmark book, *Birth Order: Its Influence on Personality*, Ernst and Angst (1983) concluded that birth order alone has no meaningful influence on personality, as measured by extraversion, neuroticism, agreeableness, conscientiousness, and openness (i.e., the Big Five personality traits). More important factors included socioeconomic status and genetic disposition. Others have noted that the role of birth order in shaping personality dispositions is, at best, short-lived. For instance, Harris (2006) concluded that family situation factors do not always endure over a person's lifetime. People change, adapt, and alter their behavior throughout the lifespan (De Fruyt & Bartels, 2006).

It is possible that the effects of birth order are really an artifact or an indicator of other personal characteristics. For example, both only and oldest children have been found to exhibit an internal locus of control perspective. Falbo and Polit (1986) explained that the development of an internal locus of control may be facilitated by parents who respond quickly to their children's behavior. This is likely true regardless of birth order. New parent inexperience may facilitate the development of achievement motivation in only children and first borns, as well as those from small families. For example, first time parents often underestimate the time it takes for a child to be toilet trained, speak a complete sentence, or sleep continuously through the night. There is evidence that parents maintain these heightened expectations about their children beyond this early period. It is possible that what really matters is locus of control rather than birth order (Koh, 1996). This possibility has not been fully examined in the literature in relation to risk tolerance attitudes.

Seff, Gecas, and Frey (1993) remarked that, "It is possible, however, that there has never been much of a relationship between birth order and personality" (p. 231). They were commenting on the fact that they could not find any positive relationships regarding birth order and risk taking. Seff et al. (1993) concluded that factors such as self-efficacy, which is a factor strongly associated with locus of control, appear to be better predictors of risk attitudes. It is also possible that family and personal characteristics are more important in shaping attitudes and behavior (Behrman & Taubman, 1986). Of particular importance are sex and wealth (Gilliam & Chatterjee, 2011). These types of variables, when incorporated into studies designed to test for birth order effects, tend to erase such effects. For example, Freese, Powell, and Steelman (1999) reported that when they examined two measures of social attitudes, they could not find any support for birth order claims. They concluded that factors, such as sex and social class, which can be proxied with wealth, linked with attitudes more strongly than birth order.

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Summary

To summarize, the literature surrounding birth order in the domain of psychology is both vast and conflicting, as are the number of theoretical perspectives used to explain birth order differences. At a minimum, the notion that there are differences among children with siblings because of their birth order has become a culturally accepted certainty. Whether or not empirical evidence exists to support this notion has become less important compared to how people perceive the role of birth order in shaping personal and societal outcomes. Within the context of economics, finance, financial planning, and financial therapy, the few studies that have taken birth order into account have tended to support the cultural assumption that first borns are less willing to take risk than later born children (e.g., Gilliam & Chatterjee, 2011). While this conclusion may be open to discussion, the purpose of this study is to add to the literature on risk tolerance by examining other aspects of birth order. Specifically, this study adds to the literature by examining how only children differ from others in relation to their willingness to take risk.

Hypotheses

The existing literature on the topic of only children and risk attitudes is limited. Even so, it is possible to look to the wider literature in psychology to generate association propositions. For example, if it is true that only children are more like first borns than others, no differences should be noted between only children and first borns in relation to risk tolerance. Second, only children should exhibit a lower level of risk tolerance when compared to those with siblings. Finally, this pattern should hold true when first borns are removed from the analysis and only borns are compared to later borns. As such, in this study the following hypotheses were tested:

> H_1: No differences will be noted between only children and first borns in relation to risk attitudes.
> H_2: Only children will exhibit a lower risk tolerance when compared to those with siblings.
> H_3: Only children will exhibit a lower risk tolerance when compared to those with siblings when first borns are removed and only borns are compared with later borns.

METHODOLOGY

Data

Data from the 2010 National Longitudinal Survey of Youth, 1979 sample (NLSY79) was used to test the hypotheses. The NLSY79 is a U.S. Department of Labor, Bureau of Labor Statistics dataset. The sample consists of men and women born in the years between 1957 and 1964. The NLSY79 is a nationally representative sample of individuals who were 14–22 years old when they were first surveyed in 1979. These individuals were interviewed annually through 1994 and have since been interviewed on a biennial basis. Given natural attrition and a realignment of sampling methodologies in 1990, the sample

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now represents a cross section of U.S. households. Because of variable choices and the total number of questions answered by respondents, the useable sample for each item in the analysis ranged from 7,015 to 7,504 individuals. For analysis purposes, a listwise deletion process was employed to normalize the sample size for each analytical process.

Risk-Tolerance Items

Among those who study risk taking, risk attitudes are generally classified into one of the following domains: (a) financial, (b) health/safety, (c) recreational, (d) ethical, and (e) social (Weber, Blais, & Betz, 2002). Seven self-assessed risk-tolerance items were selected from the dataset that roughly matched these risk domains. These items were assessed by asking respondents the following question: "People can behave differently in different situations. How would you rate your willingness to take risks in the following areas?" Seven areas were listed: (a) driving, (b) financial matters, (c) occupation, (d) health, (e) interpersonal, (f) romantic relationships, and (g) major life changes. For each area, respondents were asked to rate themselves on the following 10-point scale: 0 = *unwilling to take any risks* and 10 = *fully prepared to take risks*. Descriptive statistics for each item are shown in Table 1.

An additional general risk-tolerance item was included in the study. This item was included as a gauge of respondents' overall tolerance for risk. Respondents were asked the following question: "Are you generally a person who is fully prepared to take risks or do you try to avoid taking risks?" Respondents were then instructed to rank their willingness on a ten-point scale, where 0 means *unwilling to take any risks* and 10 means *fully prepared to take risks*. The mean, median, and standard deviation scores associated with this item were 4.82, 5.00, and 2.96, respectively.

Finally, a new variable was created. This variable was called "Total Risk" and was comprised by summing scores from each respondent's scale choices for driving, financial, occupation, health, interpersonal, romantic, and life change risk-tolerance. The mean and standard deviation for the item was 24.30 and 14.64, respectively. Correlations among the items were estimated (Table 3). The seven risk items were found to be positively associated, suggesting that it is possible to combine each item into a summated scale score of risk-tolerance. A principal components analysis technique, similar to the one performed by Grable and Rabbani (2013), was used to confirm the uni-dimensional nature of the scale. As shown in Table 1, only one factor was extracted. The analysis was conducted using an Eigen greater than 1, with 25 iterations, criteria. Data were rotated using varimax rotation. The result was confirmed with an oblimin rotational criterion factor analysis. All of the items loaded well above the typical cut point of .40. Bartlett's test of sphericity was not significant (χ^2 = 14618, df = 21), and overall, the Kaiser-Meyer-Okin measure of sampling adequacy was robust (.86). These statistical outcomes were interpreted to mean that the resulting risk scale was robust.

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Table 1
Principal components analysis results

Risk-Tolerance Item	Factor Weight	Mean Score	Standard Deviation
Driving Risk Tolerance	.68	2.36	2.96
Financial Risk Tolerance	.75	3.61	2.77
Occupational Risk Tolerance	.77	3.92	3.24
Health Risk Tolerance	.67	2.55	2.89
Interpersonal Risk Tolerance	.64	4.10	2.89
Romantic Risk Tolerance	.66	3.50	3.38
Life Change Risk Tolerance	.73	4.25	2.94

Notes: Varimax and Oblimin Rotations

Birth Order

A specific birth order variable was not available in the NLSY79 dataset; however, family information, which includes the number of siblings and whether each sibling is older or younger than the respondent, was available. For the purposes of this study, only data from respondents who reported having five or less siblings was used. Coding was then developed to separate individuals into birth order ranging from 1st born through 6th (or last) born. A unique code was developed for only children. Table 2 shows the frequency distribution of birth order in the dataset.

Table 2
Frequency of birth order in the dataset

		Percent of Respondents (%)
Birth Order	1	15.4
	2	15.5
	3	12.2
	4	8.2
	5	5.2
	6	8.7
	Total	65.3
Only Children		34.7
Total		100.0

Data Analysis

Hypotheses were tested using a combination of correlation, *t*-tests, and regression analyses. As discussed below, follow-up analyses were conducted that utilized control variables of the sex, locus of control, and net worth of respondents. The choice of these control variables was made based on an analysis of the literature that showed these key variables account for much of the variation in birth order effects in previous studies (e.g., Freese et al., 1999). In these analyses, sex was coded 1 = *male* and 2 = *female*. Slightly more

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men (50.50%) participated in the survey than women (49.50%). Locus of control was measured using Rotter's Internal-External (I-E) Locus of Control scale (Rotter, 1966). Scales scores indicated each respondent's belief in the degree of control they have in directing their lives through self-motivation and self-determination (i.e., internal control) or to the extent that their destiny is determined by external forces (i.e., external control). Respondents were asked to select from a prescribed number of statements that represented either an internal or external control preference. Scores on the scale's four items were summed, resulting in a range of scores between 4 and 16, with high scores suggesting an external locus of control perspective. The mean and standard deviation scores were 8.76 and 2.39, respectively. Finally, household net worth was evaluated by taking NLSY79 wealth estimates based on a formula that subtracted liabilities from assets. The mean net worth among respondents was $235,036.93 (*SD* = $539,417.46).

RESULTS

Table 3 shows the correlation estimates among the risk attitude items evaluated in the study. Not surprisingly, all of the associations were positive and significant. Findings suggest that respondents were relatively consistent in their risk attitude self-evaluations. These initial findings provided evidence that the risk-tolerance variables had, on their face, validity for further analysis.

Table 3
Non-causal associations between and among the risk-tolerance items

	Risk Taker	**Driving**	**Financial**	**Occupational**	**Health**	**Interpersonal**	**Romantic**	**Life Change**	**Total risk**
Risk Taker	1.00								
Driving	.31**	1.00							
Financial	.61**	.44**	1.00						
Occupational	.53**	.45**	.57**	1.00					
Health	.28**	.50**	.38**	.42**	1.00				
Interpersonal	.34**	.29**	.37**	.38**	.33**	1.00			
Romantic	.32**	.32**	.35**	.39**	.33**	.40**	1.00		
Life Change	.48**	.34**	.49**	.50**	.33**	.39**	.47**	1.00	
Total Risk	.59**	.68**	.73**	.77**	.67**	.64**	.68**	.72**	1.00

*Note: *p < .05 **p < .01*

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Hypothesis One

The first hypothesis stated that no differences would be noted between only children and first borns in relation to risk attitudes. Results of the hypothesis test, using a listwise missing value criterion, are shown in Table 4. For the purpose of this analysis, 735 respondents were coded as being an only child, while 1,509 were coded as first borns. Only one difference between the two groups was noted; namely, that of interpersonal risk, with first borns reporting a slightly higher level of risk tolerance in this domain. In all other respects, only children and first borns were similar. Overall, initial support was found for the first hypothesis.

Table 4
Comparison of risk attitudes of only children and first borns

Risk Item	Child	Mean	Std. Dev.	*t*
Risk Taker	Only Child	4.99	3.00	1.08
	1st Born Child	4.85	2.79	
Driving Risk	Only Child	2.46	3.07	0.44
	1st Born Child	2.40	2.91	
Financial Risk	Only Child	3.66	2.82	-0.76
	1st Born Child	3.75	2.72	
Occupation Risk	Only Child	3.97	3.35	-0.47
	1st Born Child	4.04	3.12	
Health Risk	Only Child	2.65	3.09	0.11
	1st Born Child	2.64	2.79	
Interpersonal Risk	Only Child	4.03	2.92	-2.54*
	1st Born Child	4.35	2.81	
Romantic Risk	Only Child	3.48	3.39	-1.15
	1st Born Child	3.66	3.37	
Life Change Risk	Only Child	4.42	3.05	0.38
	1st Born Child	4.37	2.81	
Total Risk	Only Child	24.67	15.05	-0.82
	1st Born Child	25.21	14.36	

*Note: *p < .05, **p < .01*

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Hypothesis Two

The second hypothesis stated that only children will exhibit a lower level of risk tolerance when compared to those with siblings. Table 5 provides an overview of test results for this hypothesis based on a listwise deletion of missing values, which resulted in 735 only children and 6,270 other children. Initial support for the hypothesis was obtained. That is, only children exhibited the same responses as respondents with siblings on all of the risk-tolerance items.

Table 5
Comparison of risk attitudes of only children and those with siblings

Risk Item	Child	Mean	Std. Dev.	t
Risk Taker	Only Child	4.99	3.00	-1.84
	Later Borns	4.78	2.91	
Driving Risk	Only Child	2.46	3.07	-0.85
	Later Borns	2.36	2.94	
Financial Risk	Only Child	3.66	2.82	-0.46
	Later Borns	3.66	2.82	
Occupation Risk	Only Child	3.97	3.35	-0.53
	Later Borns	3.90	3.21	
Health Risk	Only Child	2.65	3.09	-1.10
	Later Borns	2.53	2.83	
Interpersonal Risk	Only Child	4.03	2.92	0.64
	Later Borns	4.10	2.86	
Romantic Risk	Only Child	3.48	3.39	0.29
	Later Borns	3.52	3.37	
Life Change Risk	Only Child	4.42	3.05	-1.72
	Later Borns	4.22	2.91	
Total Risk	Only Child	24.67	15.05	-0.74
	Later Borns	24.25	14.58	

Note: $*p < .05$, $**p < .01$

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Hypothesis Three

There was a possibility that findings shown in Table 5 were the result of first borns being included in the other category (i.e., first borns in the analysis had siblings). Given this prospect, the analysis was rerun to test the assumption that only children will exhibit a lower level of risk tolerance when compared to those with siblings when first borns were removed from the dataset. Results are shown in Table 6. Based on a listwise deletion criterion, 735 only children and 4,761 others were included in the analysis. Only children were found to self-identify as more willing to take risks (i.e., subjective evaluation of their risk tolerance) and to have a higher tolerance for life change risk. The two groups were similar on the other domains of risk. These findings were surprising in the context of the historical literature and common assumptions regarding birth order effects where only children should have exhibited lower scores on some or all of the risk-tolerance items. Instead, the results in the study revealed that only children and children with siblings were remarkably similar.

Table 6
Comparison of risk attitudes of only children and those with siblings, excluding first borns

Risk Item	Child	Mean	Std. Dev.	*t*
Risk Taker	Only Child	4.99	3.00	-1.98*
	Other	4.75	2.94	
Driving Risk	Only Child	2.46	3.07	-0.94
	Other	2.35	2.95	
Financial Risk	Only Child	3.66	2.82	-0.87
	Other	3.57	2.74	
Occupation Risk	Only Child	3.97	3.35	-0.84
	Other	3.86	3.24	
Health Risk	Only Child	2.65	3.09	-1.38
	Other	3.86	3.24	
Interpersonal Risk	Only Child	4.03	2.92	-0.81
	Other	4.02	2.87	
Romantic Risk	Only Child	3.48	3.39	-0.04
	Other	3.48	3.37	
Life Change Risk	Only Child	4.42	3.05	-2.07*
	Other	4.18	2.93	
Total Risk	Only Child	24.57	15.05	-1.25
	Other	23.95	14.63	

*Note: *p < .05, **p < .01*

Summary Examination

The initial hypotheses results were interesting in several ways. Results from the three analyses were conflicting. In the first analysis, only children and first born children were found to be very similar in their tolerance for risk. This finding mirrored that of the general literature. However, in the second and third analyses, very few differences were noted between only children and those with siblings. To complicate matters, the two

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situations in which differences were noted—overall risk taking (i.e., risk taker) and life change risk-tolerance—only children exhibited high scores. Given the contradictory nature of these findings, two additional analyses were conducted. The first test, as shown in Table 7, was developed to measure the effect size of the statistical difference between only children and those with siblings (excluding first born children) on overall risk tolerance (i.e., risk taker) and life change risk tolerance. These variables were regressed on the birth order variable. As illustrated, the regressions were statistically significant; however, the effect size of the relationship was very small.

Table 7
Regression analysis for effect size of birth order variable on risk attitudes

	Risk Taker			**Life Change Risk**		
	B	*SE B*	β	*B*	*SE B*	β
Only Children and Later Borns	0.26*	0.11	0.03	0.27*	0.11	0.31
R^2	0.001			0.001		
F	5.16*			5.79*		

*Note: *p < .05, **p < .01*

A second test was undertaken to further examine the association between being an only child and risk-tolerance. In this test, risk attitudes were compared between being an only child and being a child with siblings (excluding first born children). Similar to the previous test, overall risk taking (i.e., self-assessed risk taker) and life change risk-tolerance scores were regressed on the birth order variable. In order to determine the general effect of being an only child, the model controlled for each respondent's sex, locus of control, and household net worth. These control variables were chosen to match factors identified in the literature review that have been shown to provide an alternative explanation to traditional birth order relationships (see Falbo & Polit, 1986). Results are provided in Table 8.

Table 8
Regression analysis for significance of birth order variable on risk attitudes controlling for sex, locus of control, and net worth

	Risk Taker			**Life Change Risk**		
	B	*SE B*	β	*B*	*SE B*	β
Only Children and Later Borns	0.26	0.13	0.03	0.18	0.14	0.02
Sex	-0.56**	0.09	-0.10	-0.24**	0.09	-0.04
Locus of Control	-0.02	0.02	-0.02	0.03	0.02	0.03
Net Worth	.000**	0.00	0.09	.000	0.00	0.00
R^2	0.02			0.002		
F	20.11**			2.84*		

*Note: *p < .05, **p < .01*

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As illustrated, once sex, locus of control, and net worth were controlled, the statistical significance of being an only child disappeared from both regression models. Stated another way, while a small only child effect was present in the bivariate analyses of risk attitudes, the meaningfulness of the relationship was diminished once other control variables were evaluated. It turns out that only sex (being male) and net worth (increased levels) were positively associated with being a self-identified risk taker. Sex was also identified to be associated with tolerance for life change risk; however, in this case, women were found to hold more risk-averse attitudes compared to men.

DISCUSSION

Only children are thought, within modern American cultural terms, to be status quo-oriented and sometimes self-centered and egotistical. Researchers, including Falbo and Polit (1986), have asserted that only children are also thought to be more goal-oriented than others and to hold an internal locus of control perspective. However, when compared to others with siblings, only children are often considered to be similar to first borns, especially in relation to holding risk-tolerance attitudes that are more conservative and risk-averse (Sulloway, 1997). The purpose of this paper was to examine these possibilities using a robust nationally representative dataset. This type of research is important in the context of economics, finance, financial planning, and financial therapy, as both practice management and explanatory tools are developed to explain saving and investing behavior. Researchers, financial service professionals, policymakers, and practitioners need reliable information about the personal characteristics of consumers that shape attitudes and decisions. Given the popularity of birth order thinking in the general culture, gaining a better understanding of this factor is an important activity.

In some ways, results from this study mirror generally held perceptions. In other ways, however, findings contradict popular culture stereotypes. Results did show that only children are similar to first borns in nearly every domain of risk tolerance. The only exception being interpersonal risk tolerance. Interestingly, only children were found to be more risk tolerant than first borns in this risk domain. It is important to note, however, that the effect size of the mean difference was not that large. For all intents and purposes, it is reasonable to conclude that only children and first borns are more alike in terms of risk attitudes than otherwise.

Other results from the study are a bit more controversial. In general, only children did not exhibit dramatically different risk attitudes than respondents with siblings. Differences between the two groups were noted for self-assessed risk attitude (i.e., risk taker) and life change risk-tolerance. In both situations, only children reported higher scores on the items than others. This finding conflicts with much of the existing literature. One possible reason for this surprising result is that those with siblings, especially later borns, likely have less tolerance for risk because they have a spectating advantage over their older siblings. If an older sibling makes a mistake and suffers immense consequences, a younger sibling may be less likely to make that same mistake because they possess more information than the older sibling did at the time he/she made the decision. Later borns also benefit in not only learning from older siblings' mistakes, but successes as well.

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Younger siblings may learn what to do, and more importantly what not to do, from others in the household. Only children, however, do not have this perspective.

This hypothesis may be a moot point. It turns out, in this study, that controlling for a respondent's sex, locus of control, and wealth diminished the meaningfulness of being an only child on both self-assessed risk-tolerance and life change risk-tolerance. This final result is in line with conclusions presented by Ernst and Angst (1983) and Harris (2006). Harris, in particular, noted that at the early stages of the lifecycle, birth order may be meaningful in shaping behavior and attitudes, but the influence of birth order factors likely diminishes over time, with other variables, including socioeconomic status, having a more direct influence on personality, intelligence, and attitudinal development.

Implications for Financial Therapy

Results from this study indicate that financial therapists and other financial service professionals ought to take great care when linking birth order information with a client's assumed tolerance for taking risks. While there does appear to be some birth order effect, this is only true in a bivariate manner; however, the relationship between being an only child was opposite to what was theoretically predicted. Only children were found, in this study, to be more risk tolerant than others in the domain of general risk tolerance and life change risk tolerance. In terms of financial risk tolerance—a variable of great interest to financial therapists—no differences were noted between only children and others.

It is worth noting that when key covariates were incorporated into the analyses (i.e., sex, wealth, and locus of control), all birth order effects disappeared. In the simplest of terms, these covariates appear to explain a greater level of variance in risk tolerance than birth order. Rather than rely on birth order as an indicator of risk tolerance or as variable closely associated with risk attitudes, financial therapists should assume that birth order is of limited value in explaining the risk tolerance of clients.

LIMITATIONS AND CONCLUSIONS

One of the major limitations of this study is the self-report of the risk-tolerance assessments used in NLSY79 data set. Since respondents replied to a survey rather than participating in a controlled experiment, this could have skewed the results due to the respondent's cognitive biases about themselves. Furthermore, questions may not have been fully understood by those answering the questions. It is also possible that the risk items were measuring another construct related to risk tolerance. Further research is needed to determine the validity of the items. Future studies could control for other covariates known to be associated with risk tolerance. Only three covariates were used in this study. While these covariates were enough to minimize the effect size of birth order, it is possible that the inclusion of other variables, such as marital status, family size, and psychosocial variables, might reverse this pattern and improve the explanatory effect of birth order.

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In closing, the implications from this study for financial therapy professionals are as follows. First, birth order likely is an important factor in shaping early childhood perceptions, and as such, birth order should be evaluated as part of the client data gathering process. However, the role of birth order is probably much more relevant to other planning and therapy applications than in the evaluation of risk tolerance. Second, rather than assuming that birth order is related to risk-tolerance attitudes, practitioners would be better served assuming the opposite. Controlling for other factors, birth order and being an only child was not found to have a meaningful effect on self-evaluated risk tolerance. No evidence was found linking birth order and financial risk tolerance. Third, given the somewhat contradictory findings from this study, additional research on the topic may be warranted. The surprising results reported here may, in fact, be more robust than some early studies. Even so, clinical assessment of risk attitudes and risk taking behavior should provide additional insights into the role birth order plays in shaping attitudes that have an impact on household financial management topics.

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ISSN: 1945-7774

Financial Credit Outcomes of IDA Participation: Longitudinal Findings

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Financially vulnerable families often struggle with low credit scores. Thus, improved participant credit is often a goal of asset development programs, such as the Individual Development Account (IDA) program, but little is known about the long-term credit outcomes of participation. This article reports the final results of a three-year longitudinal exploratory study of credit outcomes for IDA participants. Using a convenience sample of IDA participants and non-participants (N = 164), data were analyzed using nonparametric and Chi-square for independence tests. Results indicate that participant credit scores improvements are achieved and maintained. Credit score is not a meaningful indicator of program completion, time to completion, or type of asset purchased for participants. Those who completed the IDA program within two years experienced the highest credit gains. Future research with larger samples is needed to further assess the impact of credit scores on program participation and completion.

Keywords: longitudinal; credit; asset development; individual development account; credit score

INTRODUCTION

Today's economic realities of increasing income and asset inequality, and falling median income means that increasing numbers of families are facing financial struggles (Bricker et al., 2014). A sizable minority of individuals (19%) reported that over the past year, their expenses exceeded their income (FINRA Investor Education Foundation, 2013). In particular, those households living at or below the poverty line are facing substantial declines in real income and average net worth (Bricker et al., 2014), leaving them vulnerable to financial hardship and lower financial well-being through such activities as

ISSN: 1945-7774

high-cost borrowing to meet basic needs. Without assistance, these households are unlikely to gain an improved financial status or wealth through accumulating assets (Bell & Lerman, 2005).

In response to the need, helping professionals, such as financial therapists and social workers, provide assistance to low- and moderate-income households seeking financial knowledge, better financial management, and/or increased income and financial assets (Collins & Birkenmaier, 2013). Helping professionals provide financial education and counseling in myriad community-based settings (e.g., food pantries and community-based service centers) and develop and administer long-term savings and asset building programs to help families gain wealth. One aspect of asset building programs is a focus on building financial credit, both a crucial element to the ability to improve a financial status and to the purchase several types of assets through affordable loan products (Naleppa, 2006; Sanders & Schnabel, 2007).

Low- and moderate-income households struggle with low credit scores (National Council of La Raza, 2014). Possessing strong financial credit, as evidenced by a high credit score, has many implications, such as access to affordable loan products for asset purchase (e.g., homes and automobiles), affordable insurance, and access to employment and housing (Birkenmaier & Curley, 2009). A credit report, on which past credit behavior and legal history regarding finances is recorded and analyzed and a credit score is displayed, is used by a variety of entities as an indication of future behavior, including financial behavior (Loonin, 2010). The credit report, which is a commercially available document, provides an indication of risk of non-repayment to potential lenders, and is crucial both to the financial status of households and the success of asset purchase and long-term ownership. Due to the use of credit reports for a wide variety of decisions, households with low or no credit scores have reduced access to affordable consumer loans and insurance products due to the practice of charging higher interest and fees because of the perceived higher risk of lending. These households also face diminished opportunities for employment and rental housing, as the reports and scores are utilized as the basis to make judgments about future behavior. Thus, strong financial credit is an essential ingredient to the financial status of a household (Birkenmaier & Curley, 2009). Asset building programs include credit as a focal point to assist participants in achieving a strong credit score. However, little is known about the long-term credit outcomes of participation in financial education and asset-building programs. Therefore, the research question for this study is "Does initial credit score provide an indication for participants about IDA completion, time to completion, or type of asset purchased?”

To add to the literature on this topic, this paper reports the final results of a three-year, quasi-experimental longitudinal exploratory study that examined the credit score outcomes of participation in financial education and asset building, called the “Individual Development Account” (IDA) program. Longitudinal research findings about financial and credit outcomes of IDA participation are reviewed. Discussed are participant and non-participant credit score changes over three years, and the association of initial credit score with program completion, time to completion, and type of asset purchased. Program and policy implications are also discussed.

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BACKGROUND AND LITERATURE REVIEW

Credit Building

The most commonly used credit scores in the U.S. are derived from information on the credit report, and are calculated through a quantitative scoring model by one of three national Credit Reporting Agencies (CRAs), which are Equifax, TransUnion, and Experian. The three CRAs receive repayment information from businesses and compile the information into credit reports that are sold to businesses and consumers. The system is voluntary and not all creditors report credit information to the CRAs, or to all three CRAs, so the CRAs can process different information on each consumer and have different algorithms, resulting in different scores. Lenders use these scores to assess credit worthiness and influence decisions on whether to grant credit, in addition to the terms of credit. The general range of scores is 300-850, with those scored “null” (or zero) who have no credit, and those with credit below 620 deemed “high risk” (Hendricks, 2005). The score fluctuates, depending on current information. The formula for computing the scores is generally based on bill payment, debt repayment, public records (e.g., tax liens and bankruptcies), amount of available credit utilized, length of credit history, and mix of credit utilized (Loonin, 2010).

Assisting consumers to build financial credit can involve a wide variety of activities. Many consumers are unaware of their report and score, and therefore, building awareness of the credit report and score is the first step (National Council of La Raza, 2014). Those without a credit score can be educated if needed and connected with credit options from formal financial institutions, such as a secured credit card from a bank. Financial management practices that enable them to start building a positive credit history can be suggested. Consumers with low credit scores can be educated about the need to correct any errors on the report, a fairly frequent occurrence, and assisted in correcting errors (Loonin, 2010). Depending on the credit report information, some consumers benefit from education about the advantages of paying debts on time, opening new accounts, and/or lowering debt or available credit used to increase their score. Additional support provided for these activities can include budgeting, credit planning, and communicating and negotiating with creditors and debt collectors to lower the amount owed (U.S. Department of Health & Human Services, 2011). Due to the various ways that credit scores can be improved, a higher credit score does not always reflect an improved financial situation. However, a higher credit score can facilitate access to better financial opportunities through more affordable financing and insurance costs, as well as employment opportunities (Loonin, 2010).

Credit Building within IDA Programs

Credit building work is an important part of asset development programming, such as the IDA program. Assets are financial investments that provide the ability to generate present and future resources. Assets can include income or resources from which to draw upon during economic hardship, and offer the potential to increase the wealth of future generations through inheritance (Lerman & McKernan, 2008). As an asset development

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program, the IDA program helps low-income employed families save money, become educated about finances and assets, provide matched savings toward the purchase of an allowable asset, and facilitate access to appropriate financial products and services.

IDA participants often begin with either no credit score, or a low credit score as a result of poor credit history, which may include high debt, too few credit accounts, collections, foreclosures, and bankruptcy. Many IDA participants have experienced financial hardship due to unforeseen events, such as medical situations that have led to medical debt (Carpender, 2008). Clients are well-suited to engage in credit building, as they are highly motivated by the prospect of using the matched savings, financial education, and staff support to purchase a home, automobile, or a small business, or to attend post-secondary education – all assets that will help build wealth. Trained program staff work closely with participants over a period of time and develop helping relationships in the process of assessing participant credit scores at the beginning and throughout the program, providing credit education and assistance to improve their credit scores using the aforementioned credit building activities (Rohe, Gorham, & Quercia, 2005), and facilitating access to affordable financial products, including loan products (Beverly et al., 2008; Mills, Lam, DeMarco, Rodger, & Kaul, 2008; Pinder, Yagely, Peck, & Moore, 2006). Programs sometimes provide additional services like peer support, crisis management, employment support, and mentoring, and referral to credit experts for complex situations (Parker, 2013; Sherraden & Boshara, 2008; U.S. Department of Health & Human Services, 2011). The combination of client motivation and targeted resources provides fertile opportunity to build credit within the IDA program.

Long-Term Credit Outcomes

Overall, literature about long-term credit history outcomes of asset building programs in general, and IDA participants specifically, is limited, and provides mixed results. For example, in their follow-up study of IDA participants, Loibl, Grinstein-Weiss, Zhan, and Red Bird's (2010) findings included no significant difference of participation regarding self-reported credit card debt. In a three-year, national longitudinal survey of 485 former IDA participants, Mills et al. (2008) found no significant impact on debt (i.e., credit card debt and consumer loans). In another study, those with credit card debt were 4.7 percent more likely to drop out of the program than those without debt due to insufficient financial assumptions and knowledge, discouragement, and lack of automatic savings devices (Schreiner & Sherraden, 2005). However, using data collected at one and one-half and four years after program enrollment, Grinstein-Weiss et al. (2008) found that for baseline renters, IDA participation significantly increased the clearing of debt and homeownership rates. Rohe et al. (2005) found that credit information and assistance was greatly appreciated by the IDA participants in their qualitative study.

Earlier results of this study found that the initial credit scores of participants were low (Birkenmaier, Curley, & Kelly, 2011) and credit scores and histories of participants and non-participants significantly differed from each other (Wave 1) (Birkenmaier, Curley, & Kelly, 2012). After one year, participants made gains on their credit scores, as compared to non-participants (Wave 2) (Birkenmaier, Curley, & Kelly, 2014). The median credit scores

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of participant groups created through program participation variation after one year (i.e., participants either completed the program and were in the "Completed" group, they were still participating and saving and in the "Still Saving" group, or they had dropped out and were in the "Drop-Outs" group) did not initially differ from each other. Thus, those who completed, were still participating, and had dropped-out after one year of participation had credit scores and history that did not initially differ significantly. During the first year of program participation, those who dropped out experienced a decrease in their credit score (Birkenmaier et al., 2012), but experienced an increase in their score during year two of the study (Birkenmaier et al., 2014). Those who completed the program within two years experienced the highest credit score gains. Similar to previous research findings, initial credit score was associated with program participation (Rothwell & Han, 2010), but not goal achievement, time to completion, or type of asset purchased (Wave 3) (Birkenmaier et al., 2014). Differing from other studies (Loibl et al., 2010), previous waves of data suggested that the IDA participants made credit score gains, as compared to non-participants, and that these gains were sustained after asset purchase.

Given the scant literature on this topic and the importance of credit to asset building efforts, additional longitudinal studies that evaluate the impact of initial credit score on program participation, completion, and asset purchase, as well as participant credit scores during program participation or after asset purchase, would provide programs with evidence to guide their credit score building efforts. This exploratory study contributes to the research about the above topics by analyzing all four waves of data.

METHODS

A total of 281 clients from three IDA programs in a Midwestern city affiliated with United Way were recruited to participate in the study, and 188 consented, for a response rate of 67%. In each wave of the data, subjects with credit scores of zero were eliminated because a zero score is an extreme value that means that the subject has no credit (the scale for subjects with credit ranges from 300-850). Of the 188 total sample size, 167 had a credit score above zero at Wave 1, therefore 21 cases were eliminated. In later waves, cases with zero credit scores were also eliminated. Therefore, two additional cases were eliminated at Wave 2. One case was eliminated in Wave 3, and none were eliminated in Wave 4. The final sample size was 164 during Waves 3 and 4.

Sample

The sample (N = 164) was obtained through three community-based agencies that offered other programs besides IDAs. These agencies included: (a) a housing counseling agency that provides pre- and post-purchase housing counseling, which recruited 88% of the participants (n = 145); (b) a domestic violence agency that provides family literacy, economic education, and other related programs, which recruited nine percent of the participants (n = 15); and (c) a homeless service provider that provides referrals to area shelters, assistance with rent, and other related services, which recruited two percent of the participants (n = 4). The three recruitment sites collected identical demographic data in one web-based administrative database (i.e., VistaShare Outcome Tracker), taught financial

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education that addressed identical core financial education competencies, and permitted similar allowable purchases with IDA funds (i.e., home, home improvement, micro-enterprise, post-secondary education, and vehicle). This sample was compared to a national sample of IDA participants and was found to be more highly educated, have higher income, and was more banked than national IDA samples. However, subjects also utilize higher-cost alternative financial services at similar rates to other low-income families (Birkenmaier et al., 2011).

Between February 2008 and June 2009, community-based agencies screened potential IDA participants and invited those who were eligible to an orientation. Those attending the orientation were asked to participate in the study. Participants gave written permission for researchers to utilize data routinely collected by IDA program staff in the IDA database, as well as for the researchers to access their credit report at baseline (i.e., Wave 1) and annually for three years (i.e., Waves 2-4), and use the data for the study.

Presented here are data from Waves 1-4 (N = 164), which are data gathered at baseline and the subsequent three years. Participants are those who completed financial education, enrolled in the program, opened a bank account, and began saving. Non-participants are those who attended an orientation, but chose to cease their participation prior to any other step in the program; therefore they did not complete financial education, enroll in the program, open a bank account, or save. To measure for differences between types of participants, three sub-groups of participants were created as a result of activity during the course of the program: (a) those who completed the program, purchased an asset, and closed the account ("Completed"); (b) those who opened an account, attended financial education, and began saving, but dropped out without purchasing an asset and closing their account ("Drop-Outs"); and (c) those who opened an account, attended financial education, began saving, and were still saving in the program at Wave 4 ("Still Saving"). While the membership of the participant and non-participant groups were identical between Waves 3 and 4, some changes in the membership of the participant sub-groups occurred between Waves 3 and 4.

Measurement

FICO credit score was used as an outcome variable. This variable was taken directly from subjects' credit reports, and was calculated by the TransUnion credit bureau. As mentioned previously, FICO credit scores start at 0 (for those with no credit), and have a range for those with credit between 300-850. No scores between 0-299 are issued, thus the scale is not a true continuous measure. Therefore, credit report scores were used as categorical data. Other variables utilized were number of months matched savings account was open, and type of asset purchase (i.e., home purchase and home repair = housing-related; post-secondary education and small business development = non-housing related).

Descriptive statistics were computed on all participants and data obtained from their credit reports in all four waves. To test for associations between Wave 1 participant credit scores and number of months matched savings account was open at Wave 4, group membership (i.e., Completed and Drop-Out) and type of asset purchased, Chi-square tests

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were completed. Due to the non-normal distribution of many of the variables, nonparametric tests were used as parametric tests (e.g., t-tests) assume a normal distribution of the data (Pett, 2015). The first nonparametric test, Wilcoxon Signed Rank Tests, is an equivalent of paired sample t-tests. Wilcoxon Tests were conducted to test for significance in credit score differences within groups for participants and non-participants, participant groups (i.e., Completed and Dropouts), and groups based on type of asset purchase (i.e., Completed: Housing-Related and Completed: Non-Housing-Related) from Wave 2 to Wave 4. The second nonparametric test used was the Kruskal-Wallis test. The Kruskal-Wallis test, a nonparametric equivalent of a one-way group ANOVA, was conducted to test for differences between participant groups for overall median credit score change.

RESULTS

Descriptive Data

Descriptive statistics on the participants (n = 79), non-participants (n = 85), and the participant sub-groups "Completed," "Drop-outs," and "Still Saving" are provided in Table 1. Of the 79 participants, 57 (72% of the overall participant sample) closed and completed the program, 16 (20% of the overall participant sample) closed but did not complete the program, and 6 (8% of the overall participant sample) are still saving in the program at Wave 4.

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Table 1
Demographics

Demographics	Participants n=79, 48%	Non-Participants n=85, 52%	Participant Sub-Groups Completed n=57 (72%)	Still Saving n=6 (8%)	Drop-Outs n=16 (20%)
Age: 31-40	29 (37%)	30 (35%)	20 (35%)	1 (17%)	9 (56%)
41 and older	25 (32%)	30 (34%)	15 (26%)	3 (50%)	5 (32%)
Female	69 (87%)	67 (79%)	49 (86%)	6 (100%)	15 (94%)
Partner status: Single	49 (62%)	47 (55%)	35 (61%)	2 (64%)	13 (87%)
Higher Education	69 (87%)	71 (84%)	50 (86%)	5 (83%)	16(100%)
African American	56 (71%)	62 (73%)	39 (74%)	4 (67%)	13 (81%)
Income/Debt Ratio at Wave 1	18 (24%)	11 (13%)	13 (24%)	1 (17%)	4 (25%)
# of Wave 1 Household Bills Past Due	34 (43%)	43 (49%)	13 (27%)	2 (33%)	8 (56%)
Average Amount Owed	$1,512	$567	$2,052	$229	$261
Wave 1 EITC Recipients	27 (34%)	26 (31%)	21 (37%)	0 (0%)	6 (38%)
Mean credit score at Wave 1 (Wave 4)	572 (627)	533 (578)	604 (643)	673 (599)	562 (569)
# and % with Poor Credit Score at Wave 1	44 (56%)	66 (78%)	31 (55%)	1 (17%)	12 (75%)
# and % Achieving Positive Change in Credit Score	56 (71%)	43 (51%)	36 (70%)	2 (33%)	10 (56%)

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Participants (n = 79) are predominately 31-40 years old (37%), female (87%), single (62%), and have enrolled in higher education (87%). They are also predominately African-American (71%), with a mean number of 1.4 children. Over half of the participants (56%) have poor credit at Wave 1 (i.e., below a 620 credit score), but only about one-third (34%) have household bills past due. Non-participants (n = 85) are also predominately 31-40 years old (35%), female (79%), single (55%), and 84% have enrolled in higher education. Similar to participants, the non-participants are African-American (73%), with a mean number of 1.6 children. The majority of the non-participants have poor credit (78%), and about half have past due bills (49%). The participant groups (i.e., Completed, Drop-Outs, and Still Saving) had similar profiles. Due to small numbers, the "Still Saving" group was dropped from further analysis. There were no significant differences between the participants from the three agencies. The survey respondents had similar demographics to the participant and non-participant groups. Figures 1-4 provide a visual overview of Wave 1 and Wave 4 credit scores, including zero (null) scores.

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Figure 1. Non-participants Wave 1 credit scores

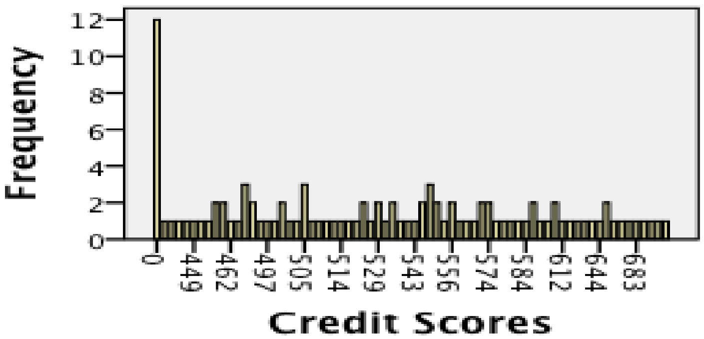


Figure 2. Non-participants Wave 4 credit scores

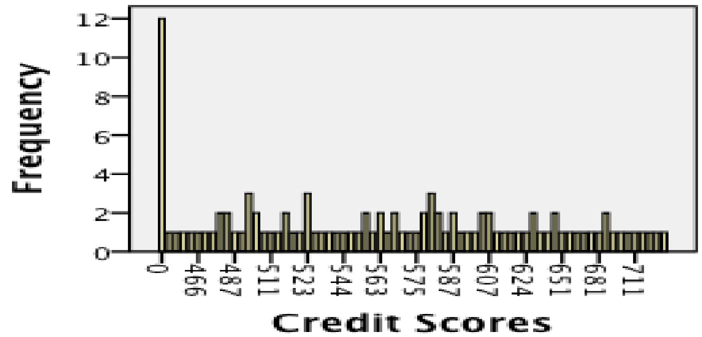


Figure 3. Participants Wave 1 credit scores

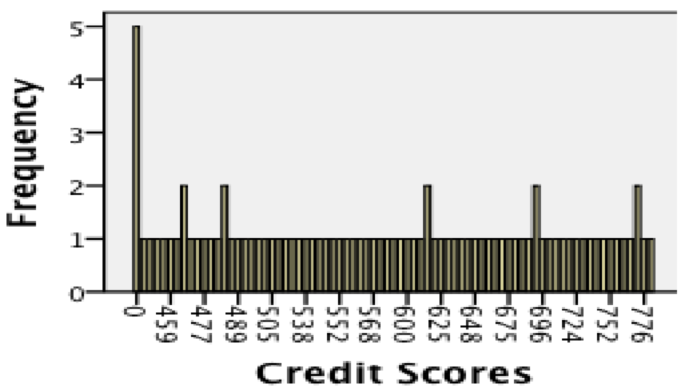
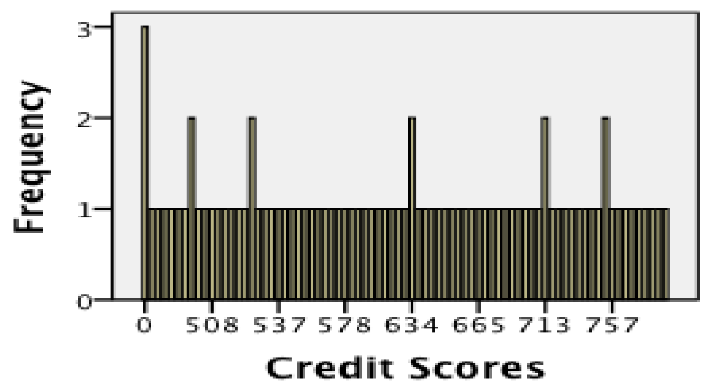


Figure 4: Participants Wave 4 credit scores



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Participant Wave 1 Credit Score Associations

Chi-square for independence tests were conducted to test for associations between Wave 1 credit score (0 = credit score below 620, 1 = credit score 620 and above) and: (a) the credit score of the participants group at Wave 4; (b) number of months matched savings account was open; and (c) type of asset purchased. Results of the Chi-Square for independence test showed for participants: (a) no significant association between the credit score of Wave 4 participant groups and Wave 1 credit score; (b) no significant association for participant groups between Wave 1 credit score and number of months matched savings account was open at Wave 4, or Wave 4 credit score and number of months open; and (c) no significant association between Wave 1 credit score and type of purchased asset (i.e., Housing-Related or Non-Housing-Related).

Credit Score Differences over Time

Wilcoxon Signed Rank Tests, a nonparametric equivalent of paired sample t-tests, were conducted to test for significance in credit score median differences between each of the waves for participants and non-participants, and within each participant group. Results of the Wilcoxon Signed Rank Test (Table 2) indicated that the Participant group had significant increases in their median credit score between Waves 1 and 3, as well as Waves 1 and 4, with the strongest effect between Waves 1 and 3 (.40, which is a medium effect size). Participants also had a significant increase between Waves 2 and 3. Non-participants had statistically significant increases between Waves 2 and 3 along with Waves 3 and 4, with small effect sizes. The Participant group experienced a larger increase in their median credit score than the Non-participant group.

As for the participant groups (i.e., Completed and Drop-Outs), the Completed group experienced their largest increase within the first year (Waves 1 and 2), which was significant with a medium effect size (.38). They experienced significant increases in their median credit scores in Waves 1 and 3, as well as 1 and 4, with a medium effect size for changes that occurred between Waves 1 and 4 (.56). Those who dropped out of the program (i.e., the Drop-Outs) experienced a significant increase in their credit score between Waves 2 and 3 with a medium effect size (.59), and an overall credit score decrease between Waves 1 and 4.

Median credit score changes for the Completed group who used their savings for housing-related purposes (i.e., home purchase and home repair) mirrored the pattern of the credit score median changes for the overall Completed groups. However, the Completed group members who made non-housing-related purchases had a significant decrease in median credit score in both Wave 2 and 3, and then a significant increase in Wave 4.

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Table 2
Wilcoxon Signed Rank Test results

Wave	Participants (n=79)			Non-Participants (n = 85)			Participants: Completed (n=57)			Participants: Drop Outs (n=16)			Completed: Housing Related (n=33)			Completed: Non-Housing Related (n=23)		
	MD (pts)	z	r	MD (pts)	z	r	MD (pts)	z	r	MD (pts)	z	r	MD (pts)	z	r	MD (pts)	z	r
1-2	5	-1.78	0.14	-8	-0.35	0.03	19	-2.84*	0.27	-41.0	-1.40	0.25	31	-2.62*	0.31	-9	-1.51	0.22
1-3	32	-3.55**	0.28	4	-0.56	0.04	28	-0.78**	0.35	-21.5	-0.49	0.09	38	-3.36*	0.40	-6	-2.30*	0.34
1-4 (total)	30	-3.05*	0.24	21	-2.03*	0.16	26	-4.04**	0.38	-10.5	-0.16	0.03	31	-3.01*	0.35	20	-2.91**	0.43
2-3	27	-2.39*	0.19	12	-2.05*	0.16	9	-1.67	0.16	19.5	-2.35*	0.42	7	-1.23	0.14	-3	-1.13	0.17
2-4	25	-1.15	0.09	29	-2.88*	0.22	7	-1.08	0.10	30	-1.66	0.29	0	-0.63	0.07	29	-1.12	0.17
3-4	-2	-0.11	0.01	17	-1.56*	0.12	-2	-0.58	0.05	11	-0.26	0.05	-7	-0.30	0.04	26	-0.49	0.07

*Note: ** $p \leq .01$, *$p \leq .0$*

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Kruskal-Wallis tests, a nonparametric equivalent of a one-way Group ANOVA, were conducted to test for differences between participant groups for overall median credit score change. Results of the Kruskal-Wallis Test, displayed in Table 3, indicated that there was a significant difference across participant groups (e.g., Completed and Drop-Outs) for overall credit score change between Waves 1 and 4. The differences in median score between Waves 1 and 4 were: Completed = 26 points and Drop-Outs = 11 points. Post-hoc Mann-Whitney U tests demonstrated significant differences in overall credit score median change between Completed and Drop-Outs groups with a small effect size (.24). The median effect size difference for Completed and Dropouts were statistically significant at all waves, except for Wave 1 (Wave 2 = .36, Wave 3 = .32, and Wave 4 = .31).

Table 3
Results of Post-Hoc Tests for Kruskal-Wallis

Groups	*Wave 4 –1 Credit Score Change*		*Wave 1 Credit Score*		*Wave 2 Credit Score*		*Wave 3 Credit Score*		*Wave 4 Credit Score*	
	z	r	z	r	z	r	z	r	z	r
Completed vs. Drop-Outs	-2.05*	.23	-1.43	.17	-3.08*	.36	2.76**	.32	-2.63**	.31

*Note: ** $p \leq .01$, *$p \leq .05$*

DISCUSSION

This longitudinal study provides insight into the long-term credit outcomes of an asset building program, the IDA program, and whether original median credit score is associated with successful completion of the program, the time-in-program, and type of asset purchased. Comparing the Participant and Non-Participant groups, the study finds advantages to participation on credit scores. Participants had higher credit scores at year three, and experienced a larger positive change in their score than non-participants. Participants' increase in median credit scores between year one-two and slight insignificant decrease at year three indicates a significant positive change that levels off two years after they began the program. While these two groups were recruited from the same population (i.e., the working poor), had similar demographics, and experienced increases in their credit score, they differed from the outset, and experienced significantly different credit score outcomes.

The finding of participant gains in the first two years is consistent with the practice of creating IDA participant action plans to actively work on raising credit scores within two years of program enrollment, and the goal to maintain gains afterwards. Participants may also experience a small decrease in credit score after asset purchase due to new expenses associated with the asset purchase (i.e., house furnishings for a new house). Asset purchase may also cause a temporary decrease in score depending on the number and timing of inquiries on the credit report from prospective creditors, which would temporarily decrease the credit score, and payment regularity on the new debt associated with the

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asset. In addition, literature on financial education suggests that the effects of financial education diminish over time, and refreshers are needed (Mandell & Klein, 2009).

Examining the two participant groups Completed and Drop-Outs, several observations are noted. Perhaps most importantly, the credit score for the Completed and Drop-Outs groups were not different initially, yet they differed significantly at years one-three. The largest increase in credit score for the Completed group occurred within the first year. Like the Participant group, this group experienced a slight decline in credit score between years two-three, suggesting that credit score gains are most likely experienced in the early years during and after program participation, but they were able to maintain their credit score gains. The Drop-Outs experienced a decrease in credit score within the first year, and had a slight increase between years one-two and two-three, but never reached the original median credit score. The Drop-Outs group's pattern is consistent with prior findings that financial hardship leads to drop-out status (Manturuk, Dorrance, & Riley, 2012; Rothwell, Bhaiji, & Blumenthal, 2013). The Drop-Outs may have experienced similar challenges to those experienced by the non-participants, such as expenses associated with children in the household, negative net worth, and non-vehicle ownership (Rothwell & Han, 2010), or aspects of the program such as match rates, time caps, and the use of automatic transfer (Schreiner & Sherraden, 2005). Median credit score gains were experienced by purchasers of all types of assets, with the Completed: Home-Related group's median credit score gaining the most overall, but declining slightly at year three.

These results also indicate that while initial median credit score and history elements provide a strong indication about IDA program participation, they do not provide evidence that initial median credit score provides an indication for participants about IDA completion, time to completion, or type of asset purchased. Taken as a whole, IDA participants had positive movement in their credit scores, with the biggest movement occurring in the first two years for those who complete the program. Additionally, credit score gains were maintained, and do not appear to be negatively affected in the long run by participation, asset purchase, or type of asset purchased.

Implications for Practice

In addition to previous study findings (Birkenmaier et al., 2011, 2012, 2014), these findings have implications for financial therapists and other helping professionals involved in asset and credit building programs, particularly IDA programs (Archuleta et al., 2012). First, results indicate no difference in credit score changes over three years among the various purchase types. IDA program staff can continue to encourage their participants' free choice of asset purchase goal with some assurance that purchasers of all types of assets experience credit score gains. Additionally, initial credit score does not affect the number of months an IDA account is open. Again, programs can continue to be designed with maximum choice about number of months in-program without concern about the affect time may have on credit score.

The strongest participant credit score gains occurred in the first two years, suggesting that related program staff resources are effectively invested during this period.

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The influence of the program on credit score may dissipate over time, similar to the effects of financial education (Mandell & Klein, 2009). Likewise, results suggest that the credit scores of those participants who completed the program increased the most within the first two years and were significantly different than the Drop-Outs, supporting previous findings (Grinstein-Weiss et al., 2008). While this study does not purport to explain the process of differentiating these groups, results indicate that programs may wish to specifically focus on the first year of IDA participation for credit score building programming. Programs may want to conduct an in-depth assessment of financial management behaviors at program enrollment, seek to build on the positive aspects of the behaviors (Rothwell & Sultana, 2013), and follow-up with those that complete to ensure that they are maintaining or increasing their credit score after the asset has been purchased.

Financial therapists and other administrators in programs may want to carefully examine their policies that result in participant dropout. The results indicate that those who dropped out experienced a drop in their credit score within the first year and an increase in their second and third year, suggesting possible short-term financial hardship from which some recovery was later experienced. This finding is consistent with previous literature that suggests that participants struggle with the lack of flexibility with savings requirements (Rothwell et al., 2013). Providing for a "time-out" of the savings requirement due to unexpected events may allow participants to weather a challenging financial situation, resume savings later, and prevent drop-out. Drop-outs may benefit from an increase in case management and/or credit score building products/services, such as a credit builder loan or secured credit card, to complete the program.

Policy and Research Implications

These results give support to the hypothesis that IDA programming has positive long-term association on credit scores and history. The results also support the idea that asset development policy should continue to promote financial education, efforts to facilitate and encourage participants to engage in strategies to improve their credit score, and assist in the acquisition of appropriate loan products so the credit score improvements can be sustained (Grinstein-Weiss, Chowa, & Casalotti, 2010; Hastings, Madrian, & Skimmyhorn, 2012; Zhan, Anderson, & Scott, 2006). Additionally, asset building policy could expand support for post-purchase maintenance efforts. Research with nationally representative samples is needed, especially during the first year. Further research with a larger sample size is also needed to learn more about the drop-outs and those in the program for a long time to determine whether program elements could be altered to promote credit score building and program completion, and prevent drop-outs.

Study Limitations

There are noteworthy limitations to the study and the ability to generalize to the national IDA population. These results emerge from a quasi-experimental design, and are therefore merely suggestive of the credit history and scores of IDA participants and non-participants. Because only descriptive statistics were calculated, independent variables, such as education, race, and ethnicity, could account for at least some of the differences

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noted in Wave 4 credit scores. Due to the small sample size, effect sizes may appear smaller than in a larger sample. The sample does not represent the national IDA population or a random draw of all low-income households, and therefore could suffer from selection bias. There may be observable and unobservable underlying factors influencing credit scores and other outcomes given the lack of a random sample. Credit score information is cross-sectional and may not be an accurate description of the lifetime credit scores of IDA participants. Several threats to internal validity, including subject selection and maturation, experimental mortality and persistence, were present in this study. The small sample size of the participant sub-groups may result in non-significant findings between the groups. While asset and debt levels remained lower for vulnerable families between 2005/06 and 2008/09 in the United States (Hendy, McKernan, & Woo, 2012, March), we do not know the residual effects of the Great Recession on subjects in this study, such as a tighter credit market and higher unemployment (Chan, 2010, April 17). Lastly, caution must be used when interpreting the results due to the complexity of credit scoring and the myriad of ways that credit scores can be improved without actually improving financial status.

CONCLUSION

Positive credit history and a strong credit score are increasingly viewed as stand-alone financial assets that reap benefits beyond the central role played in building tangible assets. This study provides insights for financial therapists and other helping professionals who assist clients in improving credit, a critical aspect of financial status. Specifically, the results indicate that program participation positively impacts credit score, with the first two years as the most critical. Financial therapists, other program staff, and policymakers may wish to pilot program innovations with credit score building as a focus of their work to promote sustained program participation. Further research about the important aspects of the credit score building process and their effects participants will assist policymakers in fine-tuning efforts to provide long-term benefits regarding participant credit score.

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Acknowledgements

The authors of this study would like to thank the United Way of Greater Saint Louis and U.S. Bankcorp for supporting this study. The authors also thank Katie Terrell, Hannah Shanks, Andrea Seper, Sara Feagans, Eric Zegel, Emily McGinnis, and Jane Schoeck for their contributions to this research and publication.

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Researcher Profile

An Interview with Jodi Letkiewicz, Ph.D.

Jodi Letkiewicz, Ph.D., is an assistant professor of finance at York University in Toronto, Ontario. She teaches in the Certified Financial Planner® Core Curriculum program preparing undergraduate students for the Canadian CFP® certification and conducts research in several areas of personal finance and consumer decision-making, including behavioral aspects influencing the decision to seek financial help, how personality traits affect financial decision-making, and the financial state of young adults, including the impact student loans have on overall well-being and financial milestones early in their adult life. Dr. Letkiewicz's goal is to increase financial well-being in the general public, which she hopes to accomplish through teaching, research, and community outreach.

Q. Define what you do professionally.

A. I teach personal finance courses and conduct research on the financial decision-making of individuals and families.

Q. What activities encompass your professional responsibilities?

A. Teaching, research, and university and community service and outreach.

Q. How long have you been engaged in your professional activity?

A. After graduating from Ohio State in 2012, I spent one year at the University of Nebraska-Lincoln and am now in my second year at York University.

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Q. What led you to your professional calling?

A. I wanted to study consumer economics because of a sense that many people lack the basic financial knowledge and skills to make positive financial decisions for themselves, particularly in a financial environment that is growing ever more complex. Even when people have the knowledge and skills, they are still susceptible to their own cognitive biases that lead them to make decisions that are not in their best interest. How do we change this environment so that financial decisions become simpler and easier for the consumer?

Q. Do you work alone or do you have a team?

A. I collaborate with colleagues both at York and at other universities, but have no formal team.

Q. What needs to happen so that 10 years from now we can say that financial therapy is a respected field of study?

A. Effective empirical research showing the benefits of financial therapy is needed. We often think that people will change if just given the right information, but both anecdotal evidence and empirical research indicate that is not the case. In a world where financial stress can lead to number of life events including both divorce and suicide, we need better ways to manage financial stress and financial therapy is a key to that change.

Q. What benefits can the Financial Therapy Association provide to others doing work that is similar to your professional activities?

A. A space for collaboration, promotion of quality research, and connection with professionals in the field.

Q. If others are interested in finding out more about you personally and professionally, where can they obtain this information?

A. I can be contacted at:

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Practitioner Profile

An Interview with April Benson, Ph.D.

Dr. April Lane Benson is a nationally known psychologist specializing in the study and treatment of compulsive buying disorder. Dr. Benson is the editor of "I Shop, Therefore I Am: Compulsive Buying and the Search for Self" (2000), the first book in English for mental health professionals about compulsive buying disorder. Her second book, "To Buy or Not to Buy: Why We Overshop and How to Stop" (2008) presents the Stopping Overshopping model of treatment. A pilot randomized controlled trial on the efficacy of this treatment model was recently published in the Journal of Groups in Addiction & Recovery. Maintaining a private practice in New York City and a comprehensive website, www.shopaholicnomore.com, Dr. Benson also trains therapists and is frequently quoted and interviewed in print, radio, and television media.

Q. Define what you do professionally.

A. My professional life is quite varied, which is part of what makes it so fulfilling. A large part of my mission is to provide overshoppers and their loved ones with effective help and to support them in their ongoing recovery work. To that end, I have a private practice for individuals and small groups. Over the course of a decade, I developed a comprehensive evidence-based treatment program and am in the process of creating a text messaging program to provide additional support.

I work with spouses, siblings, parents, and other loved ones to help them understand compulsive buying disorder and to know how, when, and whether to intervene with the overshopper. Sometimes I work with the compulsive buying client and a loved one together, and at other times, I work with the overshopping client individually and a colleague does conjoint work with a parent or spouse, or does couples work.

Training therapists and related professionals, financial counselors, financial planners, financial educators, and professional organizers is an extremely important

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component of my professional life. That training sometimes takes the form of free teleseminars that I offer through Stopping Overshopping, LLC, teleclasses that I give through other organizations, and presentations at professional conferences. Several book chapters that I've written also provide training to professionals.

Far too few therapists are trained to work effectively with compulsive buyers to meet the demand, which is only increasing as compulsive buying is coming further and further out of the closet.

To raise public awareness about overshopping and the dangers of overconsumption, I maintain a comprehensive website. On the site is information about self-help, professional help, therapist training, a press kit, and a blog, which includes posts for friends and family, book reviews, research and news, and tips for tracking spending. Additionally, I contribute to media coverage about compulsive buying by doing interviews for print publications, and appearing as a guest on radio and television. I've also appeared in a documentary film, "What Would Jesus Buy?" Because compulsive buying is considered "the smiled-upon" addiction because consumption fuels our economy, it remains a hard sell.

Q. What activities encompass your professional responsibilities?

A. I began studying compulsive buying disorder and working with compulsive buyers in the mid-1990s. My study of this problem introduced me to the literature on compulsive buying disorder, which was quite scarce at that time. Since I knew compulsive buying disorder to be quite prevalent, I decided to read everything I could find about compulsive buying and augment the literature by editing a book which would introduce mental health and other professionals to everything we knew at the time about this problem, with contributions from the fields of sociology, consumer behavior, marketing, community education, psychology, and psychiatry.

Following the publication of *I Shop, Therefore I Am: Compulsive Buying and the Search for Self*, I began getting calls and emails from compulsive buyers, their loved ones, their therapists, and sometimes even their lawyers, and became known as someone who specialized in working with compulsive buyers. Over the next five years, I developed a treatment program, using techniques that had proven effective when I had worked with people with eating disorders and incorporated other tools and strategies that had proven efficacy in helping people with other addictions.

I've used the program "Stopping Overshopping" (published as *To Buy or Not to Buy: Why We Overshop and How to Stop* in 2008) with individuals and groups for the last nine years. It is a 12-week experience that teaches specific skills, tools, and strategies that help compulsive buyers break the cycle that leads to compulsive buying and develop the capacity to lead a richer life in the process. A detailed description of the model can be found in Benson & Eisenach (2013).

As I came to see changes, sometimes small, often enormous, in my own clients and the clients of the therapists who I trained, I decided that it was time to test the model

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empirically and see if my subjective experience of its efficacy would be confirmed by objective measures. In 2010, we embarked on a pilot randomized controlled trial that compared the efficacy of this model with a waiting-list control group. Results showed significant improvement on all compulsive buying measures. In fact, scores improved from levels solidly in the compulsive buying range to scores that were solidly in the normal buying range. The amount of money and time spent, and the number of compulsive shopping episodes, were also significantly reduced. All these improvements were well-maintained at six-month follow-up (Benson, Eisenach, Abrams & van Stolk-Cooke, 2014).

Q. What led you to your professional calling?

A. By the time I was eleven or twelve it was painfully obvious that not everyone shopped like my mother and I did. Sometimes I'd come along when my friends' mothers would take them to buy clothes. Usually these mother-daughter dyads negotiated this rite of passage respectfully, if not altogether joyfully. In our case, within minutes of our entering the store the climate between us became icy as one garment after another was rejected.

Growing up during the Depression, my mother was rarely able to buy the kind of clothes she coveted, the kind worn by the girls "on the right side of the tracks." Even though my family had the financial resources that would have allowed my mother to buy herself more expensive clothes than she did, both for herself and for me, my mother's have-not identity hadn't changed very much.

As soon as I was old enough I got a small clothing allowance, which I supplemented first with baby-sitting money, then with summer job earnings. I did almost all my clothes shopping on my own, rather than do another take of the same bad scene that neither my mother nor I wanted to replay. The frenzied and repetitive buying and returning of clothes, though, was the telltale sign of an identity still very much in flux and the first clue that I was having some shopping problems of my own.

I first happened into Charivari in 1973, the store where I shopped for over twenty years. In the beginning, the clothes seemed too expensive, too dressy, and too old for me, but I kept going back searching for something. With the help of the store's three-way mirror, I started to find it. While it had always seemed like a fluke when I thought I looked good or was told that I did, in the gleam of that reflecting pool, I began to see what I really looked like and who I really was.

By the time the store closed in 1994, I had thought a great deal about shopping and I'd developed notions about what the shopping process was really about; both shopping gone good and shopping gone bad. "Shopping gone good" is shopping undertaken mindfully, as an expression of self-definition, self-expression, creativity, and sometimes,

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even healing, as it had been for me at my favorite store. This shopping had no serious aftershocks. "Shopping gone bad" was shopping undertaken as an attempt to repair mood, avoid dealing with something, an attempt to buy love, express anger, or belong to an appearance-obsessed society, among other reasons. This shopping became a straitjacket that often led to serious negative consequences.

For the fifteen years prior to developing a specialty in working with compulsive buyers, I'd been working with people with eating disorders. Very often I'd hear clients tell me about their shopping behavior. Often they were seriously overbuying in an attempt to cover up their negative feelings about their bodies and their lives, to bridge the gap between how they saw themselves and how they'd like to be seen.

My growing interest in deconstructing and reconstructing what the shopping process was all about, combined with my interest in my own overshopping history and that of clients who were using shopping in a self-defeating attempt to transform themselves into some thinner, newer, better version of themselves, became a powerful motivator to begin a serious study of compulsive buying and its treatment, which has continued to fascinate and challenge me for over twenty years.

Q. How are you compensated?

A. The bulk of my income is made through private practice; the remainder comes from the sale of books and journals, the Stop the Shopping Insanity program, speaking fees, training fees, fees for group telecoaching, and fees paid for one-time events.

Q. Do you work alone or do you have a team? Please explain.

A. For the past ten years at least, I've employed college students who are majoring in psychology and interested in this area of study to help me in a variety of ways, from reviewing literature to website maintenance. In addition, I also work on an ongoing basis with a consultant who helps me to develop offerings and market them effectively. One of the therapists that I've trained has joined the team and she leads many of the telecoaching groups. Two research assistants helped design and conduct the outcome study and a statistician evaluated the results; all were co-authors of the journal article. I've worked with other colleagues who are co-authors on papers and book chapters and am working with a psychologist who specializes in digital interventions on the text messaging project.

Q. What theoretical framework guides your work when dealing with clients and/or conducting research?

A. As a psychologist trained in psychodynamic psychotherapy and psychoanalysis, my work is certainly informed by that framework. However, I came to see in my work with eating disordered clients that more targeted, structured, concrete skills, tools, and strategies improved outcomes considerably. As I developed the Stopping Overshopping Program, I used techniques that had proven efficacy either with clients with eating disorders or with people who had other addictive and personality problems. The program integrates aspects

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of psychodynamic psychotherapy, cognitive and dialectical behavior therapy, psycho-education, motivational interviewing, acceptance and commitment therapy, and mindfulness.

Q. What needs to happen so that 10 years from now we can say that financial therapy is a respected field of study?

A. Comprehensive financial therapy textbooks are beginning to appear and one hopes they are used in more and more courses for financial educators, counselors, and mental health professionals, on both undergraduate and graduate levels.

Financial therapists need to make presentations at relevant conferences to expose more professionals who work with clients with psychological problems that are reflected in their money behavior to the variety of methods that are being employed successfully to help such clients.

Much research needs to be done for the field of financial therapy to gain the kind of credibility that would make it highly respected. For example, one important research study would be to use a sample of clients with similar psychologically-based financial issues, and compare a group getting financial therapy, with a group getting no therapy, and one or two groups getting another type of therapy, as to their relative efficacy. Teasing out the factors that make financial therapy effective is also a valuable research direction.

Q. What benefits can the Financial Therapy Association provide to others doing work that is similar to your professional activities?

A. The Financial Therapy Association could provide telecourses and live trainings for people who want to help compulsive buyers, feature professionals who are working successfully with this population at their conference, and help therapists and related professionals interested in this field to find each other through providing networking opportunities in some of the larger cities in the United States. Polling the FTA membership and then providing a list of professionals who are working in this particular area within the broader financial therapy field would be enormously useful. In addition, perhaps the Financial Therapy Association could provide grants to fund research in this area.

Q. If others are interested in finding out more about you personally and professionally, where can they obtain this information?

A. There is a great deal of information about me personally and professionally on my website www.shopaholicnomore.com and in my writings, which are listed on my online resume. There are video clips of me working with clients, links to some of my teleclasses

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and podcasts, and a comprehensive description of what we offer to clients, family members, and therapists. Reviews of my books are available both on the website and on Amazon.com. My email address is aprilbensonphd@gmail.com and I can be reached by phone at 1 (212) 799-3793.

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ISSN: 1945-7774

Book Review

Lean In:
Women, Work, and the Will to Lead

Amanda Blanco

Sandberg, S. (2013). *Lean In: Women, Work, and the Will to lead*. Alfred A. Knope, 228 pp., $24.95. ISBN: 978-0-385-34994-9

Lean In: Women, Work, and the Will to Lead is a self-proclaimed "sort of feminist manifesto" written to empower women and men. Sandberg gives insight into how to overcome and help others overcome the internal and external obstacles that may hinder success. Sheryl Sandberg studied economics while at Harvard, is currently the COO of Facebook, and was recently named one of the most influential persons and powerful women in the world. Sandberg is not a financial professional and this title is not explicitly a financial text. *Lean In*, however, lends itself well to the financial therapy field. The narrative provided is applicable to professionals who counsel women, and especially to financial professionals who are women. This text will help illuminate ways for financial therapists, advisors, counselors, and planners to connect with their female clients. Financial professionals will appreciate Sandberg's candid dialogue about topics like the "myth of doing it all" and "success and likeability."

Lean In consists of an introduction and 11 chapters divided into two main parts: problems and proposed "adjustments." Part one of the text includes the introduction and chapter one. Early in the text, Sandberg incites a call to action by presenting reasons why women should pursue leadership positions. In the introduction, Sandberg identifies several inequalities between men and women in an effort to inspire change. In chapter one, she discusses "the Leadership Ambition Gap" between women and men, and highlights that there are too few women in power. She attributes this inequality to internal and external obstacles that women face throughout their lifetimes. She discusses the socialization of girls and boys translating into the lack of women leaders.

ISSN: 1945-7774

In the subsequent chapters, Sandberg outlines "adjustments" women and others can make to overcome internal and external obstacles. She uses scholarly research, personal anecdotes, and statistical evidence to support her statements and recommendations of how women can *Lean In*. Sandberg does an excellent job of integrating her conversational style with research from the fields of psychology and sociology. She uses each of the remaining 10 chapters to discuss topics to help women become leaders in their fields. She makes such suggestions as "sit at the table" and "make your partner your real partner" (p. 9).

Many of the topics presented in *Lean In* are directly translatable to financial topics. Sandberg encourages women to "sit at the table," or in other words, be confident and willing to take risks. Women typically have less tolerance for financial risk (Hanna & Lindamood, 2005). Taking on less financial risk may prevent women from earning the rate of return needed to meet investment and retirement goals. This tendency for women to have a low tolerance for financial risk can be compounded by financial professionals' assumptions that female clients are unwilling to take on any financial risk. I have spoken to female investors that must convince their financial advisors to let them take on more financial risk in their portfolios. Financial therapists and professionals should encourage their female clients to *Lean In* when it comes to their finances and take on some risk. At a minimum, professionals should not discourage their female clients from taking on risk.

Sandberg also encourages the reader to "make your partner your real partner," or equally share household management. She was speaking to childcare and household chores, but the responsibilities shared should also include financial management. Sharing a deposit account with a partner correlates positively with quality of relationship (Steuber & Paik, 2013). When partners share a bank account it also results in a level of financial accountability to one another and the household. Sharing a deposit account indicates shared financial management responsibility. Financial professionals should encourage clients to make important financial decisions together. This would help each partner maintain a better balance of work and home life.

Financial professionals can make many more connections from the remaining chapters of the text to the financial planning field. *Lean In* gets the reader thinking and opens dialogue about the role of women in society. Given the polarizing topic, this work is not without criticisms. Some have argued that the "adjustments" discussed may not apply to everyone and that she is too extreme in her views. Others have argued that she is not extreme enough. She recently released a follow-up to this text. It would be interesting to see how she addresses these critiques. I would recommend this title for women in the financial services field, as women are underrepresented in certain segments of financial services. For example, women only comprise a quarter of personal financial advisors (Bureau of Labor Statistics, 2013). While financial professionals may not agree with all of Sandberg's ideas, this text is a good place to start a conversation about women and money.

ISSN: 1945-7774

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ISSN: 1945-7774