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# Financially Wiser: using financial management to improve the wellbeing of young and middle-aged adults in the community

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BOSTON UNIVERSITY  
SARGENT COLLEGE OF HEALTH AND REHABILITATION SCIENCES

Doctoral Project

**FINANCIALLY WISER:  
USING FINANCIAL MANAGEMENT TO IMPROVE THE WELLBEING  
OF YOUNG AND MIDDLE-AGED ADULTS IN THE COMMUNITY**

by

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Submitted in partial fulfillment of the  
requirements for the degree of  
Doctor of Occupational Therapy

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## **DEDICATION**

I dedicate this project to my parents, who are the first teachers in my life. Papa always trusted and fostered an independent spirit in me. In memory of Mama, who served as an inspiration throughout this doctoral journey. There's a memory that occasionally flashes back throughout this academic journey: I remember spending Saturday mornings tagging along with my mom when she was working on her thesis. We would meet with her advisor in the morning and then spend the afternoon at the National Library. There were no toys for me, just a few pieces of paper, a pencil, and a place filled with books. Somehow this memory of her determination and perseverance brought me comfort whenever I had questions and feelings of doubt. I thank my mom for this childhood memory.

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**ABSTRACT**

There is evidence that a person's financial situation is associated with their wellbeing now and in the future. However, financial stress is present in many adults' lives, impacting their role and participation in different occupational domains such as work, health management, and instrumental activities of daily living. Financial stress is consistently one of the top three causes of stress in the United States (APA, 2015). Financial stress is associated with cumulative effects that have a negative impact on a person's physical health (Gallo et al., 2011; Kahn & Pearlin, 2006; Sturgeon et al., 2016) and mental health (Fitch et al., 2011; Mucci et al., 2016).

Improving a person's financial wellbeing is one way to mitigate financial stress. This project focused on the factors affecting a person's financial decision-making skills and behavior, leading to financial stress or financial wellbeing. The evidence literature and current approaches were reviewed and contributed to the development of *Financially Wiser*, a theory-driven evidence-based approach for developing financial literacy and positive financial management behavior that leads to improved financial wellbeing. *Financially Wiser* is designed as a community-based financial management education

program facilitated by an occupational therapist. A pre-test posttest evaluation will be conducted to determine participant satisfaction and the degree to which the program goals were achieved.

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## LIST OF ABBREVIATIONS

AOTA .....	American Occupational Therapy Association
CFPB.....	Consumer Financial Protection Bureau
FWB .....	Financial Wellbeing
IADL.....	Instrumental Activity of Daily Living
IFDFW .....	InCharge: Financial Distress/Financial Wellbeing
NEFE.....	National Endowment for Financial Education
OT .....	Occupational Therapy
OTP .....	Occupational Therapy Practitioner
PBC.....	Perceived Behavioral Control
PEO.....	Person-Environment-Occupation
SCT .....	Social Cognitive Theory
TPB .....	Theory of Planned Behavior
TTM .....	Transtheoretical Model
WHO.....	World Health Organization

## **CHAPTER ONE – Introduction**

Stress in general has a negative connotation in society. Stress can arise from everyday challenges, such as dealing with co-workers or spending time in heavy traffic as part of daily commute, or significant life changes such as going through a divorce or losing a job. In the healthcare setting, the emphasis is typically on addressing the negative effects of stress on health. Stress coping techniques such as mindfulness, deep breathing techniques, and exercise may be introduced as interventions for these moments of stressful situations. However, another type of stress, financial stress has been found to be a major contributor to overall stress. Thus, the author probed the topic of financial stress and developed a program to address this problem.

Financial stress is a problem that needs to be addressed to improve a person's financial wellbeing and influence a person's health. The most recent Stress in America survey has consistently included finance as a one of the top three causes of stress (APA, 2015). Addressing financial stress is imperative because there is an increasing number of people whose health, life roles, and quality of life are affected (APA, 2015; CFPB, 2017). Financial stress stems from a person's ability to address current and future obligations and perceived security and autonomy in meeting short-term and long-term life goals (CFPB, 2015). Negative financial management behaviors such as difficulty paying credit card debts and lacking emergency fund can contribute to financial stress. There are attempts to improve financial management behavior through financial literacy programs, however these programs have limited effectiveness (Borden et al., 2008; Collins & Holden, 2014; Mandell & Klein, 2009; Prawitz & Cohart, 2014). The opportunity to

participate in financial literacy programs can also vary geographically in the U.S. (Barrington, 2020). Moreover, groups of people including women and people of color have reduced access to programs due to the lack of opportunity and sufficient time to learn financial literacy (Clark et al., 2021).

According to the Consumer Financial Protection Bureau (CFPB, 2018), the pathway to financial wellbeing starts from having good financial management skills and these skills are vital to developing positive financial behaviors. Financial management skills are under the domain of instrumental activities of daily living (IADL) within the scope of occupational therapy (OT) practice (AOTA, 2020). Financial management is defined as "using fiscal resources, including financial transaction methods (e.g., credit card, digital banking), and planning and using finances with long-term and short-term goals" (AOTA, 2020, p.45). The author proposes to develop a community-based financial management education program facilitated by an OT practitioner to be offered to adults aged 19-50 years to provide an opportunity to enhance a person's financial management skills and financial wellbeing and ultimately reduce the source of financial stress.

### **Importance of the Problem**

Financial stress is a health issue that impacts adults now and in the future. Adults who experience financial strain before and after age 35 have cumulative effects that affect their health later in life (Gallo et al., 2011; Kahn & Pearlin, 2006; Sturgeon et al., 2016). Higher conceptual knowledge related to financial literacy was associated with lower hospitalization of older adults without dementia (James et al., 2018). Women who

have difficulty in financial management and find themselves without cash margins are at higher risk of cardiovascular disease and all-cause mortality (Carlsson et al., 2014).

In addition to physical health, financial stress also has an impact on mental health. Mental health problems such as depression, anxiety, and risk of suicide are increased when economic volatility threatens financial security (Ettman et al., 2020; Fitch et al., 2011; Mucci et al., 2016)

Financial stress also affects participation in different domains of occupation. Financial stress has been correlated with increased work absenteeism for people who have financial difficulties (Kim et al., 2006). Participation and prioritization of health management activities are affected due to financial stress (APA, 2015; Kneipp et al., 2019; Patel et al., 2016). Most importantly, foregoing medical care has increased when a person experiences financial stress (Board of Governors of the Federal Reserve, 2019).

Financial stress can also have an economic and health impact to society. Literature supports that a person's financial status or socio-economic status as one of the social determinants of health (Bastable et al., 2020; James et al., 2018). According to the World Health Organization (WHO) social determinants of health are "the non-medical factors that influence health outcomes" (WHO, 2021, Social determinants of health, para.1). In the state of California, one of the Masterplan on Aging's goals is to increase the economic sufficiency of older adults as they acknowledge that almost half of the households are headed by someone aged 55 or older who do not have retirement savings, thereby increasing their risk for poverty and poor health outcomes (California Department of Aging, n.d.).

### **Explanation of the Cause of the Problem**

Addressing financial stress is best understood by understanding its relationship with financial wellbeing. Prawitz et al. (2006) suggested that there is an inverse relationship between financial stress and financial wellbeing. To further understand the pathway to improved financial management skills that lead to improved wellbeing, the Person-Environment-Occupation (PEO) Model (Law et al., 1996) was used to understand that there are intrinsic and extrinsic factors that influence financial management behavior. In Chapter Two, a visual model of the problem is presented and further explained in detail the intrinsic and extrinsic factors contributing to the financial management behavior. Understanding the intrinsic and extrinsic factors in the visual model of the problem informed the author in choosing areas that need to be addressed and incorporated when choosing the intervention design.

### **Proposed Program to Address the Problem**

To address the problem, the author created a program using financial management education to facilitate improved financial wellbeing and address financial stress. The contents of the program focus on enhancing financial management skills by facilitating increased knowledge and incorporation of behavior change theories. A review of current evidence about the effectiveness of various financial skills education programs is presented in Chapter Three. In Chapter Four, behavior change theories including Social Cognitive Theory (Bandura, 2005), Theory of Planned Behavior (Ajzen, 2002), and Transtheoretical Model of Change (Proschaka, 2015) are presented to explain how individuals initiate and sustain positive changes in behaviors and routines. Such changes

are necessary for adoption of positive financial behaviors.

Based on the information regarding development of financial skills and behaviors and theories about how behavior change occurs, the author developed *Financially Wiser*, an eight-week community education program to facilitate financial management skills and improve the community center attendees' financial wellbeing and quality of life. The plan is to offer the program to adults aged 19-50 who attend wellness classes at the community center. The program will consist of a series of modules presenting financial management topics, homework, and activities to enhance the participants' financial management and stress management techniques. The program focuses on four main factors to increase the participant's financial wellbeing: increasing financial knowledge, investigating current situation, facilitating goal-setting skills, increasing self-efficacy in using different tools, and identification of resources to facilitate follow through. The eight-week program is followed by a virtual group support to sustain behavior change goals set in the program. A program evaluation plan is presented in Chapter Five to measure the effectiveness of the program towards development of financial management skills and positive finance financial behaviors. Finally, a dissemination plan and funding plan are presented in Chapter Six and Chapter Seven respectively to present the feasibility and opportunity for implementation of the program.

## **CHAPTER TWO – Project Theoretical and Evidence Base**

### **Association of Finance and Health**

There is a correlation between a person's health status and level of financial stress. O'Neill et al. (2006) defined financial distress as "a reaction, such as mental or physical discomfort, to stress about one's state of general financial wellbeing. In particular, this includes perceptions about one's capacity to manage economic resources (such as income and savings), pay bills, repay debts, and provide for the needs and wants of life" (p.489).

The intersection between a person's financial stress and physical health can impact a person's health now and in the future. Stress in general can impact one's physical health. Daily life experiences such as family relationships, work, and finance were often cited as causes of stress that impact physical health (Bailey et al., 1998; Gallo et al., 2011; Kahn & Pearlin, 2006; Skinner et al., 2004; Sturgeon et al., 2016). Several studies (Gallo et al., 2011; Kahn & Pearlin, 2006; Sturgeon et al., 2016) identified statistical associations between financial stress and health that were explained by the physiological effects of allostatic load to health problems such as cardiovascular disease, cognitive dysfunction, and mortality. Allostatic load is "the wear and tear on the organism that gradually makes resistance to health damaging agents more difficult" (Kahn & Pearlin, 2006, p. 18). Stressful events and situations can produce proteins and biomarkers in the blood that cause inflammation, and when stressors are present in daily life, this physiological state can have cumulative effect on a person's overall health until old age (Kahn & Pearlin, 2006; Sturgeon et al., 2106). Kahn and Pearlin (2006) found

that financial stressors have an impact on overall health if a person is experiencing financial stress before age 35 and continues to have financial stressors after age 35. However, if financial stress is not present before age 35 or if financial stress is addressed after age 35, it can stop the effects of allostatic load and is correlated with better health in old age (Kahn & Pearlin, 2006). Sturgeon et al. (2016) also found that a person's psychological wellbeing mediates the effect of stress on the allostatic load. From these results, there is a potential to mitigate the health effects of financial stress by improving a person's wellbeing and addressing the problem before and during middle adulthood.

Research indicates that many adults report feelings of stress due to financial problems. In the United States, money is consistently the primary cause of stress from 2007 to 2014 (APA, 2015). Financial stress can have an impact on a person's mental health and its effects are magnified during unexpected circumstances. In a systematic review of the relationship of a person's personal debt to mental health, a higher consumer debt is positively correlated with depression and "impairment of executive functioning" (Fitch et al., 2011, p.158). In a systematic review of studies investigating the association between depression and economic downturn, such as the 2008 Great Recession, there was an increase in mental health problems worldwide (Mucci et al., 2016). In the U.S. and European countries, there was an increased number of cases of psychological distress, depression, dysthymia, and planned or attempted suicide related to the effects of economic volatility such as unemployment and job dissatisfaction (Mucci et al., 2016). Recently, when the COVID-19 pandemic started in 2020, there was a significant increase

in depression rates. In addition to other factors, a person's financial situation of having less than \$5,000 in savings, increased this risk by 50% (Ettman et al., 2020). The causal mechanism linking financial stress to mental health problems are attributed to "distress due to financial worry," "decreased feelings of personal control," and "consistent financial strain" were associated with anxiety and depression" (Fitch et al., 2011, p.161).

Financial stress also affects a person's priorities related to health management. The American Occupational Therapy Association (AOTA, 2020) defines health management as "activities related to developing, managing, and maintaining health and wellness routines, including self-management, with the goal of improving or maintaining health to support participation in other occupations" (p.32). In the Stress in America survey, 32% of Americans state that their finances prevent them from living a healthy lifestyle (APA, 2015). In the same survey, stress about money is linked to reports of engaging in sedentary or unhealthy behaviors to manage stress in 45% of parents, 43% of Millennials, and 41% of adults from Generation X (APA, 2015). French and McKillop (2017) found that people's consumption of unhealthy diets, cigarette smoking, and consumption of drugs mediates financial difficulties to worse health. People who have health problems were found to have interest in health promotion programs; however, when a financial burden is present, their preference for health promotion programs is significantly diminished (Kneipp et al., 2019). Of even greater concern is a person's prioritization of current medical needs when financial stress or problems are present. Fifty-six percent of Americans with chronic medical conditions reported non-adherence to the fulfillment of medication due to financial hardship and greater financial

stress is related to greater non-adherence (Patel et al., 2016). Moreover, in 2018, 24% of adults went without medical care due to an inability to pay (Board of Governors of the Federal Reserve, 2019). From these examples, a person's financial stress can contribute to the formation of health problems, unhealthy lifestyle, and difficulty in managing present health conditions.

### **Financial Stress and Wellbeing**

Different terms have been used to describe financial stress in literature. Financial distress, financial burden, financial concern, financial strain, and financial stress have been used interchangeably to demonstrate that negative financial events and associated behaviors are toxic to a person's health (Ruberton et al., 2016; Wong, 2016). Garman et al. (2004) described financial distress as "an intense physical or mental strain that includes concerns and worries about financial matters. Financial distress can last a short time or it can become persistent" (as cited in O'Neill et al., 2006, p. 489). Prawitz et al. (2006) found that financial stress is an opposite response to a person's financial wellbeing. According to the Consumer Financial Protection Bureau (CFPB), "financial wellbeing is a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future and is able to make choices that allow them to enjoy life" (2017, p.13). Financial stress and financial wellbeing are inversely associated. That is, when a person has decreased financial stress, a person also has increased perceived financial wellbeing (Prawitz et al., 2006). Thus, addressing the financial stress of adults can lead to improved wellbeing.

### **Financial Behaviors**

There are basic financial management behaviors that are perceived to either cause stress or promote wellbeing. In the survey by CFPB (2017), daily money management, having savings for the future, and debt management have the strongest correlation with a person's financial wellbeing. These behaviors have an impact on a person's financial situation. Ruberton et al. (2016) found that having available funds and a buffer to unanticipated events are positive financial situations that are correlated with perceived wellbeing regardless of the amount of income or retirement funds. Meanwhile, perceived financial self-efficacy, positive financial behaviors, willingness to take investment risks, plan for money long-term, and current money management stress were found to have significant correlation with expected future financial security (Netemeyer et al., 2018). Netemeyer et al. (2018) also investigated antecedents to money management stress and found significant correlation with late/minimum payments, lack of self-control, and materialism. Addressing the antecedents for positive or negative financial management behaviors, therefore, can lead to improved wellbeing and decreased financial stress.

### **Financial Management as an Occupation**

Financial management is an instrumental activity of daily living (IADL) under the occupational domains in occupational therapy (AOTA, 2020). The American Occupational Therapy Association (AOTA, 2020) defined financial management as “using fiscal resources, including financial transaction methods (e.g., credit card, digital banking); planning and using finances with long-term and short-term goals” (p. 31). Positive and sustained engagement in financial management can lead to improved health

and wellbeing.

The Person-Environment-Occupation (PEO) Model (Law et al., 1996) can be used to understand the occupation of financial management and factors leading to optimal occupational performance to address the financial behaviors contributing to decreased financial stress and wellbeing. In the PEO model, it is assumed that a person can be motivated and can improve given the personal or intrinsic factors and the person's interaction with the environment (Law et al., 1996). A person's life experiences, skills, capabilities, beliefs and values can affect a person's occupational performance (Law et al., 1996). For example, in an older adult who was hospitalized, the person's interests, values, sensory and motor abilities, decision-making, problem-solving, and finances are examples of intrinsic factors that can affect his or goal of being discharged to home (Strong et al., 1999).

The person's environment or extrinsic factors can influence a person's behavior, it is not static, and can be a barrier or enable a person (Law et al., 1996). In conceptualizing the PEO model, the term environment is defined broadly and can include culture, socio-economic influences, institutions, physical, and social environment, and the context on how it is used affects the person's behavior (Law et al., 1996; Strong et al., 1999). To illustrate an example of a child's environment affecting occupational performance of school activities, the child's environment can include the teacher's attributes and teaching style, available resources, classroom organization, peers' attitudes and experiences, and the child's family's interests and experiences (Strong et al., 1999).

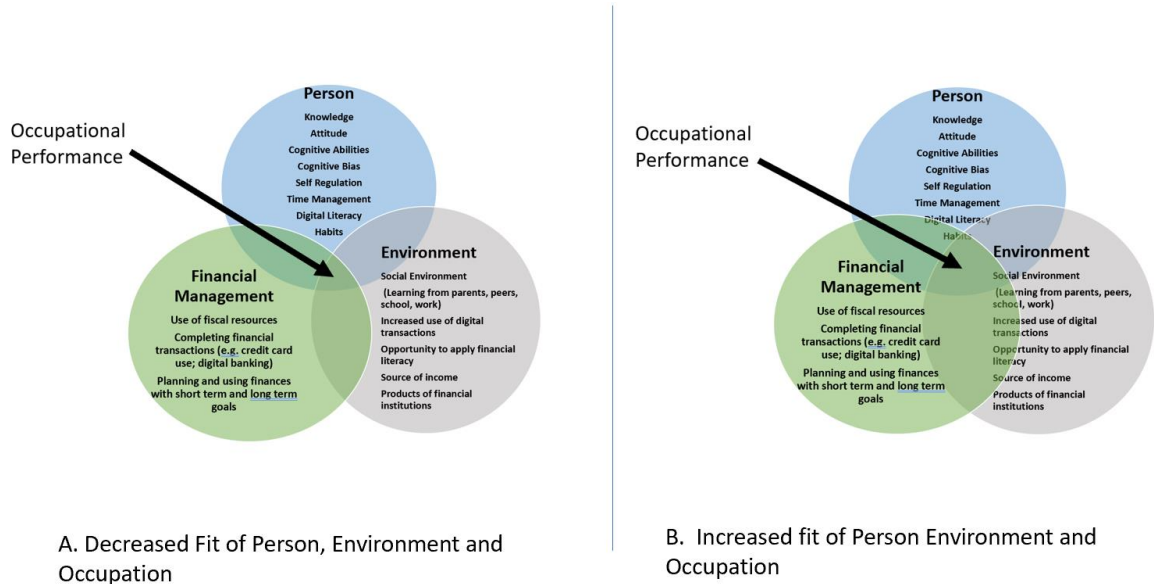
The person's occupation is considered to "meet the person's intrinsic needs for

self-maintenance, expression and fulfilment within the context of his/her personal roles and environment. Occupations include activities and tasks done to accomplish a purpose” (Law et al., 1996, p. 17). A practical example of an occupation is engagement in meal preparation. The occupation of meal preparation has different components such as choosing a meal, time demands, organizing and physical requirements to complete the activity, and options for obtaining the meals (Strong et al., 1999).

Occupational performance is the result of the interaction of the person’s intrinsic factors, environment, and the occupation that the person engages in. Figure 2.1 illustrates the PEO model and how variance in fit between the person, environment, and occupation changes the person’s occupational performance. When there is a good fit between the person, the environment, and the occupation, a person’s occupational performance is optimized (Law et al., 1996; Strong et al., 1999). Financial management is an example of an occupation related to instrumental activities of daily living (AOTA, 2020). Understanding the personal, environmental, and occupational components that lead to positive or negative financial behavior will allow a better understanding of facilitating an improved performance or behavior in financial management.

**Figure 2.1**

*Variance in Person, Environment and Occupation Fit*



**Figure 2.1.** Variations in Person, Environment and Occupation Fit. Adapted from “The person-environment-occupation model: A transactive approach to occupational performance” by M. Law, B. Cooper, S. Strong, D. Stewart, P. Rigby, & L. Letts (1996), *The Canadian Journal of Occupational Therapy*, 63(1), p.18. Copyright 1996 by The Canadian Journal of Occupational Therapy.

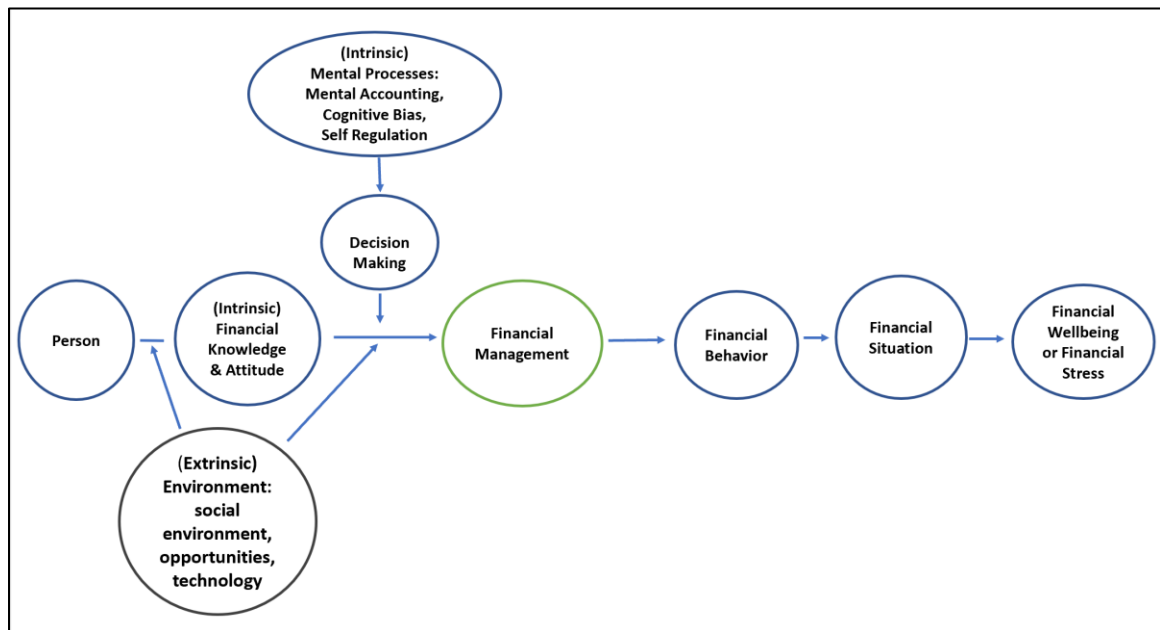
**Hypothesis**

It is the author’s hypothesis that if the person’s occupational performance in financial management improves, then the person will have improved financial wellbeing and decreased financial stress. A visual model was developed to illustrate the personal (intrinsic) and environmental (extrinsic) factors leading to a person’s financial management behavior contributing to stress and decreased financial wellbeing. Figure 2.2 shows that a person’s knowledge, attitude, and decision-making are internal factors that may influence a person’s financial behavior. In contrast, the social environment, opportunities, and technology are extrinsic factors that can interact with intrinsic factors

and influence participation in the occupation of financial management. By understanding the pathway through which these factors lead to financial behavior and subsequent financial stress and wellbeing, targeted interventions can be developed to address key factors contributing to financial stress and wellbeing. A literature review was performed to confirm the explanatory model of the problem.

## Figure 2.2

### *Visual Model of the Problem*



Multiple databases related to psychology, economics, education, health, humanities, and social sciences were chosen. PsycInfo, Econlit, CINAHL, Education, Humanities, and Social Sciences limited to 2000-2020 were used to search for literature related to the following questions:

1. Does a person’s financial knowledge affect his/her financial management behavior?

2. In what way does a person's mental processing affect a person's financial decision-making and behavior?
3. In what way does a person's social environment affect a person's financial management behavior?
4. Has the advancement in transaction methods in money management contributed to a person's financial behavior?

The literature review revealed several key factors that contribute to financial management behavior including knowledge, attitude, mental processes related to financial management, the social environment, opportunity, and advancements in technology. A discussion of these factors and how it contributes to financial behavior is presented next.

### **Intrinsic Factors**

#### ***Knowledge***

To answer the question, "does a person's financial knowledge affect his/her financial management behavior," a literature search was conducted to understand how financial knowledge can contribute to problematic financial behavior. Databases including PsycInfo, Econlit, CINAHL, Education, Humanities, and Social Sciences were chosen. Keywords including "financial literacy" OR knowledge AND financial behavior while limiting it to peer-reviewed journals and academic journals from 2005-2020 yielded 235 results. Articles that were not pertaining to the U.S. population, personal finance, or unrelated to the target groups of people were not chosen. A total of six articles related to knowledge and financial behavior were chosen

Multiple reports showed that financial knowledge is correlated to financial behavior (Greenberg & Hershfield, 2018; Hilgert & Hogarth, 2003; Huston, 2010; Lusardi & Mitchell, 2007; West & Friedline, 2010). Huston (2010) defined financial knowledge as a “stock of knowledge acquired through education or experience specifically related to essential personal finance concepts and products” (p. 307). The earliest study chosen from this literature review by Hilgert and Hogarth (2003) demonstrated a direct correlation between financial knowledge and behavior. However, the authors discussed that the direction of causality cannot be confirmed. Results show that those with higher financial knowledge scores showed high scores in managing their cash flow, while those with low overall financial scores had low scores related to debt management (Hilgert & Hogarth, 2003). Tang and Baker (2016) also found that financial knowledge has a significant correlation with financial behaviors, particularly in savings but has no correlation with credit card management.

The literature review also revealed that financial knowledge by itself does not lead to improved financial behavior and wellbeing, and different terminologies such as financial literacy and subjective financial knowledge were used to explain those relationships (Huston, 2010; Lusardi & Mitchell, 2007; Tang & Baker, 2016; West & Friedline, 2016). In a systematic review of published articles between 1996 and 2008, Huston (2010) used the term financial literacy when a person has the ability and confidence to apply the acquired financial knowledge. Greenberg and Hershfield (2018) also described financial literacy as “a combination of understanding important financial concepts, basic knowledge of financial products, and relevant mathematical ability (i.e.,

numeracy)” (p. 21). Subjective financial knowledge is another term used to differentiate from objective financial knowledge. Subjective financial knowledge is the combination of a person’s self-esteem with financial knowledge (Tang & Baker, 2016). Tang and Baker’s (2016) studies revealed that when subjective financial knowledge is present, in addition to savings management, there is a correlation with credit card management and investing. Financial knowledge has been found to interact with other intrinsic factors before affecting financial behavior and financial wellbeing. The literature review findings suggest that facilitating intrinsic factors such as increasing ability, self-confidence, and self-esteem in addition to knowledge translates to additional positive financial behavior.

### ***Mental Processes***

Since having financial knowledge was found to be insufficient in predicting financial behavior, additional mental processes are used when making decisions based on multiple factors. To further explore these processes, a literature search was conducted to understand these mental processes and how they can contribute to problematic financial behavior. Keywords “financial management” OR “financial behavior” AND mental process\* using PsycInfo, Econlit, CINAHL, Education, Humanities, and Social Sciences databases while limiting it to peer-reviewed journals and academic journals yielded 22 results, and seven articles related to mental processing and personal finance were chosen.

There are learned mental processes that are fundamental in completing financial management activities. Numeracy or relevant mathematical ability are fundamental to a person’s financial literacy and utilized during financial transactions (Greenberg &

Hershfield, 2018). Executive functions including planning, problem solving, self-monitoring, and self-awareness are cognitive processes necessary in everyday tasks such as financial management (AOTA, 2019, p.2). Decision-making, or how a person arrives at a conclusion, is part of mental processing to apply financial skills towards achievement of established short term and long-term goals related to financial management.

One of the themes that emerged showed that there are mental processes that are not part of rational thinking related to financial management and these factors can moderate financial decision-making and behavior. Mental accounting, cognitive bias, and the effects of self-regulation are some mental processes that may negatively affect the management of monthly and daily budget, increased debt, and saving for the future leading to financial stress.

**Mental Accounting.** Mental accounting is defined as “a set of cognitive operations used by individuals and households to organize, evaluate, and keep track of financial activities” (Thaler, 1999 as cited in Zhang & Sussman, 2018, p.1). According to Zhang and Sussman (2018), this is a method that people use to categorize funds. In mental accounting, a person separates economic categories which can be based on the origin of the money, the destination of the money, how the money will be used, simultaneous borrowing and saving, and mental budgeting to make decisions on how money will be used (Antonides et al., 2011). As an example of mental accounting, a person usually categorizes earned income to pay basic needs such as food and utilities. However, if a person receives a bonus check, a person has a higher tendency to categorize the income as funds to be used for entertainment or fun. The bonus check is

seldom categorized to pay for groceries or paying down debt (Antonides et al., 2011).

Mental accounting can assist or can be a barrier to a person's financial management. In mental accounting, funds are categorized by first noticing the expenses and then assigning them to a meaningful account based on similarity and categorization (Antonides et al., 2011). If a person does not categorize their expenses, they need to consider their full financial picture for every consumption decision. Using the example above of receiving \$1,000 check from earned income, a person can make a quick decision that there is enough money to pay for utilities and to get gas at the gasoline station. The person does not have to think about savings or retirement funds to decide to get gas at the gasoline station because the earned income check has been categorized to use to pay for basic needs. An example of barrier is when a bonus check of \$200 is categorized as fun or entertainment money. A person may have a decision to use the money for a Saturday of fun and make spending decisions that there is fund for \$80 worth of lunch, \$80 for the movies, and \$80 for shopping and still think that they have underspent because everything is justified as fun and entertainment below \$200.

While mental accounting is important, it can also lead to errors because the way funds are grouped and labeled can influence spending preference. Different authors describe that mental accounting violates the "economic fungibility of money" or the notion that the use of money is interchangeable (Zhang & Sussman, 2018; Antonides et al., 2011). This can lead to overspending or underspending in household finance based on the set categories (Heath & Soll, 1996 as cited in Antonides et al., 2011). For example, if categorization is set too high for groceries, a person will continue to spend

money on groceries even when it is not necessary. Similarly, if there is a remaining amount for the utilities category, a person may not use the remaining amount for other categories such as future savings or debt payment. Therefore, explicit and accurate budgeting is necessary for positive financial behavior.

In application, mental accounting is what people use when budgeting their money. In budgeting, funds are categorized, evaluated for availability of funds, and tracked as spending is made. Budgeting was found to be a basic skill related to financial management and this may be associated to a person's wellbeing. In the study by Xiao and O'Neill (2018), 27,564 U.S. adults were surveyed about their budgeting behavior. People from low- to middle-income status relying on budgeting have positive financial wellbeing. The authors also suggested that budgeting is a prerequisite to other financial behaviors such as savings for the future, owning a home, and having a retirement account. It is inferred from this information that people who have daily and monthly budgeting problems experience financial stress because they have difficulty with the most basic financial behavior.

**Cognitive Bias.** Cognitive bias is the use of heuristics or simplification to address complex decision making (Kahneman & Tversky, 1974, as cited in Zindel et al., 2014). Cognitive bias can affect consumers because financial decisions are made without gathering all available information and inspecting the financial situation's whole picture. Several articles in finance cited cognitive bias as an argument against rational consumer behavior, as described in The Expected Utility Theory. In this theory it is assumed "that individuals make decisions through rational means, since they have

unlimited rationality and access to useful and perfect information, so that the best decisions can be made” (Costa et al., 2017, p. 1776; Zindel et al., 2014). A person’s cognitive bias can affect decision-making related to financial behaviors that can support current or future financial decisions.

Specific cognitive biases, including present-biased preference and debt aversion, demonstrate its effects on credit card management. Present-biased preference is putting increased value or importance on current or immediate experience compared to future experience that may lead to a higher economic value (Meier & Sprenger, 2010). Kuchler and Pagel (2021) explain that “individuals are overly impatient in the short-run relative to their long-run preferences. They borrow excessively and often fail to repay later, despite a genuine intention to reduce their debt levels” (p.360). In their study, the authors used 516 U.S.-based financial management service users of ReadyForZero, a free online debt management program, between September 2009 and September 2012. Their study revealed that participants who have an awareness of their intention to pay down debt are still susceptible to pay lower than the intended amount because of present-biased preference. It also showed that those who have no awareness of their present-biased preference continued to accumulate credit card debt as they pushed off paying their intended additional payment until the next month. Thus, the lack of awareness exacerbates the effects of this cognitive bias on a person’s financial behavior.

Another cognitive bias related to credit card management is debt account aversion. In managing multiple credit cards, the normative payment structure is to pay the minimum payment for each debt, and to apply the rest to the loan to the highest interest

rate in order to minimize the total amount of debt across all loans (Amar et al., 2011). In the debt account aversion, instead of using principles that make mathematical sense when managing multiple debts, consumers are more likely to pay off credit cards with lesser interest rates and lower balances in order to decrease the total number of credit cards with balance (Amar et al., 2011).

**Effects of Self-Regulation.** Self-regulation influences mental processing and is hypothesized to affect a person's decision making and financial behavior by allowing a person to control their thoughts, feelings, and impulsive actions (Baumeister et al., 2006 as cited in Howlett et al., 2008). Howlett et al. (2008) cited Baumeister et al. in explaining that there are three central components in self-regulation. Self-regulation requires 1) identifying goals and standards, 2) monitoring of one's present status to the desired endpoint, and 3) strategies to maintain and continue achieving behavioral change (Bandura, 2005; Howlett et al., 2008). Maintaining achievement and continuing to strive for the identified goal require prolonged effort. According to Ampel et al. (2018), mental processes require physical energy, in the form of glucose, and its usage can also be depleted. In decision-making and other cognitive functions the brain expends energy. Self-control, therefore, as a cognitive process requires use of energy (Ampel et al., 2018). Howlett et al. (2008) used an example that in comparison with consumers with more energy, those with depleted resources have increased urges to buy, are willing to spend more, and end up spending more money in unanticipated buying situations. Moreover, in the study by Hossain (2018), the author found that a consumer's preference for items providing instant gratification is enhanced when their cognitive

resources are constrained.

Self-regulation may also affect a person's ability to save for the future. In their study of 89 graduating seniors in a U.S. university, Howlett et al. (2008) explained the concept of future orientation, or the ability to think about the future. Future orientation leads to a higher likelihood of participating in retirement plans and decreased likelihood of participating in high-risk accounts. They found that when the self-regulatory state is high, the participants have less preferable attitudes towards risky investments. When self-regulation is depleted, thinking about the future is also diminished. From these studies, finding ways to enhance the components of self-regulatory behavior as discussed above are necessary in order to establish and maintain short-term and long-term goals to a person's financial management.

To summarize, the literature concludes that simplistic cognitive processes can hinder the application of financial literacy and financial capability. Mental accounting is important in organizing and allowing a person to expend cognitive resources efficiently, but errors can occur against the full utilization of available financial resources. Cognitive bias is enhanced when complex decision-making is required, and when there are depleted cognitive resources and low self-regulation. Financial stress can occur when the most basic financial behavior becomes difficult, and low self-regulation impairs the person's ability to adhere to sound techniques to reach financial goals.

### **Extrinsic Factors**

In addition to intrinsic factors which include knowledge and mental processes that impact decision making, factors outside or external to the individual can also have an

effect on a person's behavior. A person's environment or extrinsic factors are factors that can influence a person's occupational performance positively or negatively. In the PEO model, a person's environment is not static so it can be adapted to the person, or the person can adapt to the opportunities provided. In the CFPB model of influences affecting financial behavior, the person's social and economic environment are described to affect the intrinsic factors and opportunities available to a person (CFPB, 2015).

### ***Social Environment***

To find the relationship between a person's social environment and financial behavior, the keywords family OR peers AND financial behavior or financial decision making were used. Databases including PsychInfo, Econlit, CINAHL, Education, Humanities and Social Sciences were utilized. The search was limited to journals and academic journals between 2005–2021, full text only, and peer-reviewed. There were 192,367 results. The combination of keywords was changed to family OR peers AND financial behavior OR financial decision making with the same limits, and it yielded 226 articles. Five articles related to social influence on a person's financial behavior or decision making were chosen.

Experience and knowledge acquired through family, friends, or social contexts can broadly be conceptualized as financial or consumer socialization. Research indicates that family relationships and experience impact financial behaviors in the presence or absence of knowledge learned in financial education programs. Several studies (Shim et al., 2009; Romo et al., 2011) showed that financial socialization is antecedent to financial knowledge. Positive financial behaviors were associated with higher financial knowledge

gathered from friends and family (Hilgert & Hogarth, 2003). Children in particular learn from their parents, and those who received a higher level of money management instructions in childhood have higher positive and lower negative financial behaviors (Grinstein-Weiss et al., 2011; Shim et al., 2009,).

Despite the number of positive effects of parental teaching, studies show that the parents' engagement in teaching their children varies from one person to another depending on the parent's financial management experience and personal choice (Grinstein-Weiss et al., 2011; Romo et al., 2011). Some parents choose not to talk to children about financial management as they view the topic as private. The parents' perception is children should not worry about finance, nor should they judge their parents about their financial situation (Romo et al., 2011).

In the absence of direct learning experience from parents, personal experience from observing positive or negative financial behavior affects a person's financial attitude (Jorgensen & Savala, 2010). Financial attitude can be positive or negative, and the person's environment and other intrinsic factors can influence a person's view or belief about money (Borden et al., 2007; Jorgensen & Savala, 2010). In the study by Jorgensen and Savala (2010), college students' perceived parental influence affected their financial attitude, which mediates financial behavior (Jorgensen & Savala, 2010). Unlike parental influence that cannot be modified, a person's attitude can also change when provided with interventions promoting increased knowledge and observing peers in the same situation (Borden et al., 2008). The presented information shows that financial socialization can affect a person's behavior, as an antecedent to knowledge and attitude,

and moderate the effect of knowledge and attitude on behavior when opportunities are provided.

### ***Opportunities***

Although financial socialization is a source of knowledge and ensuing financial behavior, a person needs an opportunity to apply positive financial behavior. West and Friedline (2016) defined financial capability as “an individual’s ability to carry out healthy financial behaviors in an institutional context with opportunities to facilitate these behaviors” (p.306). In a systematic review of studies relating to financial knowledge, when financial literacy is moderated by extrinsic factors such as culture, family, and economy this can lead to improved wellbeing (Huston, 2010). Institutional support and barriers can therefore affect a person’s wellbeing. In the U.S. and other highly developed countries, the financial capability in the population differs and is correlated with consistently the same demographic factors (Clark et al., 2021). Having a lower education level, relatively low income, being single, minority, and very young or old are correlated with decreased financial knowledge (Lusardi & Mitchell, 2007), negative financial behavior (Grinstein-Weiss et al., 2011), and decreased financial wellbeing (CFPB, 2017). However, when opportunity is present such as in the study by West and Friedline (2016), data showed that lower-income millennials who were provided training and access to financial products and services demonstrated positive financial behavior.

The most recent capability study offers some insight on the lacking opportunities that may cause the disparity and assists in understanding which factors can help increase or decrease a person’s financial wellbeing. The wage gap, the interrupted opportunity to

work and save for retirement due to caregiver roles, and lack of opportunity to learn about retirement options were factors that affected women's financial capability (Clark et al., 2021). For Black and Hispanic women, the income gap, employment volatility, and the lack of opportunity to learn company and government-sponsored retirement plans were barriers to participation (Clark et al., 2021). In the study, Black and Hispanic women tend to have an opportunity to participate in financial literacy classes that lasted less than ten hours which is less than what other groups were offered and experienced. (Clark et al., 2021). Understanding that some external factors are institutional barriers is critical to isolate factors that can change within a period of time and gather information on who will benefit the most from receiving interventions that promote financial wellbeing.

To summarize the reviewed literature, opportunities to apply financial knowledge contribute to a person's financial capability. There are institutional factors that cannot be changed immediately, however, opportunities to gain knowledge and understanding of available resources can support groups of people to better improve their financial wellbeing.

### ***Technological Advances***

Other environmental factors that affect financial wellbeing are due to the changing norms, such as the increased use of technology changed how people are performing financial transactions. To find the relationship between changes in technology to a person's financial behavior, databases including CINAHL, Communication & Mass Media Complete, EconLit, Education Full Text (H.W. Wilson),

Psychology and Behavioral Sciences Collection, APA PsycInfo, and Social Sciences Full Text were used. The keywords Technology AND financial behavior were used and the results were limited to English and peer reviewed articles between 2001-2021. The search yielded 43 results and five articles related to the effects of changing technology on financial behavior were chosen.

The advancement in technology has been found to affect a person's consumption habits, credit card use, and paying off debt. According to Soman (2003), consumers experience pain when parting with their earnings and the method of transaction between using cash or using credit cards can influence a person's spending behavior. When using a physical form of money such as the US dollar, the act of giving away that money results in a greater experience of pain than when paying for something using plastic payment such as a credit or debit card. In this study (Soman, 2003), consumers who used credit cards not only felt lesser feelings of pain but were also willing to spend more despite the given expense.

Students have different reasons for wanting to use credit cards. Reasons include convenience, source of funds in case of emergency, and to build their credit score (Fagerstrom & Hantula, 2013). Although the use of credit cards can be beneficial and adults may have the best intentions of using it responsibly, some cognitive biases as discussed earlier can influence their actions. Fagerstrom and Hantula (2013) sought to prove that present bias can increase the use of credit cards. In present bias, a person places a higher value on immediate acquisition of rewards or desirable events. The future consequences or rewards also lose their significance over time. That is, by using a credit

card, a person is able to purchase a desired item immediately compared to saving up for the desired item which decreases its value to the person overtime. A decreased awareness of the consequences of credit card use affects the person's financial behavior. Similar to the study by Kuchler and Pagel (2021), a decreased awareness of planned payments of credit card debt highlights the impact of present bias.

In the past decade people are increasingly shifting to and adopting the use of online technology in performing financial transactions and the sources of financial knowledge and skills may need to keep up with this transition. In 1994, only 150,000 people were using online banking using their computers and by 2017, sixty-two percent of Americans were using a mobile banking app (Servon & Kaestner, 2008; Sunderaraman et al., 2020). Sunderaraman et al. (2020) found that at least 74% of their survey respondents incorporate online transactions as part of their daily or monthly financial habits. Unfortunately, practitioners and researchers are still using traditional instruments for providing financial training (Miller & Barr, 2017). Sunderaraman et al. (2020) also recommended that the analysis of daily financial habits, decision-making, and now computer literacy are factors to be considered when providing intervention. Inferring from this recent study, the information and techniques that traditional financial educators and parents, as sources of financial literacy and attitude, may not have evolved in the past decade and may not be optimal.

Due to the high use of technology to exercise financial transactions, the disparities in digital literacy may also impact the opportunity for specific groups of people in performing financial management. For example, when using digital transactions such as

credit cards, a person has to make complex decisions including choosing the card issuer and the credit card features that fits their needs (Atlas et al., 2019), and most of the time information is presented through digital format. Servon and Kaestner (2008) cited that there is a high correlation between people with low levels of financial literacy and low digital literacy. Recent statistics of digital literacy indicated that 14.6 million Americans aged 25 - 54 are not digitally literate (Mamedova et al., 2018). So, in addition to a gap in financial literacy, a disparity may also exist due to a person's digital illiteracy.

From reviewing the literature, it shows that the evolving money transactions through technology in the past decade can impact a person's financial behavior for several reasons. Personal factors such as digital literacy and cognitive biases influence a person's financial knowledge, skills, and attitude towards money management, thus affecting financial behavior. Younger adults are relying more heavily on their current digital-based experience as a source of financial knowledge instead of learning from their parents or more traditional training. Finally, the ease of using digital money management decreases a person's awareness of their money management goals and consumption behavior, while increasing the variety of information one has to learn which can lead to decreased self-regulation.

### **Summary**

Financial stress can impact a person's physical health (Bailey et al., 1998; Gallo et al., 2011; Kahn & Pearlin, 2006; Sturgeon et al., 2016), mental health (APA, 2015; Ettman et al., 2020; Fitch et al., 2011; Mucci et al., 2016), engagement in health management behavior (APA, 2015; BGFR, 2019; Kneipp et al., 2019; Patel et al., 2016;),

and they can have immediate or future consequences (Ettman et al., 2019; Kahn & Pearlin, 2006).

Since financial stress happens when a person has decreased financial wellbeing, addressing factors that lead to negative or positive financial behavior needs to be addressed to promote improved financial wellbeing. Using the PEO model, it is suggested that a greater fit between a person's intrinsic factors, the environmental factors influencing decision-making and behavior, and the required tasks in executing financial management behavior can lead to optimal occupational performance. From reviewing the literature, some factors have a greater influence on a person's financial management behavior. A person's financial knowledge is a foundation to a person's financial behavior, and parental socialization is a common source of a person's financial knowledge and subsequent financial attitude. Mental processes such as mental accounting, cognitive bias, and self-regulation were also found to moderate a person's decision-making and influence positive or negative financial behavior. A person's environment also affects a person's financial behavior if the person did not have the opportunity to gain financial knowledge through parental or institutional guidance such as schools and the workplace or the ability to apply positive financial behavior. Rapid technological advancements also affect a person's decision-making, ability to complete financial transactions, and use financial products and services. When people cannot perform financial management in this environment, their occupational performance is affected.

Understanding the identified intrinsic and extrinsic factors that affect a person's

financial decision-making and behavior contributes to understanding the pathway to improved financial wellbeing or decreasing financial stress. Extrinsic factors or the person's environment are not easily modifiable other than addressing missed opportunities and adapting to changes in technology. In Chapter Three, current approaches related to the intrinsic factors are reviewed to find feasible interventions in promoting improved financial wellbeing.

### **CHAPTER THREE – Overview of Current Approaches and Methods**

Improving a person's financial well-being (FWB) and decreasing financial stress can contribute to better health and well-being. From reviewing the visual model of the problem in Chapter Two, addressing a person's financial management behavior is one way to address financial wellbeing. The Person-Environment-Occupation (PEO) Model by Law et al. (1996) suggests that a greater fit between intrinsic and extrinsic factors affecting the person's participation in financial management is imperative in facilitating positive financial management behavior. The person's environment such as opportunity, increasing use of technology in financial transaction, and high reliance in parental teaching for financial knowledge are factors that may influence a person's current financial behavior. Addressing the personal factors and increasing adaptations to the environment may help increase a person's financial capability. In reviewing the visual model of the problem, there are intrinsic factors that serve as supports or barriers to positive financial behavior, such as financial knowledge, attitude and mental processes that affect a person's decision-making. A literature review was conducted to understand further the components required in developing an intervention or program to improve financial well-being.

The terms financial literacy and financial capability were chosen to initiate a literature review. In Chapter Two, financial literacy refers to incorporating the knowledge, skills, decision-making, and attitude factors, while financial capability includes the opportunity to practice financial literacy (Greenberg & Hershfield, 2019; Huston, 2010; West & Friedline, 2016; Xu, 2018). The age range of young adults and

middle-aged adults was also chosen to focus on a group of adults at a higher risk for decreased financial well-being and chronic health problems due to financial stress (APA, 2015; CFPB, 2017; Kahn & Pearlin, 2006). Databases including Econlit, CINAHL, Education, APA PsycInfo, and Sociology were used during the literature search with limits to include peer-reviewed journals and years ranging from 2010-2021.

### **Financial Literacy at the Meso Level**

Providing financial education or financial literacy has been around for several years, and more recently there has been a shift towards focusing on improving a person's financial well-being (CFPB, 2015; Stolper & Walter, 2017). In recent years, some policies encourage research and incorporating financial education in schools and communities (CFPB, 2015; Morton, 2019). However, there is a dearth of research identifying effective program or educational designs to facilitate and translate financial literacy in young and middle-aged adults (Collins & Holden, 2014).

There are organizations dedicated to supporting research related to financial literacy. The Consumer Financial Protection Bureau (CFPB) is a government organization with a primary function to enforce laws related to consumer finance. Its role includes providing education and resources to facilitate FWB (CFPB, n.d.). The National Endowment for Financial Education (NEFE, 2021-a) is a national organization that evolved from conducting research and free educational programs to providing research grants to improve FWB. Both organizations have outlined models to promote FWB. Comparing the PEO model to both models, the complexity of reaching FWB is explained that an interaction between the person's environment and the person's intrinsic abilities

leads to financial behavior and subsequent financial well-being. In both models (CFPB, 2015, p. 10; NEFE, 2021-b), a person's personality and attributes, knowledge, and skills are influenced by the social and economic environment. Therefore, it is practical to appraise methods that promote change related to personal or intrinsic factors and analyze the impact of the environment on behavior change.

### **Current Approaches to Address Intrinsic Factors Affecting Behavior**

#### ***Knowledge***

Using the search strategies indicated earlier, Boolean phrases “financial literacy” OR “financial capability” AND “sources of knowledge” were used and yielded 117 results. Only 53 of the results were related to personal consumer finance incorporating attitude and behavior, cognitive process, consumer psychology, curriculum program and teaching methods. Four articles related to the factors specified in the problem model were chosen, and literature from previous search results was also utilized to find approaches that can increase financial knowledge.

When considering overall delivery mechanisms, financial education programs aiming to increase financial knowledge are available in different media and can be delivered one-on-one or through a group format in various settings. There is also a consensus from systematic reviews that measuring the effectiveness of financial education programs is difficult because the exact mechanism to results and the range of effectiveness is unknown (Collins & Holden, 2014; Peeters et al., 2018; Stolper & Walter, 2017). A discussion of the advantages and disadvantages of each delivery platform is presented next.

**Self-help Format.** Different forms of media are beneficial resources for individuals after attaining the knowledge and skills to identify which information is pertinent to their situations. With the increasing availability of information through books and websites, it appears sensible to the consumer to use readily available information. However, relying on general information can be overwhelming. Using keyword personal finance yields extensive results open to the public, which may inundate the person and stall their readiness to learn (Smith et al., 2016). A systematic review of available books relating to financial literacy showed that the titles of most books and the contents may not apply to audiences who need to increase their financial literacy nor address their specific goals (Faulkner, 2016). Hoffman and Otteby (2018) also found that individuals who seek and find personal finance blogs to be helpful are those who are already financially literate. In a small study of university students aged 20 – 38 years, Zureck et al. (2019) found that undergraduate students are less likely to use financial literacy podcasts than graduate students. In a randomized study of adults exposed to a series of written information, videos only, or both, there is an increase in knowledge and self-efficacy related to retirement when a video is presented, and the effect is significant for those who are from higher-income groups (Heinberg et al., 2014). The results of these studies suggest that a person requires pre-existing knowledge or relevance of financial literacy topics before utilizing a specific format. It is therefore essential to consider providing these resources after providing financial literacy intervention.

**One-on-One Format.** The topics covered in one-on-one format with financial counselors or financial advisors are usually beyond the scope of daily and monthly

financial management skills that are building blocks to improved FWB. In a systematic review of studies relating to financial education and behavior change, only one study of financial management education provided in a one-on-one format was cited (Collins & O'Rourke, 2010). Most counseling and education in one-on-one format are for behavior-specific interventions such as debt management plans, bankruptcy programs, credit repair programs, home pre- and post-purchase counseling programs (Collins & O'Rourke, 2010; Xiao & Wu, 2008). Significant differences before and after counseling sessions were also variable and mostly limited (Collins & O'Rourke, 2010; Xiao & Wu, 2008). It has been suggested that coaching or counseling as a form of follow-up to meet the clients' individual needs over time can be effective in person or via telephone (Collins & O'Rourke, 2010). Understanding that there is an available resource for complex financial management topics, as mentioned, helps select and guide the possible participants for an intervention. People who have complex and urgent problems beyond basic financial management behavior should be referred to appropriate professionals to address specific needs.

**Group Format.** Financial education programs in a group format are commonly delivered through schools or universities, the workplace, and the community (Borden, et al., 2008; Collins & Holden; 2014; Mandell & Klein 2009; Prawitz & Cohart, 2014). There is a policy proposal to incorporate financial literacy classes in high school to prepare the youth to increase their financial knowledge as they transition into young adults (Morton, 2019).

It is unclear if teaching the youth or young adults financial literacy in a school or

university setting fits well in translating knowledge to behavior as there is little opportunity to apply the learned knowledge right away. A large-scale study of high school students in four states demonstrated no significant correlation that providing personal finance classes for younger participants translates to positive financial behavior over time (Mandell & Klein, 2009). In the study of university students who were provided one and a half-hour of free financial literacy seminar, there was an increase in financial knowledge (Mandell & Klein, 2009). Still, it did not translate to adopting positive financial behavior such as decreasing the number of credit cards or amount of debt. Collins and Holden (2014) also explained that adults face different financial decisions at a younger age, while others may not have access to financial literacy programs offered in school altogether. Therefore, despite the opportunity to learn financial literacy at a younger age, some adults may be more motivated and benefit from financial literacy to apply to their current situation and improve their FWB.

Financial education programs offered in a workplace and community-based setting appear to have promising results (Collins & O'Rourke 2010; Kim, 2007; Prawitz & Cohart, 2014; Xu, 2018). In a systematic review (Collins & O'Rourke, 2010) of the literature between 1991 and 2009, financial education and counseling programs found in the literature showed that 24 out of 24 studies had positive knowledge or behavioral outcomes. Adults' experiences in managing daily and monthly finances can contribute to motivation and adopting positive financial behavior compared to youth who received financial literacy education (Collins & Holden, 2014; Mandell & Klein, 2009; Tang & Peter, 2015). Workplace settings have been cited to generally provide education and

training on topics associated with retirement planning; however, several studies (Kim, 2007; Prawitz & Cohart, 2014) also show that financial literacy provided at the workplace can effectively provide basic financial management education. For vulnerable groups such as women, Blacks, and Hispanics, there is a disparity in access to work-related benefits (Clark et al., 2021). A carefully designed community-based financial literacy program that recognizes the unique needs of a vulnerable population was found to increase knowledge and promote positive financial behavior (Xu, 2018). Therefore, for young and middle-aged adults who don't have an opportunity to access financial literacy programs at their workplace, financial literacy programs offered in a community setting may be beneficial for them.

*Design.* There are some similarities and differences in financial literacy programs provided to groups of people. Xu (2018) emphasized the importance of conducting a needs assessment prior to developing a community-based program. Workshops and modules in varying length and frequency appear to be the most common design, there is no consensus whether there was a correlation between the design and the result (Borden et al., 2007; Collins & Holden, 2014; Kim, 2007; Prawitz & Cohart, 2014; Xu, 2018). Adjusting the time of the workshop with the participant's situation was considered in studies that demonstrated positive results (Kim, 2007; Prawitz & Cohart, 2014; Xu, 2018). For office workers, in-person workshops were offered during the workday and after hours (Prawitz & Cohart, 2014). In the community-based setting, a workshop provided to parents in the evenings and weekends that was scheduled concurrently with their child's workshop demonstrated positive results (Xu, 2018).

The most recent Financial Capability Survey (Lin et al. 2019) suggests that groups of people who received less than 10 hours of financial literacy training have decreased financial knowledge and capability scores and self-reported negative financial behavior (Clark, 2021). So, in addition to choosing the time convenient for program attendees, the length of the program is another variable impacting the participation and benefit of attending the program. A program that spanned up to six months that provided an opportunity to be completed in person or online demonstrated that participants explored additional topics, including contributing to their retirement (Prawitz & Cohart, 2014). Xu (2018) identified that the community-based program that is longer compared to FDIC's *SmartMoney* with telephone follow-up is a variable that contributed to the program's positive results.

Facilitating an opportunity to translate the knowledge into action is also an essential ingredient for effective programs. Prawitz and Cohart (2014) made it easy for participants to access the internet or provide forms to change their retirement contributions when the topic was related to retirement contributions. Collins and O'Rourke (2010) identified that a common problem in financial management programs is participant attrition due to lack of opportunity to apply the knowledge, so Xu (2018) attributed a more extended program to promote habit formation to address this concern.

**Topics.** Choosing the suitable topics for the program are essential considerations. Large-group surveys and path analyses to positive financial behavior and FWB recommended the following topics: a) actively save money and create a financial buffer to prepare for setbacks b) effectively manage credit c) adjust savings according to

changing conditions d) track money to prevent spending money on items they cannot afford, and e) shop around for good deals (CFPB, 2015; Dare et al., 2020). Topics that are common in the reviewed programs are budgeting or monitoring spending, saving for the future and retirement, and managing debt or credit (Gardner et al., 2019; Kim, 2007; Prawitz & Cohart, 2014; Xu, 2018). Specific topics were presumed to be chosen depending on the setting. For example, in work settings, obtaining life insurance, estate planning, and retirement planning/investments were included (Kim 2007; Prawitz & Cohart, 2014). While goal setting, prioritizing spending, and connecting the participants to local banks were considered in designing a community-based program with participants from predominantly Hispanic backgrounds (Xu, 2018). Since there are multiple topics covered, Peeters et al. (2018) emphasized that modules should be arranged in a way that is interesting to participants.

*Support.* In Chapter Two, financial socialization was found to be an essential component in translating knowledge to future behavior, and peers are second to parents in facilitating change in behavior. In a systematic review, Peeters et al. (2018) found that peers become a source of emotional support and can influence each other. Prawitz and Cohart (2014) noted in their study that the intervention groups indirectly influenced their peers in the workplace as non-participants also increased their savings and retirement contributions. Peers have also been effectively used as program instructors to create trust in participants (Borden et al., 2007). In a community that lacks trust in financial institutions, incorporating the presence of bank employees to answer questions in each class promoted confidence in institutions and led participants to open bank accounts (Xu,

2018).

### *Attitude*

While knowledge is an essential requirement in financial management and can be objectively measured, attitude is another intrinsic factor that affects financial management behavior. A person's attitude was cited as a component of personal factors that precede participation in financial management behavior (CFPB, 2015; NEFE, 2021-b). Attitude is "the person's positive or negative evaluation of a relevant behavior and is composed of a person's salient beliefs regarding the perceived outcomes of performing the behavior" (Xiao & Wu, 2008, p. 31). Using a survey, Xiao and Wu (2008) found that attitude impacts behavior indirectly via increasing a person's intention to engage in the behavior. Attitude can include perception of the importance of responsible financial consumption behavior or spending behavior such as "saving money for a rainy day," "keep track of income and expenditures," and "put money aside for retirement" (Barbic et al., 2019; Dare et al., 2020, p. 11). It is an essential consideration that while an attitude towards positive financial behavior is important, engaging in positive financial behavior such as saving money and keeping track of expenses can initially trigger worry and decrease perceived financial wellness (Dare et al., 2020). Through structural equation modeling, Shim et al. (2009) found that social norms affect attitudes which can increase the intent to engage in the behavior. Designing or choosing an intervention wherein peers or other people can influence the intention of a person to positive financial behavior is necessary. Also, continued support when beginning to incorporate positive financial

behaviors may help in motivating a person to see the bigger picture and results of the behavior change.

The community-based financial management program designed by Xu (2018) is the only available example of an intervention that included attitude as a factor to be measured. Literature (Dare et al., 2020; Shim et al., 2009, Xiao & Wu, 2008) supports that increasing knowledge and using the influence of other people may change a person's attitude towards money management and potentially increase the intention to participate in positive financial behavior. Time may impact a person's subjective financial wellbeing after engaging in positive financial behavior (Xu, 2018). This information is essential when choosing the timeframe to measure a person's financial well-being, as the behavior change may not initially translate to an increased financial well-being score.

### **Approaches to Influence Decision-Making**

As discussed in Chapter Two, mental processes can be a support or a barrier to a person's decision-making and moderate a person's financial management behavior. Unlike a person's knowledge and attitude that can be measured and built over time, decision-making is individualized based on goals and values, and can happen in response to present information. Therefore, a review of approaches that can enhance financial decision-making was conducted. Databases including CINAHL, Education, Econlit, Social Sciences, and PsychInfo were used with keywords "financial management" and "decision making" using limiters between 2010-2021, peer reviewed journal articles, and subjects related to personal finance, cognitive processes, and behavior yields 169 search results but none was related to the topic. Keywords were then changed to specific mental

processes such as “mental accounting,” “future orientation,” and “self-regulation” systematically and seven articles were chosen and added to previous literature found.

### ***Mental Accounting***

As discussed in Chapter Two, mental accounting is a cognitive process important in financial management as it helps in recognizing, organizing, and assigning the funds to similar and meaningful categories (Zhang & Sussman, 2018). Budgeting is a clear and observable version of mental accounting, and it is a basic skill required, especially for financially vulnerable populations (Xiao & O’Neill, 2018). Budgeting is a topic used in most financial management programs (Kim, 2007; Prawitz & Cohart, 2014; Xu, 2018), and strategies on how it can be used as part of an intervention are essential.

When budgeting, Maslow’s hierarchical theory of human needs (Maslow, 1954 as cited in Lee & Hanna, 2015) may apply in forming goals for saving and responsible financial consumption behavior (Barbic et al., 2019; Lee & Hanna, 2015). For example, meeting basic needs such as food, shelter, clothing, utilities, and sleep, followed by meeting needs for safety such as health, personal, emotional, and financial securities is the priority. Deciding to choose the next level, such as self-gratification, is secondary to the above needs when creating a budget (Barbic et al., 2019). Setting a budget also helps in self-regulation or self-control as it forms a boundary to consumption goals (Krishnamurthy & Prokopec, 2010). Monitoring and keeping track, and connecting the budget to salient goals are ways to effective budgeting and behavior change (Krishnamurthy & Prokopec, 2010), so tools allowing a person to visualize the budget frequently and consistently is imperative.

The CFPB has recommendations and examples of creating and monitoring a budget (Dantus, 2019). Recent studies (Huebner et al., 2019; French et al., 2020) also suggest that smartphone applications [apps] can help keep track of income and expenditures to plan for the future and increase resilience when faced with financial shock. Since some of the target population may have difficulty using online transactions and tools or use of smartphone apps due to digital illiteracy, teaching participants how to access and use these devices is necessary.

Budgeting is beneficial for many but not all people as it can negatively affect a person's subjective financial well-being. Some people don't benefit from budgeting, such as older consumers and those who have consistent engagement in positive financial behavior and higher socioeconomic status because the need for its use may diminish over time and can decrease a person's perceived control and decrease a person's perceived well-being (Xiao & O'Neill, 2018). Using a budget works best with people with high future orientation and in conjunction with creating goals (Huebner et al., 2019).

### ***Future Orientation***

A person's future orientation has been cited multiple times as an essential factor in positive financial management behavior (Sims et al., 2020). It was discussed in Chapter Two that a person's present bias could impact a person's decision making as intentions fail or delay action for current self-gratification (Kuchler & Pagel, 2021). A person's debt aversion bias on the other hand is caused by a person's motivation and perceived momentum of checking off problems and achieving small successes (Amar et al., 2011). Increasing a person's awareness of these biases and changing their

expectation and attitude towards the future has been associated with positive financial behavior and ability to see a larger reward in future long-term goals (Sims et al., 2020).

A common theme in facilitating future orientation is to connect one's future self to current goals or behavior. Techniques promoting future orientation or expectancy and connecting them to behavior have been investigated. One way to facilitate imagining the future is through the use of an avatar of the older self when setting up bank accounts (Sims et al., 2020). Actively bringing the mind to the future, such as imagining an ideal future followed by a review of current reality which may be negative (Oettingen et al., 2001) and use of mindfulness techniques in setting future intentions (Smith et al., 2016) were found to affect current goal setting and decision-making. Self-actualization in Maslow's hierarchy of needs has been found to be a significant motivator for creating savings goals for the future, followed by goals of security for the family (Lee & Hana, 2015). Creating opportunities to use these strategies to use future orientation as an intervention can assist individuals in developing goals and anchoring their current behavior to long-term goals.

### ***Self-Regulation***

Self-regulation has a reciprocal interaction with mental accounting and future orientation and has the ultimate impact on behavior. In reviewing Chapter Two, a person's self-regulation can affect a person's future orientation and current budgeting behavior (Howlett et al., 2008; Sims et al., 2020), and those two intrinsic factors were discussed earlier. There are three components required in self-regulation: goal setting, goal striving, and maintaining participation in goals (Bandura, 2005; Howlett et al.,

2010). There are four mechanics that goals assist in behavior change: 1) increasing attention to the desired behavior and effort goes to goal-directed activities instead of non-goal related activities; 2) motivating factors wherein high priority goals take precedence before low priority goals; 3) stimulates persistence, and 4) use of task-related knowledge and strategies (Latham & Locke, 1991 as cited in Winchester & Huston, 2014). In financial management, the ultimate goal is to increase one's FWB, but an individual can set personalized goals that are valuable and meaningful to them. Techniques to apply the three components of self-regulation are presented next.

**Goal Setting.** In financial management, there are programs that utilized goal-setting as an integral part of the intervention (Huebner et al., 2019; Xu, 2018). However, in the reviewed literature related to finance, there are no specific guidelines on how goals are created and facilitated. In health management behavior, self-regulation techniques and the use of goal setting were identified in a systematic review to be factors for effective behavior change (Collin et al., 2011). To increase the effectiveness of goal-setting, writing SMART goals has been used in education and health management (Lawlor & Hornyak, 2012; O'Donnell et al., 2018). SMART stands for specific, measurable, achievable, realistic, and time-bound, and evolved to include exciting and recorded (Williams, 2012 as cited in Lawlor & Hornyak, 2012). When given a dedicated time to learn how to write their own SMART goals, participants in a health management program demonstrated the ability to adhere to their goals and move on to the next goal until the six-month follow-up (O'Donnell et al., 2018). Application of such techniques may be beneficial in financial management to identify goals that increase the value of the

behavior and identifying objective goals that can increase motivation and assist in prioritizing actions.

**Goal striving.** Goal striving is an integral part of self-regulation as the behaviors that support identified goals are planned and initiated (Mann et al., 2013; Peeters et al., 2018). In the literature review, several factors connected to behavioral theories were frequently identified to increase the motivation to perform and continue to perform the desired behavior to reach the goal. The Theory of Planned Behavior (Ajzen, 2002) and the model's construct of perceived behavioral control (PBC) are frequently cited in the financial management literature (Collins & Holden, 2014; Peeters, 2018; Winchester & Huston, 2014; Xiao & Wu, 2008). Perceived behavioral control is the person's appraisal of the desired behavior's level of difficulty and his or her beliefs about available resources and opportunities (Peeters et al., 2018). According to the model, the person's perceived behavioral control can increase the intention to take action or result in taking action (Peeters et al., 2018). Xiao and Wu's (2008) findings supported this construct wherein the study participants of a debt management plan who had a positive attitude towards the plan increased intention to complete the plan. Those who viewed the plan to be easy, an example of PBC, had a higher rate of plan completion. Winchester and Huston (2014) further examined the construct of PBC into self-efficacy and perceived controllability and found that people with low perceived control had slower goal progress. The presence of expert advice moderates the goal progress or goal-striving by transferring the perception of control with the help of another person (Winchester & Huston, 2014).

The Transtheoretical Model of Change (TTM) by Proschaka and DiClemente (Proschaka, 2015) was also cited in several empirical research to establish its fit in demonstrating a person's adoption of financial management behavior (Peeters et al., 2018; Shelton et al., 2019; Smith et al., 2016). TTM has six stages of a person's readiness to change. The model is non-linear, and there are ten constructs that can influence a person's decisional balance to move to the next stage. The same as the TPB, TTM has a construct of self-efficacy based on one's confidence to face challenges during challenging situations (Proschaka et al., 2015). In a qualitative study by Shelton et al. (2019), TTM constructs and stages were used in a group setting to create a manual for financial therapists. The pilot study yielded a positive response from the group members; however, since the sample size and the results were based on the journal entry of the participants, the authors (Shelton et al., 2019) did not discuss if the activities translated to positive behavior change and that the transition from the preparation stage to action stage is expected to occur in six months (Proschaka, 2015).

Self-efficacy is a construct mentioned in the financial management literature and associated with PBC (Winchester & Huston, 2014) and competence in Self Determination Theory (Peeters et al., 2018) related to positive behavioral change. Self-efficacy refers to "a person's confidence in his or her ability to perform a behavior that leads to an outcome" (Kelder et al., 2015, p. 161). Much like adopting healthy eating and exercise habits, and wherein there is an existing behavior at different levels of expertise that needs to be changed, financial management education for adults may function the same way. In the context of healthy eating and exercise, Parkinson et al. (2017) tested

and found a difference between PBC and self-efficacy. The results showed that self-efficacy does not predict intention, but it is a stronger predictor of behavior change than PBC (Parkinson et al., 2017).

The use of theoretical background or lack thereof is important in assessing the effectiveness of financial management program in facilitating the behavior change that helps participants achieve established goals (Dare et al., 2020; Collins & Holden, 2014; Peeters et al., 2018; Way et al., 2014). Reviewing the available literature in personal finance and connecting it with health management behavior reveals that specific constructs are applicable depending on the person's level of intention, readiness, and experience. The use of behavior change principles in different parts of the program may yield a higher chance of facilitating goal striving in participants.

**Maintaining Participation in Goals.** Since financial management happens on a short-term and long-term decision making, maintaining the adopted positive behavior is critical. The reviewed literature is limited in demonstrating which factors positively influence financial behavior and their degrees of effectiveness. Xu (2018) emphasized that an extended program design facilitates habit training and may have been a critical component for adherence to the behavior change for up to six months. A person's self-efficacy may explain the positive effects of a more extended program through self-mastery (Anderson et al., 2010; Kelder et al., 2015; Parkinson et al., 2017). Decreasing barriers to maintain the adopted behavior is also predictive of continued participation in financial management (Way, 2014) and physical activity (Jekauc et al., 2015). Despite the lack of studies in financial management, using the constructs in health behavior

models may lead to designing and intervention for a financial management education program in the community.

**Stress Management.** In Chapter Two, it was discussed how the decreased source of energy could limit self-regulation (Ampel et al., 2018; Hossain, 2018; Howlett et al., 2010). Stress can cause misregulation or dysregulation of a person's ability to engage in the desired behavior (Baumeister & Heatherton, 2010). None of the reviewed financial management literature discussed interventions in ensuring readiness to learn and addressing the effects of stress on the participants' ability to maintain positive financial management behavior. To enhance a person's success in increasing knowledge and supporting the behavior to achieve his or her goals, incorporating techniques from pedagogy and stress management techniques may be worth exploring in designing an intervention program.

### **Implications for Program Design**

The literature review provided an insight on creating a program to be an agent in facilitating financial wellbeing to community members who are at risk to have increased financial stress and decreased financial wellbeing. There are program designs that may be beneficial for the young- and middle-aged adults, women, Hispanic, and Black communities that will allow them to have the opportunity to increase their knowledge, set goals for the future, and increase self-efficacy in completing financial management transactions in a setting where they can also learn from their peers.

A community-based program to provide financial management education designed to have modules that improve their knowledge and financial attitude are key

components in facilitating positive financial behavior. The six key innovation concepts in the persuasion stage of the Diffusion of Innovation (Brownson et al., 2015) were implicitly described in community-based programs (Kim, 2007; Prawitz & Cohart, 2014; Xu, 2018). These design concepts include providing the program for free (cost); providing it at the work or community setting (observability); adjusting the time that fits their schedule (simplicity); providing the option to complete in-person or online (trialability); completing a needs assessment or referring out participants who may benefit from a professional (compatibility); and emphasizing how the program may benefit them (relative advantage). The program should be more than ten hours and it is crucial that the design includes follow up or support in a span of six months.

There are topics that are commonly used and recommended when designing a financial literacy program. During each module, techniques to facilitate an opportunity to translate knowledge into action and building self-efficacy through experiential learning may increase the participant's ability to maintain the positive behaviors. Techniques to address intrinsic factors such as future orientation, goal setting, and habit formation can increase the adoption of the program. Although it was not found in the current literature, using techniques to decrease stress and enhance a person's readiness to learn through concepts from health management and pedagogy are worth applying to increase a person's ability to translate the knowledge to positive behavior.

## **CHAPTER FOUR – Description of the Proposed Program**

This chapter describes a proposed program to improve the financial wellbeing of community residents who are at higher risk for stress due to finance. The reason for the program, the people who will benefit from it based on a needs assessment, and its aims are discussed first. A complete logic model will be presented next to explain the components and goals of the program. Finally, there will be a discussion of anticipated barriers and challenges to the program.

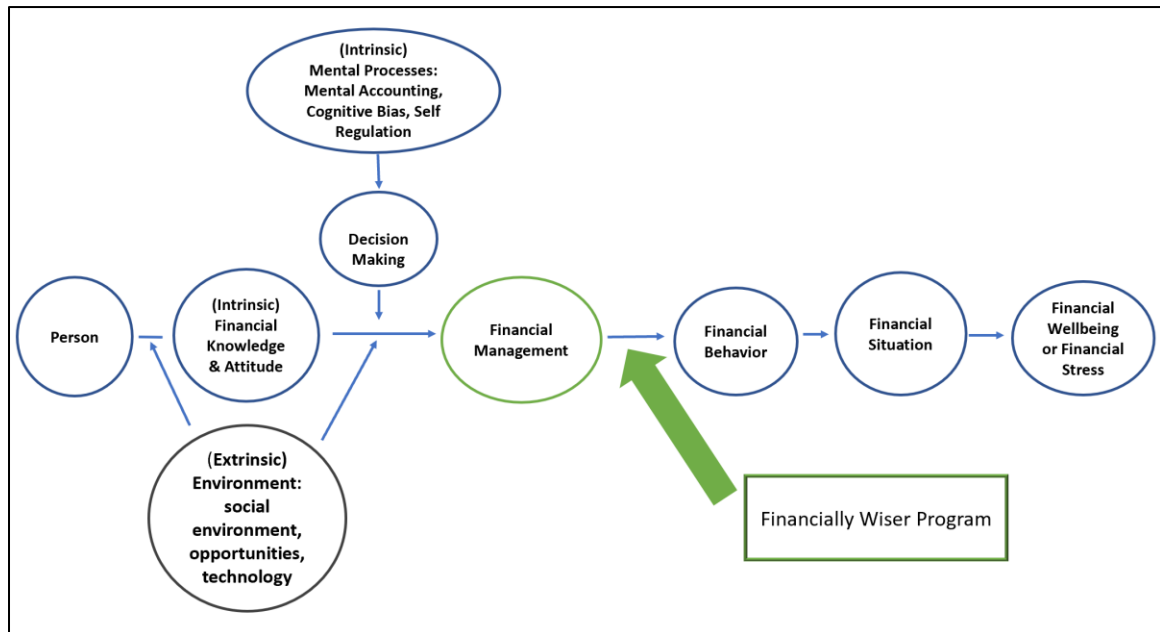
### **Basis of the Proposed Program**

This author proposes to provide a community-based financial management education program to adults aged 19-50 who attend wellness classes at the city's community center to promote improved financial wellbeing. In Chapter Two, research indicates an association between financial stress and a person's physical and mental health. When a person has financial stress, there is increased participation in unhealthy behaviors and decreased ability to prioritize health management tasks (APA, 2015; CFPB, 2017). Financial stress has an inverse association with financial wellbeing, and research showed that addressing financial wellbeing demonstrates positive results to decrease financial stress (Prawitz, 2006).

The Consumer Financial Protection Bureau (CFPB, 2017) defines financial wellbeing as “a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future and is able to make choices that allow them to enjoy life” (p.13). The Person-Environment-Occupation (PEO) model (Law et al., 1996) described in Chapter Two can be used to conceptualize the intrinsic

and extrinsic factors that contribute to negative or positive financial behaviors that lead to financial wellbeing. A person's lack of knowledge and attitude affects a person's financial management behavior. Mental processes such as mental accounting, cognitive biases, and self-regulation also affect a person's decision-making, affecting a person's financial management behavior. Several extrinsic factors such as the people or systems that influenced a person's financial attitude, the opportunity to learn and apply financial knowledge, and the recent advances in technology also moderate the person's knowledge and attitude and current financial behavior.

Figure 4.1 represents that the proposed program, *Financially Wiser*, will be provided to intervene at the level of intrinsic and extrinsic factors to affect a person's financial management behavior. Although there are multiple factors at play, the program aims to improve a person's financial management performance to translate knowledge and attitude into positive financial behaviors leading to decreased financial stress and improved financial wellbeing. After reviewing the antecedents to financial management behavior, this author also investigated current approaches to increase knowledge and positive attitude and the effectiveness of each intervention. Intrinsic factors are modifiable, so this author also studied ways to mitigate the negative effects of mental accounting, present bias, and ineffective self-regulatory techniques.

**Figure 4.1***Visual Model of the Proposed Intervention*

Addressing financial management behavior is not a one-size-fits-all intervention, and adopting positive behavior happens in a continuum. The author chose four theories to guide this proposal based on reviewed problems and approaches. The Transtheoretical Model of Change and Theory of Planned Behavior were chosen to guide in addressing personal factors. In addition, the Social Cognitive Theory was selected to address the personal and interpersonal factors. Finally, the Diffusion of Innovation addresses the person’s experience in adopting an intervention offered in the community. Appendix A presents the four chosen theories and specific constructs utilized to design the program. Having a clear mechanism of action can also help researchers or other therapists isolate which parts of the program may need adjustment to fit the program’s goals and target population

Different stakeholders may benefit directly and indirectly from this program. Stakeholder groups are divided into groups according to micro-, meso-, and macro-level factors of the Complex Systems Theory (Boston University, 2021). The micro-level refers to individual factors, the meso-level refers to the community level, and the macro level refers to systems or policy-making levels (Boston University, 2021). At the micro-level, individuals or community residents who did not have an opportunity to learn financial literacy, young- and middle-aged adults who are at risk for financial stress, and specific groups such as women, Blacks and Hispanics will benefit from the opportunity to increase their financial wellbeing.

At the meso-level, the city and its community members can use the program to promote the community's wellbeing. Local non-profit organizations providing financial counseling may also use the program to screen community members who need immediate assistance. With increasing recognition that there is an association between a person's financial stress and health, healthcare companies may also start offering financial management programs as primary prevention or support to their members at risk for decreased financial wellbeing. Local OT universities may also benefit from the program if they need to recommend a volunteer site for pre-OT students. Finally, occupational therapists may benefit from learning evidence-informed strategies and adapt them to start using financial management training as part of their treatment if the client finds it a meaningful goal.

At the macro level, this program can solve key objectives of California's Masterplan on Aging and ODPHP's social determinants of health objective 4.

California's Masterplan on Aging (California Department of Aging, n.d.) recognizes that older adults aged 55 and older are retiring without retirement funds increasing their risk of poverty and poor health. The Office of Disease Prevention and Health Promotion (ODPHP) social determinants of health objective 4 acknowledge that hardship related to financially managing basic human needs such as shelter, healthy food, or health care are linked to increased stress, mental health, and increased risk for disease (ODPHP, n.d.-a).

### **Program Participants**

An example of a scenario when a community member might utilize the program is as follows. A 38-year-old medical assistant, who we will call Claire, lives with her husband and two grade-school level kids. Lately she is feeling stressed, anxious, worried about her bills, and she's having a hard time sleeping. Claire and her husband have separate bank accounts and agree on which bills each one will pay. Claire wonders where her money is going and she's beginning to worry about the time when her kids will go to college. Claire wants to learn how to manage her money because she learned how to manage money from her parents who are still working at age 70. Since her coworkers talked about retirement contributions, Claire is curious because she expects that her social security checks are enough for retirement. She couldn't ask her husband about their finance because she feels that she does not understand it anyway. She's been trying to read financial blogs to learn more, but after reading, she continues with her usual financial management and does not know how to start. Claire received the latest issue of the community newsletter and saw a new class about financial management. Claire decides to enroll to see if it will help.

A needs assessment is imperative when introducing and choosing the activities for a financial management education program (Xu, 2018). In July 2020, the author conducted a mini survey of adults living in Orange and Los Angeles Counties using the Nextdoor app for dissemination (Ferrera, 2020). The Institutional Review Board (IRB) at Boston University reviewed the questions and the manner that the survey was conducted, and it was determined to be exempt. The survey included questions to understand the financial management activities that were most stressful for the adults in her community, their interest in a financial education program, and the respondents' perceived needs and motivations to attend a financial management education program. The community members identified managing monthly finance, not having an emergency fund, and saving for future goals as their top three reasons for their financial stress. Appendix B shows the results of the mini-survey.

The author also embedded questions using the CFPB Financial Wellbeing Scale (CFPB, n.d.-a) in the mini-survey. Using the Financial Wellbeing Scale, scores of 50 or below are associated with both a high probability (well above 50%) of struggling to make ends meet and of experiencing material hardship (CFPB, 2017). By contrast, scores of 61 and above are associated with a low probability (less than 10%) of having trouble paying for basic needs or making ends meet (CFPB, 2017). The average Financial Well Being Score in the U.S. is 54. From the mini-assessment, the average score of those whose stress does not affect their daily or monthly activity is 61. The score of those whose stress affects their daily or monthly activity is 52, and 42% of them have a score below 50 (Ferrera, 2020).

The author also analyzed her city's demographics as it has an available community center. Based on the City of Buena Park demographics, the target population's age group of 19 to 50 holds the largest percentage (64%) in the community (City of Buena Park, 2017). The demographics also show that 42.3% of the population are Hispanic, a group identified to have decreased opportunity to take financial literacy classes and to have decreased financial capability (Clark et al., 2021). Finally, the median income in the city is also an essential factor to consider. According to the CFPB (2017), those with household income less than \$50,000 tend to have lower financial wellbeing scores. Based on the city's demographics, there are members of the community who are closer to being at risk for decreased financial wellbeing.

The author intends to address the above scenario by offering community members an opportunity to receive financial management education program that translates knowledge into action and aims to incorporate this behavior as part of daily and monthly activities and lead to financial wellbeing. By using theories to guide behavior change, the program participants will learn basic financial management concepts and increase self-efficacy in applying budgeting techniques, goal setting, and creating action plans when faced with barriers.

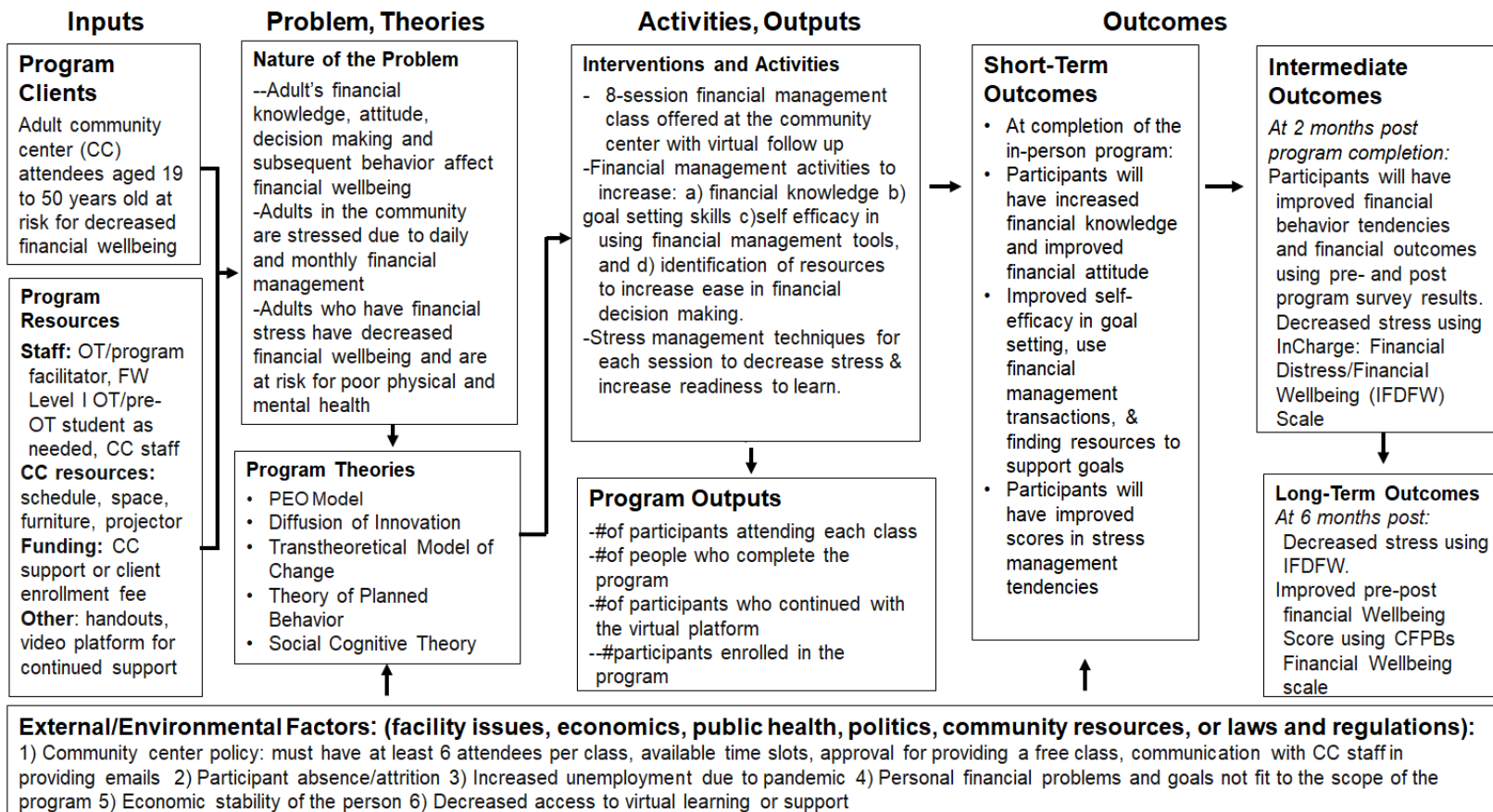
### **Full Logic Model**

Figure 4.2 presents the logic model as a dynamic guidance document to support sound program implementation, evaluation efforts, and ongoing critical reflection on the performance of the program.

**Figure 4.2**

*Full Logic Mode*

**Program title: Financially Wiser: A financial management education program to improve the wellbeing of young and middle-aged adults in the community**



### **Program Resources**

The author intends to pilot the program at the Buena Park community center. The program will be offered to the age group 19-50 years old since they are at risk for decreased financial wellbeing (APA, 2015; CFPB, 2017). Since providing a financial management education program that promotes wellness or wellbeing is a new concept for the community members, the constructs of Diffusion of Innovation (Brownson et al., 2015) will be presented at this stage. The expected mechanism in applying this theory for the whole program is available in Appendix A. By choosing the community center, the program may appeal to potential participants who may not be comfortable receiving online information and prefers in-person interaction. The classes are offered in the evenings, preferably between 6:35 – 7:25 p.m., so it is after work hours. The five-minute allowance is for participants who may need to drop off their kids to other programs provided in the community. Another class is also offered on Saturday morning or afternoon to accommodate participants who are not available on weekdays. To assist participants who missed a class, the author will send an email to access a recorded video of the topic at their convenient time.

To inform the community about the program, the city prints the information and registration instructions for approved classes in the quarterly newsletter. The city will then process the enrollment and inform the OT about the number of enrollees. If enrollment is less than six, the community center policy requires class cancelation. As part of the program, the OT will ask for the participants' email to send the Financial Wellbeing Questionnaire from CFPB (example available at

<https://www.consumerfinance.gov/consumer-tools/financial-well-being/> ) and confidentiality agreement due to possibly sensitive topics related to finance (Peeters et al., 2018). To fund the program, participants will pay the registration cost of \$75.00. Since community members may have increased interest in attending the program if it is free, the author explores the feasibility of providing the program for free by raising funds through crowdsourcing or partnership with stakeholders to apply for grants. Chapter Seven will further discuss funding plans.

**Staff.** The key people in executing the program are the occupational therapist, the community center staff, and a possible additional volunteer may be necessary for in-person groups of more than ten participants.

The occupational therapist (OT), also referred to in this section as the author, is responsible for coordinating with the community center staff to include the program description and schedule in the newsletter and to gather the email addresses so participants can answer questionnaires and confidentiality agreement before the start of the program. Also, part of the OT's role is to facilitate the group, encourage completion of pre-and post-program surveys, and answer facilitator questionnaires at the end of each session as part of the pilot program's informal formative survey. If participants are missing a class, it is also the OT's responsibility to email the link to a pre-recorded video of the day's topic. If the program has more than ten participants, the OT is responsible for delegating some work to a volunteer who can assist during group sessions.

Since it is a pilot program, the author is responsible for creating learning materials and resources, collaborating with other financial professionals to enlist as a possible

presenter in the virtual format, and reaching out to the local university for potential volunteers. The author has experience leading groups in a non-traditional OT setting and has taken additional certification to be a financial coach. Although a similar experience is not a requirement, an OT who has confidence in leading groups and talking about personal finance is highly desirable for starting a similar program.

Other support staffs are also crucial in the successful execution of the program. The community center staff lists the class in the quarterly community newsletter and informs the OT of enrolled participants and their email addresses. If the OT can secure the assistance of a student volunteer, the volunteer can assist during program implementation by sending the survey forms, monitoring participant attendance and the questions asked during the class, setting up and helping with cleanup of the room, and sending participants who missed the class the link to recorded video. It is important for the author that the student understands the program's purpose and the program participants' experience, so the author will send the interested volunteer a redacted copy of the program, require a virtual orientation, and provide the same homework that the participants go through. Having the OT student go through the same activities can increase their understanding and empathy to the program participants. The OT can email a local university's OT program director or fieldwork coordinator to inquire about the feasibility of using the program to accumulate volunteer hours, which is a typical requirement for program admissions. Another way to get in touch with local universities is through Occupational Therapy Association of California (OTAC) events. If any program directors show interest in allowing this process, the author will provide them

with the contact information.

The virtual follow up will be conducted using Zoom conference. During the follow-up, the OT will present a specific topic for 20 minutes, divide the group into smaller groups to discuss and support each other as needed for 15 minutes, and 20 minutes to facilitate the discussion or to answer questions. The OT is considering inviting other professionals, e.g., an accountant, a financial advisor, a bank manager, or a realtor, who can volunteer guest speaking on their specialty areas to cover the other recommended topics. Financial representatives present to discuss specific issues can help participants increase their motivation to take action (Xu, 2018). If other professionals are not available, the use of short videos with people acting or explaining their experience in specific money behaviors is another effective alternative (Heinberg et al., 2014).

**Community Center Resources.** To initiate the program, the OT will reach out to the community center director through email correspondence if incorporating the class can be approved as one of the wellness classes available at the community center. If approved to provide the in-person class at the community center, the OT will apply for a business license to be a contract educator. At the prospective community center, being a contract wellness educator at the center requires that the city will have a 30% profit based on the number of enrollees. The OT will also inquire about incorporating signing the confidentiality form and pre-class questionnaire during correspondence.

To conduct each class, the OT will utilize some of the resources available at the community center, including a room, tables, chairs, and audio/video equipment. If the available or assigned space does not have AV equipment, the author will bring her

projector. A computer is also necessary for creating materials, presenting module topics, and for the virtual follow-up after the in-person program concludes. Non-tangible resources include membership to Zoom to allow cloud recording that is accessible for participants who missed a class.

### ***Interventions and Activities***

There are two phases of the program, in-person classes using modules at the community center and virtual follow up for four months.

**In-person.** The in-person program consists of eight modules with one-hour instructions divided into four components. Active learning methods and brain-based learning methods using the ANSWER framework are incorporated where appropriate to increase the retention of information (Yee & Boyd, 2018). The ANSWER framework stands for attention, novelty, spacing, why, emotion, and repetition (Yee & Boyd, 2018).

Each class starts with five to seven minutes of practicing short and practical stress management techniques that participants can use. The stress management techniques are incorporated to increase attention and as a form of a novelty since it is unexpected to incorporate health behavior strategies with financial management. Raising awareness and knowledge of stress management strategies may also contribute to improved self-regulation and decision-making during daily activities (Baumeister & Heatherton, 1996; Howlett, 2010). After completion of the stress management techniques, the objectives for the session are presented next to increase the participants' attention to why certain activities are offered and set an expectation of what they can gain from the session's topic.

Fifteen to 20 minutes is allocated next to present specific topics for the session. A financial management topic that increases the person's knowledge and attitude towards finance is presented next while their attention is heightened. PowerPoint presentations, sample videos, and infographics are utilized to support information (why) and evoke emotion to increase intention or adopting the behavior. Each presentation is followed by five minutes of processing the information through discussion so participants can connect it with their individual experiences. The next 15–20 minutes is a demonstration or active participation in an activity supporting the objectives. Providing a demonstration or modeling promotes vicarious learning. Providing activities or tasks into smaller increments and having the participants experience and assess their effort to be positive can contribute to increased self-efficacy (Kelder et al., 2015). Self-efficacy happens through doing, and when the participant views the experience as doable, they have a higher chance of continuing or adopting the behavior (Parkinson et al., 2017).

Finally, participants are given homework or tasks to be completed on their own time at the end of each session. Homework provides them an opportunity for distributed practice and repetition of expected behavior that they will need to apply in the future (Pan & Agarwal, 2018).

The module or topics are designed according to the applicable theories as the participants increase knowledge and positive attitude and increase self-efficacy in developing and applying strategies for improved financial management performance. The theories of TTM, TPB, and SCT influenced the organization of the module. Appendix C presents how the modules are divided by weeks, the topics each week, and

the rationale or supporting evidence for the activity. As illustrated, the topics and activities are sequenced in a way that moves the person from contemplation to preparation stage, based on TTM. The initial sessions are also concentrated on activities and topics that increase the person's intention through increasing knowledge, changing attitude, facilitating social norms, and increasing perceived behavioral control, based on TPB. The social cognitive constructs are used throughout the eight modules as it works on personal and interpersonal approaches.

**Virtual Follow Up.** As suggested in Chapter Three, it is recommended that participants receive a follow-up or continued support to increase adoption of new behavior. The city offers classes in the community center quarterly, and a continuous class for six months is not feasible. The author proposes to provide a separate section of 60-minute virtual follow-up conducted once a month via zoom meetings. The topics for the follow-up sessions are based on specific financial goals that may affect their future decision-making. Topics may include best ways to tackle multiple debts, using high-yield savings account for emergency-buffer, or navigating and asking for assistance when contributing to retirement accounts if offered at their job. Inviting other financial professionals such as realtors, financial counselors, or accountants can also assist in answering general questions that can help participants for future decision-making. The presence of financial professionals or the use of video that relates to the person's financial decision-making has been shown to be effective in increasing a person's intention to adopt positive financial behavior (Heinberg et al., 2014; Xu, 2018).

## **Program Outputs and Outcomes**

Since *Financially Wiser* is a pilot program and offered to a community as a wellness option, monitoring the outputs and outcomes of the program is necessary.

### ***Outputs***

To assess the effectiveness and prepare for the sustainability of the program, some outputs should be monitored. The number of registered participants informs the author of the community's awareness or efforts of marketing and that the persuasion component of DOI meets the participants' needs, goals, and schedule. The low enrollment output may also indicate that either marketing or persuasion components need to be reviewed. The number of enrollments directly impacts the program as enrollment of less than six will result in canceling the class, while enrollment of more than 10 requires the help of a volunteer assistant.

Other trends in outputs are also indicative if program adjustments are necessary. The number of participants attending each class indicates the decision stage of DOI and continued persuasion with simplicity and trialability of the program to the interested participants. Any trends of high or low attendance for a specific class or sudden stop in attending the class may indicate that the modules are not compatible with the participants' expectations or needs and may need adjustment.

The number of people who completed the program confirms the successful implementation of the program. The participants may decide if it met or did not meet their expectations and the possible adoption of the techniques provided in the program. A high rate of program completion can also indicate that the author may start using

components of summative research to understand which elements of the program are working to maintain its consistency. The number of people who will take the opportunities for a virtual follow up may indicate that the in-person program has been beneficial, and monitoring CFPB Financial wellbeing scores is feasible.

### ***Outcomes***

The program outcomes are components that are anticipated results based on the program interventions. It is divided into short-term, intermediate, and long-term goals which can be evaluated after the program, two months after the program, and six months after the program, respectively. Details on program evaluation is discussed further in Chapter Five.

### **Anticipated Barriers and Challenges**

There are several anticipated barriers and challenges in piloting the program due to its novelty as a wellness program to the community. Table 4.1 presents some of the anticipated challenges and barriers and possible ways to address them.

**Table 4.1**

#### *Challenges and Barriers*

<b>Challenges &amp; Barriers</b>	<b>Possible Solutions</b>
<ul style="list-style-type: none"> <li>• The community's lack of awareness on the impact of financial stress and their overall financial wellbeing</li> </ul>	<ul style="list-style-type: none"> <li>• Marketing and infographics through the library, newsletter, and possible referral sources</li> </ul>
<ul style="list-style-type: none"> <li>• Participants seeking a one-on-one coaching</li> </ul>	<ul style="list-style-type: none"> <li>• Depending on the expressed need of specific individuals, the OT can offer one-on-one financial coaching outside of the program</li> </ul>

Challenges & Barriers	Possible Solutions
<ul style="list-style-type: none"> <li>Seeking financial advice that is beyond the scope of this program</li> </ul>	<ul style="list-style-type: none"> <li>At the beginning of the program, the OT intends to screen if the participant has an immediate need for other or appropriate financial individuals, such as financial advisors, tax accountants, or legal advisors for bankruptcy. In these cases, proper resources and referrals as needed will be provided.</li> </ul>
<ul style="list-style-type: none"> <li>Free information is available online or financial workshops provided by insurance or other financial companies</li> </ul>	<ul style="list-style-type: none"> <li>Emphasize that financial education programs are typically designed to provide information in a short amount of time. A participant listens to information in a typical classroom setting and is expected to synthesize the info without application in about one to four hours. Since the class is weekly and an occupational therapist facilitates it, the program's focus is building the necessary financial management skills in the presence of a supportive group.</li> </ul>
<ul style="list-style-type: none"> <li>No digital access</li> </ul>	<ul style="list-style-type: none"> <li>Handouts and alternative methods will be provided. Refer to a person in the nearby community library who can assist the person in using the library computer as needed</li> </ul>
<ul style="list-style-type: none"> <li>The person does not have a source of income due to recent job loss, or income is not sufficient, so topics related to having excess money does not fit</li> </ul>	<ul style="list-style-type: none"> <li>Inform the participant ahead of time to let the facilitator know if this is the case. The participant will have an option to continue with the class to gain knowledge and prepare that some activities may not fit their situation. The first topic of the class is increasing awareness of economic sufficiency and time.</li> </ul>
<ul style="list-style-type: none"> <li>The community center will cancel classes of less than six people.</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate with other agencies or non-profit organizations that provide financial coaching to the community interested in incorporating the program.</li> <li>Promote the program to be implemented using video conferences.</li> </ul>
<ul style="list-style-type: none"> <li>The available space at the requested time slot does not have A/V capability</li> </ul>	<ul style="list-style-type: none"> <li>The author will use initial funds to purchase a projector. Cost: \$82.99 (Amazon video projector)</li> <li>The facilitator will provide handouts.</li> </ul>
<ul style="list-style-type: none"> <li>Budget/ Participants want the program for free</li> </ul>	<ul style="list-style-type: none"> <li>GoFundMe will be set up as an initial source of funding, and participants can sponsor future students</li> <li>The program evaluation will be used as evidence to apply for grants needed for a budget. Possible funding sources are discussed in Chapter Six.</li> </ul>

## Summary and Conclusions

A person's financial stress and decreased financial wellbeing can increase the risk of physical and mental health problems in adults living in the community. A needs assessment using a mini-survey of the author's surrounding community indicated that residents experience that their financial situation is causing stress and the community as a whole may be at risk for decreased financial wellbeing. The author, therefore, proposes a financial management education program, *Financially Wiser*, to the residents of Buena Park aged 19-50 who attend wellness classes in the community center.

*Financially Wiser* will pilot at the community center, and it is the only financial management education program so far that is available in the community. The community center is a convenient location with a functional space conducive to holding groups. The center also has an established platform to market the program through its newsletter and process participant registrations. The program is responsive to the needs of the working community as it is offered on weekday evenings or a Saturday that is compatible with the participant's schedule. The program's cost is \$75.00 per person, significantly more affordable than paying for a one-on-one consultation with a financial coach. The mini-survey indicates that the community may be motivated to attend a program if it is free, so the author is exploring the process of using GoFundMe to pilot the program and cycle the funds by asking satisfied customers to sponsor future participants.

*Financially Wiser* uses evidence-based approaches in facilitating knowledge translation related to finance. After analyzing the factors that can impact financial

management behavior and the current approaches, the author chose constructs of several theories to guide in designing the program, selecting the activities, and following up on the program's outputs and outcomes. The author also incorporated brain-based learning techniques in choosing the approach to deliver the program.

The program has two parts, in-person and virtual follow-up. The in-person part consists of eight modules and is facilitated by an occupational therapist. A volunteer pre-OT student can also assist when there is an increased number of enrollees. Each module builds on crucial aspects of financial management, including basic knowledge, goal setting, increasing self-efficacy in using financial management tools, essential resources, and exploring different stress management techniques. Each class will have a minimum of six and a maximum of 12 participants. The program's design requires participants to be updated on each module, so recorded instructions are accessible online if they missed a class. To ensure that the participant's needs are met, the program utilizes pre- and post-surveys for continuous quality improvement. After the program, the virtual follow-up is offered to increase the probability of behavior change, but it is optional for the participants to continue.

Implementing this pilot program can have an impact on different levels. The participants who will attend the classes (micro); the city, the OT community, and possibly healthcare organizations (meso); and it is responsive to the state and national goals of addressing social determinants of health (macro). To ensure that the implementation of the program is effective, outputs and outcomes are considered and ways to measure them have been identified. Program evaluation is presented next in

Chapter Five. Barriers to the program's implementation and success are also anticipated so possible solutions were listed and will be considered as it happens.

## **CHAPTER FIVE – Program Evaluation Research Plan**

*Financially Wiser* is a financial management education program for community members at risk for increased financial stress and decreased financial wellbeing that can affect a person's health. The program is for adults aged 19–50 interested in attending classes at the community center. This is a pilot program for the occupational therapist and will be the only class in the community that addresses financial wellbeing.

To deliver the program, the occupational therapist (OT) will facilitate an eight-session in-person class focusing on financial management skills while introducing stress reduction techniques at the community center. After the in-person class, the OT will offer optional virtual follow-up for the participants. If the city approves for the program to be listed as a wellness class offered at the community center, the program will be published through the quarterly city newsletter, and the participants can enroll. Once participants enroll in the program, the community center staff can provide the information and email the facilitator or primary researcher to initiate ongoing communication. If approved by a local occupational therapy school, a volunteer OT student can help the OT deliver the program. A non-profit organization may also refer clients to the program during this process.

### **Stakeholders**

Several entities may benefit directly and indirectly from the research findings of the program. The city and its community members will directly benefit from a proven program to improve the community's wellbeing. Local OT universities may benefit from

the program if they need to recommend a site to a pre-OT student who needs to complete their volunteer hours. Local non-profit organizations providing financial counseling may also use the program to screen community members who may need their immediate assistance.

Indirectly, the OT community may benefit if research findings can highlight the value of using the occupation of financial management to improve a person's wellbeing and the possible OT role in promoting similar primary prevention health and wellness programs at the community level. Also, mental health professionals who provide services to persons with financial stress and health management organizations interested in outcomes related to preventative health will indirectly benefit from the program evaluation outcomes. Finally, financial institutions that would like to improve their clients' financial wellness and organizations promoting financial literacy may also benefit from the research findings.

### **Vision for the Program Evaluation Research**

Since *Financially Wiser* is a pilot program designed for implementation at the community center, program evaluation will be continuous from conceptualization, delivery, and evaluation of outcomes. The overall goal is to determine which factors are necessary to successfully implement the program and a valid approach to improving the target participants' financial wellbeing and decreasing stress. The central vision for the program evaluation research is to have three phases of evaluation with distinct purposes.

During the program development phase, the aim is to identify the community's needs, the logistics of implementing it in the community center and confirm the needs

and interests of possible stakeholders who can help sustain the program. Once the program is positioned for a pilot launch, the program evaluation will include a formative approach to investigate the effectiveness of the delivery process and location. It is also critical at this phase to evaluate the response of the program facilitator and attendees and evaluate the program's capacity to reach its objectives. Finally, the third phase will be implemented once the program's design is adjusted based on the setting, feedback from the facilitator and participants, and the chosen materials and assessments.

The third phase will focus on program effectiveness to understand the impact and relationship of the chosen activities on the short-term, intermediate, and long-term outcomes guided by the program's selected theories. Ideally, the third phase will be implemented with support from the identified funding sources that will be discussed in Chapter Six, guidance from university faculty for possible dissemination of outcomes, and continued support from identified stakeholders at the beginning of the program.

As mentioned earlier, the outcomes of the program will benefit multiple entities. In the field of occupational therapy, the formative and summative outcomes of the research are necessary. Financial management is an instrumental activity of daily living in the scope of OT practice (AOTA, 2020). While this program is designed as primary health prevention for community members, OTPs working with adults in a community-based mental health setting (Gardner et al., 2019), community-based health promotion programs in managing high-cost related chronic medical conditions (Patel et al., 2016), and traumatic brain injury (Koeller et al., 2016), may be able to adapt the program to the needs of their clients. There is currently limited literature showing active utilization of

this instrumental activity of daily living (IADL) as an intervention for the growing number of people undergoing stress due to finance and affecting their health (APA, 2015; Gardner et al., 2019). As envisioned in this program development, program evaluation research results can add to the body of knowledge for the OT community and can be a new source of evidence-based intervention that can benefit multiple people and professions.

### **Engagement of Stakeholders**

To initiate the program development phase of the program, identification of and initiating contact with representatives from specific stakeholder groups is necessary. The stakeholders will be divided into three groups. The delivery of information regarding the program needs to be tailored per group based on their particular interests and relevance to the program implementation process.

#### ***Stakeholder Group A***

This group of stakeholders directly benefits from the program implementation. The presentation of information regarding the program should be simplified and highlight the possibility of the program to address their particular needs.

**Members of the Community.** Community members are stakeholders who can give information about their interests, experiences, needs and share ideas on the outcomes they would like to see from the program. The target population is age 19-50, and the results of the program will benefit adults by highlighting awareness of wellness programs that are typically reserved for the youth or senior age groups. The program results can also help community members decide if they will adopt or reject the presence of such

programs in the community center. Ideally, the author would like to approach community members who attend community center activities face-to-face to introduce the program and invite their participation as a stakeholder. It is not feasible to meet in person on periods where social isolation is required. Therefore, a secondary plan is to announce the intention of developing a community program through the Nextdoor app or a similar neighborhood-based app and ask community members to inform the author of their interest. From there, the author can directly communicate with the interested individuals through email.

**A Representative from the City or Community Center.** A representative from the city or community center is necessary to provide information on how the program can be implemented at the community center and possibly with a low or no-cost tuition. The community center director will be contacted through telephone or via email to introduce the program's aim and evidence on the effects of financial stress on a person's wellbeing. The community center director can share the logistics of implementing the program at the community center, promoting the program to the residents, and identifying funding sources supporting the city's mission and goals to improve the residents' wellbeing. The program's results can inform the city if it supports the city's mission and goals and if such programs should be continued. The program's success can also help the mayor apply for grants such as the Dollarwise grants for innovative programs in the city.

***Stakeholder Group B***

This group of stakeholders is professionals who may benefit from the outcomes of the program evaluation research. To introduce the program to these stakeholders,

research about the problem and evidence supporting the program's design and the activities chosen for the program will be presented. The stakeholders' participation in the program implementation may help determine their interests in the outcome, the commitment they can share in executing the program evaluation research, and their role in recruiting participants and disseminating the program.

**Occupational Therapist (OT).** An occupational therapist, preferably with experience developing a community health promotion program, can share valuable information to consider during program development, particularly in working with clients from diverse cultures. The occupational therapist's point of view can also help enhance the choice of activities in promoting the program and reduce the author's bias during program development. Exploring the state OT association or professional social network such as LinkedIn will help to identify OTs who have designed community health programs. Communication via email or telephone to introduce the program is the first step in inviting an OT to participate as a stakeholder in the program evaluation process.

**OT Fieldwork Coordinator or Program Director from a Local University.** A local university representative is considered a stakeholder because they can help determine if the program's design is an acceptable site for a fieldwork level 1 student experience. The researcher envisions that the student can assist in program implementation and data gathering during the formative stage of program evaluation research. In return, the research outcomes may benefit local universities in using community settings to expose level 1 fieldwork students to the OT process or to working with diverse groups of individuals. Communication via email is feasible by visiting local

universities' websites, gathering the contact information, introducing the program, and intention for inviting the person as a stakeholder.

### ***Stakeholders Group C***

This group of stakeholders is essential, but not until the third phase of the program evaluation research when the program is consistently implemented and with more information about its output and ability to reach program objectives. This group will benefit from the outcomes of systematic program evaluation research with emphasis on its summative results.

**A Professor from an OT Program.** An OT professor affiliated with a university can contribute to the program evaluation design and serve as a sponsor in obtaining IRB approval. As a university representative, they can benefit from the outcomes of an innovative program that can be published under their co-sponsorship.

**A Representative from a Managed Health Care.** This stakeholder may be interested in using the concept to promote preventative health care for its members. This individual may be interested in outcomes demonstrating decreased stress and a complimentary program to other health management programs that they offer.

**Local Bank Marketing Representative.** This stakeholder is necessary for providing funding for the research endeavors of the program. Financial institutions may benefit from the research outcomes as they can show their sponsorship in programs that promote the community's financial wellbeing.

**National Endowment on Financial Education.** This organization is interested in innovative programs aiming to provide financial education to improve individuals'

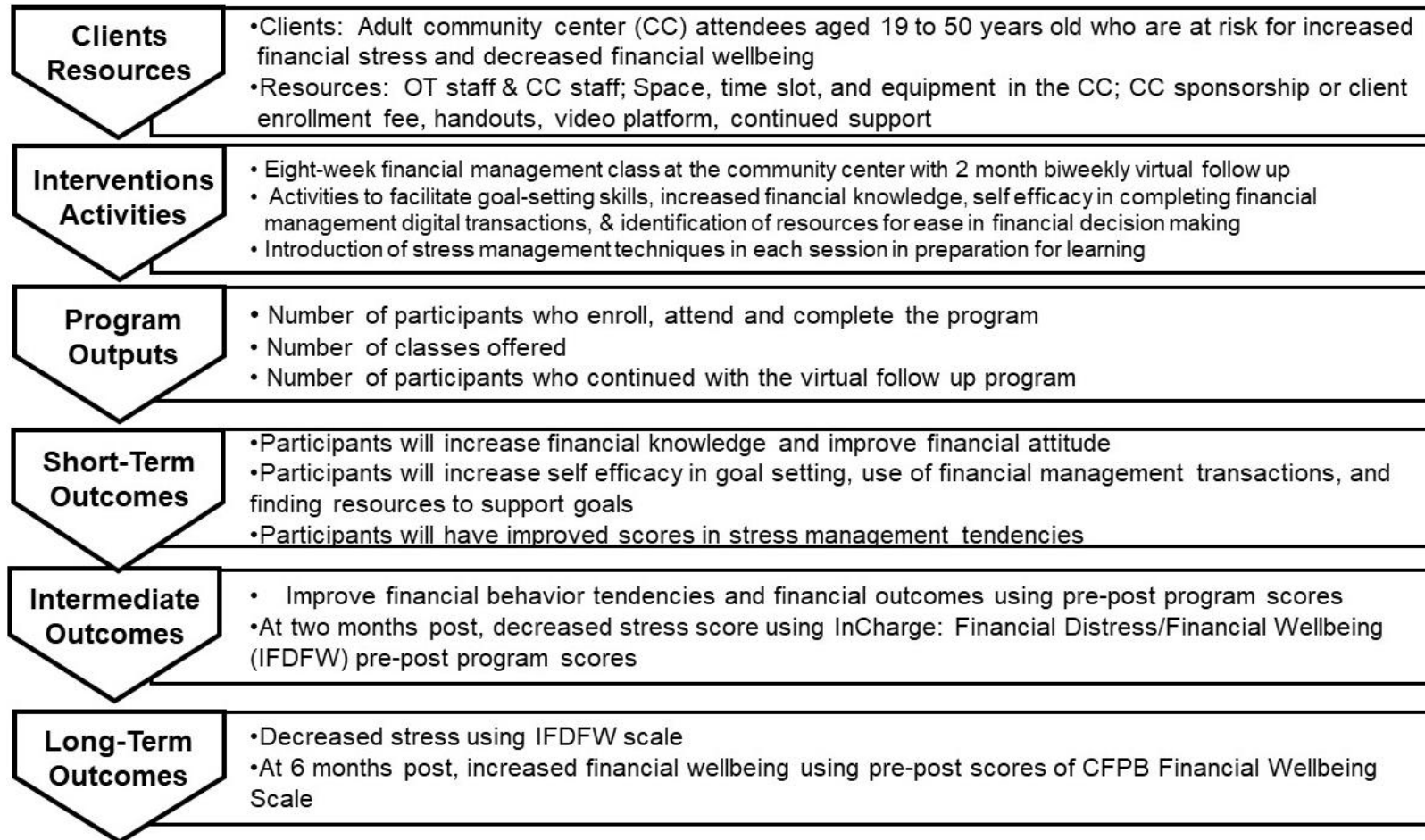
financial wellbeing. If approved, this organization can provide research funding for the program if it can demonstrate its potential to promote individuals' financial wellbeing. Since the program is designed using specific theories, this program's summative outcomes can provide insight to the organization on the factors that may help improve a person's financial wellbeing.

### **Simplified Logic Model for Use with Stakeholders**

Since the stakeholders discussed previously come from different backgrounds and have other interests and power to support the program, they need to understand the program's goals, the process to reach the long-term outcome, and a greater understanding of their common interests. Providing a simplified logic model to stakeholders is a tool to help them visualize the program's components and identify where they may have a part or power to support the program. Figure 5.1 shows the logic model that will be used during meetings with the stakeholders.

**Figure 5.1**

*Simplified Logic Model for Use with Stakeholders*



### **Preliminary Exploration and Confirmatory Process**

As discussed earlier, three groups of stakeholders may benefit from the outcomes of the program evaluation research. The stakeholders will be contacted, given a brief explanation of the program, and invited to a preliminary informational meeting according to their stakeholder group and the program's phase. Groups A and B will be invited during the first and second phase of the program development and evaluation. Group C will be invited during the third phase of the program evaluation. For convenience and respect for time, a virtual meeting for an hour up to a maximum of 90 minutes will be appropriate for conducting the sessions.

Before the meeting, Group A will be provided the results of the mini-social assessment of the community gathered in July 2020 and an information handout of summarized effects of financial stress on people. The presentation of information is tailored for an easier understanding and interpretation of research information. Group B will be provided with an executive summary with emphasis on the effects of financial stress on health and occupational engagement, additional supporting research articles and possible benefits of supporting the program. Both groups will receive a copy of the simplified logic model, other handouts that will be used during the meeting, and the proposed objectives and timeline of the meeting.

During phase one, the meeting's focus is to confirm the formative and summative evaluation questions and the logistics of the time and execution of the program and evaluation. During this time, the group can also brainstorm for more stakeholders who can help fund and sustain the program and evaluation research.

During the meeting, the simplified logic model will be provided and explained. A slideshow of sessions one to four and how it meets one of the program objectives will be presented. The facilitator will ensure that each stakeholder can share his or her perspective on the program's components as outlined in the logic model and other recommendations he or she may want to share. The rest of the meeting will focus on their feedback, questions, and outcomes of interest, data collection strategies, and ways in which they can participate. Stakeholders can also share the preferred method of receiving an update of the results and scheduling of subsequent or phase two meetings as necessary.

During the phase three meeting, all identified stakeholders will be invited. The purpose of having the third phase meeting is to review all the preliminary data from running the program, ideally after one year or running at least three program cycles. The meeting will include a discussion on the program evaluation's preliminary results, including the changes made in subsequent program implementation as formative results were gathered. Group C stakeholders are included at this point as they might have increased interest in the outputs of a running program, the cost, and the practical benefits they will receive by supporting program evaluation research. The program evaluation research design, resources needed, and research timeline will be discussed during this meeting.

### **Program Evaluation Research Questions by Stakeholder Group**

Each stakeholder or stakeholder group may have specific research questions that they might want to find out as a result of the program evaluation research. Table 5.1

shows possible questions from each stakeholder or stakeholder group. The table is divided into three phases, with questions most appropriate to ask, depending on each stage.

**Table 5.1**

*Program Evaluation Research Questions by Phase*

Stakeholder or Stakeholder Groups	Types of Program Evaluation Research Questions
<b><i>Phase One &amp; Phase Two Exploratory/Formative Research</i></b>	
Stakeholder Groups A & B	<ul style="list-style-type: none"> <li>• What financial literacy and financial management skills should the program address?</li> <li>• What are the participants' immediate needs and goals related to financial management?</li> <li>• Are the chosen measures (knowledge, financial behavior tendencies, IFDFW, CFPB financial wellbeing scale) effective and appropriate for the 8-session in-person and virtual follow up of the program?</li> <li>• Cost: How much are they willing to pay if it's not free?</li> <li>• Relative advantage: What is their perceived benefit of attending a financial management class from the community center?</li> <li>• Simplicity: What factors will make it easier for the participants to attend and complete the program?</li> <li>• Compatibility: Which teaching method was most helpful (videos, homework, practicing in class, lecture)?</li> </ul>
Specific OT interests	<ul style="list-style-type: none"> <li>• What OT skills and processes incorporated in running the program were observed and can be a learning opportunity for the pre-OT or fieldwork level 1 student?</li> <li>• Did the IRB approve the data gathering methods?</li> </ul>
A representative from the city or community center	<ul style="list-style-type: none"> <li>• What are the outputs of the program?</li> <li>• What is the cost of running the program?</li> </ul>
<b><i>Phase Two (Focus Group)</i></b>	
Stakeholder groups A, B & C	<ul style="list-style-type: none"> <li>• Did program participants meet the personal goals asked during the first session?</li> </ul>

Stakeholder or Stakeholder Groups	Types of Program Evaluation Research Questions
	<ul style="list-style-type: none"> <li>• What are the highlights of the program from their perspective?</li> <li>• Which program activities are necessary for teaching financial management skills?</li> <li>• After the program, do the participants demonstrate the ability to create short-term and long-term financial goals appropriate to their situation?</li> <li>• After the program, do the participants feel confident in using a zero-based budgeting tool of their choice?</li> <li>• After the program, do the participants feel confident in using automated or digital transactions?</li> <li>• After the program, do the participants feel confident exploring and using possible resources for ease in financial decision-making.</li> <li>• Does the virtual follow up support their ability to follow through with their personal finance goals?</li> </ul>
<b><i>Phase Three Summative Research</i></b>	
Stakeholder Groups A, B, & C	<ul style="list-style-type: none"> <li>• Did the participants demonstrate increased objective financial knowledge?</li> <li>• Do the participants feel a positive attitude towards financial management as a result of attending the program?</li> <li>• Did the participants demonstrate increased behavioral tendency to engage in positive financial behavior?</li> <li>• Do the participants feel improved financial wellbeing – 1) able to fully meet current and ongoing obligations, 2) feel secure about their financial future, and 3) able to make choices that allow enjoyment of life.</li> <li>• After the program, do the participants find it valuable to incorporate stress management techniques to decrease stress?</li> <li>• Did the financial wellbeing score of the participants improve?</li> <li>• Did the program help decrease the perceived stress of the participants?</li> <li>• Did the program achieve its anticipated short-term, intermediate, and long-term outcomes?</li> <li>• Is there a correlation between the participant demographics (age, annual income, ethnicity, family size, social support) and program outcomes?</li> </ul>

## Methods

In all program evaluation research phases, the participants will be recruited by enrolling through the city's community center website. All program attendees must sign a confidentiality agreement as the topic of finance can be sensitive. Upon enrollment, the facilitator will receive the enrollees' email addresses from the community center staff before starting the program. Once the email address is received, the facilitator will send a separate email explaining and a request for consent to participate in the study. The enrollees can decide until the beginning of the class if they wish to participate in the research. Only the enrollees who signed a consent to participate in the study will receive further emails or instructions regarding surveys or invitations to participating in a focus group. During phase three evaluation research, participants who did not provide consent will be offered a different class schedule from those who gave permission. Due to the small number of participants per class, providing a homogenous experience for all possible participants will make it easier to gather data in fewer sessions. It will be easier to take into account the description of all participants per class, the program's delivery, and the outcomes of that class versus running several classes and removing the participants who could have affected the whole class interaction but are not included in the data set.

Before data collection, the author will request for an Institutional Review Board (IRB) approval. The author will submit a copy of the questionnaires, data to be collected, questions that will be asked during focus groups, and a description of how participants' confidentiality will be protected. All survey forms will use codes for each participant

who gave consent. The primary researcher will have the master list of emails related to the code used in surveys, which will be stored in a password-secured Excel sheet. SoGoSurvey automatically uses codes in all the surveys generated, which will maintain the participant's responses confidential. Participants will also receive their codes to write on questionnaires should they choose to use pen/paper to ensure no duplication of responses. The author will not pursue data collection until approval from the IRB is received.

As part of the program design, the InCharge: Financial Distress/Financial Wellbeing (IFDFW) and the CFPB Financial Wellbeing Scale (FWS) are sent to all participants before and after the program to provide feedback on their changes. The author will keep the participants' responses for three years for those who chose to participate in the program evaluation research. The primary researcher will delete all other survey responses at the end of the program.

## **Phase Two**

### ***Research Design***

The program will use mixed-method non-experimental design. In Phase Two program evaluation research aims to gather data on formative outcomes and uses a qualitative or descriptive design. Surveys using a combination of Likert scale and open-ended questions and OT documentation before, during, and after the program will be the primary sources of data. This type of research design allows the researcher to promptly adjust the program and update the stakeholders on the program's outputs and outcomes

for each cycle. After two cycles of the program, program participants will be invited to participate in a focus group to further understand the participants' process in reaching the short-term, intermediate, and long-term goals of the program.

### ***Data Collection Methods***

Data on the participants' and facilitator's perspectives regarding the contents and experience in the program will be collected.

**Information Gathering on Participants' Response to the Program.** Surveys using scales and open-ended questions will be used to gather information on the participant's overall experience, satisfaction, and suggestions. An email or text will be sent to provide a link to the survey. A pen/paper questionnaire is also available; however, they must write their participant code provided at the beginning of the program to prevent duplication if they fill out an online survey.

*At the beginning of the program*, all participants will receive a link to answer the InCharge: Financial Distress/Financial Wellbeing (IFDFW) scale and CFPB Financial Wellbeing Scale questionnaires ahead of time or as part of their class homework. Appendix D shows a screenshot of the CFPB Financial Wellbeing Scale, which is available for the public's use (CFPB, n.d.-a). The IFDFW is copyrighted material and will require the author's permission before using it in this paper.

*At the end of each class*, a short checklist and open-ended survey will be provided to gather information about the participant's experience during the class and their suggestions. Figure 1 in Appendix F is an example of the questions in a pen/paper format of the questionnaire.

*At the end of the program*, a questionnaire will be provided pertaining to their demographic information, overall experience, and recommendations for the program. Appendix E is a printed version of the online survey created using SoGoSurvey. The link for the IFDFW and CFPB Financial Wellbeing Scale will also be sent around the same time.

#### **Information Gathering on Facilitator's Experience in Running the Program.**

Each class is coded by the season, module number, and date of the class. At the end of each class, the OT facilitating the program will document data about the class using password-protected Google forms. The form to be filled out includes a combination of a checklist and open-ended questions. Figure 2 in Appendix F is an example of the possible questions and the document's format.

#### ***Data Management and Analysis***

Within three days of each class, a research assistant will gather the participants' and the facilitator's responses. Data from the pen-paper responses will be entered in Excel and uploaded to SoGoSurvey to combine with the online answers. SoGoSurvey has a built-in data analysis feature that can help form descriptive data using the surveys' scales. Since the groups are small and the open-ended surveys are straightforward with the question and answers, the primary researcher can export all the data for the open-ended questions and use NVivo to find themes for each item asked. The results can be shared with experienced qualitative researchers to verify that the data analysis is correct and represents the participants.

### ***Focus Group Methods***

**Participants.** At the end of the program, an invitation will be provided to program participants to participate in a focus group after completing the program.

**Setting.** The focus group interview will be conducted via a zoom conference for ease in attendance and choosing a convenient time. This format is also beneficial to allow the interviewer to share a screen occasionally to refresh the participant's memory about the activities and homework that were done during the program.

**Focus Group Information Gathering.** Those who will sign up for the focus group will receive instructions via email regarding the aim of the focus group, maintaining confidentiality, and some of the expectations during the process (e.g., they will be given an assigned code, how they will take turns answering the questions, etc.). An incentive for participating will be an opportunity to receive an individualized financial coaching session for an individualized plan.

An experienced interviewer familiar with but has no stake in the program's outcomes will be chosen to conduct the interview. One passive researcher will also be present to help the interviewer ensure that the questions are answered; the interview progresses on time and will take notes on some topics. Some items that are not on the list but give insight into the program's effects may come up and should be documented. The participants will be given codes before the interview, and they will use those codes as their identification throughout the interview. Their video will be off to maintain anonymity.

**Sample Questions.** The interviewer will ask open-ended questions and further explorations of the participant's answers. Table 5.1 lists the possible questions to be explored during the interview. The following are examples of possible open-ended questions.

- Which activities learned did you adopt as part of your their daily/monthly activity?
- How would you describe your experience throughout the program?
- What are the topics/factors that you liked or disliked about the program?

**Timing.** The invitation to sign up and join the focus group will be provided at the end of the program and within the first week of finishing the in-person component of the program. The focus group will be scheduled after two months of the in-person group. This will allow the participants to have an opportunity to apply the concepts learned and allow the researchers to find if there are behavior changes that have been adopted and continued to be applied.

### ***Focus Group Data Management and Analysis***

After the interview, the videos will be reviewed by a professional typist. The transcription from zoom will be used but will be edited as needed to correct the errors. The transcribed document will also include timestamps to help the researchers go back to the video as needed.

NVivo can be used to analyze the transcribed data. Using a software analysis will make it easier to cross-reference and cross-analyze some of the information gathered. Two experienced researchers will be asked to review the transcripts and the analysis of

the findings to ensure that the nodes/themes chosen are not leading to a bias towards the program.

### **Phase Three**

During phase three, the purpose of the program evaluation research is to gather data on summative outcomes.

#### ***Research Design***

A mixed-method approach using pre-post single group design, correlational, and descriptive research design will be used to understand the intervention's relationship with the outcomes. Collection of demographic data, use of established and designed questionnaires pre and post the program will be the primary sources of data.

#### ***Data Collection Methods***

To gather quantitative data, a pre-post single group research design will be appropriate. Before the program, a research assistant will email the CFPB Wellbeing Scale, IFDFW scale, a survey using questionnaires and Likert scales to measure the short-term, intermediate, and long-term outcomes. A demographic questionnaire will ask participants their gender, age, household income, ethnicity, family support, digital literacy, previous education in financial literacy or financial management, and primary language, as these factors may influence the design of the program or to customize content to specific populations.

At the beginning of the program, the research assistant can follow up those who have not completed the surveys and will provide a pen/paper questionnaire to be

completed before leaving the class. At the end of the program survey forms provided at the beginning of the program and the quiz to test their knowledge will be given and asked to complete before leaving the class. If the research assistant finds missing or incomplete responses, they can follow-up using email within three days. The surveys for the intermediate and long-term outcomes are provided in different timeframes and discussed below.

***Short-Term Outcomes.*** At the end of the program, it is anticipated that participants will have increased knowledge, improved financial attitude, confidence in setting goals, tracking their financial management and use of zero-based budgeting, confidence in finding resources that support their goals, and decreased stress. The same questionnaires provided at the beginning of the program are administered again to compare pre-post program results. This process will also allow the researchers to correlate the initial knowledge, confidence, and attitude to subsequent data gathering of dependent variables.

***Intermediate Outcomes.*** Two months after the in-person program, it is anticipated that participants are beginning to adopt positive financial behaviors and have begun addressing some of their financial goals, thus affecting their financial situation. It is also anticipated that there will be a change in financial stress or at least decrease financial worry in participants.

***Long-Term Outcomes.*** The anticipated long-term outcomes of the program are decreased financial stress and increased financial wellbeing scores.

**Measurements.** To measure the variables mentioned above, a combination of established survey questions and Likert scales adapted from studies that aimed to assess improved financial literacy will be provided on the scheduled timeline.

**Knowledge.** To measure objective knowledge, 10 questions based on financial management topics discussed in class will be provided using multiple choice and true/false questionnaires. Likert scale of their perceived gain in knowledge through the program will be provided as well.

- Example of objective knowledge question: Imagine that you have \$100 in your savings account and the interest rate is 1 % a year and inflation is 2 % a year. After one year, would the money in the account buy a) more than it does today, b) exactly the same or c.) less than today?

**Financial Attitude.** A 5-point Likert scale of a person's financial attitude will be used in setting SMART goals, creating an action plan, using zero-based budgeting, tracking income and expenses, managing debt, building an emergency fund, building 3-6 months emergency fund, short-term savings, long term savings, funding retirement.

**Confidence in Creating Short Term and Long-term Financial Goals.** A 5-point Likert scale will be used to rate their confidence in creating short-term and long-term financial goals.

- Example scale: *I can write my financial goals for the next two months:* 1-Not Confident; 2- Slightly confident; 3-Somewhat confident ; 4 – Moderately confident 5—Extremely confident

***Ability in Using a Zero-Based Budgeting Tool.*** A Likert scale will be used at the beginning and the end of the program.

- Example: *I use a zero-based-budgeting every month:* 1- I don't know what this means 2)I'm not considering doing this; 2- I'm considering doing this; 3- I'm doing this sometimes; 5- I'm doing this all of the time

***Confidence in Using Resources for Ease in Decision-Making Skills.*** A rating scale in their level of confidence to make financial decisions to reach their goals will be used at the beginning and at the end of the program.

- Example scale: *I can talk to the right financial professionals should I need advice on a specific situation:* 1- Strongly disagree; 2- Disagree; 3- Agree; 4 – Strongly Agree

***Change in Financial Behavior.*** A Likert scale between 1 to 5 will be used to assess a person's level of participation between intention and participation in financial management tasks.

- Example of financial behavior tendency question: *I write a spending plan and follow it:* 1- I'm not considering doing this; 2- I'm considering doing this; 3- I'm doing this sometimes; 4 – I'm doing this most of the time; 5- I'm doing this all the time

***Changes in Financial Situation.*** A question asking of the range of contribution to either debt reduction or towards savings will be provided.

Example: Since starting the program, I am able to this extra amount towards my savings/debt payment each month: 1) I don't know 2) none 3) \$10-\$200 4) \$201-

\$300 5) >\$300

***Decreased Stress.*** The InCharge: Financial Distress/Financial Wellbeing (IFDFW) scale will be used to measure a change in perceived stress related to finance. The IFDFW is an 8-item questionnaire to measure financial distress and financial wellbeing in a continuum. A score between 1.0 to 4.0 indicates high distress/increased financial wellbeing, 4.1-6.9 average financial distress/average financial wellbeing, and 7.0-10.0 indicates low financial distress/high financial wellbeing. It has been tested for validity and reliability with a Cronbach's alpha of 0.956 for internal consistency and reliability (Prawitz, 2006). The scale is copyrighted and will require permission from the author for possible use. If it is not permitted or allowed to be adapted, a Likert scale of the participant's perceived stress based on the mini-survey will be used.

***Improved Financial Wellbeing.*** The CFPB Financial Well Being Scale will be used before the program, six months after the program, and, if feasible, one year after the program. The CFPB Financial Wellbeing Scale is a questionnaire available for the public's use (CFPB, n.d.-a). Appendix D shows an example of the CFPB Financial wellbeing scale. The site has instructions for scoring, and it is based on the age of the person answering the questionnaire. The scores can be used to compare pre and post results and show how the participants' score compares to the rest of the country.

**Timing.** As mentioned above, different questionnaires provided at different times are considered to allow consideration of the effects of the program. Table 5.2 shows a schedule when each measure should be provided or sent in relation to completion of the in-person program.

**Table 5.2***Schedule of Disseminating the Measures*

<b>Measure</b>	<b>Pre- Program</b>	<b>Post- Program</b>	<b>2 months post program</b>	<b>6 months post program</b>	<b>1 year after the program</b>
CFPB Financial Wellbeing Scale	X	X		X	X
InCharge: Financial Stress/Financial Wellbeing Scale	X	X	X	X	
Objective Knowledge		X			
Subjective gain in knowledge		X			
Financial Attitude	X	X			
Attitude and participation in using zero-based budgeting	X	X			
Level of confidence using resources that supports goals	X	X			
Change in financial behavior	X		X		X
Change in financial situation	X		X	X	

*Data Management and Analysis*

Data management and analysis using descriptive and inferential statistics will require the use of computer programs and choosing the appropriate statistical method depending on the results. Survey responses are electronically gathered using SoGoSurvey links, which automatically creates participant codes to maintain the answers anonymously. Data can be exported to Microsoft Excel for analysis.

The statistical analysis that will be used will depend on the number of cycles the

program will run. Descriptive statistics can be used to determine who is most likely to sign up for the program and their response to the program. The pre- and post-test results will be shared with experienced researchers to analyze and interpret if there is a change and the extent of those changes. Results will also be compared if other studies have similarities to the dependent variables listed.

### **Anticipated Strengths and Limitations**

The program evaluation plan incorporated three phases of data gathering, different measures, and different timelines for data gathering and analysis. There are anticipated strengths and limitations in this program evaluation plan.

#### ***Strengths***

The use of different phases of data gathering between the pilot program launch and formative research before embarking on the full launch can help in improving the program through the input of stakeholders and program attendees. The mixed-method approach in gathering data during formative research also allows a deeper understanding of the participant's experiences based on immediate experience of each session and the qualitative data gathered in the focus group. Utilizing researchers other than the author decreases bias during data gathering. The timing of data collection also allows for the participants to have an opportunity to apply the lessons learned for several months prior to interpreting the results.

#### ***Limitations***

The results of the program evaluation may be difficult to generalize or demonstrate significant changes. Since the setting is in the community and the

participants self-select to be part of the evaluation research, the characteristics of the participants may be very different from one cohort to another. Due to the small group-size, it will take multiple cohorts or programs before a significant sample size is reached. Having multiple cohorts may lead to lack of fidelity to the protocol or variation in application of the program as program improvements are made. Although the time provided in between data gathering allows for application of skills, other external factors may impact the participants responses. For example, in a gap of two months, the participant may have life changes that can influence their stress level or behavior. Following up six months or one year after the program may make it difficult to follow up on participants who will continue to answer the surveys.

## **CHAPTER SIX – Dissemination Plan**

The *Financially Wiser* is an 8-session financial management education program provided at the community center to promote improved financial wellbeing of adults aged 19 to 50 years. The program uses evidence-based approaches in facilitating engagement in positive financial management behavior, including improving basic knowledge, goal setting, increasing self-efficacy in using financial management tools, identifying, and using essential resources, and exploring different stress management techniques. The program is led by an occupational therapist. Each session is conducted in-person twice per week on weekday evenings for four weeks or on Saturday mornings for eight weeks. The in-person program is followed by a virtual support program conducted once a month within four months of the program's completion. Since the program is conducted at the community center, it is offered quarterly to the residents of the community via the city's newsletter. After at least one year of implementing and conducting formative evaluation, the program outputs and outcomes are anticipated to support the program's aim in decreasing the level of stress and improving the community members' wellbeing. In order to expand awareness of the positive effects of the program, the role that occupational therapy (OT) plays in the instrumental activities of daily living (IADL) of financial self-management and increase the number of people who may benefit from the program, the author created dissemination goals for the program.

### **Dissemination Goals**

The program has long- and short-term dissemination goals that will ultimately benefit the local community where the program is offered and local OT communities.

To expand the program's reach to the community, one of the program's long-term dissemination goals is to increase the availability of cost-effective community-based educational offerings promoting improved financial wellbeing to adults who are at risk for increased financial stress. To support this long-term goal, dissemination of the program's results should lead to opportunities to apply for grants that can increase the opportunity to offer the program at a low-cost to more residents. Program results can also be shared to local service groups to increase partnership and opportunity to implement the program other than at the community center.

Another long-term dissemination goal is to increase the awareness of occupational therapists to incorporate financial management as a form of IADLs in promoting improved financial wellbeing of adults aged 19–50 years old. To support this goal, after one year of implementation, it is a goal that local universities will have increased awareness that the *Financially Wiser* program can be a community-based volunteer site for pre-occupational therapy or a level 1 fieldwork (FW) site for OT students. After two years of implementing the program, it is a goal that the dissemination of the *Financially Wiser* program can lead to a partnership with a local university in applying for a grant with National Endowment for Financial Education (NEFE) to conduct summative research studying the variables that lead to improved financial wellbeing.

### **Target Audience**

The dissemination activities will be initiated after one year of program's implementation. The stakeholders discussed in Chapter Five are the potential target audiences for the dissemination plan. To reach the dissemination goals and prioritize the

dissemination activities, the primary and secondary audience are identified. The key messages, activities, and budget for each audience are also discussed next.

### ***The Mayor and Local City Officials***

The mayor and local city officials are the primary target audience of the program. The mayor's and other officials' understanding of the program's impact on the residents can help in further disseminating the information to the community. The city can help in sustaining the program and keeping it affordable by possibly waiving some of community center fees. The DollarWise Grant for Mayors described in-depth in the Funding Chapter can help in sponsoring several residents and possibly keep the program available for the residents. With the mayor's collaboration and approval, the city can apply for this grant. To communicate the program's value to the city, the following are the key messages to the primary target audience:

#### **Key Messages**

1. Based on the city's demographics shows that almost 42% of the population are at risk for decreased financial wellbeing and 64% of the population are within the age group targeted by the program (City of Buena Park, n.d.). A mini-survey reaching the residents of Orange County showed that the community is interested in attending financial management education program (Ferrera, 2020).
2. The *Financially Wiser* program is an innovative way of promoting wellness in the community center. After one year of launching the program, the program evaluation results show decreased stress and improved financial wellbeing

score which suggest that the program is having positive effects on the community. The city has an opportunity to apply for a \$10,000 grant through the Dollarwise Grants for Mayors.

3. It is part of the city's strategic plan to offer varied ways to improve the wellbeing of the residents (Buena Park City Council, 2020). The pre- and post- survey results of the program shows that the program can be an innovative way of promoting improved wellbeing of the residents. Offering the program through the community center and through partnership with the service groups can be an action plan to support the goal for year 2023.

#### **Dissemination Activities**

1. Prior to implementation, the author will reach out to local businesses and the city's library to share infographics to increase people's awareness of the concept of financial wellbeing and to increase the community's awareness of the *Financially Wiser* program.
2. During the initial program launch phase, the author will create a website to consolidate the information to promote the program to the community and other audience. The website will include information about the *Financially Wiser* Program, other services related to financial coaching and education.
3. After one year of program implementation and analyzing the feedback of the program attendees, the author can start distributing executive summaries to the primary target audience. The author will reach out to the city manager, council members listed on the city's strategic planning committee, and the

mayor's executive assistant via e-mail to express the intention to meet virtually or in-person to share the results of the program. After securing a meeting date, the executive summary will be sent ahead of time to allow them to review the contents and come up with questions as needed. During this meeting, the author will also share the intention to partner with the city to apply for grants that can support the program.

4. The author can also reach out to service groups in the city and other programs that provide services to adults with the aim to improve financial wellbeing and offer to provide the program to their target population. By conducting this activity, the author may be able to meet a credible spokesperson that city officials can trust in vouching for the program.

### ***Occupational Therapy Students and Faculty***

The secondary audience of the program are pre-OT, OT students and OT faculty who will benefit from increased understanding of the role of OT financial management education program, application, and further dissemination of the program. It is the program's goal to coordinate with local universities for possibility of supervising pre-OT students to count the program as part of their volunteer hours or observing a community-based program that promotes wellness. Having volunteer students will increase the program's capacity to offer the program to more people and in different settings where there is an identified need by supportive service groups. Increasing the awareness and knowledge of both students and faculty members of the program's effects to the community members may also help build a future OTP's confidence in using and

addressing financial management during intervention if it is an identified meaningful activity of the client.

### **Key Messages**

1. The *Financially Wiser* is a community-based financial management education program that promotes improved financial wellbeing to its participants. There are graduate students who may have interest or will benefit in utilizing community-based programs as an option for their level 1 fieldwork experience due to limited fieldwork sites, increased competition of universities for a fieldwork placement in the area, and the hours are convenient for those who are also working while in a graduate program.
2. The *Financially Wiser* Program uses behavior change theories and evidence-based approaches in targeting intrinsic factors that contribute to stress-inducing financial management behavior. Exposure to the concepts of financial management and behavior change theories are information and experience that will be valuable to a fieldwork Level 1 student.
3. Financial management is an IADL that is within our scope of practice and defined in the American Occupational Therapy Association's (AOTA) Occupational Therapy Practice Framework (AOTA, 2020). However, there is scarcity in the OT evidence-based literature explaining the concept and utilization of financial management in practice. Partnership with university faculty in conducting research and applying for grants related to this topic can increase the faculty member's research activities.

**Dissemination Activities**

1. After one year of implementation, the author can provide a free three-part webinar for graduating OT/OTA students to increase their own knowledge and awareness of financial management. This can be done once a year in April as part of OT Month and Financial Literacy Month. Information can be presented using the same website mentioned earlier and invitation can be disseminated via Instagram or LinkedIn.
2. After one year of implementing the program, the author will send copies of executive summary to five local OT schools to offer the opportunity for students to volunteer for the program. This can be done by sending an email to the program director and fieldwork coordinator inquiring about their interest. If interested, a virtual or in-person meeting can be arranged. A copy of executive summary along with a sample weekly plan can be sent via email ahead of time so they can review and ask pertinent questions during the meeting.
3. After two years of implementing the program, the author can present the results of the program through OT Association of California (OTAC).
4. After two years of implementing the program, the author can write about the program and the experience of developing, implementing, and supervising a student. The article can be submitted to OT Practice.
5. After two years of implementing the program, the author will send executive summaries to three local universities in the area aiming to create a partnership

with a faculty who may want to co-write grant application to NEFE and sponsor the author to implement research for summative evaluation of the program. After completion of the summative evaluation, the results can be published in a peer-reviewed journal.

**Budget**

There are costs associated with the dissemination activities of the program. Table 6.1 shows the needed budget for each year and for each target audience mentioned above.

**Table 6.1**

*Budget for Dissemination Plan*

<b>Audience</b>	<b>Year 1</b>	<b>Year 2</b>
<b>Primary &amp; Secondary</b>	Paper and printing for infographic materials for the library and sending the executive summary  Blank & Colored Ink (yields 600 pages) <b>\$64.99</b> Paper (500 sheets) <b>\$13.99</b> Flat Rate Envelopes & Mailing (7.95 x 8) <b>\$63.60</b>  <b>Total: 142.58 (+ tax)</b>	Paper and printing for sending the executive summary  Flat Rate Envelopes & Mailing (7.95 x 3) <b>\$23.85</b>  <b>Total: \$23.85</b>
<b>Primary &amp; Secondary</b>	Website hosting and content creation  GoDaddy web hosting ( <b>\$3.00/month</b> ) Divi for ease in designing <b>\$89.00/year</b>  <b>Total: \$125.00/year</b>	Website hosting and content creation  GoDaddy web hosting ( <b>\$3.00/month</b> ) Divi for ease in designing <b>\$89.00/year</b>  <b>Total: \$125.00/year</b>

<b>Secondary</b>	Zoom platform for a webinar or meeting (approximately 19.99/mo) <b>\$0</b> – budget included in program implementation	Zoom platform for a webinar or meeting (approximately 19.99/mo) <b>\$0</b> – budget included in program implementation
		OTAC presentation (approx. \$269.00) <b>\$0</b> – The author attends conferences to obtain CEUs
		Writing articles for OT Practice or a peer-reviewed journal <b>\$0</b>
<b>Total</b>	<b>\$267.58</b>	<b>\$112.85</b>

**Evaluation**

To evaluate the success of the dissemination efforts, the results of the key dissemination activities for each target audience will be reviewed. For the primary audience, the author can include the question of how the participants heard about the program as part of the post-program survey. This will inform the author if the efforts to provide information at the library resulted in interested community members. Both the negative or positive responses from local officials is another way of evaluating the effort of sending executive summaries and setting meetings. Finally, the number of partnerships created with the local officials and other service groups is an indication that the program is received well by other groups that can support the program’s long-term goal. The activities targeted towards the students and university faculty consist of outreach leading to establishment of fieldwork opportunities. A poll during the webinar can inform the author how the students became aware of the information about the

webinar. The number of meetings from local university faculty who received executive summaries can inform the author about the effectiveness of this strategy. When presenting at a conference, the post-presentation surveys will inform the author of the number of people who attended the presentation, and an email list can be circulated for those who have shown interest to receive further information.

### **Conclusion**

The *Financially Wiser* is a pilot program for a community-based financial management education program promoting improved financial wellbeing. Since the program is new, at least one year of implementation is necessary to evaluate its feasibility at the community level and to assess its impact to the community members. After one year of implementation, the mayor and local city officials will be contacted to inform them about the program and current outcomes. The goal is to establish brief meetings to discuss partnering for possible grants that can serve more community members. Local occupational therapy students and faculty members are chosen as secondary target audience to create partnerships for possible volunteer or fieldwork level 1 experiences and to apply for grants that can lead to further research. The budget for conducting dissemination efforts for the initial two years of program operation is presented. The results of each dissemination activity can be evaluated based on the response of the target audience. The next chapter will discuss the funding plan for the implementation and dissemination of the program.

## CHAPTER SEVEN – Funding Plan

The *Financially Wiser* is an eight-session financial management education program offered to adults aged 19-50 who attend wellness classes at the city's community center. The goal of the program is to promote financial wellbeing and to decrease the effects of financial stress on community members' health. Each session is conducted in-person twice per week on weekday evenings for four weeks or on Saturday mornings for eight weeks. The program uses modules building on crucial aspects of financial management, including basic financial knowledge, goal setting, increasing self-efficacy in using financial management tools, essential resources, and exploring different stress management techniques. Since the program builds on the previous session's topic, the attendees can access a recorded video if they missed a class. An occupational therapist leads each session because of their educational background in understanding human behavior, skills to lead groups, and their expertise in using evidence-based approaches in improving a person's engagement in daily activities, such as financial management. After completing the eight-session program, a virtual follow-up is offered within four months to promote continued support and learn further topics that are of interest to the participants. During the virtual follow-up, speakers with specific financial backgrounds are available and may motivate the participants to follow through on their financial goals.

In addition to developing the program as a knowledge and wellness resource for the community members, the program is designed to incorporate program evaluations to assess its effectiveness and impact to the community. By incorporating pre and post

program surveys, the program can gather data to support plans to apply for grants that can support a greater number of community members and to connect with local universities in completing summative surveys. The objectives for Year 1 are to enroll 12 adults per class by the end of 2022 and to complete formative surveys for at least 80% of attendees for continuous quality improvement. For Year 2, the objectives are to enroll 48 adults per quarter by the end of 2023 and to initiate collaboration with non-profit or local service groups to purchase blocked hybrid in-person and virtual program for a fixed amount to sustain the program. In Year 2, it is also the aim to continue with formative surveys for at least 80% of attendees and initiate one focus group per quarter to begin the evaluation of feasibility and effectiveness of the program which will help in applying for grants. To achieve the program objectives, the costs for implementation and possible sources of funding will be analyzed next.

### **Available Local Resources**

Since this is a pilot program, most of the work requires increasing the awareness of the community and testing the feasibility of implementing the program at the community center. The program uses the assistance of volunteers when the number of enrolled participants is more than 10. Initially, friends and relatives have stated interest in helping as needed in the classroom and posting possible marketing materials in local areas. The author is also new in using this activity to promote wellness. The author has current connections and mentorship through finance professionals who can provide advice along the way and are willing to speak as needed when conducting follow-up virtual support.

**Needed Resources: Budget**

There are associated costs with each of the project stages including the preparation stage, implementation stage, and program evaluation dissemination stage.

The anticipated costs for each stage and accompanying rationale for the preparation and implementation stages are presented next. The dissemination stage and associated activities are presented more in depth in the Dissemination chapter.

***Preparation Stage***

The first six months of the preparation stage will focus on preparing the contents, materials and coordinating with the community center to determine and confirm program logistics.

**Program Development Resources.** The time to create and adjust the contents of the program, applying for a business license, and activities related to program evaluation are needed to prepare and for continuous improvement of the program.

***Program Development Hours.*** Time is required to create a lesson plan, PowerPoint slides, pre-class recording for each session for participants who missed the class, preparation of materials, initiating logistics planning, and initiating some marketing effort. The author approximated the creation of in-person instruction as 22 hours per hour of instruction (Chapman, 2010), which totals 176 hours. Since only half of each session requires instructional materials and the other half facilitates the participants' experience, only 88 hours are calculated for developing the program. Since the author is planning to develop the program, the cost is calculated using her hourly wage. To create this specific program, the author will absorb this cost as she can initially dedicate

approximately sixteen hours per week in pursuing purposeful activities such as developing this program.

***Business License Application.*** The community center requires the implementation of the program to be under independent contract with the city's community center. A business license application is required for the author to initiate transactions with the community center. The application fee set by the city will be added to the program development budget.

***Legal Consultation.*** In designing the program, the author intends to have the participants sign a confidentiality agreement due to possibly sensitive topics that may come up during sessions. A consultation or legal advice is necessary for creating the proper document. The author intends to use four consultations using Legal Zoom that is a work benefit. The author will include the co-pay for the consultations in the program development budget.

***Survey Platforms.*** The author intends to use survey platforms to gather information and gather formative evaluation results. For Year 1, the author intends to use Google Forms and use SoGoSurvey for Year 2. This cost will be added under program development budget.

***Equipment.*** A computer is required to create the contents and to communicate with the appropriate staff. Since the author owns her own computer, this item is not included in the budget but may be needed in the future as needed.

***Utilities.*** During the preparation stage, the author is anticipated to use internet service and cellular service to create the contents and email or make phone calls to

communicate with needed stakeholders. The author uses the additional line feature of her mobile phone plan, which also allows using hotspots for using data and use available wifi at home.

### ***Implementation Stage***

In the implementation stage, the resources to run the program at the community center with specific schedule and activities will also require funds. The following are required for the implementation stage in addition to the preparation costs.

**OT Facilitator.** The OT facilitator is responsible for running each class plus associated activities. The OT is paid for the one-hour session plus 30 minutes for setting up the materials and following up on the participants that did not attend, and the questionnaires to be filled out to initiate the formative surveys. As a facilitator of the program, it is considered that the OT is operating at the same expertise as an entry-level OT in a community-based program. As the OT gains increased efficiency in conducting the groups and associated activities, the time required to set up the materials and filling out formative surveys is expected to decrease, while other activities such as hybrid sessions are also explored.

**Space and Materials.** A classroom space, tables, chairs, and AV projector are required. These items are covered when providing the in-person sessions at the community center. The community center requires 30% of the enrollment fee, so this cost depends on the number of enrollees.

**Zoom Business Account.** A Zoom Business account is required to conduct the virtual follow-up and possible use of focus groups in Year 2 for the multiple number of

people. Since the author is also planning to send participants a link to the missed class, the author opted for a business account. It allows recording and access may require a password which can assist in limiting the people who can access the information while keeping the cost down.

**Other Costs.** Although it is not required, the author considers inviting volunteer speakers during virtual support or if a volunteer is needed when class enrollment is unmanageable. A thank you gift in the form of gift cards may be appropriate as gratitude for spending some time and supporting the program.

Most of the resources in the preparation stage are also needed for implementing and sustaining the program. The first year is anticipated to require startup costs including outreach, equipment, community center fees and reduced revenue during the pilot program launch. During Year 2 of the program, it is expected that the program is developed and running on a quarterly basis, the facilitator has increased efficiency in conducting the groups, and evaluation activities are also increased. Table 7.1 shows the projected amount for all the stages and the anticipated costs for Year 1 and Year 2. The table in Appendix G shows that the loss and profit are variable based on the program's capacity to hold classes and the number of enrollees per class. Since the cost of utilizing the community center is dependent on the number of enrollments, the space and equipment cost for the implementation is also variable, the cost based on the max number of enrollments was used in Table 7.1.

**Table 7.1***Needed Resources for the Financially Wiser Program*

<b>Budget Item</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Rationale</b>
Program Development Resources	Development hours: 1 class per season <b>\$50 x 4 =200</b>  Google Docs <b>\$0</b>  Legal Zoom - <b>\$100</b> Business Application - <b>\$64.00</b>  <b>Total: \$364.00</b>	SoGoSurvey <b>\$255.00</b>  Program Development hours: <b>(\$50 x 8) \$400</b>  <b>Total: \$655.00</b>	Author's time for creating and adjusting contents, evaluating survey results, and communication to implement & disseminate the program (\$50/cohort) Using Survey Platform Google Docs Year 1 (\$0) SoGoSurvey for Year 2 (255/year) Author using LegalZoom Account through work (\$25/month) x 4 months Business Application \$64.00
Computer	<b>\$0</b>	<b>\$0</b>	Approximately \$600.00, waived, may use own laptop
OT Facilitator	\$30/hr x 12 hours for in person groups = \$360 per cohort \$30/hr x 4 hours virtual follow up for each season = \$120  <b>\$480 /cohort x 4 seasons = \$1,920</b>	\$31/hr x 10 hours for in person groups = \$310 per cohort 2 cohorts per season = \$620/season \$31/hr x 4 hours virtual follow up for each season = \$124/season <b>\$744 x 4 seasons = \$2,976</b>	Entry-Level Community Based OT in CA is 28.60 (ZipRecruiter, 2021). Program will offer \$30/hr. Each cohort: 1 hr per session, 30 minutes for preparation of materials and providing feedback 4 hours of virtual follow up combining all cohorts per season. There is \$1 added for second year due to inflation.
Space and equipment	<b>\$1080</b>	<b>\$2160</b>	Projected percentage to the community center 30% of enrollment
Zoom Business Account	<b>\$239.88</b>	<b>\$239.88</b>	Zoom Business Account \$19.99/month
Utilities	<b>\$120.00</b>	<b>\$120.00</b>	\$10/month using author's additional line on cellular plan
Other expenses	<b>\$100.00</b>	<b>\$100.00</b>	\$25.00 gift card x 4 seasons
Dissemination	<b>\$267.58</b>	<b>\$112.85</b>	Explained in Chapter Six
<b>Total</b>	<b>\$4590.38</b>	<b>\$4203.73</b>	

**Potential Funding Sources**

The program is designed to be a fee-for-service which is compliant with the city’s community center policies. The cost of the program is \$75.00 for the eight-week in-person sessions. This tuition is aligned with that of other wellness classes offered at the community center and is more cost effective than one-on-one consultation with a financial coach. The number of participants enrolling and paying for services is a crucial factor in sustaining the program. During the first year, since the program is still unknown, funding is needed to cover for the start up costs or to sponsor interested participants to reach the full capacity and prevent loss. To enable offering the program to community members who may not be able to afford the enrollment fee, alternative funding sources will be necessary to sustain the program. Table 7.2 shows potential alternative funding sources.

**Table 7.2**

*Potential Funding Sources*

<b>Source</b>	<b>Description</b>
<b>Crowd Sourcing, GoFundMe</b>	<ul style="list-style-type: none"> <li>• Crowdsourcing such as GoFundMe may be set up to raise specific funds for a small business. Specific to GoFundMe, it requires the fundraiser to specify the amount of fund needed and what it will be used for. There is a 2.3% processing fee and \$3.00 fee for every contributor.</li> <li>• The author can specify \$750 for preparation costs and annual costs to support virtual follow-up and dissemination activities. While <i>Financially Wiser</i> has a reasonable registration price, the author understands that the target population may be hesitant to spend \$75.00 if they already feel personal financial pressure. Raising \$3,750 can sponsor 50 attendees or 4 cohorts of 12 participants in the first year.</li> <li>• Including participant sponsorship through the GoFundMe account will allow people to sponsor others who wish to improve their</li> </ul>

Source	Description
	<p>financial situation to access the program for free. Participants who completed the program and received sponsorship are also encouraged to donate or support others through the GoFundMe account.</p>
<p><b>The Amber Grant</b></p>	<ul style="list-style-type: none"> <li>• The Amber Grant Foundation was created over 20 years ago to help women small business owners.</li> <li>• Amber Grant awards up to \$10,000 each month for women entrepreneurs who are growing or starting a small business. The application may be submitted every month and requires a \$15.00 application fee. Further information is available at <a href="https://ambergrantsforwomen.com/get-an-amber-grant/">https://ambergrantsforwomen.com/get-an-amber-grant/</a> .</li> <li>• This grant can support the first year of the program if it's approved.</li> </ul>
<p><b>Sargent College Student Research Grant</b></p>	<ul style="list-style-type: none"> <li>• The Sargent College Research Grant is available for Sargent College graduate students and post-doctoral fellows working with Sargent faculty mentor.</li> <li>• The Student Research Grant awards up to \$5,000 with a minimum of \$2,500 matching grant from the academic mentor.</li> <li>• Since the program is a novel approach for occupational therapists to be involved in community-based program promoting health promotion and wellness, the research grant can be beneficial during Year 2 or Year 3 of the program when the author aims to complete program evaluation research.</li> <li>• The most recent application deadline for this grant was March 5, 2021. Further information is available at <a href="https://www.bu.edu/sargent/research/research-funding-administration/funding-opportunities-for-sargent-faculty-and-students/student-research-grant/">https://www.bu.edu/sargent/research/research-funding-administration/funding-opportunities-for-sargent-faculty-and-students/student-research-grant/</a> .</li> </ul>
<p><b>DollarWise Program for Mayors</b></p>	<ul style="list-style-type: none"> <li>• The goal of the DollarWise Innovation Grants is to provide opportunities and decrease the barriers for low- to middle-income residents so they can build wealth. Since the program is new, and wellness programs through financial management are not currently available, the city may be eligible for this grant. The author can assist in applying for the grant using this design.</li> <li>• The grant is worth \$10,000 and can sponsor at least 100 participants and use the rest of the fund to increase research activities. Further information is available at <a href="https://www.usmayors.org/dollarwise/">https://www.usmayors.org/dollarwise/</a> .</li> <li>• After completing a successful pilot implementation, the author may propose to the city to apply for Dollarwise Grants for Mayors by Fall of 2023.</li> </ul>

Source	Description
<b>The National Endowment for Financial Education (NEFE)</b>	<ul style="list-style-type: none"> <li>• The NEFE supports research promoting financial education.</li> <li>• The grant application requires the author to separate from the program’s proprietary side and partner with the previously identified stakeholders in a university to conduct further summative research.</li> <li>• The average amount awarded for research projects is \$137,509. Further information is available at <a href="http://nefe.org">nefe.org</a> and <a href="https://www.nefe.org/news/2021/08/nefe-hits-5-million-milestone-in-research-grant-funding.aspx">https://www.nefe.org/news/2021/08/nefe-hits-5-million-milestone-in-research-grant-funding.aspx</a> .</li> <li>• In the program’s third year, after formative and summative evaluations have been completed, the author may apply for this research grant to reach the goal to contribute to research that may also impact the profession of occupational therapy and to understand further underlying factors in promoting financial wellbeing.</li> </ul>

## Conclusion

The *Financially Wiser* Program is an innovative program to promote the wellbeing of community members through a financial management education program using evidence-based information and approaches, led by an occupational therapy practitioner. It is a hybrid of eight-week in-person sessions followed by virtual follow-up presentations. To prepare for the program, the author will invest current personal resources to develop and initiate a pilot launch program. Funding sources such as fee for service, crowdsourcing, and The Amber Grant are considered for the program’s first year. During the subsequent years of the program, the funding objective is to acquire resources to enable offering the program for low- and middle-income community members and to support program analysis and development. With these options available, the yearly objectives of the program may be met.

## CHAPTER EIGHT – Conclusion

*Financially Wiser* is a proposed community-based financial management education program aiming to improve the wellbeing of community members who are at risk for increased financial stress. There is evidence that financial stress can influence a person's physical health (Gallo et al., 2011; Kahn & Pearlin, 2006; Sturgeon et al., 2016), mental health (Fitch et al., 2011; Mucci et al., 2016)), participation in health management behaviors (APA, 2015; Kneipp et al., Patel et al., 2016), and a person's financial management behavior may also affect their health in the future (CDA, n.d.; James et al., 2018, ). Adults aged 19-50 were chosen as the target population as this group of people were found to be at higher risk for financial stress (APA, 2015) and may have decreased opportunity to learn financial literacy in school (Barrington, 2020; Clark, 2021).

To address financial stress, literature review was conducted using the Person-Environment-Occupation (PEO) model (Law et al., 1996) to understand the factors and pathway to improved financial wellbeing. Influencing a person's financial management behavior was chosen as an intervention. Financial management is an instrumental activity of daily living (IADL) that is within the scope of occupational therapy (AOTA, 2020). Occupational therapy (OT) practitioners are chosen to facilitate the program based on their academic background and skills in using a person's engagement in meaningful activities, such as financial management, in facilitating change, either in an individual or group setting.

Upon reviewing current approaches and methods, facilitating increased financial literacy or knowledge and facilitating behavior change were found to be essential

components for a program. Therefore, *Financially Wiser*, was designed using behavior change theories including Social Cognitive Theory (Bandura, 2005), Theory of Planned Behavior (Ajzen, 2002), and Transtheoretical Model of Change (Proschaka, 2015). Adult and brain-based learning techniques (Yee & Boyd, 2018) were also considered for increased knowledge translation for the chosen age group.

*Financially Wiser* is an eight-session financial management education program proposed to be implemented at a community center during hours that are convenient for the target population. Within four months of completing the eight-session program, a virtual follow up is offered monthly to promote support and follow-through with the participants. A three-phase evaluation plan is chosen to support the yearly objectives and coincides with the dissemination goals of the program. Potential funding sources were identified to implement the pilot launch of the program.

*Financially Wiser* is an innovative approach in influencing the health of community members who are at risk for increased financial stress. In this paper, the City of Buena Park located in California was chosen as the program setting as its community's demographics (City of Buena Park, 2017) indicate that a higher percentage of the resident may benefit from such programs. By implementing the program in the community, it can support the strategic goals of improving the wellness of the community members (City Council, 2018).

*Financially Wiser* can also contribute to the OT profession. Currently, there is limited literature showing the profession's active utilization of financial management as an intervention method. By implementing and completing program evaluation, the

results may be disseminated to other OT practitioners through presentations and writing in journals. Successful implementation of *Financially Wiser* is also beneficial for local OT programs as it is a potential fieldwork site for a fieldwork level 1 experience.


The program is currently designed to be implemented for a specific community in a group setting based on the community's demographics and available resources. However, by understanding the factors that contribute to the problem and current approaches to address those factors, *Financially Wiser* can be implemented in different formats such as synchronous and asynchronous virtual presentations or modified to be used in one-on-one coaching. OT practitioners concentrating in health and wellness promotion practice may benefit from the assumptions of the program. The program can also be modified to be used for OT programs targeting clients in a mental health setting or in medical settings where financial management is an identified meaningful activity of the client.

The American Occupational Therapy Association Vision 2025 states that “as an inclusive profession, occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living” (AOTA, 2021). *Financially Wiser* is an innovative community-based solution aiming to address the negative health, occupational, and societal impact of financial stress and to promote improved wellbeing of adults now and in the future.

**APPENDIX A – Behavioral Change Theories Chosen for the Program**

Theory	Applicable Processes of Change	Illustration	Constructs	Program Application
<p><i>Transtheoretical Model of Change (TTM)</i>                      Proschaka &amp; DiClemente</p> <p>Change is a process that happens overtime and in six stages. It is not linear as there are opportunities for relapse and a person may return to a previous stage.</p> <p>(Proschaka, 2015)</p>	<p>Consciousness raising                      Self-reevaluation                      Self-liberation                      Counterconditioning                      Stimulus Control                      Contingency management                      Helping relationships</p>	<pre>                     graph TD                         Precontemplation[Precontemplation No intention to take action within the next six months] --&gt; Contemplation[Contemplation Intends to take action in the next six months]                         Contemplation --&gt; Preparation[Preparation Intends to take action within the next 30 days and has taken some behavioral steps in this direction]                         Preparation --&gt; Action[Action Changed overt behavior for less than 6 months]                         Action --&gt; Maintenance[Maintenance Changed overt behavior for more than 6 months]                         Maintenance --&gt; Termination[Termination No temptation to relapse and 100% confidence]                         Termination --&gt; Precontemplation                     </pre>	<p>When a person registers for the program, it is assumed that the person is at least in contemplation stage. The person must move to preparation stage by increasing the positive and decrease the barriers. Once in the preparation stage, goal setting &amp; action planning is important for a successful transition to action stage. During the six month follow up, the person must have at adopted at least one positive financial behavior since the end of the program.</p>	

Theory	Applicable Processes of Change	Illustration	Constructs	Program Application
<p><b>Theory of Planned Behavior</b> (Ajzen &amp; Fishbein)</p> <p>The theory was created to predict what increases the probability of engaging in the behavior.</p>	<p><b>Social Norm</b> (Normative beliefs &amp; motivation to comply)</p> <p><b>Attitude</b> (Behavioral Belief &amp; positive or negative outcome evaluation)</p> <p><b>Perceived Behavioral Control</b> (Control belief &amp; control frequency)</p>	<pre> graph LR     SN[Social Norm] &lt;--&gt; A[Attitude]     A &lt;--&gt; PBC[Perceived Behavioral Control]     SN --&gt; I[Intention]     A --&gt; I     PBC --&gt; I     I --&gt; B[Behavior]     PBC --&gt; B </pre>		<p>One of the programs goals is to affect the person's attitude towards financial management. The earlier parts of the program will focus on increasing intention and perception that that tasks are doable.</p>
<p><b>Social Cognitive Theory</b> (Bandura)</p> <p>Assumes that human behavior is influenced by the interaction of the person's behavior, cognitive factors, and environment. This interaction is called reciprocal determinism (Kelder et al., 2015).</p>	<p>To affect self-efficacy: Mastery of Experience Vicarious Experience Social Persuasion Physiological &amp; emotional state</p> <p>To affect Behavioral capability Knowledge &amp; outcomes expectations Intentions</p> <p>Low self-efficacy will focus on barriers; High self-efficacy will focus on opportunities</p>	<pre> graph TD     BF[Behavioral Factors • Behavioral skills • Intentions • Reinforcement and punishment]     CI[Cognitive Influences on Behavior • Self-efficacy • Collective efficacy • Outcome Expectations • Knowledge]     EI[Environmental Influences on Behavior • Observational learning • Normative beliefs • Social support • Barriers &amp; Opportunities]     BF &lt;--&gt; CI     BF &lt;--&gt; EI     CI &lt;--&gt; EI </pre>		<p>There are different constructs of social cognitive theory utilized throughout the program. Since the program is in a group setting, it can be viewed as the environment that influences the behavioral and cognitive factors. The topics &amp; activities also promote self-efficacy, outcome expectations through goals, and increased knowledge can affect behavior skills and intentions.</p>

Theory	Constructs & Illustration	Applicable Constructs	Program Application
<p><b>Diffusion of Innovation</b> Everett Rogers</p>	 <p><b>Awareness</b> An individual or community is exposed to the innovation, gains knowledge of how it works and how it helps solve the problem.</p> <p><b>Persuasion</b> An individual or community forms an opinion if the innovation is favorable or unfavorable. <b>Key innovation concepts</b> Cost Relative Advantage Simplicity Compatibility Observability Triability</p> <p><b>Decision</b> (Early stage of adoption) An individual or community engages in activities that lead to a choice to <b>adopt</b> or <b>reject</b> an innovation.</p> <p><b>Implementation</b> "Occurs when an individual or organizational unit puts an innovation to use; this typically involves overt behavior change" (Brownson et al., 2015, p. 307)</p> <p><b>Confirmation</b> An individual or community looks for support for the decision already made. As a result, the individual or community will use the innovation fully or choose not to continue. This is similar to the concept of sustainability.</p>	<b>Awareness</b>	Marketing with information on health & wellness consequences of financial stress
		<b>Persuasion</b>	
		Cost	Free or use funds to pay for registration
		Relative Advantage	Cheaper than paying a financial coach
		Simplicity	The information is curated instead of going through multiple information through self-help. Participant can ask questions right away.
		Compatibility	The schedule anticipates a suitable time for participants
		Observability	Being in a group allows the participant to see how many people are attending the program.
		Triability	Participant has an option to choose weekday or weekend schedule.
		<b>Decision</b>	The people who attend the program will decide if the program works for them or not.
		<b>Implementation</b>	Participants completed the program.
		<b>Confirmation</b>	Participant has an option to continue with virtual support or provide positive feedback about the program.

The theory explains how innovations are first introduced to a few people (early adopters) before they diffuse quickly and widely. During the process, an innovation may be accepted or rejected, and even when it is adopted it can also be abandoned (Brownson et al., 2015).

**APPENDIX B – Results of Mini-Survey**

<p><b>Adults age nineteen and older who are living in Orange and Los Angeles Counties were surveyed. An online questionnaire was shared through text messages with an encouragement to forward the information to other adults living in the area. A link was posted on Nextdoor app to share with adults living in the community. Total Responses: 52</b></p>			
Financial stress affected daily & monthly activities		54%	
<p><b>Domains of Occupations affected when feeling stressed</b></p>			
Rest and sleep	90%		
Health Management			
Eating Habits	75%		
Exercise	60%		
Social & Emotional Health	52%		
Activities of Daily Living	48%		
<p><b>Interest In Financial Education Program</b></p>		<p><b>Activities Related to Money Management</b></p>	
Definitely Interested	48%		
Maybe interested if:	25%		
it's free			
It's feasible			
Right time and right person			
Not attached to financial product (example: insurance)			
Not Interested	27%		
<p><b>What needs to be addressed for those who reported financial stress (n=28)</b></p>			
<p><b>Top 3 Causes of Stress</b></p>		<p><b>Top 3 Financial Difficulties</b></p>	
Managing Monthly Expenses	82%		
Not Having Emergency Fund	61%		
Ability to save for plans in the next 2 years	79%		
	Paying monthly Bills 79%		
	Credit Card Debts 54%		
	Student Loans 39%		
	Mortgage Loans 39%		

## APPENDIX C – Example Weekly Modules

Session	Stress Management	Financial Topic	Experiential	Homework
<b>1 Introduction</b>	Listen to relaxing music Explain why stress management techniques will be incorporated	Money & the value of your time right now and in the future  Write down financial management questions to be addressed in class & give to the facilitator.	Introduce self; reason for the program, and topics to be covered.  Participants will introduce and may share reasons for choosing the class.	Fill out pre-program questionnaires sent via email Initiate compiling receipts/bills/sources of income in the past one to three months in preparation for next week
Rationale or Related Theory	Linneman et al., 2015 – Music with intention to relax decreases stress	TTM: Self reevaluation SCT: Outcome expectations	TPB: Social Norms SCT: Social experience Borek et al., 2019 -Facilitator sharing their background & story informs participants of competence and empathy	SCT: Mastery to increase self-efficacy in organizing and tracking Borek et al., 2019 – Homework promotes monitoring and accountability
<b>2 Create your Why</b>	Five-minute mindfulness	Understanding Interests and effects of savings interest, debt interest, inflation, investment interest	Imagine financial freedom  Show videos of people accomplishing their goals	From last week’s task, list assets or sources of income List of debts smallest to largest & interest rate of each
Rationale or Related Theory	McConville et al., 2015 -Systematic review mindfulness decreases stress of health professionals	SCT: Knowledge influences behavior & Attitude	Oettingen et al., 2001- imagining future followed by current situation improves goal adherence  SCT: vicarious learning TPB: Attitude & PBC	Gardner et al., tracking expenses is valued by participants
<b>3 Investigate your situation</b>	Breathing exercises	Steps to financial freedom. Explanation of hierarchy of goals connected to interest (buffer, pay debt, 3-6 months	Using the handout and information from their homework, participants will check off which financial goals	Provide a form where participants will list in proper columns their sources of income, their expenditures,

Session	Stress Management	Financial Topic	Experiential	Homework
		savings, retirement funds, saving for children, paying off mortgage)  Provide handout for the activity, explain reasons	have been completed. Participants will write in their notebook the next step they need to achieve. (part of creating STG)	and dividing annual spending to become part of the budget, and dividing source of income if it is not consistent every month -Mark which of the expenses are need or want
Rationale or Related Theory		SCT: Knowledge; Outcome expectancy	TPB: PBC	Xiao & O'Neill (2018), Xu (2018) – Budgeting is a fundamental skill for financial capability
<b>4</b> <b>Set Goals/</b> <b>identifying</b> <b>needs vs wants</b>	Easy yoga poses in sitting or standing -Check with the group how the stress-relieving activities help them. Can they include it with their goals	-Demonstrate using Zero-Based Budgeting app, use of a spread sheet, vs use of pen & paper for Budgeting. Advantages & disadvantages	-Provide a handout for writing goals -Practice setting goals based on the previous activities.	-Choose 1 budgeting tool, input what they have completed in the past assignment using what's learned in class -Attempt how their incoming money will fit without incurring debt -Bring to class marked needs/wants receipts or information from last week
Rationale or Related Theory	Chong et al. (2011) Yoga has positive effects on stress reduction of healthy adults	-Xiao & O'Neill (2018); Huebner et al. (2019) – use of smartphone for budgeting  SCT: Knowledge, outcome expectancy, increasing mastery of financial management tools TPB: PBC	-O'Donnell et al. (2018) – using goal setting prompt facilitate adherence for at least 3 mos  SCT: Self-efficacy writing goals	-SCT: Mastery of Experience

Session	Stress Management	Financial Topic	Experiential	Homework
<b>5 Experience Decision Making</b>	Effects of sleep on decision-making. 5 strategies for better sleep	-5 minute quiz on which decision is numerically better (based on previous lesson on interest, participant will decide which scenario is building and which scenario is depleting) Follow up if they were able to balance their budget from the HW. Demonstrate/discuss how to prioritize budget if it's not enough (use Maslow's pyramid if needed)	-“Find me the Money” -Demonstrate how the zero-based budgeting can help them address their STG by adjusting some expenses (use information from HW 3 if possible) -Based on their own HW and a calculator, create a running tally of cost of expenses that were “wants” How fast can they reach their goal if they use that “extra” money?	Adjust created budget to a prospective zero-based budget -Provide a handout to write wants category in one column and another column for alternative solution if they have to remove that item from their budget (e.g. pay for cable vs. use one streaming service)
Rationale or Related Theory	Irish et al. (2015) – Review of sleep hygiene strategies	SCT: Knowledge, self efficacy, outcome expectation TPB: PBC, attitude	SCT: Knowledge, self efficacy, outcome expectation TPB: PBC, attitude	SCT: Self-efficacy creating a budget TTM: Counterconditioning; Contingency Management
<b>6 Remove Barriers</b>	Quick aerobic exercises (depending on how the group looks like use a fast-movement activity to increase HR)	-After HW, participants should have an idea how much they can have available to fund their STG 2 Types of debt management styles out there (debt snowball & avalanche); Types of savings account (bank vs. high yield account for saving)	The group will create together a list of alternative solutions they found from their homework. (Facilitator: Prepare some examples ahead of time in case the group is having a hard time)	-Demonstrate how to create implementation plan for their goal - Break down your goals into defined and achievable breaks. What's a simple reward for completing that step? E.g. Everytime I pay/I save \$x amount, I will treat myself to a nice meal with \$X amount.  -Create own implementation plan

Session	Stress Management	Financial Topic	Experiential	Homework
<b>7</b> <b>Resources</b>	See or feel nature (look at pictures of nature, babies, dogs)	-Protecting self (essential insurance, checking FICO score)	-Share with the group collective list of alternative solutions to decrease expenses -Participants will share their implementation plan with the group (if they feel comfortable) - Discuss about virtual groups/ or chat for the group	-Prepare your question for your next steps
Rationale or Related Theory	Velarde et al. (2006) Review of health different studies suggesting health effects of viewing nature	SCT: Knowledge	SCT: Support; Barriers & Resources TTM: Counterconditioning; contingency management	SCT: Reinforcement
<b>8</b> <b>Sustainability</b>	Eating Healthy Food and timing your eating for improved financial decision making	Review what's been covered in the program. Provide a handout of resources of what they can follow to continue their own journey to their goals (resources out there: podcast, books, website)	Fill out post-survey questionnaires OT will spend 3-5 minutes individual time to discuss each member's initial question/goal for attending the class given at the beginning of the program	-Join the group chat - register for virtual follow up if interested - Donate to GoFundMe if interested to support others
Rationale or Related Theory	Ampel et al. (2018) – lack of glucose affects decision making	SCT: Reinforcement	SCT: Outcome expectation, self-efficacy; support	TTM: Helping relationships

## APPENDIX D - Example of CFPB Financial Wellbeing Scale

Part 1: How well does this statement describe you or your situation?

**I could handle a major unexpected expense**

This statement describes me  Completely  Very well  Somewhat  Very little  Not at all

---

**I am securing my financial future**

This statement describes me  Completely  Very well  Somewhat  Very little  Not at all

---

**Because of my money situation, I feel like I will never have the things I want in life**

This statement describes me  Completely  Very well  Somewhat  Very little  Not at all

---

**I can enjoy life because of the way I'm managing my money**

This statement describes me  Completely  Very well  Somewhat  Very little  Not at all

---

**I am just getting by financially**

This statement describes me  Completely  Very well  Somewhat  Very little  Not at all

---

**I am concerned that the money I have or will save won't last**

This statement describes me  Completely  Very well  Somewhat  Very little  Not at all

Part 2: How often does this statement apply to you?

**Giving a gift for a wedding, birthday or other occasion would put a strain on my finances for the month**

This statement applies to me  Always  Often  Sometimes  Rarely  Never

---

**I have money left over at the end of the month**

This statement applies to me  Always  Often  Sometimes  Rarely  Never

---

**I am behind with my finances**

This statement applies to me  Always  Often  Sometimes  Rarely  Never

---

**My finances control my life**

This statement applies to me  Always  Often  Sometimes  Rarely  Never

About you

Select your age group. This changes the scoring calculation.

18-61  62+

Select how you completed the questionnaire. This changes the scoring calculation.

I read and answered the questions myself  I read the questions to someone else and recorded their answers

Source: <https://www.consumerfinance.gov/consumer-tools/financial-well-being/>

**APPENDIX E - A Printed Example of the End of the Program Survey Using  
SoGoSurvey**

**Congratulations on completing the Financially W.I.S.E.R. Program!**

**We want to ask you some questions to improve our program for the next set of people participating in the class.**

**The survey will take approximately 5 minutes to complete.**

**1. How did you hear about this program?**

---

**2. Did you find it convenient to attend the class at the community center? (Select one option)**

- Yes
- No

**3. Did you find it easy to attend the class? (Select one option)**

- It works with my schedule
- It has a conflict with my schedule

**4. Would you recommend this class to friends and relatives? (Select one option)**

- Definitely worth sharing
- Not worth sharing

**5. If you did not attend this class, who or where can you go to improve your financial management?**

---

**6. If this class is not free, how much do you think an 8-week class like this should cost? (Select one option)**

- I won't pay out of pocket for this class.
- \$20 - \$35
- \$36 - \$50
- \$51 - \$65
- Other (Please specify) \_\_\_\_\_

**7. In the first week of class, you wrote a goal for attending this class. Did the class meet your expectation in reaching that goal? (Select one option)**

- Yes
- Maybe
- No
- If it did not, why not? \_\_\_\_\_

**The following are the activities we did in class. Please rate the degree on how each activity helped in your financial management.**

**8. Different stress management techniques shared in each class (Select one option)**

- Extremely helpful  Very Helpful  Helpful  Somewhat helpful  Not helpful

**9. Imagining future goals and creating short-term goals to reach it (Select one option)**

- Extremely helpful  Very Helpful  Helpful  Somewhat helpful  Not helpful

**10. Understanding current and future financial goals. (Select one option)**

- Extremely helpful  Very Helpful  Helpful  Somewhat helpful  Not helpful



**18. Please share, what is your least favorite part of the class?**

---

**19. Please give at least two suggestions on what we can improve.**

---

**20. Did you learn about financial literacy when you were in school? (Select one option)**

- Yes
- No
- NA

**21. What is your highest level of education? (Select one option)**

- Less than high school
- Some high school
- High school diploma or equal
- Some College
- AA degree
- BS/BA degree
- Master's degree or higher
- Trade school
- Prefer not to say

**22. What is your annual household income (Select one option)**

- Less than 30,000

- 31,000 - 60, 000
- 61,000 - 90, 000
- 91,000 - 110, 000
- more than 110, 000
- Prefer not to answer

**23. Whom do you live with (Select one option)**

- Alone
- With spouse or domestic partner
- With spouse and children
- With own children only
- With other family members
- Rent a room with non-family member
- Prefer not to answer

**24. Demographics**

- (a) Gender (Select one option) :  Male  Female
- (b) Email Address : \_\_\_\_\_

**25. Thank you for participating! Please let us know if we can connect with you in future.**

\_\_\_\_\_



**Figure 2***Example of Facilitator's After Class Questionnaire*

Class Code: SPR0421	Facilitator Code: _____	# students: _____
Today's Date: _____	Is an assistant needed today? _____	
Class: Module 1	How did the assistant help you today? _____	
Topic: <b>Introduction</b>	Did you send the absent participant(s) link to make up for the class? Y N	

The following are today's activities. Please check the ones that were easy to explain.  
Please comment about the amount of time allocated for each topic and/or any highlights of the activity.

<input type="checkbox"/> Sharing background information and stories	Comment: _____
<input type="checkbox"/> Explanation how stress affects money management	Comment: _____
<input type="checkbox"/> Receiving participants' personal goals for attending this class	Comment: _____
<input type="checkbox"/> Instructions to fill out CFPB Financial Wellbeing Scale & PSS	Comment: _____
<input type="checkbox"/> Explanation of homework	Comment: _____

What were the questions asked today?  
\_\_\_\_\_  
\_\_\_\_\_

Which program materials are useful and which ones need revision?  
\_\_\_\_\_

How would you rate today's contents? \_\_\_ Good \_\_\_ Fair \_\_\_ Needs Improvement  
How can we improve today's class? \_\_\_\_\_

## APPENDIX G - Sample Breakdown of Costs with Minimal and Maximum

### Enrollment

Costs	Year 1 Break Down	Cost per quarter with 1 cohort & minimum enrollment of 6	Cost per quarter with 1 cohort and max enrollment of 12	Year 2 Break Down	Cost Per Quarter with 2 Cohorts with minimum enrollment	Cost 2 Cohorts with max enrollment
Number of Enrollees per Quarter	Example number of enrollees	6	12	Example number of enrollees	12	24
Program Development	\$564 ÷ 4	141	141	\$655 ÷ 4	\$163.75	\$163.75
OT/Facilitator Rate	\$30.00/hr x (1.5 x 8 sessions) \$360 + 120	480	480	\$31.00/hr x (1.25 x 16 sessions) + 4 hrs virtual follow up \$620 + \$124	744	744
Space, tables, chairs, AV projector	(# of enrollment x 75.00) x 30%	135	270	(# of enrollment x 75.00) x 30% 540 x 4 =	270	540
Zoom Business Account	(\$19.99/mo x 12) 238.80	59.97	59.97	(\$19.99/mo x 12) 238.80	\$59.97	\$59.97
Utilities (wifi, cellphone)	\$10/mo	30	30	\$10/mo	30	30
Thank you Gifts to Volunteers or Speakers for follow up	\$25 Gift Cards x 4 Speakers (optional)	100	100	\$25 Gift Cards x 4 Speakers (optional)	100	100
Dissemination	267.58 ÷ 4	66.89	66.89	112.85 ÷ 4	\$28.21	\$28.21
<b>Cost per quarter</b>	Year 1 Cost per quarter	1012.86	1147.86	Year 2 Cost per quarter	\$1,395.93	\$1,502
<b>Potential Income Per Quarter</b>	<b>\$75.00 x # of enrollees</b>	450	900	<b>\$75.00 x # of enrollees</b>	<b>900</b>	<b>1800</b>
Potential Profit/Loss per quarter		-562.86	-247.86		-495.93	\$298
Total Cost per year	4590.38		4427.44	Year 2 Cost per Year	5580	6008

## **APPENDIX H– Executive Summary**

### **Financially Wiser: Using financial management to improve the wellbeing of young and middle-aged adults**

#### **Executive Summary**

##### **Introduction**

Financially Wiser is an innovative community-based financial management education program that uses evidence-based approaches to improve the wellbeing of the city’s residents. It aims to influence a person’s health by addressing financial stress and promoting increased financial wellbeing. The City of Buena Park’s residents can potentially benefit from this program.

There is evidence that a person’s financial situation is associated with their wellbeing now and in the future. According to the American Psychological Association (2015), financial stress is consistently one of the top three causes of stress in the United States. Financial stress is associated with cumulative effects that have a negative impact on a person’s physical health (Gallo et al., 2011; Kahn & Pearlin, 2006; Sturgeon et al., 2016). Financial stress also affects a person’s mental health (Fitch et al., 2011; Mucci et al., 2016). Recently, when the COVID-19 pandemic started in 2020, the rate of depression increased. The addition of an unstable financial situation increased the risk of depression by 50% (Ettman et al., 2020). Moreover, middle-aged adults with an unfavorable financial situation may impact society due to a potential need for government support and services. In California, almost 50% of household in the state are headed by someone aged 55 and older who do not have retirement savings, increasing their risk of poverty and poor health outcomes (California Department of Aging, n.d.).

Improving a person's financial wellbeing is one way to mitigate financial stress. Financial wellbeing is defined as "a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future and is able to make choices that allow them to enjoy life" (CFPB, 2017, p. 13). *Financially Wiser* is a theory-driven evidence-based approach for developing financial literacy and ability to perform positive financial behavior that leads to improved financial wellbeing.

Financial literacy classes offered in high schools, universities, or at the workplace are beneficial for some individuals, however greater access to financial literacy education in other settings and for specific groups is needed. Specific groups of people, particularly women, Hispanics, and Blacks, have decreased opportunities to participate and have lower financial literacy compared to other groups (Clark et al., 2021). While financial literacy is a required high school course in some states and has shown success, this is not required in California (CA), and the lack of this education is reflected in people's debt management (Barrington, 2020). In a mini-assessment of 52 adults aged 19-50 years living in Los Angeles and Orange counties, 79% reported not receiving financial literacy in school, and 54% reported that financial stress affected their daily and monthly activities (Ferrera, 2020). Adults living in a diverse community will benefit from programs such as *Financially Wiser* to facilitate an individual's financial wellbeing and address financial stress.

### **Proposed Program Overview**

The *Financially Wiser* is an eight-session financial management education program offered to adults aged 19-50 who attend wellness classes at the city's

community center. Each session is conducted in person twice per week on weekday evenings for four weeks or on Saturday mornings for eight weeks. The program includes a series of modules building on crucial aspects of financial management, including basic knowledge, goal setting, increasing self-efficacy in using financial management tools, essential resources, and exploring different stress management techniques. Since the program builds on the previous session's topic, the attendees would have access to a recorded video if they missed a class. After completing the in-person program, virtual support in a group format is offered once a month within four months. An occupational therapist (OT) leads each session. Occupational therapists have an academic background in understanding human behavior, skills to lead groups and individualized approaches, and expertise in using evidence-based approaches in improving a person's engagement in meaningful daily activities, such as financial management.

### **Program Setting**

Buena Park is an ideal city for a pilot launch of the *Financially Wiser* program. In reviewing the city's demographics (City of Buena Park, 2017), the target group of individuals 19 to 50 years make up 64% of the community's population. Moreover, 77% of the city's population comes from a diverse population other than white (City of Buena Park, 2017). The city's median income of \$50,336 is also an essential factor to consider. According to the Consumer Financial Protection Bureau (2017), those with household income less than \$50,000 tend to have lower financial wellbeing scores, thus there are many members of the community who are at risk for decreased financial wellbeing.

One of the city's community services strategic plans is to promote the wellbeing

of the residents (City Council, 2018). *Financially Wiser* will support the city's strategic goal by facilitating improved financial wellbeing and decreasing the perceived stress of those who attend the program. Program evaluation is conducted in specific timeframes to measure the participants' gain in knowledge, attitude, behavior change, decreased stress, and financial wellbeing.

### **Program Goals**

The yearly objectives proposed for program implementation in collaboration with the City of Buena Park are as follows:

Year 1: Enroll 12 adults per class by the end of 2022 and to complete formative surveys to at least 80% of attendees for continuous quality improvement.

Year 2: Enroll 36 adults per quarter by the end of 2023 and complete formative surveys for at least 80% of attendees, including one focus group per quarter.

Year 3: Enroll 48 adults per quarter and apply for grants, including DollarWise Grants for Mayors (<https://www.usmayors.org/dollarwise/>).

A required budget of \$4,600 for the first year can help sponsor 48 participants for the \$75.00 enrollment fee for the eight-session in-person program.

The city can also support this program by waiving the required fee for using the space and equipment at the community center, listing the class in the city's quarterly newsletter, and processing the enrollment and communication with the facilitator. These items account for 30% of the enrollment fees. By waiving these costs, the OT can implement and sustain the program to meet the Year 3 objectives.

The successful implementation of the program and the program evaluation results

are beneficial in supporting the Year 3 objective of applying for the \$10,000 DollarWise Grant for Mayors. An award of \$10,000 can sponsor at least 100 participants while supporting program evaluation and dissemination endeavors. In addition to supporting the city's strategic goals, the city will also be contributing to its residents' future health and wellness.

### **Conclusion**

There is evidence to support that financial stress is present in the lives of many adults, and this type of stress can impact their physical and mental health now and in the future. There are groups of people at higher risk for increased stress due to the lack of opportunity and financial situations that decrease their financial well-being. *Financially Wiser* is a community-based financial management education program that proposes to partner with the City of Buena Park to support the city's goal of improving the wellbeing of its residents, especially since a significant percentage of its residents may benefit from the program. *Financially Wiser* is distinct from other programs as it uses evidence-based approaches related to financial management, behavior change, and adult learning theories while using OT practitioners as facilitators. By implementing the proposed eight-week program and incorporating program evaluation, the results can benefit the city's residents in improving their wellbeing and the city's opportunities to apply for grants expanding its ability to support more residents in the future.

## References

- American Psychological Association [APA] (2015). Stress in America: Paying with our health. *Stress in America Survey*, February 4, 2015. <https://www.apa.org/news/press/releases/stress/2014/stress-report.pdf>
- Barrington, R. (2020, June 4). States where financial literacy is working. *Moneyrates.com*. Retrieved from <https://www.moneyrates.com/research-center/financial-literacy.htm>
- California Department of Aging [CDA](n.d.). Goal five: Affording aging. *Masterplan for Aging*. <https://mpa.aging.ca.gov/Goals/5>
- Clark, R., Lusardi, A., Mitchell, O.S., & Davis, H. (2021, February). Financial wellbeing among Black and Hispanic women. *Global Financial Literacy Excellence Center*. <https://gflec.org/wp-content/uploads/2021/02/Financial-Well-being-among-Black-and-Hispanic-Women-WP-Feb2021.pdf>
- City Council (2018). City of Buena Park strategic plan 2018-2020 [brochure]. Retrieved from <http://www.buenapark.com/home/showdocument?id=15194> .
- City of Buena Park (2017). Demographics. *About Buena Park*. Retrieved on April 11, 2021 <http://www.buenapark.com/residents/about-buena-park/demographics>.
- Consumer Financial Protection Bureau [CFPB]. (2017). *Financial Well-Being in America*. [https://files.consumerfinance.gov/f/documents/201709\\_cfpb\\_financial-well-being-in-America.pdf](https://files.consumerfinance.gov/f/documents/201709_cfpb_financial-well-being-in-America.pdf)
- Ettman, C.K., Abdalla, S.M., Cohen, G.H., Sampson, L., Vivier, P.M., & Galea S. (2020). Prevalence of depression symptoms in US adults before and during the Covid-19 pandemic. *JAMA Network Open*, 3(9):e2019686. <https://doi.org/10.1001/jamanetworkopen.2020.19686>
- Ferrera, C. (2020, August 16). *Financially W.I.S.E.R. Program Manual: Theoretical Grounding, Evidence Base, and Program Content*. [unpublished manuscript]. Boston University.
- Fitch, C., Hamilton, S., Bassett, P., & Davey, R. (2011). The relationship between personal debt and mental health: A systematic review. *Mental Health Review Journal*, 16(4), 153-166. <https://doi.org/10.1108/13619321111202313>
- Gallo, L.C., Jimenez, J., Shivpuri, S., Espinosa de los Monteros, K., & Mills, P.J. (2011). Domains of chronic stress, lifestyle factors, and allostatic load in middle-aged Mexican-American women. *Annals of Behavioral Medicine*, 41(1) 21–31. <https://doi.org/10.1007/s12160-010-9233-1>

- Kahn, J. R., & Pearlin, L. I. (2006). Financial strain over the life course and health among older adults. *Journal of Health and Social Behavior*, 47(1), 17–31. Doi: <https://doi.org/10.1177/002214650604700102>
- Mucci, N., Giorgi, G, Roncaioli, M., Fiz Perez, J., & Arcangeli, G. (2016). The correlation between stress and economic crisis: A systematic review. *Neuropsychiatric Disease and Treatment*, 12, 983-993. <https://doi.org/10.2147/NDT.S98525>
- Sturgeon, J. A., Arewasikporn, A., Okun, M. A., Davis, M. C., Ong, A. D., & Zautra, A. J. (2016). The psychosocial context of financial stress: implications for inflammation and psychological health. *Psychosomatic Medicine*, 78(2), 134–143. <https://doi.org/10.1097/PSY.0000000000000276>

## APPENDIX I – Fact Sheet



### Financially Wiser:

Using Financial Management to Improve the Wellbeing of Young and Middle-aged Adults in the Community

Charisma C. Ferrera, OTR/L  
OTD Candidate

**Financially Wiser is a community-based financial management education program aiming to improve the wellbeing of community members who are at risk for increased financial stress.**

#### The Problem

- In the United States, finance is consistently one of the primary causes of stress (APA, 2015).
- Financial stress is a problem that affects physical health, mental health, life roles and participation in occupation (APA, 2015; Fitch et al., 2011; Kahn & Pearlin, 2006; Sturgeon et al., 2016)
- A person with increased financial stress has decreased financial wellbeing (Prawitz et al., 2006).
- Adults aged 19-50, women and people of color are at risk for decreased financial wellbeing (APA, 2015; Clark, 2021).

#### Understanding the Pathway to the Problem

The Person-Environment-Occupation Model (Law et al., 1996) was used to understand the problem.

##### Intrinsic Factors (Person):

Knowledge, Mental Processes (mental accounting, cognitive bias, self-regulation)

##### Extrinsic Factors (Environment):

Social Environment, Effects of Advancement in Technology, Opportunity

##### Financial Management (Occupation):

“Using fiscal resources, including financial transaction methods (e.g. credit card, digital banking), and planning and using finances with long-term and short-term goals” (AOTA, 2020, p.45).



<https://pixabay.com/illustrations/woman-burnout-multitasking-face-1733891/>

##### Financial wellbeing is

“a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future and is able to make choices that allow them to enjoy life” (CFPB, 2017, p.13).

#### Proposed Solution

##### Financially Wiser

- An eight-session financial management education program for adults aged 19-50
- Conducted at the city’s community center twice a week on weekday evenings or once a week on Saturdays
- Facilitated by an occupational therapist
- After the program’s conclusion, a virtual support group is offered with additional topics related to finance and to facilitate continuous social support

### Financially Wiser

The program facilitates increased knowledge while utilizing behavior change theories including Bandura's Social Cognitive Theory, Ajzen's Theory of Planned Behavior, Proschaka's Transtheoretical Model of Change, and brain-based learning strategies.

#### Each Session includes

- Introduction to different stress management strategies
- Introduction to basic financial concepts
- Experiential activities to facilitate goal setting skills and self-efficacy in completing financial management digital transactions
- Activities on their own time (homework) to facilitate application of concepts and financial management tasks with adequate time
- Resources to assist in financial decision-making with the help of facilitator and the rest of the group
- The group design facilitates peers and facilitator support

**Financially Wiser aims to decrease financial stress and improve the financial wellbeing score of its participants.**



<https://pixabay.com/photos/investment-finance-time-3247252/> layered with MS Word stock photos

#### Impact on Occupational Therapy Practice

- Financial management is an instrumental activity of daily living (IADL) that is within the scope of occupational therapy (AOTA, 2020) and the program evaluation results of Financially Wiser can contribute to OT literature.
- The World Federation of Occupational Therapists (WFOT) affirms that “occupational therapy’s focus on everyday living can [contribute] to the promotion of health and well-being of individuals, groups, and communities” (WFOT, 2012, p.1).
- Financially Wiser supports The American Occupational Therapy Association’s (AOTA) Vision 2025, “as an inclusive profession, occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living” (AOTA, 2021).

### References

- American Occupational Therapy Association [AOTA]. (2020). Occupational therapy practice framework: Domain and process (4th ed.). *American Journal of Occupational Therapy*, 74(Suppl. 2), 7412410010. <https://doi.org/10.5014/ajot.2020.74S2001>
- American Occupational Therapy Association (2021). Vision 2025. <https://www.aota.org/AboutAOTA/vision-2025.aspx>
- American Psychological Association [APA] (2015). Stress in America: Paying with our health. *Stress in America Survey*, February 4, 2015. <https://www.apa.org/news/press/releases/stress/2014/stress-report.pdf>
- Clark, R., Lusardi, A., Mitchell, O.S., & Davis, H. (2021, February). Financial wellbeing among Black and Hispanic women. *Global Financial Literacy Excellence Center*. <https://gflec.org/wp-content/uploads/2021/02/Financial-Well-being-among-Black-and-Hispanic-Women-WP-Feb2021.pdf>
- Consumer Financial Protection Bureau (2017). Financial Well-Being in America. [https://files.consumerfinance.gov/f/documents/201709\\_cfpb\\_financial-well-being-in-America.pdf](https://files.consumerfinance.gov/f/documents/201709_cfpb_financial-well-being-in-America.pdf)
- Fitch, C., Hamilton, S., Bassett, P., & Davey, R. (2011). The relationship between personal debt and mental health: A systematic review. *Mental Health Review Journal*, 16(4), 153-166. <https://doi.org/10.1108/13619321111202313>
- Law, M., Cooper, B., Strong, S., Stewart, D., Rigby, P., & Letts, L. (1996). The person-environment-occupation model: A transactive approach to occupational performance. *The Canadian Journal of Occupational Therapy*, 63(1), 9-23. <https://doi.org/10.1177/000841749606300103>
- Pravitz, A.D., Garman, E.T., Sorhaindo, B., O'Neill, B., Kim, J. & Drentea, P. (2006). InCharge Financial Distress/Financial Well-Being Scale: Development, administration, and score interpretation. *Financial Counseling and Planning*, 17(1), 34.
- Sturgeon, J. A., Arewasikporn, A., Okun, M. A., Davis, M. C., Ong, A. D., & Zautra, A. J. (2016). The psychosocial context of financial stress: implications for inflammation and psychological health. *Psychosomatic Medicine*, 78(2), 134–143. <https://doi.org/10.1097/PSY.0000000000000276>
- World Federation of Occupational Therapists (2012). Position statement: Activities of daily living. <https://wfot.org/resources/activities-of-daily-living>

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## REFERENCES

- Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the Theory of Planned Behavior. *Journal of Applied Social Psychology, 32*(4), 665–683. <https://doi.org/10.1111/j.1559-1816.2002.tb00236.x>
- Amar, M., Ariely, D., Ayal, S., Cryder, C.E., & Rick, S.I. (2011). Winning the battle but losing the war: The psychology of debt management. *Journal of Marketing Research, 48*, S38–S50.
- Amber Foundation (2021). *What's the Amber Grant?* WomensNet.net. <https://ambergrantsforwomen.com/get-an-amber-grant/>
- American Occupational Therapy Association (2019). Cognition, cognitive rehabilitation, and occupational performance. *American Journal of Occupational Therapy, 73*(Supplement\_2):7312410010. <https://doi.org/10.5014/ajot.2019.73S201>
- American Occupational Therapy Association [AOTA]. (2020). Occupational therapy practice framework: Domain and process (4th ed.). *American Journal of Occupational Therapy, 74*(Suppl. 2), 7412410010. <https://doi.org/10.5014/ajot.2020.74S2001>
- American Occupational Therapy Association (2021). Vision 2025. <https://www.aota.org/AboutAOTA/vision-2025.aspx>
- American Psychological Association [APA] (2015). Stress in America: Paying with our health. *Stress in America Survey*, February 4, 2015. <https://www.apa.org/news/press/releases/stress/2014/stress-report.pdf>
- Ampel, B. C., Muraven, M., & McNay, E. C. (2018). Mental work requires physical energy: Self-control is neither exception nor exceptional. *Frontiers in Psychology, 9*(1005), 1–11. <https://doi.org/10.3389/fpsyg.2018.01005>
- Anderson, E., Winett, R. A., Wojcik, J. R., & Williams, D. M. (2010). Social cognitive mediators of change in a group randomized nutrition and physical activity intervention. *Journal of Health Psychology, 15*(1), 21–32. <https://doi.org/10.1177/1359105309342297>
- Antonides, G., de Groot, I.M., & van Raaij, W.F. (2011). Mental budgeting and the management of household finance. *Journal of Economic Psychology, 32*, 546–555. <https://doi.org/10.1016/j.joep.2011.04.001>
- Atlas, S. A., Lu, J., Micu, P. D., & Porto, N. (2019). Financial knowledge, confidence, credit use, and financial satisfaction. *Journal of Financial Counseling and Planning, 30*(2), 175-190.

- Bailey, W., Woodiel, D., Turner, M., & Young, J. (1998). The relationship of financial stress to overall stress and satisfaction. *Personal Finances and Worker Productivity*, 2(2), 198–206.
- Bandura, Albert. (2005). The primacy of self-regulation in health promotion. *Applied Psychology*, 54(2), 245–254. <https://doi.org/10.1111/j.1464-0597.2005.00208.x>
- Barbic, D., Lucic, A., & Chen, J.M. (2019). Measuring responsible financial consumption behaviour. *International Journal of Consumer Studies*, 43(1), 102–112. <https://doi.org/10.1111/ijcs.12489>
- Barrington, R. (2020, June 4). States where financial literacy is working. *Moneyrates.com*. Retrieved from <https://www.moneyrates.com/research-center/financial-literacy.htm>
- Bastable, S. B., Sopczyk, D. L., & Binion, B. N. (2020). Gender, socioeconomic, and cultural attributes of the learner. In S. B. Bastable, M. M. Braungart, P. R. Gramet, K. Jacobs, & D. L. Sopczyk (Eds.), *Health Professional as Educator: Principles of Teaching and Learning* (pp. 347–406). Jones & Bartlett Learning.
- Baumeister, R. F. & Heatherton, T. F. (1996). Self-regulation failure: An overview. *Psychological Inquiry*, 7(1), 1–15. [https://doi.org/10.1207/s15327965pli0701\\_1](https://doi.org/10.1207/s15327965pli0701_1)
- Board of Governors of the Federal Reserve System (2019, May). *Report on the Economic Well-Being of U.S. Households in 2018*. <https://www.federalreserve.gov/publications/files/2018-report-economic-well-being-us-households-201905.pdf>
- Borden, L.M., Lee, S., Serido, J. & Collins, D. (2008). Changing college students' financial knowledge, attitudes, and behavior through seminar participation. *Journal of Family and Economic Issues*, 29(1), 23–40. <https://doi.org/10.1007/s10834-007-9087-2>
- Borek, A. J., Abraham, C., Greaves, C. J., Tarrant, M., Garner, N., & Pascale, M. (2019). 'We're all in the same boat': A qualitative study on how groups work in a diabetes prevention and management programme. *British Journal of Health Psychology*, 24(4), 787–805. <https://doi.org/10.1111/bjhp.12379>
- Boston University (2021). Dynamic models. [Lesson Content]. In: *Module 2: From Micro to Macro. OT910: Social Policy and Disability*. Blackboard.
- Boston University (n.d.). *Student Research Grant*. Boston University College of Health & Rehabilitation Sciences: Sargent College. Retrieved on September 27, 2021 <https://www.bu.edu/sargent/research/research-funding-administration/funding-opportunities-for-sargent-faculty-and-students/student-research-grant/>.

- Brownson, R.C., Tabak, R.G., Stamatakis, K.A. & Glanz, K. (2015). Implementation, dissemination, and diffusion of public health interventions. In Glanz, K., Rimer, B.K., & Vismwanath, K. (Eds). *Health Behavior: Theory, research, and practice* (5th ed.). John Wiley & Sons, Incorporated.
- California Department of Aging [CDA](n.d.). Goal five: Affording aging. *Masterplan for Aging*. <https://mpa.aging.ca.gov/Goals/5>
- Carlsson, A.C., Starrin, B., Gigante, B., Leander, K., Hellenius, M. & de Faire, U. (2014). Financial stress in late adulthood and diverse risks of incident cardiovascular disease and all-cause mortality in women and men. *BMC Public Health*, 14(17). DOI: 10.186/1471-2458-14-17.
- Chapman, B. (2010). *How long does it take to create learning?* [Research Study]. Chapman Alliance LLC. <http://www.chapmanalliance.com/howlong/>
- City of Buena Park (2017). Demographics. *About Buena Park*. Retrieved on April 11, 2021. <http://www.buenapark.com/residents/about-buena-park/demographics>.
- Clark, R., Lusardi, A., Mitchell, O.S., & Davis, H. (2021, February). Financial wellbeing among Black and Hispanic women. *Global Financial Literacy Excellence Center*. <https://gflec.org/wp-content/uploads/2021/02/Financial-Well-being-among-Black-and-Hispanic-Women-WP-Feb2021.pdf>
- Collins, J. M., & Holden, K. C. (2014). Measuring the impacts of financial literacy: challenges for community-based financial education. *New Directions for Adult & Continuing Education*, (141), 79–88. <https://doi.org/10.1002/ace.20087>
- Collins, J. M., & O'Rourke, C. M. (2010). Financial education and counseling—Still holding promise. *Journal of Consumer Affairs*, 44(3), 483–498. <https://doi.org/10.1111/j.1745-6606.2010.01179.x>
- Consumer Financial Protection Bureau [CFPB]. (2015, January). *Financial Well-being: The goal of financial education*. [https://files.consumerfinance.gov/f/201501\\_cfpb\\_report\\_financial-well-being.pdf](https://files.consumerfinance.gov/f/201501_cfpb_report_financial-well-being.pdf)
- Consumer Financial Protection Bureau (2017). *Financial Well-Being in America*. [https://files.consumerfinance.gov/f/documents/201709\\_cfpb\\_financial-well-being-in-America.pdf](https://files.consumerfinance.gov/f/documents/201709_cfpb_financial-well-being-in-America.pdf)
- Consumer Financial Protection Bureau (2018). *Pathways to financial well-being: The role of financial capability*. Retrieved from: [https://files.consumerfinance.gov/f/documents/bcfp\\_financial-well-being\\_pathways-role-financial-capability\\_research-brief.pdf](https://files.consumerfinance.gov/f/documents/bcfp_financial-well-being_pathways-role-financial-capability_research-brief.pdf) on December 21, 2020.

- Consumer Financial Protection Bureau (n.d.-a). Find out your financial wellbeing. Retrieved from: <https://www.consumerfinance.gov/consumer-tools/financial-well-being/> on October 25, 2020.
- Consumer Financial Protection Bureau (n.d.-b). The bureau. *Consumer Financial Protection Bureau*. <https://www.consumerfinance.gov/about-us/the-bureau/>
- Costa, D.F., de Melo Carvalho, F., de Melo Moreira, B.C. & Prado, J.W. (2017).. Bibliometric analysis on the association between behavioral finance and decision making with cognitive biases such as overconfidence, anchoring effect and confirmation bias. *Scientometrics*, *111*, 1775–1799. <https://doi.org/10.1007/s11192-017-2371-5>
- Creative Wealth International (2019). Financial literacy education grants. Retrieved from: <https://www.creativewealthintl.org/financial-education-grants.php> on August 6, 2020.
- Dare, van Dijk, W. W., van Dijk, E., van Dillen, L. F., Gallucci, M., & Simonse, O. (2020). The road to financial satisfaction: Testing the paths of knowledge, attitudes, sense of control, and positive financial behaviors. *Journal of Financial Therapy*, *11*(2), 1–30. <https://doi.org/10.4148/1944-9771.1240>
- Ettman, C.K., Abdalla, S.M., Cohen, G.H., Sampson, L., Vivier, P.M., & Galea S. (2020). Prevalence of depression symptoms in US adults before and during the Covid-19 pandemic. *JAMA Network Open*, *3*(9):e2019686. <https://doi.org/10.1001/jamanetworkopen.2020.19686>
- Fagerstrøm, A., & Hantula, D. A. (2013). Buy it now and pay for it later: An experimental study of student credit card use. *Psychological Record*, *63*(2), 323–332. <https://doi.org/10.11133/j.tpr.2013.63.2.007>
- Faulkner, A. E. (2016). Financial literacy education in the United States. *Reference & User Services Quarterly*, *56*(2), 116–125.
- Ferrera, C. (2020, August 16). *Financially W.I.S.E.R. Program Manual: Theoretical Grounding, Evidence Base, and Program Content*. [unpublished manuscript]. Boston University.
- Fitch, C., Hamilton, S., Bassett, P., & Davey, R. (2011). The relationship between personal debt and mental health: A systematic review. *Mental Health Review Journal*, *16*(4), 153–166. <https://doi.org/10.1108/13619321111202313>
- French, D., & McKillop, D. (2017). The impact of debt and financial stress on health in Northern Irish households. *Journal of European Social Policy*, *27*(5), 458–473. <https://doi.org/10.1177/0958928717717657>

- Gallo, L.C., Jimenez, J., Shivpuri, S., Espinosa de los Monteros, K., & Mills, P.J. (2011). Domains of chronic stress, lifestyle factors, and allostatic load in middle-aged Mexican-American women. *Annals of Behavioral Medicine, 41*(1) 21–31. <https://doi.org/10.1007/s12160-010-9233-1>
- Gardner, J., Roda, S., Ben-Baruch, M., Beronio, A., Malinak, J., Pignataro, L., Swarbick, M., & Olker, S. (2019). Impacts of financial management programs for adults with substance-use and mental health disorders. *American Journal of Occupational Therapy, 73* (4 Supplement 1) doi:10.5014/ajot.2019.73S1-PO2028.
- Greenberg, A.E. & Hershfield, H.E. (2019) Financial decision making. *Consumer Psychology Review, 2*, 17– 29. <https://doi.org/10.1002/arcp.1043>
- Grinstein-Weiss, M., Spader, J., Yeo, Y. H., Taylor, A., & Books Freeze, E. (2011). Parental transfer of financial knowledge and later credit outcomes among low- and moderate-income homeowners. *Children and Youth Services Review, 33*(1), 78–85. <https://doi.org/10.1016/j.chilyouth.2010.08.015>
- Heinberg A., Hung, A., Kapteyn, A., Lusardi, A., Samek, A.S., & Yoong, J. (2014). Five steps to planning success: Experimental evidence from US households. *Oxford Review of Economic Policy, 30*(4), 697-724.
- Hilgert, M. A., & Hogarth, J. M. (2003, July). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin, 89*(7), 309+. [https://link.gale.com/apps/doc/A106225482/AONE?u=mlln\\_b\\_bumml&sid=AONE&xid=e3f451d4](https://link.gale.com/apps/doc/A106225482/AONE?u=mlln_b_bumml&sid=AONE&xid=e3f451d4)
- Hoffmann, A., & Otteby, K. (2018). Personal finance blogs: Helpful tool for consumers with low financial literacy or preaching to the choir? *International Journal of Consumer Studies, 42*(2), 241–254. <https://doi.org/10.1111/ijcs.12412>
- Hossain, M.T. (2018). How cognitive style influences the mental accounting system: Role of analytic versus holistic thinking. *Journal of Consumer Research, 45*, 615–632. <https://doi.org/10.1093/jer/ucy020>
- Howlett, E., Kees, J., & Kemp, E. (2008). The role of self-regulation, future orientation, and financial knowledge in long-term financial decisions. *The Journal of Consumer Affairs, 42*(2), 223–242. <https://doi.org/10.1111/j.1745-6606.2008.00106.x>
- Huston, Sandra J. (2010). Measuring financial literacy. *The Journal of Consumer Affairs, 44*(2), 296–316. <https://doi.org/10.1111/j.1745-6606.2010.01170.x>
- James, B. D., Wilson, R. S., Shah, R. C., Yu, L., Arvanitakis, Z., Bennett, D. A., & Boyle, P. A. (2018). Association of financial literacy with hospitalization in

- community-dwelling older adults. *Medical Care*, 56(7), 596–602.  
DOI:10.1097/MLR.0000000000000932
- Jorgensen, B.L. and Savala, J. (2010). Financial literacy of young adults: The importance of parental socialization. *Family Relations*, 59, 465–478. Doi: <https://doi.org/10.1111/j.1741-3729.2010.00616.x>
- Kahn, J. R., & Pearlin, L. I. (2006). Financial strain over the life course and health among older adults. *Journal of Health and Social Behavior*, 47(1), 17–31. Doi: <https://doi.org/10.1177/002214650604700102>
- Kelder, S.H., Hoelscher, D., & Perry, C.L. (2015). How individual, environments, and health behaviors interact: Social Cognitive Theory. In Glanz, K., Rimer, B.K., & Vismwanath, K. (Eds). *Health Behavior: Theory, research, and practice* (5th ed.). John Wiley & Sons, Incorporated.
- Kim, J. (2007). Workplace financial education program: Does it have an impact on employees' personal finances? *Journal of Family and Consumer Sciences*, 99(1), 43–47.
- Kim, J., Sorhaindo, B. & Garman, E.T. (2006). Relationship between financial stress and workplace absenteeism of credit counseling clients. *Journal of Family and Economic Issues*, 27, 458–478. <https://doi.org/10.1007/s10834-006-9024-9>
- Kneipp, S. M., Horrell, L., Gizlice, Z., Smith, M. L., Linnan, L., & Brady, T. (2019). Predictors of health self-management program preference among lower-to-middle wage employed adults with chronic health conditions. *American Journal of Health Promotion*, 33(2), 172–182. <https://doi.org/10.1177/0890117118821843>
- Koller, K, Woods, L., Engel, L, Bottari, C, Dawson, D.R., & Nalder, E. (2016). Loss of financial management independence after brain injury: Survivors' experiences. *American Journal of Occupational Therapy*, 70(3):7003180070 p.1–8. doi: 10.5014/ajot.2016.020198.
- Kuchler, T. & Pagel, M. (2021). Sticking to your plan: The role of present bias for credit card paydown. *Journal of Financial Economics*, 139(2), 359-388. <https://doi.org/10.1016/j.jfineco.2020.08.002>.
- Law, M., Cooper, B., Strong, S., Stewart, D., Rigby, P., & Letts, L. (1996). The person-environment-occupation model: A transactive approach to occupational performance. *The Canadian Journal of Occupational Therapy*, 63(1), 9–23. <https://doi.org/10.1177/000841749606300103>

- Lawlor, K.B. & Hornyak, M.J. (2012). SMART Goals: How the application of smart goals can contribute to achievement of student learning outcomes. *Developments in Business Simulation and Experiential Learning*, 39, 259–267.
- Lee, J. M., & Hanna, S. D. (2015). Savings goals and saving behavior from a perspective of Maslow's hierarchy of needs. *Journal of Financial Counseling and Planning*, 26(2), 129–147.
- Lin, J.T., Bumcrot, C., Ulcyny, T., Mottola, G., Walsh, G., Ganem, R., Kieffer, C., & Lusardi, A. (2019, June). *The State of US Financial Capability: The 2018 National Financial Capability Study*. FINRA Investor Education Foundation.
- Linnemann, A., Ditzen, B., Strahler, J., Doerr JM, & Nater, U.M. (2015, October). Music listening as a means of stress reduction in daily life. *Psychoneuroendocrinology*. 60, 82–90. doi: 10.1016/j.psyneuen.2015.06.008
- Lusardi, A., & Mitchell, O. S. (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics*, 42(1), 35–44. <https://doi.org/10.2145/20070104>
- Mamedova, S., Pawlowski, E., & Hudson, L. (2018) A description of US adults who are not digitally literate, NCES stats in brief, no. 2018–161. *National Center for Education Statistics*. <https://nces.ed.gov/pubs2018/2018161.pdf>
- Mandell, L. & Klein, L.S. (2009). The impact of financial literacy education on subsequent financial behavior. *Financial Counseling and Planning*, 20(1), 15–24.
- Mann, de Ridder, D., & Fujita, K. (2013). Self-regulation of health behavior. *Health Psychology*, 32(5), 487–498. <https://doi.org/10.1037/a0028533>
- McConville, McAleer, R., & Hahne, A. (2017). Mindfulness training for health profession students—the effect of mindfulness training on psychological well-being, learning and clinical performance of health professional students: A systematic review of randomized and non-randomized controlled trials. *Explore (New York, N.Y.)*, 13(1), 26–45. <https://doi.org/10.1016/j.explore.2016.10.002>
- Meier, S. & Sprenger, C. (2010) Present-biased preferences and credit card borrowing. *American Economic Journal: Applied Economics*, 2 (1): 193–210. <https://doi.org/10.1257/app.2.1.193>
- Morton, H. (2019, December 21). Financial literacy 2019 legislation. *National Conference of State Legislatures*. <https://www.ncsl.org/research/financial-services-and-commerce/financial-literacy-2019-legislation.aspx>

- Mucci, N., Giorgi, G., Roncaioli, M., Fiz Perez, J., & Arcangeli, G. (2016). The correlation between stress and economic crisis: A systematic review. *Neuropsychiatric Disease and Treatment, 12*, 983–993. <https://doi.org/10.2147/NDT.S98525>
- National Endowment for Financial Education [NEFE]. (2021-a). *About*. <https://www.nefe.org/default.aspx>
- National Endowment for Financial Education (2021-b). The personal finance ecosystem. <https://www.nefe.org/initiatives/ecosystem/default.aspx>
- Netemeyer, R., Warmath, D., Fernandes, D. & Lynch, J. (2018). How am I doing? Financial well-being, its potential antecedents, and its relation to psychological / emotional well-being. *Advances in Consumer Research, 45*, 68–89. <https://doi.org/10.1093/jcr/ucx109>
- O'Donnell, M., Carey, M. E., Horne, R., Alvarez-Iglesias, A., Davies, M. J., Byrne, M., & F. Dinneen, S. (2018). Assessing the effectiveness of a goal-setting session as part of a structured group self-management education programme for people with type 2 diabetes. *Patient Education and Counseling, 101*(12), 2125–2133. <https://doi.org/10.1016/j.pec.2018.07.009>
- O'Neill, B., Sorhaindo, B., Prawitz, A., Kim, J., & Garman, E.T. (2006). Financial distress: Definition, effects, and measurement. *Consumer Interests Annual, 52*, 489–496.
- Oettingen, G., Pak, H., & Schnetter, K. (2001). Self-regulation of goal-setting: Turning free fantasies about the future into binding goals. *Journal of Personality and Social Psychology, 80*(5), 736–753. <https://doi-org.ezproxy.bu.edu/10.1037/0022-3514.80.5.736>
- Office of Disease Prevention and Health Promotion [ODPHP] (n.d.-a). Housing and homes. *Healthy People 2030*. U.S. Department of Health and Human Services. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/housing-and-homes/reduce-proportion-families-spend-more-30-percent-income-housing-sdoh-04>
- Office of Disease Prevention and Health Promotion [ODPHP] (n.d.-b). Social determinants of health. *Healthy People 2030*. U.S. Department of Health and Human Services. Retrieved September 26, 2021, from <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>.
- O'Neill, B., Sorhaindo, B., Xiao, J.J., & Garman, E.T.. (2005). Financially distressed consumers: Their financial practices, financial well-being, and health. *Financial Counseling and Planning, 16*(1), 73–87.

- Pan, S. C., & Agarwal, P. K. (2018). Retrieval practice and transfer of learning: Fostering students' application of knowledge. <http://www.retrievalpractice.org/library>
- Parkinson, J., David, P., & Rundle - Thiele, S. (2017). Self - efficacy or perceived behavioural control: Which influences consumers' physical activity and healthful eating behaviour maintenance? *Journal of Consumer Behaviour*, *16*(5), 413–423. <https://doi.org/10.1002/cb.1641>
- Patel, M.R., Kruger, D.J., Cupal, S., & Zimmerman, M.A. (2016). Effect of financial stress and positive financial behaviors on cost-related nonadherence to health regimens among adults in a community-based setting. *Preventing Chronic Disease*, *13*, E46–E46. <https://doi.org/10.5888/pcd13.160005>
- Peeters, N., Rijk, K., Soetens, B., Storms, B., & Hermans, K. (2018). A systematic literature review to identify successful elements for financial education and counseling in groups. *Journal of Consumer Affairs*, *52*(2), 415–440. <https://doi.org/10.1111/joca.12180>
- Prawitz, A.D. & Cohart, J. (2014). Workplace financial education facilitates improvement in personal financial behaviors. *Financial Counseling and Planning*, *25*(1), 5–26.
- Prawitz, A.D., Garman, E.T., Sorhaindo, B., O'Neill, B., Kim, J. & Drentea, P. (2006). InCharge Financial Distress/Financial Well-Being Scale: Development, administration, and score interpretation. *Financial Counseling and Planning*, *17*(1), 34–50.
- Proschaka, J.O., Redding, C.A. & Evers, K.E. (2015). The transtheoretical model and stages of change. In Glanz, K., Rimer, B.K., & Vismwanath, K. (Eds). *Health Behavior: Theory, research, and practice* (5th ed.). John Wiley & Sons, Incorporated.
- Romo, L. K. (2011). Money talks: Revealing and concealing financial information in families. *Journal of Family Communication*, *11*(4), 264–281. <https://doi-org./10.1080/15267431.2010.544634>
- Ruberton, P. M., Gladstone, J., & Lyubomirsky, S. (2016). How your bank balance buys happiness: The importance of “cash on hand” to life satisfaction. *Emotion*, *16*(5), 575–580. <https://doi.org/10.1037/emo0000184>
- Servon, L. J., & Kaestner, R. (2008). Consumer financial literacy and the impact of online banking on the financial behavior of lower-income bank customers. *Journal of Consumer Affairs*, *42*(2), 271–305. <https://doi.org/10.1111/j.1745-6606.2008.00108.x>

- Shelton, V.M., Smith, T. E., & Panisch, L. S. (2019). Financial therapy with groups: A case of the five-step model. *Financial Counseling and Planning*, 30(1), 18–26. <https://doi.org/10.1891/1052-3073.30.1.18>
- Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial well-being for young adults. *Journal of Applied Developmental Psychology*, 30(6), 708–723. <https://doi.org/10.1016/j.appdev.2009.02.003>
- Sims, T., Raposo, S., Bailenson, J. N., & Carstensen, L. L. (2020). The future is now: Age-progressed images motivate community college students to prepare for their financial futures. *Journal of Experimental Psychology. Applied*, 26(4), 593–603. <https://doi.org/10.1037/xap0000275>
- Skinner, M.A., Zautra, A.J. & Reich, J.W. (2004). Financial stress predictors and the emotional and physical health of chronic pain patients. *Cognitive Therapy and Research*, 28, 695–713. <https://doi.org/10.1023/B:COTR.0000045572.33750.6c>
- Smith, T. E., V. Richards, K., & M. Shelton, V. (2016). Mindfulness in financial literacy. *Journal of Human Behavior in the Social Environment*, 26(2), 154–161. <https://doi.org/10.1080/10911359.2015.1052914>
- Soman, D. (2003). The effect of payment transparency on consumption: Quasi-experiments from the field. *Marketing Letters*, 14(3), 173–183.
- Stolper, O.A. & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. *Journal of Business Economics*, 87(5), 581–643. <https://doi.org/10.1007/s11573-017-0853-9>
- Strong, S., Rigby, P., Stewart, D., Law, M., Letts, L., & Cooper, B. (1999). Application of the Person-Environment-Occupation Model: A practical tool. *Canadian Journal of Occupational Therapy*, 66(3), 122–133. <https://doi.org/10.1177/000841749906600304>
- Sturgeon, J. A., Arewasikporn, A., Okun, M. A., Davis, M. C., Ong, A. D., & Zautra, A. J. (2016). The psychosocial context of financial stress: implications for inflammation and psychological health. *Psychosomatic Medicine*, 78(2), 134–143. <https://doi.org/10.1097/PSY.0000000000000276>
- Sunderaraman, P., Ho, S., Chapman, S., Joyce, J. L., Colvin, L., Omollo, S., Pleshkevich, M., & Cosentino, S. (2020). Technology use in everyday financial activities: Evidence from online and offline survey data. *Archives of Clinical Neuropsychology*, 35(4), 385–400. <https://doi.org/10.1093/arclin/acz042>

- Tang, N. & Baker, A. (2016). Self-esteem, financial knowledge and financial behavior. *Journal of Economic Psychology*, 54, 164–176. <https://doi.org/10.1016/j.joep.2016.04.005>.
- Tang, N. & Peter, P.C. (2015). Financial knowledge acquisition among the young: The role of financial education, financial experience, and parents' financial experience. *Financial Services Review*, 24(2), 119.
- Treanor, M. (2015). The effects of financial vulnerability and mother's emotional distress on child social, emotional and behavioural wellbeing: A structural equation model. *Sociology* 50(4), 673–694. Doi: <https://doi.org/10.1177/0038038515570144>.
- United States Conference of Mayors (2021). *DollarWise Mayors for Economic Mobility*. The United States Conference of Mayors. <https://www.usmayors.org/dollarwise/>
- Way, W.L. (2014). Contextual influences on financial behavior: A proposed model for adult financial literacy education. *New Directions for Adult and Continuing Education*, 2014(141), 25–35. <https://doi.org/10.1002/ace.20082>
- West, S. & Friedline (2016). Coming of age on a shoestring budget: Financial capability and financial behaviors of lower income millennials. *Social Work*, 61(4), 305–312. <https://doi.org/10.1093/sw/sww057>
- Winchester, & Huston, S. J. (2014). Does a relationship with a financial service professional overcome a client's sense of not being in control of achieving their goals? *Financial Services Review*, 23(1), 1.
- Wong, Y.N. (2016). Relationships among financial distress, emotional symptoms, and overall distress in insured cancer patients. *American Society of Clinical Oncology*. <https://ascopubs.org/doi/full/10.1200/jop.2016.011049>
- World Health Organization [WHO]. (2021). *Social Determinants of Health*. Retrieved on September 26, 2021 from [https://www.who.int/health-topics/social-determinants-of-health#tab=tab\\_1](https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1)
- Xiao, J.J. & Wu, J. (2008). Completing debt management plans in credit counseling: An application of the theory of planned behavior. *Financial Counseling and Planning*, 19(2), 29.
- Xiao, J.J., & O'Neill, B. (2018). Mental accounting and behavioural hierarchy: Understanding consumer budgeting behaviour. *International Journal of Consumer Studies*, 42(4), 448–459. <https://doi.org/10.1111/ijcs.12445>

- Xu, X. (2018). Assessing a community-based financial literacy program: A case study in California's Silicon Valley. *Journal of Financial Counseling and Planning*, 29(1), 142–153. <https://doi-org./10.1891/1052-3073.29.1.142>
- Yee, K., & Boyd, D. E. (2018, June 18). How can we amplify student learning? The ANSWER from cognitive psychology. <https://www.facultyfocus.com/articles/teaching-and-learning/how-can-we-amplify-student-learning-the-answer-from-cognitive-psychology/>
- Zhang, C.Y. & Sussman, A.B. (2018). Perspectives on mental accounting: An exploration of budgeting and investing. *Financial Planning Review*, 1, 1–10. <https://doi.org/10.1002/cfp2.1011>
- Zindel, M.L., Zindel, T., & Quirino, M. (2014). Cognitive bias and their implications on the financial market. *International Journal of Engineering & Technology*, 14(3), 11–17.
- Ziprecruiter (2021, September 18). Entry level occupational therapist salary in California. Retrieved on September 23, 2021, <https://www.ziprecruiter.com/Salaries/Entry-Level-Occupational-Therapist-Salary--in-California>
- Zureck, A., Frère, E., Seel, G. & Klingenberger L. (2019, January). Teaching and learning with audiovisual media: Empirical analysis of the effectiveness of podcasts in financial literacy. In Josef Nešleha. *European Financial Systems 2019 Proceedings of the 16th International Scientific Conference*. Brno, Czech Republic: Masaryk University Faculty of Economics and Administration Department of Finance and Institute for Financial Market, 2019. p. 656–663.

**CURRICULUM VITAE**

