FINANCIAL
SERVICES
REVIEW

Behavioral and wealth considerations for seeking professional financial planning help

Jodi Letkiewicz, Ph.D.[a],[*], Chris Robinson, Ph.D., CFP®[a],
Dale Domian, Ph.D., CFP®[a]

[a]*School of Administrative Studies, York University, Toronto, Ontario, Canada M3J 1P3*

Abstract

This study uses a Canadian survey to examine the decisions to seek professional financial planning help. We find that people who use a financial planner have more wealth, lower subjective financial stress, and higher financial self-efficacy than people who do not use a financial planner. Using the longitudinal design of the survey we find that people with higher self-efficacy in period *t-1* are more likely to seek help in period *t*, leading to the conclusion that high self-efficacy drives one to seek financial planning help. We do not find that subjective financial stress leads one to seek financial planning help. Implications for practitioners, consumers, and policy makers are discussed. © 2016 Academy of Financial Services. All rights reserved.

JEL classification: D14 (Household Saving; Personal Finance); G20 (Financial Institutions and Services; G20: General); P46 (Consumer Economics)

Keywords: Financial planning; Help-seeking; Financial stress; Self-efficacy

1. Introduction

Whether a financial planner helps increase well-being has become particularly relevant in recent years given the increased responsibilities shouldered by consumers and the complexities of the financial marketplace. We use the Transtheoretical Model of Behavioral Change (Prochaska, 1984) and theories of stress and coping (Lazarus, 1991) to form hypotheses relating self-efficacy, stress, and wealth with a consumer's decision to seek professional

* Corresponding author. Tel.: +1-●●●-●●●-●●●; fax: +1-●●●-●●●-●●●.
E-mail address: jodilet@yorku.ca (J. Letkiewicz)

financial help. A critical concept in our research is self-efficacy, which refers to people's beliefs in their capabilities to produce a desired outcome (Bandura, 1997).

We use a large unique survey with longitudinal data across three waves to assess whether self-efficacy and stress are correlated with having a financial planner and if high stress and high self-efficacy lead one to seek a financial planner. We find that while subjective stress is negatively correlated with use of a financial planner, high subjective stress by itself is not significantly related to the decision to seek professional financial help. Financial self-efficacy is correlated with both the use of a financial planner as well as the decision to seek help.

2. Background and review of literature

Professional financial planning is an important option for overall financial well-being. Financial planners have tools and expertise lacking in the general population and can help families facing complex circumstances decide which financial decisions are in their best interest. Collins (2010) distinguishes four different roles that financial planners can play: technical expert, transactional agent, counselor, and coach. Given the wide breadth of these roles, the outcome measures from the use of a financial planner can vary substantially. Given the variability of advice, Zick and Mayer (2013) question whether the appropriate outcome measures are best measured in dollars, time, or psychological states. Existing studies have quantified financial planner advice in monetary terms (Hanna, 2011), while others measure it by evaluating financial milestones such as establishment of long term goals and a retirement plan (Marsden, Zick, and Mayer, 2011). Blanchett and Kaplan (2013) show how financial planning techniques can increase certainty-equivalent income in retirement. Kinniry, Jaconetti, DiJoseph, and Zilbering (2014) show that financial planning strategies could add 3% per year in net returns. While Taylor, Jenkins, and Sacker (2011) do not explicitly consider financial planners, they show that making good financial decisions improves people's psychological health.

2.1. Help-seeking behavior

The decision to seek help is relevant across multiple domains, including medicine, mental health, and personal finance. Much research focuses on whether people faced with financial or medical problems decide to seek help for those problems. Research in health fields has been more prolific than research in the financial field, but financial planning is gaining traction. Some of the first researchers to consider help-seeking in a financial context were Grable and Joo (1999). Grable and Joo (1999) conceptualize help-seeking behavior as a coping strategy to deal with financial troubles. They develop a framework consisting of five stages including the recognition and evaluation of one's own financial behaviors in the process of seeking professional help when people recognized problems with which they needed help.

Grable and Joo (2001) examine the choice between obtaining financial advice from professionals versus nonprofessionals. They find that individuals with low financial risk tolerance and low satisfaction with their financial situation are more likely to seek advice

from family, friends, and work colleagues, instead of from professional sources. According to Du Plessis, Lawton, and Corney (2010), barriers to financial help-seeking include shame and embarrassment, as well as lack of knowledge about professional sources. Dearden, Goode, Whitfield, and Cox (2010) demonstrate gender differences in help-seeking for debt problems. Hanna (2011) finds greater usage of financial planners among people with above average risk tolerance, post-bachelor degree education, higher household income, and higher net worth. Hanna also finds an increase in the use of financial planners, from 21% of households in 1998 to 25% in 2007. Collins (2012) finds that individuals with higher incomes, educational attainment, and levels of financial literacy are more likely to receive financial advice, and suggests that financial advice more often serves as a complement to, rather than a substitute for, financial capability. Robb, Babiarz, and Woodyard (2012) find individual characteristics differentiate which type of financial advice people seek (e.g., debt counseling vs. investment planning). Financial knowledge and satisfaction are positively related to using any type of financial advice while knowledge and satisfaction are inversely related to the use of debt counseling.

Cummings and James (2014) analyze decisions to either get or drop financial advisors. The most significant factors in getting a financial advisor include becoming a new widow(er), asking family members for assistance with financial decisions, seeking help for emotional problems, and positive changes in income and net worth. New widow(er)s and people with increased net worth are less likely to drop their financial advisors. Finke, Huston, and Winchester (2011) find those who pay for financial advice are more likely to be female, relatively older, wealthier, and college educated with a low level of self-reported knowledge about financial issues. Of those who pay for help, they find those who choose comprehensive management are more likely to be under 65, wealthy, and have high self-reported knowledge about financial issues.

2.2. Financial stress and self-efficacy

The cognitive theory of stress and coping defines stress as a certain situation that an individual assesses as taxing or exceeding his or her resources and consequently threatens his or her well-being (Folkman, Schaefer, and Lazarus, 1979; Lazarus and Folkman, 1984). Within a meta-theoretical system approach Lazarus (1991) views the complex processes of emotions (i.e., stress) as composed of causal antecedents, mediating processes, and effects. Antecedents are individual variables, such as commitments, beliefs, or environmental variables, such as demands or situational constraints. A mediating process is an appraisal of a situation and an assessment of personal coping options. Effects can be immediate or long-term and may include areas such as psychological well-being, somatic health and social functioning. In this context, self-efficacy, along with other factors such as locus of control, anxiety or self-esteem, is considered a mediating process that helps an individual to manage situational requirements (Bandura, 1992; Jerusalem and Schwarzer, 1992). Given a stressful situation, such as financial distress, self-efficacy can act as a coping mechanism and thus help lessen the stressful situation.

Financial stress can arise from personal, family, or financial situations (Joo, 1998) and the impact of financial stress can be far-reaching. Wrosch, Heckhausen, and Lachman (2000)

explore how financial stress affects perceptions of well-being. Kim and Garman (2003) show that employees with financial stress have greater absenteeism and were less committed to their organizations. Britt, Gable, Goff, and White (2009) find that in couples, the partner's spending behavior is a key factor influencing relationship satisfaction.

Self-efficacy refers to people's beliefs in their capabilities to produce given attainment (Bandura, 1997). Self-efficacy is domain specific (Bandura, 1997, 2006; Lown, 2011), meaning that it is not universal across all aspects of one's life. Bandura (2006) differentiates between general self-efficacy and domain-specific self-efficacy. For example, the belief in one's ability to compete in a triathlon does not necessarily mean the person believes they can manage money with the same sense of confidence. Self-efficacy affects every area of human endeavor including health, academic performance, and personal finances (Grembowski et al., 1993; Lent, Brown, and Larkin, 1986; Lapp, 2010).

Self-efficacy is particularly important in the context of financial decisions and help-seeking because it influences individuals' behavioral changes (Bandura, 1977; Gecas, 1989). Research in the health and exercise fields demonstrates that self-efficacy can be boosted to encourage health-promoting behaviors (Grembowski et al., 1993). Individuals with high levels of self-efficacy are more successful than those with low self-efficacy in coping with adversity (Park and Folkman, 1997). Lapp (2010) finds higher financial self-efficacy is associated with lower debt, fewer financial problems, lower financial stress, higher savings, and greater financial happiness. In studies examining self-efficacy, risk tolerance, age, and education are positively correlated with self-efficacy (Lown, 2011).

Engelberg (2007) finds that respondents with a high sense of self-efficacy are less likely to perceive themselves being at risk for disrupted income, unforeseen expenses, and unsuccessful investments, as compared with those with low self-efficacy. The study finds that those with high self-efficacy report a sense of financial control, less attachment to the importance of money, better economic knowledge, a more optimistic view of their financial situation and less distrust in money matters. Lacking a sense of economic self-efficacy is associated with feelings of stress, negative emotion, and in more extreme cases, depression (e.g., Burgogne, 1990; Ennis, Hobfoll, and Schroeder, 2000; Krause and Baker, 1992; Mates and Allison, 1992).

Remund (2010) proposes that better consumer financial decision making stems from financial self-efficacy—a belief that one can effectively manage his/her personal financial affairs. Along the same lines, Lapp (2010) finds that financial self-efficacy is the missing link between knowledge and effective action and that given awareness or knowledge about a situation, self-efficacy will propel someone into action.

Because seeking the help of a financial planner is a positive consumer decision, then it is reasonable to expect that financial self-efficacy will be positively associated with the decision to seek financial planning help. Those with a high sense of financial self-efficacy may believe they have the ability to handle their financial affairs and be able to identify what they can manage and when they need help. Those low in financial self-efficacy may be less able to manage their financial affairs and therefore unable to determine when they need help. There is some evidence to suggest that this is the case. A study by Parker et al. (2012) finds that confidence, a trait closely related to self-efficacy, is positively correlated with the likelihood of retirement planning and suggests that confidence may be needed to start the overwhelming

process or even to make an appointment with a financial advisor. Lim et al. (2014) find that college students with high levels of financial stress are generally less likely to seek financial help, but that effect is somewhat moderated for those high in self-efficacy.

3. Transtheoretical model of behavior change

We bring together two strands of research—the Transtheoretical Model of Behavior Change (TTM; Prochaska and Velicer, 1997) and the cognitive theory of stress and coping (Folkman et al., 1979). We combine these theories to create hypotheses of why some people seek financial planning assistance and others do not.

The TTM assesses an individual's willingness or ability to change a behavior and outlines processes to help guide individuals through the stages. The TTM emerged from a comparative analysis of leading theories of psychotherapy and behavior change in an effort to integrate a field that had fragmented into more than 300 theories of psychotherapy (Prochaska, 1984). The TTM has been used in studies to explain how people stop unhealthy behaviors and develop healthy ones (Xiao et al., 2004) and extended to explain and predict positive changes in financial behaviors based on participation in financial education programs (Shockey and Seiling, 2004). The TTM outlines five stages that individuals go through when changing behaviors: pre-contemplation (not ready), contemplation (getting ready), preparation (ready), action, and maintenance. To progress through those stages, individuals need awareness that the advantages of the change outweigh the disadvantages, confidence they can make and maintain the changes (self-efficacy), and strategies to help them maintain their new behaviors.

We think of TTM as a process one progresses through when adopting good habits. In the process of making a decision there are antecedents, and in this case we hypothesize that stress is an antecedent and self-efficacy is the coping mechanism that propels an individual into action. If stress is experienced in the pre-contemplation and contemplation stage, then self-efficacy can help move people to the preparation and action phase. Separating the stages of positive habit formation may help explain why people with low financial self-efficacy or high financial stress may resist getting financial planning help. There are many ways to change and improve behaviors; this study concentrates on the help-seeking aspect. Seeking financial help is a positive decision that can help deal with financial issues.

4. Hypotheses

This study focuses on the first four stages of the TTM (pre-contemplation, contemplation, preparation, and action) to drive the hypotheses on help-seeking behavior. The dataset does not contain information that would allow us to test the maintenance phase, such as implementation of a financial plan or some other specific set of financial management behaviors. We propose three sets of testable hypotheses, two of them using the TTM and the third relating to the nature of the professional help that is the subject of the Financial Planning Standards Council (FPSC) survey, described in the next section.

Hanna (2011), Hanna and Lindamood (2011), and Robb et al. (2012) find that families with higher income and/or wealth are much more likely to engage financial planners. These families receive more financial value from the advice, or they perceive that they will and they have the means to pay for the planning services. Accordingly, we propose the first hypothesis:

Hypothesis 1: Professional help-seeking is positively correlated with the level of assets, income and homeownership.

We conceptualize financial stress as being a trigger in the *pre-contemplation* and *contemplation* stages of the TTM. As a way to manage that stress, individuals, or households will seek professional financial help. The experience of stress is likely to drive one to address it. Given the research on stress and financial well-being, it is likely that people with planners have a lower level of stress. It is important to test for the correlation of stress and use of a planner as well as the help-seeking aspect. Therefore, we propose:

Hypothesis 2a: Financial stress is negatively correlated with having a financial planner.

Hypothesis 2b: Financial stress is positively correlated with help-seeking.

Financial self-efficacy is conceptualized as a coping mechanism for stress, so we model it as a trigger that leads to the *preparation* stage; then the *action* stage of the TTM is when financial planning help is sought. We expect that self-efficacy drives one to seek help, but may also be positively correlated with having a financial planner. Thus, we propose the third set of hypotheses:

Hypothesis 3a: Self-efficacy is positively correlated with having a financial planner.

Hypothesis 3b: Self-efficacy is positively correlated with help-seeking.

5. Data

5.1. The FPSC survey

The Financial Planning Standards Council (FPSC) conducted a survey on use of financial advisors, with particular attention to those identified as financial planners and Certified Financial Planners among the general English-speaking population of Canada. The survey excluded Québec because that is the only province which regulates use of the term "financial planner."

The FPSC surveyed three waves of respondents:

1. Wave 1: Between August 2009 and January 2010, a total of 117,467 individuals were solicited with 7,383 surveys completed, resulting in a response rate of 6.2%.
2. Wave 2: Between February and July 2011, the population of respondents from Wave 1 (7,383) was solicited again and 2,471 surveys were completed resulting in a response rate for Wave 2 of 33%.
3. Wave 3: The third wave, from April to August 2012, included the 7,383 panelists from Wave 1 and 2 along with 88,247 new invites. A total of 1,045 from Waves 1 and 2 and 7,510 new surveys were completed for a response rate of 8.9%.

In terms of response rates, a National Survey of Student Engagement (NSSE) study (Fosnacht, Sarraf, Howe, and Peck, 2013) concluded that even relatively low response rates provided reliable estimates and in other studies the total number of respondents has been shown to be more important in assuring reliable estimates than response rates (e.g., Pike, 2012). We believe the final sample size used in this study is sufficient in assuring reliable estimates.

There are two steps in the analysis and the samples used in each step are different. For the analysis in Model 1, we exclude the panelists in Wave 2, and panelists from Wave 3 who are resurveys from Wave 1, because these respondents do not constitute independent observations. After removing a few more cases because they are missing the respondent identification variable, we combine data from Waves 1 (7,275) and 3 (7,502) to create a single dataset containing 14,777 observations. A total of 709 cases had one or more financial variables missing (primarily income, assets, and debt). We report results using the database without missing variables, or 14,068 observations.

The panel data are used in the second step of the analysis. We only include data from respondents who completed the survey in all three waves (1,045). After accounting for missing data across all three waves, the final panel data sample size is reduced to 826.

The survey targeted households likely to seek help from a financial advisor, with quota minimums based on the type of financial advice received (Comprehensive/Integrated Planning, Limited Planning); credentials of the advisors (Certified planners vs. Noncertified advisors); and those using or not using an advisor. Therefore, the sample is not nationally representative. While this is certainly a limitation of the dataset, we do not see any bias in it that invalidates its use to investigate the hypotheses we test.

The Financial Planning Standards Council (2013) published some initial results of the survey in *The Value of Financial Planning*. Findings indicate that on average, people who seek professional financial-planning help will experience greater financial and emotional well-being. The survey offers much more scope than the simple descriptive statistics in the initial report, and our study utilizes the data along with a theoretical foundation to delve deeper into the question of what affects the decision to use a financial planner.

5.2. Control variables

The demographic variables include age (categorical variables), gender, marital status (married or not currently married, which includes single, widowed and separated), educational attainment (no college degree, college degree or some college, have a university degree), employment status (unemployed, employed, or retired), and whether or not they have children. It should be noted that in Canada, "college" refers to institutions similar to community colleges, tech, or trade schools in the United States. These variables likely affect help seeking tendencies, but they are not our primary concern. For example, a household with children will need to determine life insurance needs or college savings, which may require outside assistance. We expect a positive sign for higher levels of education because it is also highly correlated with income and wealth, and a positive relationship for the age group 50–64 because that is the period in the life cycle when people are accumulating investment assets and need retirement planning. These variables must be included to remove their effect before we can determine the significance of our hypotheses. Financial variables, which we

will refer to collectively as wealth variables, include total assets, income levels (categorical variables), home ownership, and non-housing debt. A binary variable controls for the survey year (Wave 1). This ensures that the results presented from Model 1 are not time-dependent.

The survey poses a series of questions on the respondent's feelings or opinions about his or her own financial well-being. We use these questions to construct measures of financial stress and financial self-efficacy. Finally, there are two variables that we believe are related to financial stress and are more objective than feelings about well-being: amount of non-housing debt and whether the respondent believes he or she is likely to lose his or her job in the future.

5.3. Measuring financial stress

Both subjective measures of stress, which indicate an internal emotion, and objective measures of stress, which are external or environmental factors, have been used by researchers to measure financial stress (Britt et al., 2008; Kim and Garman, 2003; Wrosch et al., 2000). The subjective measures in this study (listed below) are similar to questions used by other researchers. For example, Kim and Garman (2003) use two measures, "My income is enough for me to meet my monthly living expenses" (reverse coded) and "I worry about how much money I owe." Another study (Wrosch et al., 2000) uses two subjective measures of stress, "I have enough money to meet my needs" and "I have difficulty paying monthly bills."

We use the following three questions to construct the measure of subjective financial stress:

- I worry a lot about my financial situation
- I feel I barely get by every month
- My finances are out of control

Responses for all items were based on a 9-point Likert scale (1 = *strongly disagree* to 9 = *strongly agree*). We use principal component analysis to create the subjective financial stress variable (STRESS, henceforth) with a mean of zero, and positive score indicating a relatively higher level of stress. The resulting construct has a Cronbach's α of 0.807, indicating good internal consistency. We distinguish between self-efficacy as the person's belief that she or he can take action to improve the situation, and stress as the person's belief or feeling that his or her situation is negatively impacting their well-being.

Stress has two inter-related components. The STRESS variable attempts to measure the person's subjective feeling of stress. Where financial matters are involved, a family is more likely to feel stressed when matters go badly or their outcome is uncertain. We identify two questions in the survey that measure objective financial stress: amount of non-housing debt and unemployment risk. Joo (1998) creates a list of 24 objective financial stressors that are used in several studies. These stressors include events such as loss of a job, serious illness, divorce, wage garnishment, and ability to pay off debt. While the dataset used in this study is not robust enough to measure all 24 items, the two objective items we include (debt and employment risk) are both represented in Joo's original study (1998).

Our examination of the evidence on Hypothesis 2a and Hypothesis 2b as null hypotheses seeks to determine if we can reject the hypotheses that these variables are positively related

to seeking help or negatively related to the use of a planner. The strongest evidence will be rejection or failure to reject for all three variables, STRESS and the two objective measures.

5.4. Measuring financial self-efficacy

Self-efficacy is a judgment of capability and a state of mind that we cannot measure directly. Researchers measure it by constructing scales using survey questions. Schwarzer and Jerusalem's (1995) 10-item General Self-Efficacy Scale (GSES) has been validated in 30 countries. The GSES is a general measure that does not assess specific behavior, so consumer economics researchers develop measures that relate to personal financial behavior.

Bandura (2006) provides some guidance for the development of a self-efficacy scale. Self-efficacy is an indication of perceived capability and, therefore, items measuring self-efficacy should be phrased in terms of "can do" rather than "will do." Multiple scales have been used to measure financial self-efficacy (e.g., Dietz et al., 2003; Danes and Haberman, 2007; Lapp, 2010; Lown, 2011) and all propose somewhat different scales using somewhat different survey questions. Five questions (listed below) were identified in the FPSC Survey as measures of financial self-efficacy. A comparison of the FPSC measures and the measures of the four aforementioned studies are listed in Table 1. All of their work and the measures in this study exhibit more similarities than differences. The survey questions of these four articles map reasonably well to questions on the FPSC survey. We place them on the same rows when the questions are similar, but the reader can see that all the scales are similar.

Based on the guidance of Bandura (2006) and a comparison of the similar measures in Table 1, the five questions used to construct the financial self-efficacy measure are:

- I feel that I am prepared to manage through tough economic times
- Over the last 5 years, I have improved my ability to save
- I don't know what to do to improve my financial situation (reverse coded)
- I feel prepared in the event of an unexpected financial emergency
- I am on the right track in terms of financial affairs

Each of these statements is about a perceived capability. For example, reverse coding "I don't know what to do to improve my financial situation" indicates that one knows how to improve their financial situation. Responses for all items were based on a 9-point Likert scale (1 = *strongly disagree* to 9 = *strongly agree*). We use principal component analysis to create a financial self-efficacy variable (SE, henceforth) with a mean of zero, and positive score indicating a relatively higher level of self-efficacy. SE has a Cronbach's α of 0.812, which indicates a good level of internal consistency.

To determine the measures of STRESS and SE, we started with 12 possible statements in the survey. We determined which statement measured each construct beginning with a theoretical basis and then conducted principal components analysis to confirm the theoretical basis. The STRESS and SE measures loaded into their respective classifications, confirming the use of each question in their respective measures.

Table 1　Measures of financial self-efficacy

Dietz et al. (2003)	Danes and Haberman (2007)	Lapp (2010)	Lown (2011)	FPSC survey questions
I have little control over financial things that happen to me			It is hard to stick to my spending plan when unexpected expenses arise	I feel prepared in the event of an unexpected financial emergency
There is little I can do to change many of the important money issues in my life	I feel confident about making decisions that deal with money		I lack confidence in my ability to manage my finances	I don't know what to do to improve my financial situation
	I believe the way I manage my money will affect my future	I was satisfied with my financial situation	It is challenging to make progress toward my financial goals	I am on the right track in terms of financial affairs
		I was able to save money	When unexpected expenses occur I usually have to use credit	Over the last 5 years, I have improved my ability to save
I often feel helpless in dealing with the money problems of life			When faced with a financial challenge, I have a hard time figuring out a solution	I feel that I am prepared to manage through tough economic times
		I was good at planning for my financial future	I worry about running out of money in retirement	

5.5. The dependent variable

The survey question that generates the dependent variable, help-seeking, is:

> For which, if any, of the following services did you obtain help from *professional financial advisor(s)* (includes financial planner, life insurance advisor, investment advisor, debt counselor etc.) to assist you *in the past five years*? Please select as many as apply. [The italicized text was underlined in the survey instrument.]

The first answer choice is:

> I have not obtained help from a financial advisor for any of the following financial matters in the past 5 years.

If the respondent chose the first answer, the help-seeking variable is coded 0. If the respondent chose instead one or more of the comprehensive list of financial advisory activities listed, the help-seeking variable is coded 1. The details of which particular services a respondent used are beyond the scope of our study.

6. Method

We use two models to test the hypotheses proposed. Model 1 utilizes a logistic regression that has the general form:

Financial help-seeking = f(objective stress, STRESS, SE, controls)

The dependent variable is categorical: it takes the value one if help was sought in the last five years, or zero, if it was not. The relationship between the predictor and response variables is not a linear function; instead a logit transformation is used to arrive at the following relationship:

$$logit[\theta(x)] = \ln\left[\frac{\theta(x)}{1 - \theta(x)}\right] = \alpha + \beta_1 x_1 + \beta_2 x_2 \cdots + \beta_k x_k + e_i \qquad (1)$$

The full sample ($N = 14{,}068$) is used in this step of the analysis.

To further probe the relationship between financial self-efficacy and use of a financial planner, we make use of the longitudinal aspect of the survey in Model 2. The panelists in the sample we use completed all three waves of the survey ($n = 1{,}045$). Cases missing key variables or with inconsistent responses for the financial planner use variables were excluded from the analysis, resulting in a sample size of 826 total observations. A multinomial logit was conducted to compare the changes in self-efficacy between those who reported adopting a planner in Wave 2 or Wave 3 compared with those who reported not using a planner in the same period (or previous periods in the case of Wave 3). This comparison tests whether self-efficacy in a prior period is higher for those who decide to seek help in a subsequent period when compared with those who did not use an advisor in either period. A multinomial logistic regression is a classification method that generalizes logistic regression to multiclass problems, where there are more than two possible discrete outcomes. This allows us to test

the directional effects of planner use (i.e., Does SE in period 1 predict planner use in period 2?).

Multinomial logistic regression uses a linear predictor function $f(k, i)$ to predict the probability that the observation i has outcome k as modeled below:

$$f(k, i) = \beta_k \cdot x_i \qquad (2)$$

where β_k is the set of regression coefficients associated with outcome k, and x_i is the set of explanatory variables associated with observation i. In this analysis we use two time periods, t and $t-1$, so that the function takes the form:

$$f(k_t, i_t) = \beta_{k_{t-1}} \cdot x_{i_{t-1}} \qquad (3)$$

where $f(k_t, i_t)$ is a linear function to predict the probability that observation i has outcome k in time period t; $\beta_{k_{t-1}}$ is the set of regression coefficients associated with outcome k in the previous wave of data collection; and $x_{i_{t-1}}$ is the set of explanatory variables associated with observation i in the in the previous wave of data collection.

7. Results

7.1. Descriptive results

Table 2 displays summary statistics describing the sample. The sample is representative of the Canadian population in terms of wealth, income, and homeownership. For example, Statistics Canada reports the median net worth in 2012 was $243,800 (Statistics Canada, 2012) and in 2011 69% of Canadians owned their homes (Statistics Canada, 2011). The sample in this study has median net worth of $269,000 and a 70% homeownership rate. Almost 62% of the respondents reported seeking financial planning help at some point during the previous five years. Out of the total sample studied 58% are female, over 65% are married, and approximately 90% are at least 30 years of age. While approximately 80% of the sample had some form of postsecondary schooling, only 25% of non-help–seekers finished a university degree, in comparison with 40% of help-seekers. Over 60% of the overall sample has children, with help-seekers more likely to be parents than non-help–seekers. We can expect that having children might also affect help-seeking tendencies, as it puts additional financial pressure on the respondents. Owning a house might be another factor affecting help-seeking as 79% of help-seekers own a house instead of renting it, while only 56% of non-help–seekers do so. The amount of assets and debts differ slightly between help-seekers and non-seekers, with the former having a greater amount of both. Assets and debt are right-skewed. Most people have assets, particularly since 70% own a home, but a few have large asset holdings, with the maximum being $81.5 million. While data on the smaller panel sample are not shown, descriptive analysis of that sample indicates similar patterns.

Table 2 reports statistics on the cases that have no missing values, and we use that data set for most of the hypothesis tests. We examined the descriptive statistics for the data set that

Table 2   Descriptive statistics

Variable	Full sample		Help-seeker		Non-help–seeker	
	N = 14,068		n = 8,669 (62%)		n = 5,399 (38%)	
	n	Percentage	n	Percentage	n	Percentage
Gender						
Female*	8,191	58.2%	4,949	57.1%	3,242	60.0%
Male*	5,877	41.8%	3,720	42.9%	2,157	40.0%
Age						
18–29*	1,584	11.3%	795	9.2%	789	14.6%
30–49*	5,641	40.1%	3,329	38.4%	2,312	42.8%
50–64*	5,089	36.2%	3,388	39.1%	1,701	31.5%
65 or older*	1,754	12.5%	1,157	13.3%	597	11.1%
Marital status						
Married*	9,240	65.7%	5,989	69.1%	3,251	60.2%
Not Married*	4,828	34.3%	2,680	30.9%	2,148	39.8%
Education						
Did not go to college*	3,017	21.4%	1,449	16.7%	1,568	29.0%
College degree/some college*	6,141	43.7%	3,696	42.6%	2,445	45.3%
University degree*	4,817	34.2%	3,477	40.1%	1,340	24.8%
Employment status						
Unemployed*	909	6.5%	406	4.7%	503	9.3%
Employed*	8,663	61.6%	5,509	63.5%	3,154	58.4%
Retired*	3,250	23.1%	2,198	25.4%	1,052	19.5%
Have children*	9,621	68.4%	6,148	70.9%	3,473	64.3%
Own a house*	9,857	70.1%	6,833	78.8%	3,024	56.0%
Plan to retire in the next five years*	2,095	14.9%	1,501	17.3%	594	11.0%
Unemployment risk*	1,715	12.2%	1,070	12.3%	645	11.9%
Income						
Less than $50,000*	4,589	32.6%	2,156	24.9%	2,433	45.1%
Between $50k to $100k*	5,026	35.7%	3,346	38.6%	1,683	31.2%
Above $100,000*	3,655	26.0%	2,759	31.8%	896	16.6%
	Mean	Median	Mean	Median	Mean	Median
Assets*	$551,878	$269,000	$634,454	$370,000	$419,304	$100,000
Non-housing debt*	$37,793	$5,000	$38,831	$6,000	$28,260	$5,000

*Indicates significance difference between help-seekers and non-help–seekers ($p < .05$); t tests for continuous variables and Pearson's χ^2 for categorical variables.

includes the 709 cases with missing values, and also the correlation matrix of all the variables. There is no significant difference between the two data sets.

Table 3 shows the statistics on the components and total scores for the two behavioral variables we create from the survey: STRESS and financial self-efficacy (SE). Help seekers have higher levels of financial SE but lower levels of STRESS compared with those who have not sought help and the differences are statistically significant.

7.2. Logistic regression results

Table 4 shows the results of the logistic regressions in Model 1 testing correlation with use of a financial planner (Hypothesis 1, Hypothesis 2a, and Hypothesis 2b). The measures of STRESS and SE are highly correlated (-0.705), and while the large sample size can alleviate

Table 3　Behavioral variables

3a: Financial self-efficacy factor (SE)

	Full sample (N = 14,068)	Help-seeker (n = 8,669)	Non-help–seeker (n = 5,399)
I feel that I am prepared to manage through tough economic times	5.50	5.81	4.99
Over the last five years, I have improved my ability to save	5.52	5.78	5.11
I do not know what to do to improve my financial situation (reverse coded)	5.62	5.90	5.18
I feel prepared in the event of an unexpected financial emergency	5.01	5.44	4.32
I am on the right track in terms of financial affairs	6.02	6.40	5.42
Mean self-efficacy principal component scores*	−0.016	0.183	−0.336

All items are on a 1 to 9 Likert scale (1 = *strongly disagree*, 9 = *strongly agree*). Cronbach's $\alpha = 0.812$.
*Mean difference is significant at the $p < 0.05$ level.

3b: Financial stress factor (STRESS)

	Full sample (N = 14,068)	Help-seeker (N = 8,669)	Non-help–seeker (N = 5,399)
I worry a lot about my financial situation	5.22	5.00	5.57
I feel I barely get by every month	4.57	4.14	5.26
My finances are out of control	3.59	3.29	4.08
Mean financial stress principal component scores*	0.018	−0.130	0.255

All items are on a 1 to 9 Likert scale (1 = *strongly disagree*, 9 = *strongly agree*). Cronbach's $\alpha = 0.807$.
*Mean difference is significant at the $p < 0.05$ level.

some of the problems associated with multicollinearity, we enter them into the model separately to test the effect of each on the dependent variable. Therefore, this step is performed in two stages. Model 1a regresses everything but SE on the help-seeking variable and Model 1b regresses everything but STRESS on the help-seeking variable. The second column of the table shows the expected sign, if any, and whether the particular variable is one of the controls (C) or part of a hypothesis (Hypothesis 1, Hypothesis 2a, and Hypothesis 3a).

As expected, those with more education and those ages 50–64 are more likely to seek financial planning help. Both these expectations had significant coefficients and moderately high odds ratios. We noted that having children was associated with help-seeking in the descriptive statistics and that relationship appears also in the regressions. The coefficients are virtually the same in all three models. We had no specific expectations of the other control variables, and most of them are not significant.

We hypothesized that help-seeking would be positively related to value of assets, the higher income categories and home ownership. All three are statistically significant with positive signs and odds ratios greater than 1. The interpretation is quite simple and unsurprising. People with more assets and income have the ability to pay for professional financial

Table 4   Logistic regression tests of the main hypotheses

Variable name	Expected sign hypothesis (H) or control (C)	Model 1a			Model 1b		
		β	Odds ratio	Wald	β	Odds ratio	Wald
Wave 1	C	0.059	1.061	2.168	0.086*	1.090	4.587
Gender							
Female	C	0.019	1.019	0.246	0.020	1.020	0.256
Age (reference category: Age 30–49)							
Age 18–29	C	0.044	1.045	0.476	−0.010	0.990	0.026
Age 50–64	+C	0.126**	1.134	6.104	0.156**	1.169	9.340
Age 65+	C	−0.091	0.913	1.161	−0.067	0.935	0.634
Marital status							
Non-married	C	0.118**	1.125	6.911	0.134**	1.143	8.779
Education (reference category: College degree/some college)							
Less than college	−C	−0.348***	0.706	52.016	−0.335*	0.715	47.483
University degree	+C	0.294***	1.342	43.049	0.280	1.323	38.487
Employment status (reference category: Employed)							
Unemployed	C	−0.097	0.908	1.525	−0.049	0.952	0.368
Retired	C	0.214**	1.239	10.873	0.131**	1.141	4.003
Plan retire in next five years	+C	0.322***	1.380	28.886	0.271***	1.311	20.013
Have children	+C	0.115*	1.122	6.486	0.117*	1.125	6.692
Income level (reference category: < $50k)							
$50,000 to $100,000	+H1	0.387***	1.473	69.120	0.357***	1.429	57.983
More than $100,000	+H1	0.587***	1.799	99.455	0.502***	1.652	71.383
Assets (Ln)	+H1	0.120***	1.127	274.20	0.112***	1.118	237.22
Own a house	+H1	0.174**	1.190	10.901	0.159**	1.173	9.051
Non-housing debt (Ln)	+H2	0.006	1.006	1.755	0.013**	1.013	8.588
May lose job	+H2	0.285***	1.330	22.949	0.272***	1.313	20.968
Financial stress	+H2	−0.152***	0.859	48.933			
Financial self-efficacy	+H3				0.321***	1.378	215.41
Constant		−1.607***	0.200	275.99	−1.516***	0.220	242.67
Number of observations		14,068			14,068		
Nagelkerke R^2 (-2Log Likelihood)		.176 (16,785.72)			.190 (16,614.98)		
Likelihood ratio test: χ^2 (df)		1,946.59 (19)***			2,210.33 (19)***		

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

advice and are likely to gain a net benefit from it. This hypothesis is not the primary motivation of this paper, but it is essential to include the wealth variables and test the hypothesis to be able to test the stress and self-efficacy hypotheses with these variables also in the regression. The coefficients and the significance are virtually the same in all three models.

The findings from Model 1a indicate that objective stress (non-housing debt and unemployment risk) is positive and statistically significant, while subjective stress (STRESS) is negative and significant. We interpret this to mean that STRESS can be alleviated by the use of a financial planner while objective stress is an external factor that may not be influenced by a financial planner (i.e., one might be worried about losing their job, but a financial planner may not be able to remedy this). Thus we find partial support for Hypothesis 2a, that subjective stress (STRESS) is negatively correlated with having a financial planner.

Let us repeat the definition of financial self-efficacy: the belief in one's own ability to succeed at financial tasks. The measure of SE was to capture this psychological state with

respect to personal finances. We expect that use of a financial planner is positively correlated with SE—that is, someone using a financial planner will have more confidence in their financial affairs. The coefficient is significant and positive in Model 1b, and the Odds Ratio is quite high thus finding support for Hypothesis 3a. It should be noted that the Wald statistic for SE is high and only the constant term and assets have higher Wald values.

7.3. Multinomial regression results

The next step of the analysis is to test the help-seeking hypotheses—whether STRESS or SE lead one to seek financial help (Hypothesis 2b and Hypothesis 3b). The panel portion of the data, as discussed earlier, was used in this step. To test direction, the sample was split into four groups: (1) those who used a planner in all three waves; (2) those who did not use a planner in W1 or W2 but adopted a planner in W2 or W3, respectively; (3) those who used a planner in W1 or W2, but did not report using one in W2 or W3, respectively; and (4) those who reported not using a planner in all three waves. The groups of most interest are those who adopted a planner compared with those who did not. We can use the measures of SE and STRESS in the initial period to compare these two groups. Did those who adopted a planner in a subsequent period have higher SE or STRESS when compared to someone who did not adopt a planner in the subsequent period?

A multinomial logit was used to compare the two groups (those who adopted a planner in one period vs. those who did not) over two time periods using the panel portion of the dataset. Results from the multinomial analysis are shown in Table 5. The findings indicate that individuals who adopt a planner in period t had higher self-efficacy in period $t-1$ than people who did not adopt a planner. The control variables in the multinomial models are the same variables used in the logistic regression models. The result is consistent for those who adopted a planner in Wave 2 and Wave 3. This provides some evidence that higher self-efficacy is associated with the decision to seek financial planning help, thus we cannot reject Hypothesis 3b and the support for it seems quite strong. The same pattern is not evident for STRESS which leads us to reject Hypothesis 2b. While measures of STRESS are higher for those who seek help, the effect is not significant, and thus, we do not find evidence that STRESS is a motivating factor for seeking financial help. Limitations in the dataset do not allow for a multinomial analysis of objective stress, so we can only conclude that those using a financial planner are more likely to exhibit signs of objective stress.

Table 5 Multinomial results for likelihood of adopting a planner in t given SE measure in $t-1$

	β	SE	Odds ratio	p value
Wave 2: Adopted a planner in t ($n = 41$)				
Self-efficacy$_{t-1}$	.576	.267	1.778	.016
Stress$_{t-1}$	.436	.276	1.546	.057
Wave 3: Adopted a planner in $t+1$ ($n = 48$)				
Self-efficacy$_t$	.535	.277	1.707	.027
Stress$_t$	.267	.269	1.306	.161

All variables in the logistic regressions were included as control variables. Reference group is *No Planner*. Sample size for *No Planner* (comparison group) was 228 in W2 and 284 in W3.

A robustness check was run to further probe the SE finding. So far, we know that SE is positively correlated with use of a planner and help-seeking, but does using a planner increase SE? To test this, a multivariate repeated-measures analysis of variance (ANOVA) was conducted to test within-subject changes in self-efficacy. This will help determine if SE changed significantly for each individual across the three time periods based on their planner use behavior. Results indicate that mean scores of SE were not significantly different across waves for those who adopted a financial planner in W2 ($F = 1.42$, $p = 0.245$) or W3 ($F = 0.002$; $p = 0.969$). We interpret this to mean that while SE is positively correlated with the decision to seek a planner and having a planner, it does not necessarily increase with the adoption of a planner.

7.4. Interpretation of results

The consistent results for Hypothesis 1, and the reduction in Nagelkerke R^2 values when wealth variables are removed, provide considerable confidence in the validity of Hypothesis 1. People with higher incomes and wealth are more likely to seek professional financial advice. STRESS is lower for individuals who use a financial planner, but high STRESS does not necessarily motivate someone to seek help. The negative correlation between wealth and assets might explain this finding ($-.348$, $p < 0.001$). The strong effect of wealth may be suppressing the effect of STRESS on help-seeking. The finding that STRESS is lower for those who use a financial planner supports the notion that assistance helps reduce stress. SE is found to be a highly significant and important variable in the decision to seek help as well as the use of a financial planner. We find substantial support for the effect of SE on both counts. While self-efficacy does not change with use of a financial planner, higher initial self-efficacy was correlated with their decision to use a planner. Looking at results comprehensively, we conclude that people with a stronger sense of financial self-efficacy are more likely to seek professional financial advice when they need it and that use of a financial planner is correlated with lower stress.

8. Summary and implications

Our results, and indeed the increasing literature in behavioral finance, show that financial planners need more than merely technical competence and marketing skills if they are to attract, serve and retain clients. This study highlights the importance of self-efficacy in the decision to seek professional financial planning help. These findings suggest that a society high in self-efficacy may make greater use of financial planners. Although it seems like a plausible conjecture that financial stress would be a trigger for help-seeking, we do not find support for that supposition. The findings in this study have implications for financial planners, financial institutions, government agencies, and policy makers. First, we will discuss self-efficacy. The strong and consistent effects of self-efficacy are an important contribution of this article. Then we discuss policy implications derived from our findings.

8.1. Increasing self-efficacy

Bandura (1977) suggests four ways to increase self-efficacy: performance accomplishments, vicarious experience, verbal encouragement, and physiological states. Each of these strategies can be applied to personal finance in various ways to increase financial self-efficacy.

Accomplishments influence one's sense of mastery and can lead to a greater sense of self-efficacy. One way to increase self-efficacy using the concept of performance accomplishments is to structure financial decisions ways that allow for small accomplishments while learning new skills. Financial institutions and other agencies that deal with consumer finance issues should consider this when structuring consumer interactions. A suggestion is to keep some financial offerings simple and straightforward so consumers can understand how they work and feel confident in their ability to manage them. Anderson (2012) suggests individuals set a simple goal; for example, create a plan to reduce spending and pay off a credit card balance. The plan requires some money management skills and discipline and is a good way to inspire confidence and motivation for more advanced tasks.

Vicarious experiences occur when one observes someone similar to them succeeding at a task. Commercials, public service announcements, and other communications can be structured in a way to appeal to a diverse audience and provide valuable information and guidance for helping people get started. Verbal encouragement takes place when one is encouraged to take on a task with the belief they can accomplish it. Constructive feedback is important to building and maintaining a sense of self-efficacy. This is important for financial advisors to keep in mind when working with clients and for public workers dealing with a financially illiterate population.

Finally, the way people experience, interpret and evaluate emotional states is important for how they develop self-efficacy beliefs. Extremely nervous or anxious people tend to doubt themselves and may therefore have a weak sense of self-efficacy. This is in line with our finding that stress can either paralyze or mobilize someone to seek financial help. Household finances can be stressful for families. One way to reduce the stress and anxiety is to establish basic ground rules and commit to a plan with your partner (Anderson, 2012) and your planner (if you have one). This can help facilitate an environment with well-established goals and principles and can facilitate positive communication and behaviors around a shared goal, thus reducing stress and anxiety.

8.2. Policy implications

There are ongoing efforts in both the United States and Canada to improve financial literacy. The essential argument is that if citizens are more financially literate, they will make better financial decisions which will improve their well-being. There is much debate about the effectiveness of financial education (Willis, 2008) that has led researchers to focus on behavioral interventions. Studies by Fernandes, Lynch, and Netemeyer (2014) and Parker et al. (2012) find that confidence is key to improving financial well-being and the results of this study support those findings. Given the positive

behaviors associated with self-efficacy and confidence, both should be considered when designing and deploying financial literacy programs.

The effect of wealth on the decision to seek financial advice will not surprise anyone, and it suggests a direction for public policy. When we think about the services that society deems as important, governments or other agencies provide some of them for little or no direct cost to consumers. For example, in Canada, healthcare is universally available without additional fees, and in the United States more than 100 million people have medical expenses paid by Medicare and Medicaid. Legal aid is available in Canada and the United States to those who cannot otherwise afford legal counsel.

We know that stress from financial issues can cause mental and physical illness (e.g., Buckland, 2012; Ennis et al., 2000), but this knowledge has not translated into financial help for most citizens. Buckland (2012) describes the patchwork nature of financial advising support and access to financial services for lower income families in Canada. Many families get their basic financial information from banks and credit unions, but 9% of Americans, 8% of U.K. residents and 3% of Canadians do not have a bank account, and the percentages are much higher for the lowest income decile. Some agencies provide financial counseling to low income families, but these services are not universally available. For example, land grant colleges in the United States offer financial counseling to low income families, but these services are not widely available and no such practice exists in Canada. Some services such as tax clinics for low income families depend almost exclusively on volunteers. Debt counseling agencies depend on voluntary funding from financial institutions that is not guaranteed in the long run. In short, access to financial counseling is not well-coordinated or funded and perhaps we need a more comprehensive policy to address this. The exploration of financial clinics modeled on legal aid accessibility would be of some merit and policy options that ensure everyone has some basic access to financial counseling may be a worthy endeavor.

Acknowledgments

References

Anderson, C. (2012). *Financial Self-Efficacy in Your Clients' Lives. Journal of Financial Planning Practice Management Blog.* [Online] Available at http://practicemanagementblog.onefpa.org/2012/03/20/financial-self-efficacy-in-your-clients-lives/ (accessed July 23, 2015).

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84,* 191–215.

Bandura, A. (1992). Exercise of personal agency through the self-efficacy mechanism. In R. Schwarzer (Ed.), *Self-Efficacy: Thought Control of Action* (pp. 3–38). Washington, D.C.: Hemisphere.

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control.* New York, NY: Freeman.

Bandura, A. (2006). Guide for constructing self-efficacy scales. In T. Urdan & F. Pajares (Eds.). *Self-Efficacy Beliefs of Adolescents.* Charlotte, NC: Information Age Publishing.

Blanchett, D., & Kaplan, P. (2013). Alpha, beta, and now … gamma. *The Journal of Retirement, 1,* 29–45.

Britt, S., Grable, J. E., Goff, B. S. N., & White, M. (2008). The influence of perceived spending behaviors on relationship satisfaction. *Journal of Financial Counseling and Planning, 19,* 31–43.

Buckland, J. (2012). *Hard Choices: Financial Exclusion, Fringe Banks and Poverty in Urban Canada.* Toronto: University of Toronto Press.

Burgogne, C. (1990). Money in marriage: how patterns of allocation both reflect and conceal power. *Sociological Review, 38,* 634–665.

Collins, J. M. (2010). A review of financial advice models and the take-up of financial advice. *Center for Financial Security Working Paper*, 10–5.

Collins, J. M. (2012). Financial advice: A substitute for financial literacy? *Financial Services Review, 21,* 307–322.

Cummings, B. F., & James, R. N. III. (2014). Factors associated with getting and dropping financial advisors among older adults. *Journal of Financial Counseling and Planning, 25,* 129–147.

Danes, S. M., & Haberman, H. R. (2007). Teen financial knowledge, self-efficacy, and behavior: A gendered view. *Financial Counseling and Planning, 18,* 48–60.

Dearden, C., Goode, J., Whitfield, G., & Cox, L. (2010). *Credit and Debt in Low-Income Families.* York, UK: Joseph Rowntree Foundation.

Dietz, B. E., Carrozza, M., & Ritchey, P. N. (2003). Does financial self-efficacy explain gender differences in retirement saving strategies? *Journal of Women & Aging, 15,* 83–96.

Du Plessis, K., Lawton, J., & Corney, T. (2010). Unemployed and struggling: The lack of financial help-seeking behavior exhibited by male construction workers. *The Australian Journal of Financial Planning, 6,* 1–8.

Engelberg, E. (2007). The perception of self-efficacy in coping with economic risks among young adults: An application of psychological theory and research. *International Journal of Consumer Studies, 31,* 95–101.

Ennis, N. E., Hobfoll, S. E., & Schroeder, K. E. E. (2000). Money doesn't talk, it swears: How economic stress and resistance resources impact inner-city women's depressive mood. *American Journal of Community Psychology, 28,* 149–173.

Fernandes, D., Lynch, J. G., Jr., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science, 60,* 1861–1883.

Financial Planning Standards Council. (2013) *The Value of Financial Planning.* (available at http://www.fpsc.ca/value-financial-planning).

Finke, M. S., Huston, S. J., & Winchester, D. D. (2011). Financial advice: Who pays. *Journal of Financial Counseling and Planning, 22,* 18–26.

Folkman, S., Scheaefer, C., & Lazarus, R. S. (1979). Cognitive processes as mediators of stress and coping. In V. Hamilton & D. M. Warburton (Eds.), *Human Stress and Cognition: An Information-Processing Approach.* London, UK: Wiley.

Fosnacht, K., Sarraf, S., Howe, E., & Peck, L. (2013). *How Important Are High Response Rates.* Paper presented at the Annual Meeting of the Association for Institutional Research, Long Beach, CA.

Gecas, V. (1989). The social psychology of self-efficacy. *Annual Review of Sociology, 15,* 291–316.

Grable, J. E., & Joo, S. (1999). Financial help-seeking behavior: Theory and implications. *Financial Counseling and Planning, 10,* 14–25.

Grable, J. E., & Joo, S. (2001). A further examination of financial help-seeking behavior. *Journal of Financial Counseling and Planning, 12,* 55–65.

Grembowski, D., Patrick, D., Diehr, P., Durham, M., Beresford, S., Kay, E., & Hecht, J. (1993). Self-efficacy and health behavior among older adults. *Journal of Health and Social Behavior, 34,* 89–104.

Hanna, S. D. (2011). The demand for financial planning services. *Journal of Personal Finance, 10,* 36–62.

Hanna, S. D., & Lindamood, S. (2010). Quantifying the economic benefits of personal financial planning. *Financial Services Review, 19,* 111–127.

Jerusalem, M., & Schwarzer, R. (1992). Self-efficacy as a resource factor in stress appraisal processes. In R. Schwarzer (Ed.), *Self-Efficacy: Thought Control of Action* (pp. 195–213). Washington, D.C.: Hemisphere.

Joo, S. (1998). *Personal Financial Wellness and Worker Job Productivity* (Order No. 9949872). ProQuest Dissertations & Theses Global. (304467171). (retrieved from http://ezproxy.library.yorku.ca/login?url=http://search.proquest.com/docview/304467171?accountid=15182).

Kim, J., & Garman, E. T. (2003). Financial stress and absenteeism: An empirically derived model. *Journal of Financial Counseling and Planning, 14,* 31–42.

Kinniry, F., Jaconetti, C., DiJoseph, M., & Zilbering, Y. (2014). *Putting a Value on Your Value: Quantifying Vanguard Advisor's Alpha.* (available at http://www.vanguard.com/pdf/ISGQVAA.pdf).

Krause, N. & Baker, E. (1992). Financial strain, economic values, and somatic symptoms in later life. *Psychology and Aging, 7,* 4–14.

Lapp, W. M. (2010). *Behavior Models for Prosperity: A Statistical Assessment of Savings and Behavioral Change.* EARN Research Brief. *Earned Assets Resource Network* [Online]. (available at https://www.earn.org/wp-content/uploads/2015/03/5_-_Behavioral_Models_for_Prosperity-_A_Statistical_Assessment_of_Savings_and_Behavioral_Change-1.pdf).

Lazarus, R. S. (1991). *Emotion and Adaptation.* London: Oxford University Press.

Lazarus, R. S., & Folkman, S. (1984). *Stress, Appraisal, and Coping.* New York, NY: Springer.

Lent, R. W., Brown, S. D., & Larkin, K. C. (1986). Self-efficacy in the prediction of academic performance and perceived career options. *Journal of Counseling Psychology, 33,* 265–269.

Lim, H., Heckman, S. J., Montalto, C. P., & Letkiewicz, J. (2014). Financial stress, self-efficacy, and financial help-seeking behavior of college students. *Journal of Financial Counseling & Planning, 25,* 148–160.

Lown, J. M. (2011). Development and validation of a financial self-efficacy scale. *Journal of Financial Counseling and Planning, 22,* 54–63.

Marsden, M., Zick, C. D., & Mayer, R. N. (2011). The value of seeking financial advice. *Journal of Family and Economic Issues, 32,* 625–643.

Mates, D., & Allison, K. R. (1992). Sources of stress and coping responses of high school students. *Adolescence, 27,* 461–474.

Park, C. L., & Folkman, S. (1997). Meaning in the context of stress and coping. *Review of General Psychology, 1,* 115–144.

Parker, A. M., Bruin, W. B., Yoong, J., & Willis, R. (2012). Inappropriate confidence and retirement planning: Four studies with a national sample. *Journal of Behavioral Decision Making, 25,* 382–389.

Pike, G. R. (2012). NSSE benchmarks and institutional outcomes: A note on the importance of considering the intended uses of a measure in validity studies. *Research in Higher Education, 54,* 149–170.

Prochaska, J. O. (1984). *Systems of Psychotherapy: A Transtheoretical Analysis* (2nd ed.) New York, NY: Dorsey.

Prochaska, J. O., & Velicer, W. F. (1997). The transtheoretical model of health behavior change. *American Journal of Health Promotion, 12,* 38–48.

Remund, D. L. (2010). Financial literacy explicated: The case for a clearer definition in an increasingly complex economy. *Journal of Consumer Affairs, 44,* 276–295.

Robb, C. A., Babiarz, P., & Woodyard, A. (2012). The demand for financial professionals' advice: The role of financial knowledge, satisfaction, and confidence. *Financial Services Review, 21,* 291–305.

Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. Measures in health psychology: A user's portfolio. *Causal and control beliefs, 1,* 35–37.

Shockey, S. S., & Seiling, S. B. (2004). Moving into action: Application of the transtheoretical model of behavior change to financial education. *Journal of Financial Counseling & Planning, 15,* 41–52.

Statistics Canada. (2011). Homeownership and Shelter Costs in Canada. *National Household Survey, 2011.* (available at http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-014-x/99-014-x2011002-eng.pdf).

Statistics Canada. (2012). Changes in wealth across the income distribution, 1999 to 2012. *Insights on Canadian Society.* (available at http://www.statcan.gc.ca/pub/75-006-x/2015001/article/14194-eng.pdf).

Taylor, M., Jenkins, S., & Sacker, A. (2011). Financial capability and psychological health. *Journal of Economic Psychology, 32,* 710–723.

Wrosch, C., Heckhausen, J., & Lachman, M. E. (2000). Primary and secondary control strategies for managing health and financial stress across adulthood. *Psychology and Aging, 15,* 387–399.

Willis, L. E. (2008). Against financial-literacy education. *Iowa Law Review, 94,* 197–285.

Xiao, J. J., Newman, B., Prochaska, J. M., Leon, B., Bassett, R. L., & Johnson, J. L. (2004). Applying the transtheoretical model of change to consumer debt behavior. *Journal of Financial Counseling & Planning, 15,* 89–100.

Zick, C. D., & Mayer, R. N. (2013). Evaluating the impact of financial planners. In O. S. Mitchell & K. Smetters (Eds.), *The market for retirement financial advice* (pp. 153–181). Oxford: Oxford University Press.