AN EXAMINATION OF FINANCIAL SOCIALIZATION AND THE ROLE OF PARENT-CHILD RELATIONSHIP QUALITY ON FINANCIAL WELL-BEING

by

KIMBERLY S. WATKINS

(Under the Direction of John E. Grable)

ABSTRACT

Multiple influences of human behavior have been tested in other social sciences, but less so in the domain of personal finance and financial planning. To better understand financial management behaviors and well-being, researchers have examined one of the most influential groups on personal finance behaviors and outcomes- parents. Parental financial socialization has been extensively researched and repeatedly found to have a significant association with a person's current and future financial decision-making capabilities and behavioral outcomes. However, few studies have used a family financial socialization conceptual model, such as the Gudmunson and Danes Family Financial Socialization Framework (FFS) (2011), to examine financial well-being. The purpose of this study was two-fold: (1) to test the validity of the full Gudmunson and Danes Family Financial Socialization Framework (2011), and (2) to test the pathways linking parent-child relationship quality to financial well-being. Results from this study supported the FFS Framework's validity for examining the association between family socialization processes and financial socialization outcomes. Additionally, parent-child relationship quality was found to have an indirect effect on financial well-being. Parent-child relationship quality had the greatest total effect on the financial attitudes, knowledge, and capabilities construct, which had the largest total effect on financial well-being. Results are expected to help policymakers, financial services providers, and researchers better understand how family socialization processes, such as parent-child relationship quality, are associated with financial socialization outcomes for young adults.

INDEX WORDS: APLUS dataset, financial socialization, financial well-being, parent-child relationship quality, structural equation modeling, young adults

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DEDICATION

"And you shall love the Lord your God with all your heart and with all your soul and with all your mind and with all your strength.' The second is this: 'You shall love your neighbor as yourself.' There is no other commandment greater than these." Mark 12:30-31 (ESV)

It is to you Holy Father and only you. Thank you for providing the guidance on how we should live our lives so that everyone can live with dignity, respect, and love.

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CHAPTER ONE

INTRODUCTION

For the last half-century, researchers in the personal finance and consumer economics disciplines have examined how human decision-making is associated with individuals' financial behaviors and well-being. This area of research is needed as staggering statistics about individuals' financial knowledge, behaviors, and financial well-being demonstrate that there is room for improvement. For example, according to the National Financial Educators Council (2017), on a financial knowledge questionnaire given to American students, young people between 10 and 14 years of age had an average score of 55%, while those aged 15 to 18 had an average score of 61%. In this same study, young adults, ages 19 to 24, had an average score of 69%. Similar results were found in a study conducted by the Financial Industry Regulatory Authority (FINRA). The FINRA study reported that Americans demonstrate relatively low levels of financial literacy and have difficulty applying financial decision-making skills to real life situations (Lin et al., 2016). In fact, 63% of those surveyed were unable to answer more than three of the five questions covering aspects of economics and finance correctly (Lin et al., 2016). In a report released by the Federal Reserve, four in ten Americans said they would not be able to cope with an unexpected expense of \$400, while over 25% have forgone medical treatment due to inability to pay, and over 25% of Americans under age 30 rely on members outside of their household, such as parents, for income (Federal Reserve Bank, 2018). The report also noted three-fifths of individuals with self-managed retirement accounts lack confidence in their ability to manage these accounts, whereas less than two-fifths reported they were on the right track for

retirement (Federal Reserve Bank, 2018). Although these statistics are alarming, these issues are not new. Issues of financial competency continue to persist despite increased advocacy and educational interventions to help improve individuals' financial health.

Throughout the personal finance and financial planning literature, researchers have been actively engaged in examining the reasons why people engage in specific financial management behaviors and how these behaviors affect financial well-being. Assessments of financial well-being continue to be of interest to researchers, policymakers, extension specialists, educators, financial counselors, and those in the private financial services profession primarily because there appear to be consistent gaps between what researchers normatively recommend and what consumers do in practice. Generally, the literature suggests that, on average, consumers tend to exhibit behavioral biases that are negatively associated with financial management behaviors. These behaviors, in turn, can affect household level financial well-being (Baker & Nofsinger, 2002; Benartzi & Thaler, 2007; Daniel, Hirshleifer, & Teoh, 2002; Knoll, 2010). Household level financial decision-making biases often have negative implications for individuals and families, which can lead to lack of retirement readiness, increased debt burden, financial exclusion for vulnerable populations, financial fraud, and low levels of financial knowledge and capability.

Biased decision-making and problematic financial behaviors can lead to broader economic impacts beyond what a particular household may experience. One needs only to review outcomes associated with the global financial crisis, or what some have called the Great Recession, to better understand the manner in which consumers receive and adopt financial decision-making skills. Financial behaviors can impact not only someone's financial well-being but also the financial well-being of others throughout the global economy. Although numerous

factors played a role in the housing crisis that led to the global financial crisis, many consumers clearly lacked proper financial education to understand housing choices and related products that were sold to them. What was even more telling is that millions of households were underprepared to weather a financial emergency in the event of job loss or under-employment. During and after the financial crisis, many low-knowledge individuals and families lost their homes, savings, and other personal assets as they attempted to recover from financial decisions made using inaccurate information and biased decision-making processes. The results were felt (and to some degree still are being felt) at the national and global level, where many of world's largest financial institutions either went out of business or required substantial government support to stay in business. The establishment of the Consumer Financial Protection Bureau in the United States was a direct outcome associated with the financial crisis. The Bureau has been charged with "regulating the offering and provision of consumer financial products or services under the federal consumer financial laws and educates and empowers consumers to make better informed financial decisions" (CFPB, 2018). CFPB has taken up efforts to better determine (a) how consumers are socialized financially to understand how financial decision-making is learned and (b) how financial socialization is associated with financial well-being (CFPB, 2017).

More conceptual, as well as applied, research is needed to gain a better understanding of the way people learn to manage their household financial resources and how learning processes and these behaviors are associated with financial well-being. One outcome of such research is to help ensure that future generations decrease their likelihood of facing financial strain in the event of another global financial crisis. Further research is also needed to examine households' financial management behaviors so that educational interventions can be created to assist consumers in becoming more confident, knowledgeable, and capable in managing day-to-day

financial decisions and overall financial well-being. In addition to these needs and outcomes, research should also examine the implications of family socialization processes to better understand how family socialization affects an individual's financial well-being. Interventions focused on youth financial education can use findings from these types of studies to develop curricula to help parents better understand and teach their children, which could lead to better financial socialization outcomes (Van Campenhout, 2015).

To date, much of the research that has focused on examining household level financial decision-making and behavior has focused on one of two areas. The first line of research has focused on describing how decisions (i.e., the processes used to arrive at a choice) are made with an emphasis on tracking behavioral outcomes. Theoretical frameworks developed by household and behavioral economists dominate this type of research. The second line of research has focused on identifying factors associated with financial decision-making. This line of research tends to be more descriptive. For example, household income (or lack thereof), financial assets, household size, job status, education, financial numeracy, and other factors have been identified as having a direct association with individuals' financial decision-making. The research tends to document that decision-making skills are associated with financial well-being (Bucher-Koenen & Lusardi, 2011; Carlin & Robinson, 2012; Carpena, Cole, Shapiro, & Zia, 2011; Clark, d'Ambrosio, McDermed, & Sawant, 2006; Hilgert, Hogarth, & Beverly, 2003; Lusardi & Mitchell, 2007, 2011a, 2011b; Lynch & Wood, 2006; Van Rooij, Lusardi, & Alessie, 2011).

However, a perplexing gap in the financial socialization literature still exists. As nearly all social scientists know, understanding human behavior is complex. To fully understand financial decision-making and its association with financial well-being, it is generally necessary to identify the antecedents of the action. An example includes parental socialization or more

specifically purposive financial socialization, which is defined as intentional financial socialization through explicit communication and practices (Gudmunson & Danes, 2011).

While there have been attempts to link socialization factors to financial decision-making, this line of academic inquiry is still in its infancy when examining the relationship between family socialization processes and financial well-being. Even less research has been conducted to test how parent-child relationship quality is associated with financial behaviors and a person's financial well-being.

Purpose of Study

It is surprising that multiple influences of human behavior have been tested in other social sciences, but less so in the domain of personal finance and financial planning. There is rarely just one reason why people behave the way they do when making financial decisions. To better understand financial management behaviors and well-being, researchers have examined one of the most influential group on personal finance behaviors- parents. Throughout the social science literature, parental socialization has been extensively researched and repeatedly found to have a significant association with a person's current and future financial decision-making capabilities and behavioral outcomes (Garrison & Gutter, 2010; Gutter, Garrison, & Copur, 2010; Hibbert, Beutler, & Martin, 2004; Jorgensen & Savla, 2010; Kim & Chatterjee, 2013). For example, research findings have shown that parental socialization has an association with teen pregnancy, student academic achievement, impulse control, alcohol abuse, and self-esteem (Bush & Peterson, 2007; Fan & Chen, 2001; McNeal, 2001; Patock-Peckham & Morgan Lopez, 2007; Trautner, 2017). There have been attempts by some personal finance and financial planning researchers to extend socialization models to better understand financial decision-making. Unfortunately, few of these research efforts have been directed by a conceptual framework that

is designed to help researchers examine family socialization processes and financial socialization's outcomes. In general, socialization tests have tended to be atheoretical or use more broad theories. However, few studies have used a family financial socialization conceptual model, such as the Gudmunson and Danes Family Financial Socialization Framework (2011), to examine financial well-being. The purpose of this study is two-fold: (1) to test the validity of the full Gudmunson and Danes Family Financial Socialization Framework (2011), and (2) to test the pathways linking parent-child relationship quality to financial well-being.

Rationale, Significance, and Need for Study

Individual financial well-being, defined as the perceived feelings one has about his or her financial situation (subjective measures) and his or her financial capacity to adequately meet financial obligations (objective measures) (Gudmunson & Danes, 2011; Danes & Yang, 2014) should be studied due to the implications financial well-being has on not only the individual but also societal units such as families and organizations. Higher levels of financial well-being have been linked to better quality of life, mental health, relationship quality, and result in positive overall well-being for individuals and society (Dunn & Mirzaie, 2012; Hubler, Barr, Gardner, Larzelere, & Busby, 2016). In a study conducted by Gudmunson, Beutler, Israelsen, McCoy, and Hill (2007), financial strain, which is commonly associated with lower financial well-being, was found to have positive and negative associations with couple interactions. Also, financial strain was the most significant predictor of marital instability. Drentea and Lavrakas (2010) found that those who experienced prolonged financial stress over credit card debt also exhibited decreased physical and mental health. Diener (2000) noted that people who manage present and future consumption needs contribute to a healthier economy and engage in higher productivity activities. The link between lower levels of financial well-being and productivity in the

workplace has also been documented to have a spillover effect onto individuals' work lives, which can affect employee productivity. Cochran and Wood (1984) found organizations that foster positive financial well-being for their employers saw increases in the businesses' public image and perceived trust among consumers. This is important because trust and public opinion are both associated with the profitability of organizations, which is related with a healthy economy (Cochran & Wood, 1984). The lack of individual financial well-being can also take a toll on the economic status of a global economy. Individuals throughout the world have collectively experienced significant financial problems such as unemployment, stagnating wages, and lack of income adequacy during periods such as the Great Depression, the Tech Bubble, and the Great Recession. As a consequence, consumption levels decreased and government financial assistance, or welfare, increased to keep households and businesses afloat. Conversely, when individuals collectively experience positive financial well-being, the result is a higher level of consumption and less reliance on social welfare programs, creating more positive financial outcomes (Griggs et al., 2013; Sacks, Stevenson, & Wolfers, 2012)

The literature shows when examining the role of parents and financial outcomes, parents are often the primary agent of change in the financial socialization of children. Individuals who cite that their parents used more explicit financial modeling methods, either through financial management practices with children, setting goals, or monitoring spending, tend to fare better in life financially compared to those whose parents may have only used implicit financial socialization methods (Garrison & Gutter, 2010; Gutter et al., 2010; Hibbert et al., 2004; Jorgensen & Savla, 2010; Kim & Chatterjee, 2013).

Some have argued that more needs to be done to increase parental involvement by encouraging parents to be more explicit in their modeling behavior for children (Drever et al.,

2015; Van Campenhout, 2015). The majority of individuals today do not talk about money in their homes (Drever et al., 2015; Jorgensen & Savla, 2010). Instead, children learn about financial management behaviors by observing their parents throughout their childhood, adolescence, and young adulthood (Drever et al., 2015; Hibbert et al., 2004; Sherraden, 2013). There appears to be a lack in parental understanding in the context of the important role parents play in socializing children financially. As such, it is important to know what factors, such as parent-child relationship quality, are associated with parents' use of explicit, or purposive, financial education with their children. What is not known is if the quality of the relationship between parents and their children has an association with purposive financial socialization, which may indirectly affect the financial behaviors and well-being of individuals today and in the future. One point of interest in this study is to examine if differences in parent-child relationship quality are associated with financial well-being. These findings could be informative for those who create financial education interventions, so they can understand the potential advantages and disadvantages of parent-child relationship quality on financial well-being. Results from this study will be helpful for policymakers, youth financial educators, financial counselors, financial therapists, and financial planners who create educational interventions that focus on personal finance. Study results will also enhance understanding of the associations between financial management behaviors and financial well-being.

To summarize, it is not exactly known how financial socialization is transferred from parent to child, although a new conceptual framework has been presented that may explain the linkages (Danes & Yang, 2014; Gudmunson & Danes, 2011). Gudmunson and Danes's (2011) framework is premised on the notion that family interactions and relationships, such as parentchild relationship quality, affect parents' likelihood of engaging in purposive financial

socialization with their children, which ultimately affects financial well-being. This notion is particularly relevant when it comes to financial decision-making at the household level. This dissertation will test the linkages in the Gudmunson and Danes model to provide more insights into the possibility that parental socialization can be used to help explain household level financial decision-making and well-being. Results are expected to help financial planners and other personal finance stakeholders better understand how parental socialization can affect financial management behaviors and well-being outcomes for young adults.

Research Objectives and Hypotheses

This dissertation will examine the association between parental financial socialization and parent-child relationship quality and the financial well-being of young adults. When examining personal household financial decision-making, researchers have often looked at how individuals acquire financial skills and capabilities. Danes (1994) defined financial socialization as "the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors contributing to financial viability and well-being of the individual" (p. 128). Financial socialization has been evaluated in the literature related to financial management behaviors, financial literacy, and financial well-being (Drever et al., 2015). The literature has consistently shown that parents are the most influential group in shaping their children's financial management behaviors (Garrison et al., 2010). Again, general findings from the literature do support the notion that parental socialization matters in (a) shaping the way people behave and (b) their financial well-being. This dissertation will specifically test: (1) the full Gudmunson and Danes Family Financial Socialization model to determine the validity of the conceptual model, and (2) the indirect effect of parent-child relationship quality on financial well-being. The hypotheses to be tested are:

H₁: Personal and family characteristics, or sociodemographics, will be positively associated with family interaction and relationships (Pathway A).

H₂: Personal and family characteristics related to the demographics of the household will be positively associated with parental engagement in purposive financial socialization (Pathway B). H₃: There will be a positive relationship between family interactions and relationships, measured as parent-child relationship quality, and purposive financial socialization, which will be measured by parental financial modeling and parent-child financial communication (Pathway C). H₄: Positive family interactions and relationship quality, measured as parent-child relationship quality, will be positively associated with financial attitudes, financial knowledge, and financial capabilities (Pathway D).

H₅: Purposive financial socialization will have a positive association on financial attitudes, knowledge, and financial capabilities development (Pathway E).

H₆: Individuals who report having healthier financial attitudes, knowledge, and capabilities will engage in more positive financial behaviors (Pathway F).

H₇: Individuals who report healthier financial attitudes, knowledge, and capabilities will report higher levels of positive financial well-being (Pathway G).

H₈: Individuals who engage in positive financial management behaviors will have higher levels of reported financial well-being (Pathway H).

Introduction to Conceptual Framework

To better understand how financial socialization outcomes takes place, Gudmunson and Danes (2011) conducted a literature review to determine how past research has explored the topic of financial socialization. What they found was that financial socialization is most often studied as a direct predictor of financial outcomes; however, Gudmunson and Danes argued that

this approach does not fully incorporate the multiple pathways in which financial socialization may affect financial behavior and financial well-being. Based on this notion, Gudmunson and Danes developed the Family Financial Socialization Framework (FFS). The FFS Framework adopts a life-cycle perspective based on the concept that financial socialization continues to happen over an individual's life course. The FFS Framework is a two-stage model that looks at family socialization processes (stage one) and financial socialization outcomes (stage two). The FFS Framework also shows how these factors affect financial well-being.

As shown in Figure 1, stage one of the model addresses family socialization processes. This stage examines the individual and family characteristics that are related to how families interact with each other and whether a family will engage in purposive financial socialization (Pathways A & B). Individual and family characteristics are inclusive of household demographics such as household income, household size, education level of family members, and ethnicity. Purposive financial socialization is defined as intentional financial socialization through explicit communication and practices (Gudmunson & Danes, 2011). Gudmunson and Danes argued that family interactions and relationship quality is associated with a family's decision to engage in purposive financial socialization (Pathway C).

Stage two of the model examines financial socialization outcomes. The researchers hypothesized that family interactions and relationship quality construct has an association with financial knowledge, attitudes, and capabilities (Pathway D). Gudmunson and Danes (2011) also hypothesized that purposive financial socialization is associated with financial knowledge, attitudes, and capabilities (Pathway E). In Gudmunson and Danes's review of the financial socialization literature, they reported that there is a direct effect of financial knowledge, capabilities, and attitudes on financial behaviors. In addition to this, financial knowledge,

capabilities, and attitudes are related to an individual's financial well-being (Pathway G). Finally, Pathway H posits that financial behavior is associated with a person's financial wellbeing.



Figure 1. Family Financial Socialization Framework (Gudmunson & Danes, 2011).

As illustrated in Figure 1, family interactions and relationships can be proxied by parentchild relationship quality, which is a suggestion from Gudmunson and Danes (2011). Purposive financial socialization can be indicated by perceived parental financial role modeling and parentchild communication, whereas financial attitudes, knowledge (objective and subjective), and capabilities can be measured with individual scales. In this study, three separate scales were used to measure each concept. Financial behaviors were measured by examining respondents' financial behaviors related to (a) cash management, (b) credit management, (c) saving, and (d) investment behaviors. In the model, which is tested in this dissertation, parental socialization is hypothesized to have a direct association with financial attitudes, knowledge, and capabilities, whereas parent-child relationship is hypothesized to have a direct effect on purposive financial socialization and financial attitudes, knowledge, and capabilities. Parental purposive financial socialization, within the model, is also hypothesized to be indirectly related to financial behavior and financial well-being.

Rationale for FFS Conceptual Framework

Historically, the literature examining financial socialization and its associated outcomes have predominantly been tested using economic theories and concepts and general learning theories (Gudmunson & Danes, 2011; Danes & Yang, 2014). Financial socialization outcomes are often complex. Families are dynamic and complex units that generally adapt to continuous changes based on the needs of the household unit and the individuals within the family. These changes can lead to an increase in family strain or trigger proactive changes to improve the wellbeing of the family. Financial decisions can lead to long-term consequences that can positively or negatively impact individual members in the household. The Family Financial Socialization Framework created by Gudmunson and Danes (2011) recognizes processes that take place within one's home, family socialization processes, are associated with a person's financial behaviors and financial well-being later in life. Also, the Family Financial Socialization Framework not only looks at financial behaviors but also financial well-being. The personal finance literature has moved beyond just understanding the determinants of financial behaviors but is now focused on financial well-being. This turning point in the literature is important since financial well-being has been linked to a person's overall well-being (Netemeyer, Warmath, Fernandes, & Lynch, 2018). By studying the antecedents to financial well-being, researchers can help create better personal finance interventions, which in turn will help people make better financial decisions and ultimately increase their financial and overall well-being.

Definitions

The following definitions were used throughout this dissertation:

Family: a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together (Census Bureau, 2015)

Family Interactions and Relationships: interaction patterns among family members that influence financial attitude development, knowledge transfer, and financial capabilities development even when financial socialization is implicit (Gudmunson & Danes, 2011)

Financial Attitudes: a person's subjective perception of personal finances (Joo, 2008).

Financial Behaviors: patterns of financial outcomes that are observable (e.g., earning, saving, spending, and gifting), and changes in these patterns related to financial turning points and decision making (Gudmunson & Danes, 2011).

Financial Capability: knowledge, competencies, and abilities to act on acquired financial knowledge, and the opportunity to act (Johnson & Sherraden, 2010).

Financial Satisfaction: a state of being financially healthy, happy, and free from worry based on one's self-perception of his or her financial situation (Joo, 2008).

Financial Socialization: the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors contributing to financial capability and individual and family well-being (Danes, 1994).

Financial Well-being: the perceived feelings one has about his or her financial situation (subjective measures) and his or her financial capacity to adequately meet financial obligations (objective measures) (Gudmunson & Danes, 2011; Danes & Yang, 2014).

Purposive Financial Socialization: the intentional financial socialization through explicit communication and practices (Gudmunson & Danes, 2011; Danes & Yang, 2014).

Socialization: the process by which individuals acquire knowledge, skills, and values to participate as members of a group and in society (McNeal, 1987; Moschis, 1987).

Structural Equation Modeling: a statistical methodology that examines the relationships between measured (observed) variables and latent constructs (Suhr, 2006).

Limitations

There are several limitations associated with this study. This study will use the Arizona Pathways to Life Success for University Students (APLUS). Although the APLUS dataset is a longitudinal dataset, analyses for this study were restricted to only Wave Three of the panel. This decision was made since Wave Three has the most recent information regarding parent-child relationship quality, and this wave contains variables related to all concepts of financial knowledge, attitudes, and capabilities. Results based on this wave can only be used to describe associations between variables with financial well-being, not causations of financial well-being.

Family interactions and relationships construct was restricted to one variable available in Wave Three: parent-child relationship quality. Family dynamics involving interactions and relationships includes subtleties that are difficult to observe. Because of this, a single-item variable may not capture this construct appropriately. Also, respondents were recruited from one southwestern university in the United States. As such, results from this study cannot be generalized to the national or international population.

There are also limitations regarding ethnicity, gender, and age within the sample.

Although the demographics within the sample are somewhat diverse, the sample sizes for many minority respondents are very small in comparison to national percentages. The respondents in the dataset are mostly women. Women comprise nearly 65% of the individuals surveyed; however, results from the 2010 US Census show that the ratio of men to women is nearly 1:1. This study is also focused on the financial well-being of young adults between the ages of 23-26, so results cannot be generalized to those outside of this age range.

Data collected from respondents are self-reported. Responses given to survey questions could be biased by questions that required respondents to be retrospective. Many of the questions also required introspective responses, so respondents' responses may not be as accurate even if earnest efforts were given to be honest. Also, since time changes cannot be accounted for, responses should be considered as cross-sectional, which only gives a "snapshot" in the time period specified for analysis. As a result, cause and effect cannot be determined since this is survey data and not an experiment with a control and treatment group.

This study uses secondary data, so the procedures used to collect this data fell outside the researcher's control. The validity and reliability of measurement instruments were determined by the primary investigators of the APLUS Survey. Although multiple methods were used to recruit respondents, and the sample is relatively large, sample selection bias may also be present in the data.

Delimitations

This study focuses on the financial well-being of young adults. The APLUS Survey focuses specifically on respondents who were recruited as undergraduates in 2007. The study continues to track these respondents' life events and factors associated with their overall well-

being. Wave Three of the Panel was chosen because (1) it is the most recent wave that includes a parent-child relationship variable and (2) it is also the most recent wave to have measures capturing financial attitudes, knowledge, and capabilities. These variables of interest are needed for constructs in the Family Financial Socialization Framework. Also, the dataset was chosen because it has variables that can be used to measure the six constructs in the Family Financial Socialization Framework.

The choice of the conceptual model was based on choosing a framework that considers how family socialization processes are associated with financial socialization outcomes. The Family Financial Socialization Framework is the only framework that exists that conceptually includes family socialization processes associated with financial socialization outcomes. Also, one of the research objectives of this study involves testing the validity of the Family Financial Socialization Framework. To date, there have been only a small number of studies that have tested the Family Financial Socialization Framework; these studies have tended to be qualitative or only focused on testing one element of the model. An intent of this study is to test the full Framework's validity for testing constructs related to financial well-being.

Additionally, the family interactions and relationships construct in this study is only measured by a single variable. Family dynamics are complex; the use of a single measurement is not the most accurate way to operationalize the family interactions and relationship construct. However, Gudmunson and Danes (2011) acknowledged this problem. The researchers noted that using more broad, yet simplified concepts, such as relationship quality, can be the first step to helping researchers understand how family interactions and relationships are associated with families engaging in purposive financial socialization, and the construct's direct pathway on

financial knowledge, attitudes, and capabilities, which indirectly affects one's financial wellbeing.

Summary

Chapter One of this dissertation proposal introduces the need for research examining the role of parent-child relationship quality on financial well-being and testing the validity of the Family Financial Socialization Framework. As previously mentioned, this examination in the financial socialization literature is under-researched. This study will help to fill in this gap in the literature. Chapter Two focuses on the related literature in areas of financial well-being and the associated factors of personal and family characteristics, family interactions and relationships, purposive financial socialization, financial attitudes, knowledge, and capabilities, and financial behaviors constructs that make up the Family Financial Socialization Framework. Chapter Three provides the description of the methodology (SEM), the selected dataset (APLUS), sampling procedures, the operationalization of financial well-being and its associated constructs, and the initial conceptual model proposed for this study. Chapter Four includes the analysis and results of this study. Finally, Chapter Five provides the discussions, implications, limitations, future directions and conclusion for this dissertation.

CHAPTER TWO

REVIEW OF LITERATURE

This chapter reviews empirical literature related to financial well-being and financial wellbeing's associations with parent-child relationship quality and parental financial socialization as it pertains to young adults. Also summarized in this chapter are previous studies regarding significant predictors of financial socialization and financial well-being.

Financial Well-Being

There is no common definition of financial well-being. Recent studies have focused on creating a definition of financial well-being and a conceptual model to test the determinants of financial well-being (Brüggen, Hogreve, Holmlund, Kabadayi, & Löfgren, 2017; CFPB, 2015; CFSI, 2015; Netemeyer, Warmath, Fernandes, & Lynch, 2018). For example, the CFPB (2015) defined financial well-being as "the ability to have control over one's daily and monthly finances, the capacity to handle financial uncertainties, meet financial goals, and have the financial freedom to make choices that allow one to enjoy life" (p.12). However, Aggarwal (2014) defined financial well-being as being more of a concept related to objective financial measures. He stated that a household's financial well-being could be determined by examining a household's ability to manage and increase liquidity. Other concepts have also been used to define financial well-being. In a comprehensive study on the conceptualization of financial well-being, Brüggen et al. (2017) found that past research on financial well-being can generally be categorized into three segments: (a) financial well-being measured by objective financial measures (e.g., financial ratios, income, etc.); (b) financial well-being measured by subjective

financial measures (e.g., one's feelings about his or her financial situation); and (c) financial well-being measured by both objective and subjective measures.

Another concept that has been used to explore the determinants of financial well-being is financial satisfaction. Assuming a connection between financial satisfaction and financial wellbeing is a logical conclusion. Researchers have found that individuals who report having positive feelings of satisfaction regarding their personal financial positions display higher levels of positive financial well-being (Joo & Grable, 2004; Kim, 2001; van Pragg, Frijters, & Ferrer-i-Carbonell, 2003). Joo (2008) defined financial satisfaction as "a state of being financially healthy, happy, and free from worry" (p. 22) based on one's self-perception of his or her financial situation. Given this definition, one can infer that greater perceived financial satisfaction can lead to a better sense of financial well-being and overall well-being. However, other studies have also linked financial well-being to one's financial management behaviors such as contributing to a retirement plan, increased levels of financial knowledge, owning certain financial products, financial wellness, and income adequacy (Allgood & Walstad, 2016; Bayer, Bernheim, & Scholz, 2009; Danes & Rettig, 1993; Gerardi, Goette, & Meier, 2010; Hung, Parker, & Yoong, 2009; Joo & Garman, 1998).

In addition to the previous definitions and conceptualizations, financial well-being has been examined by measuring the level of financial stress that a household or individual is experiencing. Financial stress has been defined as stress related to a person's inability to meet financial obligations that can influence psychological factors such as attitudes, beliefs, and selfperception related to his or her financial situation (Aldana & Liljenquist, 1998; Northern, O'Brien, & Goetz, 2010). Financial strain or financial stress due to sub-optimal financial decision-making in households has been used as an indicator of lower financial well-being

(Aldana & Lijenquist, 1998; Bailey, Woodiel, Turner, & Young, 1998; Freeman, Carlson, & Sperry, 1993; Kim & Garman, 2003; Mills, Grasmick, Morgan, & Wenk, 1992). Northern, O'Brien, and Goetz (2010), found a small but significant association between financial stress and research respondents' physical health. Students in their study who reported having higher levels of financial stress also exhibited distressing physical health outcomes. Drentea and Lavrakas (2010) found that prolonged financial stress over credit issues can have negative effects on physical and mental health. Prolonged levels of financial stress are especially problematic since stress affects not only one's financial well-being but also physical and mental health, relationship quality, and overall well-being (Andrews & Wilding, 2004; Drentea & Lavrakas, 2010; Northern et al., 2010).

Based on the Family Financial Socialization Framework (Gudmudson & Danes, 2011), financial well-being is considered to be a combination of subjective and objective financial measures and should be treated as two distinct constructs to measure financial well-being (Danes & Yang, 2014; Gudmunson & Danes, 2011). Danes and Yang (2014) wrote that objective measures of financial well-being could be the nominal value of household income or net-worth. However, feelings about income adequacy may be a subjective financial indicator of well-being. Danes and Yang (2014) argued for this distinction since two households may have the same, or similar, financial status; however, each household could perceive their financial statuses differently. An example of this is that two individuals, Persons A and B, can earn the same income; however, Person A may perceive his or her income to be adequate, which could result in a more positive feeling of financial well-being. In contrast, Person B could perceive his or her income to be insufficient, which could result in lower feelings of financial well-being. Findings from a study conducted by Shim, Xiao, Barber, and Lyons (2009) support this distinction when

examining the financial well-being of young adults. Shim et al. (2009) suggested taking a similar approach by defining financial well-being as an individual's satisfaction with his or her current financial situation (subjective) and debt levels (objective) since both were associated with young adults' financial well-being.

Varying definitions in the financial well-being literature make measuring the construct somewhat complex; however, a measurement instrument that combines a person's perceived feelings about his or her financial situation and an objective measure to evaluate one's financial situation, as suggested by the FFS Framework, may be the key to creating a more widely agreed upon definition of financial well-being. This study contributes to the gap in the financial wellbeing literature by examining how subjective and objective measures of financial well-being, as described by Gudmunson and Danes's Framework (2011), can be better understood when examining the roles of parental financial socialization and parent-child relationship quality on financial well-being.

Family Financial Socialization Framework

Socialization is the process by which individuals acquire knowledge, skills, and values to participate as members of a group and in society (McNeal, 1987; Moschis, 1987). Social networks are a mechanism of socialization. Social networks help individuals determine (a) who they are as a person, (b) their understandings of the world, (c) and how they feel about themselves (Bandura, 1997). An individual's social network, particularly family, helps to shape and define the values, beliefs, knowledge, and skills that he or she possesses. For purposes of this study, family is defined as a group of two people or more (one of whom is the householder) related by birth, marriage, or adoption and residing together (Census Bureau, 2015). Family socialization can be further narrowed down to examine its relationship specifically on financial

socialization outcomes. Financial socialization has been defined as the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors contributing to financial capability and individual and family well-being (Danes, 1994, p. 128). This definition takes a comprehensive view of the various factors that are associated with financial well-being. Using this definition, Gudmunson and Danes (2011) created the Family Financial Socialization Framework (FFS). The FFS Framework is a two-stage process that examines the relationship between factors in stage one, family socialization processes, and factors in stage two of the framework, financial socialization outcomes. Gudmunson and Danes (2011) posited that often the interrelationship of multiple factors related to family socialization (e.g., family interactions and background) are related to financial socialization outcomes, including financial behaviors, knowledge, attitudes, and capabilities, and ultimately an individual's financial well-being. In an effort to better understand how financial socialization takes place, Gudmunson and Danes conducted a literature review to determine how past research has explored the topic of financial socialization. What they found is financial socialization is often studied as a direct predictor of financial outcomes; however, Gudmunson and Danes felt that these previous tests did not incorporate multiple, indirect paths of how financial socialization affects financial behavior and financial well-being. Their solution, within the FFS Framework, involves adopting a life-cycle perspective. Gudmunson and Danes contended that financial socialization evolves for individuals as they experience key turning points in their lives. These turning points often occur in adolescence and upon entering long-term relationships in adulthood. A review of the FFS Framework is presented below.



Figure 2. Family Financial Socialization Framework (Gudmunson & Danes, 2011).

Stage 1: Family Socialization Processes

As depicted in Figure 3, stage one in the model addresses family socialization processes. Pathway A is the relationship between personal and family characteristics and family interactions and relationships. Pathway B depicts the relationship between personal and family characteristics and purposive financial socialization. Gudmunson and Danes (2011) stated that previous findings show that sociodemographic characteristics are associated with financial behaviors and financial well-being, these characteristics should be used as "predictors" ¹(as indicated by Gudmunson and Danes) of financial socialization and not as controls as they have been historically used.

¹ The term predictors is used instead of controls or associations because this is the term used by Gudmunson and Danes in the Family Financial Socialization Framework.


Family Socialization Processes

Figure 3. Stage 1 Family Socialization Processes (Gudmunson & Danes, 2011).

Gudmunson and Danes defined purposive financial socialization as intentional financial socialization through explicit communication and practices. Characteristics like age, gender, and income have all been found to have an association with purposive financial socialization (Gudmunson & Danes, 2011; Xiao, Ford, & Kim, 2011). For example, families that have higher incomes, more education, higher levels of communication/instruction, or strong cultural beliefs about discussing or not discussing money often are associated with whether these homes engage in purposive financial socialization. Danes and Young (2014) wrote that individuals who come from a collectivist culture versus an individualistic one might engage in different savings and investing behaviors.

These differences in cultures may also affect how family members interact with each other, and the values and norms family members hold. To explain these phenomena, Hsee and Weber (1999) proposed the Cushion Hypothesis. This hypothesis has been used to explain the heightened likelihood of individuals raised in collectivistic cultures to engage in high-risk financial decisions. Typically, this is common in a collectivist group because in the event of a financial emergency members can rely on the support of others in their community. Support for cultural differences has been used to examine financial behaviors and risk-taking (Mandell, 2003; Perry & Morris, 2005; Weber & Hsee, 1998) with those from more collectivist cultures engaging in more "risky" financial behaviors than those from individualist cultures.

Pathway C depicts the relationship between family interaction and relationships and purposive financial socialization. Quality family relationships are important since positive relationships are often associated with warmth, trust, and long-term effects on an individual's behavior (Grusec et al., 2007). Perceived warmth from a relationship leads to increased attentiveness (Dix, 1992), which also affects the willingness to comply with relational partners' requests. The potential behavioral consequences of this include people being more willing to adhere to financial education lessons if they perceive that the educational intervention is delivered in a warm and trusting way. The family interaction and relationship construct can encompass a number of factors related to how families interact and relate to each other (Danes & Young, 2014; Gudmunson & Danes, 2011), making the construct seemingly immeasurable. Given this complexity, Gudmunson and Danes (2011) suggested that concepts such as interpersonal communication, parenting types, and relationship quality be used to better gauge this construct. Again, purposive financial socialization is defined as intentional financial socialization through explicit communication and practices (Gudmunson & Danes, 2011). Purposive financial socialization often occurs through parental observation, modeling, and communication. Purposive financial socialization is related to financial attitudes, knowledge, capabilities, and behaviors (Garrison & Gutter, 2010; Gutter et al., 2010; Hibbert et al., 2004; Jorgensen & Savla, 2010; Kim & Chatterjee, 2013). Gudmunson and Danes hypothesized that family interactions and relationships and purposive financial socialization would be associated

with financial knowledge, abilities, and capabilities since family interactions often result in implicit and explicit learning and teaching. As a result, those families that engage in more open and meaningful conversations can be thought to be engaging in purposive financial socialization, which can affect a child's financial knowledge, abilities, and capabilities. Conversely, families that do not have high levels of relationship quality may see the opposite effect. These families will be less likely to engage in purposive financial socialization explicitly; instead, family members will learn through implication and observation (i.e., implicit financial socialization.) Whether learning is primarily implicit or explicit, either method will affect a person's financial knowledge, abilities, and capabilities; however, those individuals who receive implicit socialization only may be more limited than those who live in households where learning is (was) more explicit.

Pathways D and E represent the relationship between family interactions and relationships and financial knowledge, abilities, and capabilities (Pathway D) and the relationship between purposive financial socialization and financial knowledge, abilities, and capabilities (Pathway E). The family serves as the primary socializing agent for most individuals, making families one of the most complex systems that influence human behavior (Gudmunson & Danes, 2011). Individuals often emulate financial behaviors from observational learning or parental modeling (Bakir, Rose, & Shoham, 2006; Mandrik, Fern, & Bao, 2005). These observations or direct teachings are related to financial knowledge, capabilities, and attitudes. Behaviors and attitudes such as lower materialistic consumption, being more future-oriented, saving, controlling impulsivity, and greater motivation have all been linked to healthy familial relationships, which can then result in better financial behaviors (Fisher & Montalto, 2009; Flouri, 2004; Lawrence, 1991; Mandell & Klein, 2007). Individuals who report having received

more purposive financial socialization also show more positive financial attitudes, higher financial knowledge, and greater confidence in their financial abilities (Drever et al., 2015; Gudmunson & Danes, 2011; Gudmunson et al., 2015; Kim & Chatterjee, 2013; Serido et al., 2010; Shim et al., 2010; Shim, Serido, Tang, & Card, 2015). Gudmunson and Danes (2011) posited that the quality and the type of interactions one receives in his or her home, and purposive financial socialization, can directly affect the financial knowledge, abilities, and capabilities an individual develops across time.





Figure 4. Stage 2 of the Financial Socialization Outcomes (Gudmunson & Danes, 2011).

In Figure 4, Pathways F and G represent the relationship between financial knowledge, attitudes, and capabilities and financial behaviors (Pathway F). These concepts' are associated with financial well-being (Pathway G). Financial knowledge, attitudes, and capabilities are included in one construct because the interrelationships among these concepts are associated

with financial behaviors and financial well-being. For example, the transfer of financial knowledge (i.e., the level of knowledge one has about personal finances) can sometimes only take place if the individual believes he or she is confident in his or her ability to understand and apply the knowledge. Also, capabilities include someone's knowledge but also a person's ability to use their knowledge to achieve financial goals (Danes & Yang, 2014). For instance, if someone possesses knowledge and abilities about saving but is unable to perform in this activity due to lack of access, accessibility overrides knowledge, which can negatively affect a person's financial behaviors and thus their financial well-being.

Gudmunson and Danes (2011) defined financial behaviors as patterns of financial outcomes that are observable (e.g., earning, saving, spending, and gifting), and changes in these patterns related to financial turning points and decision making. Financial patterns over time can include spending and saving behavior, whereas one's ability to initiate or end a behavior is dependent upon the context the person is in. This can include a new employee starting contributions to a 401(k) plan or stopping overspending to reduce cash flow deficits in order to achieve a financial goal. Based on Gudmunson and Danes's findings in the literature, financial knowledge, abilities, and capabilities are hypothesized to be directly associated with financial behaviors, as it has been found that those who have higher levels of knowledge, attitudes, and capabilities exhibit higher levels of financial well-being (Allgood & Walstad, 2016; Bayer et al., 2009; Gerardi et al., 2010; Hung et al., 2009; van Pragg et al., 2003). Also, financial knowledge, attitudes, and capabilities are directly associated with financial well-being. Based on the FFS Framework, financial well-being is considered to be a combination of subjective and objective financial measures. Financial well-being should be treated as two distinct constructs (Danes & Yang, 2014; Gudmunson & Danes, 2011). Gudmunson and Danes (2011) noted that this

distinction is necessary since subjective and objective measures are two facets that can both affect a person's financial well-being, yet each has different measurements. The FFS Framework states that subjective financial well-being focuses on how a person feels about his or her financial position; objective well-being is measured by financial ratios and other quantitative analyses.

Pathway H depicts the relationship between financial behaviors and financial well-being. Financial behavior is hypothesized to be associated with financial well-being because these behaviors can determine how a person feels about his or her financial situation. Also, researchers can not only examine how these behaviors are associated with one's financial well-being, but researchers can also objectively assess a household's economic vitality (e.g., emergency savings, adequate retirement contributions, etc.). The FFS Framework considers financial behaviors to be the "cornerstone" of financial well-being. Individuals who report engaging in more positive financial behaviors also report higher levels of financial well-being (Allgood & Walstad, 2016; Bayer et al., 2009; Gerardi et al., 2010; Hung et al., 2009). Conversely, those who report having financial strain or stress in their home due to sub-optimal decision-making often report lower feelings of financial well-being (Aldana & Lijenquist, 1998; Bailey, Woodiel, Turner, & Young, 1998; Freeman, Carlson, & Sperry, 1993; Kim & Garman, 2003; Mills, Grasmick, Morgan, & Wenk, 1992).

To date, there have been few studies published that have used the FFS Framework, predominantly because the model was introduced in 2011. Rea (2017) conducted a qualitative study on how family financial socialization is related to college students' perceived financial well-being. The FFS Framework was used to help Rea create an interview guide when collecting data from respondents. A qualitative analysis of her findings resulted in the following emerging

themes of how family socialization processes were associated with financial socialization and the financial well-being of young adults: (a) parental instillation of values, (b) positive parental promotion in developing self-efficacy, (c) the importance of parental financial education, (d) constraints due to financial capabilities/resources, (e) economic stability to meet financial goals, (f) promoting positive financial behaviors strategies (e.g. budgeting, automatic savings), (g) undermining financial position (due to lack of explicit socialization and biased decision-making), and (h) hindsight. Rea (2017) noted the following themes: "(a) strategies that promote financial well-being (e.g., put away money for future), (b) factors that undermine (or prevent you from achieving) financial well-being, and (c) hindsight are most likely to be associated with financial well-being for young adults (p. 37). These themes incorporate both subjective and financial measures of financial well-being, giving support to the conceptualization of well-being posited by the FFS Framework. In another study, Payne, Yorgason, and Dew (2014) were able to find support for the framework in an examination of how spouses socialize each other when making decisions related to retirement planning. The study examined the relationship between personal characteristics, such as materialism and religiosity, and retirement preparations as mediated by financial strain/capability. Although no direct relationships were found among the variables on retirement preparation, the researchers did find partial support for the personal characteristic, materialism, having an association with financial strain and indirectly associated with retirement savings. Religiosity was also found to have an indirect association if the spouse had considered how much to save for retirement. Jorgensen, Rappleyea, Schweichler, Fang, and Moran (2017) were able to find additional support for FFS Framework. In their study, they examined the relationships between attachment insecurity, locus of control, and parental financial communication on the financial behaviors of emerging adults using the FFS Framework.

Findings suggested that attachment insecurity predicted decreased financial communication from parents and a decreased perception of an internal locus of control. Jorgensen et al. also found that young adults who received more financial instruction (both direct and indirect) and those who held higher levels of internal locus of control engaged in more positive financial behaviors (Jorgensen et al., 2017). In each of these studies, the researchers either (a) did not conduct a quantitative analysis or (b) only tested a subset of the FFS Framework. This current dissertation will contribute to the body of knowledge on family financial socialization by (1) testing the validity of the full Gudmunson and Danes Family Financial Socialization Framework (2011), and (2) testing the pathways linking parent-child relationship quality to financial well-being.

Individual and Personal Characteristics

Sociodemographic characteristics and gender are two often studied factors in the financial socialization literature (Gudmunson, Ray, & Xiao, 2016). Demographic variables are often used as controls when examining financial well-being. What is not definitively known is how these characteristics are associated with financial socialization and ultimately financial wellbeing (Gudmunson & Danes, 2011). The FFS Framework shows that sociodemographic characteristics should be used as "predictors" since the research has shown that sociodemographics such as age, gender, ethnicity, and household income are known to be associated with how family members interact with each other; additionally, these factors are known to affect decisions to engage in purposive financial socialization (Gudmunson & Danes, 2011). Previous research findings indicate that these characteristics are related to how young adults are socialized, which can affect their understanding of what it takes to establish financial well-being (Gutter & Copur, 2011; Xiao et al., 2009).

Culture and Gender

In a review of the family financial decision-making literature, Gutter and Kim (2017) stated that families and individuals are largely influenced by environmental factors such as one's community and cultural beliefs. These factors are known associations with financial decisionmaking. Studies have found that the assignment of financial decision-making is often associated with gender roles and cultures (Carlsson, He, Martinsson, Qin, & Sutter, 2012). For example, Carlsson et al. (2012) found that men who grew up in cultures that ascribed to traditional "dominant male" roles tend to make more family financial decisions than men from cultures without these characteristics. Another example is in Latinx households, where males are traditionally considered to be the "leader" in their homes and often make financial decisions without a spouse's knowledge; however, Latinx households often function as a combination of traditional and egalitarian values (Falicov, 2001). Schneebaum and Mader (2013) found that in European households, women report making more daily household spending decisions; however, men report making more important financial decisions for the household such as retirement and insurance needs planning. In a study from the RAND American Life Panel, husbands who reported making more household decisions also demonstrated higher financial literacy, but the same was not true for wives (Fonseca, Mullen, Zamarro, & Zissimopoulos, 2012). In a study conducted by Clarke, Heaton, Israelson, and Egett (2005), it was found that White, male college students from higher-income households reported their fathers as the financial manager of the home when fathers demonstrated more financial role modeling. In the same study, male students felt more prepared for engaging in financial behaviors than women when the behaviors were modeled in the home. However, Garrison and Gutter (2010) found that women have more financial socializing opportunities than their male peers by engaging in discussions about money

with their parents and peers and through observing parental and peer financial behaviors. These cross-cultural and gender differences often affect how young boys and girls are financially socialized, which has implications regarding financial well-being. Children are thought to be taking their social learning cues from those in their environments. Reflections of behavior regarding gender roles are learned by observing the behaviors and interrelationship dynamics of those in the individual's environments (Bandura, 1977). Take the following into consideration; research has consistently shown that women are less financially literate than men, which has been found to have an association with women's financial well-being (Bucher-Koenen, Lusardi, Alessie, & Van Rooij, 2014, Chen & Volpe, 2002; Lusardi & Mitchell, 2011a, 2011b). This is true not only in the United States, but a similar gap has also been found worldwide in advanced economies and countries with emerging economies (Klapper, Lusardi, & Van Oudehuesden, 2014). Some have attributed lower financial literacy levels to the socialization of women (Newcomb & Rabow, 1999). In a study conducted by Danes and Haberham (2007), it was found that young women were more likely to be taught to seek security and safety, which can inhibit women from engaging in healthy financial risk-taking.

Income

It is not surprising that researchers have documented positive relationships between income and financial well-being (Fonseca et al., 2012; Lusardi & Mitchell, 2014). Those with higher income levels are more likely to be exposed to various types of financial products or financial services to manage their personal finances. Another potential reason for this relationship is that as income increases, the complexity of financial responsibilities also increases. For example, higher-income earners may be more involved with tax and estate planning strategies, which could lead to an increase in financial literacy levels and have a

positive relationship with financial well-being. Sherraden (2010) wrote that individuals from wealthier families have more opportunities to learn about personal finance because wealthier families interact more frequently with traditional financial institutions, thus making parents more competent to teach their children about financial matters. Conversely, lower-earning households may experience limited transactions with traditional financial institutions and products, resulting in sub-optimal financial decision-making (Johnson & Sherraden, 2007). The lack of these experiences may also result in lower financial literacy levels for low-income households (Johnson & Sherraden, 2007). Stacey (1987) found that individuals who come from households that have greater wealth and income report that their higher levels of financial knowledge and skillsets were learned from parents.

Ethnicity

Financial socialization research focused on minority populations is lacking. Often in the financial socialization literature, minorities represent small samples in financial socialization datasets, which makes it difficult to generalize to these sub-groups (Hudson, Young, Anong, Hudson, & Davis, 2017). Nonetheless, findings have consistently shown that there are varying levels of financial knowledge and well-being across ethnic groups, particularly those of African and Latinx descent. For example, minority households are often less literate and demonstrate lower levels of financial knowledge than Whites, which impacts the financial well-being of minorities (Finke, Howe, & Houston, 2016; Lusardi & Mitchell, 2011a, 2011b). Murphy (2005), examined the role of race and parental educational attainment on African-American college students' financial knowledge. Findings from his study showed that overall financial knowledge levels were low; however, parental education was a significant factor in respondents' financial knowledge levels, as those with better-educated parents had higher levels of financial

knowledge. Porto (2016) wrote that Latinx households have consistently been found to be a less financially capable group. The lack of financial capability may be a result of limited human capital and fewer experiential learning opportunities with traditional financial institutions (Porto, 2016). Porto also stated that acculturation, the process of learning a new culture, has implications for Latinx households' financial management and well-being. For example, first-generation immigrants often struggle with learning their new country's financial system as there are differences in banking cultures.

Further, the lack of translation services limits engagement with financial services providers. These factors are important to consider as parents' financial knowledge, attitudes, and capabilities are linked to financial well-being. As Johnson and Sherraden (2007) noted, parents are less likely to engage in explicit financial socialization in these households that have limited experiential financial opportunities and less knowledge to transfer. Whether households are individualistic or collectivist in nature is also associated with financial behaviors. For example, many Asian populations can be described as collectivist groups. Members of these groups often rely on each other when a financial need arises, so they sometimes engage in more financially risky behaviors; this is also known as the cushion hypothesis (Weber & Hsee, 1998). Studies examining Asian groups' financial risk behavior supports the hypothesis (Hsee & Weber, 1999; Weber, Hsee, & Sokolowska, 1998). Based on these findings, and other cultural differences amongst Asian populations, Yao (2016) wrote that these factors should be taken into consideration when examining the financial socialization and well-being of this diverse group. *Education*

Financial socialization studies conducted with young adults found that not only are parents primary socializing agents, but also parents' educational attainment is a primary factor

associated with more positive financial socialization outcomes (Chiteji & Stafford 1999; Cude et al. 2006; Jorgensen & Savla 2010; Lusardi, Mitchell, & Curto, 2010; Murphy, 2005; Shim et al., 2010). Lusardi et al. (2010) found that parents' educational attainment is positively associated with stock market participation. Mandell (2008) found that certain students from households with parents who obtained a college degree were more likely to pass a national financial literacy test. Johnson and Sherraden (2007) wrote that parents who are better educated are more likely to engage their children and monitor their children to ensure desired values, attitudes, and knowledge are being transferred from parent to child. In general, parents with higher educational achievement have been found to be an important factor when parents explicitly communicate values and teachings related to personal finance. Studies have also shown that education has a positive association with financial knowledge, behaviors, and financial well-being (Lusardi & Mitchell, 2011a, 2011b; Robb & Woodyard, 2011). Unsurprisingly, those who invest more in their education also demonstrate better financial outcomes as a result of this increased knowledge and more experiential financial learning opportunities.

The research shows that personal and family characteristics, such as gender, ethnicity, and income, are associated with financial well-being. However, further research should be conducted using a framework that examines personal and family characteristics associated with family socialization and its indirect relationship to financial well-being. The FFS Framework is a potential model that can help researchers better understand the link between personal and family characteristics and financial well-being.

Financial Behaviors

Researchers have found that a significant mechanism for influencing financial management behaviors is often parental financial socialization (Gudmunson & Danes, 2011;

Hibbert et al., 2004; Jorgensen & Savla, 2010; Kim & Chattejee, 2013). Household financial management behaviors can be classified into four groups: (a) cash management, (b) credit management, (c) saving, and (d) investing (Hilgert et al., 2003). Parents' actions, or inactions, have been found to be instrumental in the types of financial management practices that children engage in when they enter adulthood. For example, in financial socialization research, higher levels of positive financial well-being are known to be associated with individuals who engage in more positive financial management behaviors, often as a result of parental instruction (Malone, Stewart, Wilson, & Korshcing, 2010; Serido, Shim, Mishra, & Tang, 2010). Positive financial behaviors are associated with higher levels of financial confidence, attitudes, and knowledge. Confidence, knowledge, and attitudes have been directly or indirectly linked to parental financial socialization, which can result in a better sense of financial well-being. For example, in the retirement planning literature, researchers have noted that respondents who receive higher scores on financial knowledge questionnaires are more likely to plan for retirement compared to lower scoring respondents (Bucher-Koenen & Lusardi, 2011; Lusardi & Mitchell, 2007, 2011a, 2011b; Van Rooij et al., 2011). In a study conducted by Huston (2012), she found that respondents with higher objective financial knowledge scores were two times more likely to pay lower interest rates on their credit cards than respondents with lower financial knowledge scores. Huston also found that those with higher financial knowledge scores paid less in mortgage interest than those with lower scores. Research has also shown consumers are more likely to plan to save (Laibson et al., 2005), improve budgeting skills (Carlin & Robinson, 2012; Carpena et al., 2011), and report an increase in intentional financial management behaviors (Clark et al., 2006; Lynch & Wood, 2006) as their financial knowledge and capabilities increase. Hilgert et al. (2003) found that those with higher financial knowledge scores engaged in more positive financial

management behaviors such as paying bills on time, saving for emergencies, investing, and budgeting. Exhibition of lower materialistic attitude, being more future-oriented, saving, controlling impulsivity, and greater motivation are all known to be associated with healthier financial behaviors (Fisher & Montalto, 2009; Flouri, 2004; Lawrence, 1991; Mandell & Klein, 2007).

Parental financial socialization has also been shown to be associated with attitudes toward credit card behavior. A study conducted by Norvilitis and MacLean (2010) found that parents who taught financial topics and modeled positive financial behaviors to their children, such as delaying gratification, was associated with credit card debt among the children later in college. Students whose parents used these "hands-on" teaching techniques were less likely to engage in impulsive credit card purchases and had lower levels of credit card debt. The association of parental financial socialization on financial behaviors has also been examined in the areas of investment behavior (Hira, Sabri, & Loibl 2013), risk (Dohmen, Falk, Huffman, & Sunde, 2012), savings (Bucciol & Veronesi, 2014; Webley & Nyhus, 2013), and spending habits (Pinto et al., 2005). These and other studies have consistently found that parents who engage in purposive, or explicit, financial socialization improve how their children behave and manage financial resources in later life.

It is evident that those who engage in more positive and healthy financial behaviors often report higher levels of financial well-being. However, although it is known that parent-child communication and modeling are influential in determining financial behaviors, what is not known is the association between parent-child relationship quality and its indirect effect on financial behaviors and well-being.

Purposive Financial Socialization and Financial Attitudes, Knowledge, and Capabilities

Many children have a basic understanding of money before entering grade school (Kuhlmann, 1983). From this, it is possible to infer that children are learning about personal finance at an early age from their parents or primary caretakers. Researchers have looked to social learning theories and found that children observing their parents' financial behaviors is one way children learn to behave as consumers (Drever et al., 2015). The attitudes, values, and beliefs people have regarding money are learned not only as a result of watching parents, but also from experiential learning, parental monitoring, and engaging in family conversations about financial topics. The Gudmunson and Danes (2011) FFS Framework proposes that financial attitudes, knowledge, and capabilities are often interdependent when examining financial wellbeing. For example, a person receiving financial services help or education may learn that he or she needs to establish a savings account to ensure income adequacy in the event of an emergency. Although this person is agreeable to the newfound financial knowledge, if he or she does not believe that he or she has the resources (e.g., proximity to a bank) or has confidence in his or her abilities to open this account, then the individual may be struck with inertia, thus keeping the person from opening the savings account.

Researchers, for decades, have been interested in documenting how experiences in childhood affect financial and consumer decision-making. In an early study, Moschis (1987) conducted a review of consumer socialization research to examine the determinants of how children and adolescents make decisions in the marketplace. Moschis used his findings to create a consumer socialization framework. Moschis's work focused on the influence of advertisers and how individuals are persuaded as consumers to make choices; however, there was not an existing framework that included how family communication affected consumer decision-making.

Moschis's work stressed what previous research has found; namely, that parental socialization has a strong association with consumer decision-making. He proposed that parents influenced their children's consumer decision-making logic (i.e., how to decide which good should be purchased), brand choice, store choice, and convenience goods versus specialty goods. In addition to parental influence on how children and adolescents chose goods in the marketplace, direct family communication was also found to be important and varied by sociodemographic characteristics. Moschis found (a) White households were more likely to talk about consumer decision-making than Black households, (b) higher-income households were more likely to discuss consumer decision-making, and (c) boys were more likely to be taught how to make decisions than girls. A family's direct or indirect communication style was associated with how individuals behaved as consumers in the marketplace. Those whose parents talked about how to make decisions made better consumption choices than those whose parents did not. Moschis's work has been instrumental in that his consumer socialization framework about family communication.

Researchers have consistently noted that there is a positive association among financial attitudes, knowledge, and capabilities and financial well-being, mediated by parental financial socialization during childhood (Drever et al., 2015; Gudmunson & Danes, 2011; Gudmunson et al., 2015; Kim & Chatterjee, 2013; Serido et al., 2010; Shim et al. 2010; Shim et al., 2015). Financial attitudes, described as the feelings that individuals have towards money and financial behaviors, can often be traced to family interactions and engaging in purposive financial socialization. For example, Jorgensen and Savla (2010) conducted a study that looked at college students' perception of their parents influence on their financial management behaviors mediated by the students' financial knowledge, attitudes, and personal characteristics. During the time of

the study, there was research being conducted on the financial well-being of college students. At that time, the stress of student loans and the economic collapse revealed that students, like many other portions of the population, were lacking the skills and knowledge to engage in financially optimal behaviors. To better understand the association between parental financial socialization and students' behavior, Jorgensen and Savla thought it was important to test whether student's perceptions of their parents' influence mattered. Jorgensen and Savla found that although parental socialization did not have a significant effect on financial knowledge, students who were explicitly taught by their parents did have better attitudes towards personal finance. These students attributed their higher financial attitudes to their parents' teachings. This was seen for both male and female students. In addition to this finding, women who reported being taught explicitly not only had better attitudes towards personal finance, they engaged in more positive financial behaviors. The findings from the Jorgensen and Savla study suggest that parental socialization has an enduring effect after adolescence for college-aged students.

Parents often use either implicit, purposive (explicit), or a combination of both methods when teaching financial concepts (Drever et al., 2015). Parents often monitor their children's behavior to ensure that desired beliefs, attitudes, and behaviors are apparent in their children's financial management skills. Children whose parents monitored their financial behavior while growing up are more likely to exhibit higher levels of financial knowledge (Johnson & Sherraden, 2007). They are also more likely to engage in desired financial management practices, accumulate more assets, and report higher levels of financial confidence (Kim & Chatterjee, 2013). Pliner, Freedman, Abramovitch, and Drake (1996) found that children whose spending was monitored by parents are more likely to adhere to their parent's financial beliefs and engage in long-term financial planning behavior. In an examination of saving behaviors for

low and moderate-income households, Cho, Gutter, Kim, and Mauldin (2012) found that those who talked to their parents about money as a child exhibited responsible behaviors later in adulthood. Also, individuals who reported having conversations about money with their parents tend to be more financially knowledgeable and confident about engaging in personal finance behaviors (Jorgensen & Savla, 2010). It has also been found that those who report growing up in households where they observed positive financial stewardship engage in fewer negative financial behaviors in adulthood (Hibbert et al., 2004). Confidence also has an association with behavioral outcomes. In a study conducted by Power, Hobbs, and Ober (2011), students who took a retirement planning and insurance course felt more prepared and confident in their abilities when making retirement decisions after gaining employment. Also, Henager and Cude (2016) found a positive relationship between confidence in one's financial knowledge and positive financial behaviors of younger generational cohorts.

In the FFS Framework, Gudmunson and Danes (2011) stressed the importance of engaging in purposive financial socialization due to the positive outcomes associated with purposive role modeling and communication. Implicit learning is acquired through observation, but a child may be unaware of the processes behind the observed behaviors (Reber, Allen, Reber, & Sternberg, 1999). The outcomes of a primarily implicit financial socialization process often lead to more negative financial behaviors and problematic attitudes, knowledge, and capabilities. Although outcomes carry negative consequences, implicit socialization is the more common method for how people acquire financial knowledge, attitudes, and capabilities. Unfortunately, implicit socialization often results in unhealthy financial attitudes and lower financial capabilities (Drever et al., 2015; Hibbert et al., 2004; Sherraden, 2013). Often observed and unexplained behaviors modeled by parents leave children to their own understanding of how to interpret these

behaviors. Parents model implicit behavior through bill management practices, unguided shopping trips, and usage of traditional or non-traditional financial services (Drever et al., 2015; Sherraden, 2013). For the purposes of financial socialization, implicit socialization methods can be worrisome. For example, parents who demonstrate sub-optimal financial behaviors risk negatively financially socializing their children. Sherraden (2013) found that parents who have lower levels of financial knowledge or financial management skills often do not have the proper information and skills to model positive financial behavior for their children. Sherraden's findings were based primarily on low-income households where parents often do not use standard financial institutions or products. Another worrisome issue is children modeling behavior to appease their parents or to appear to be adult-like (Whitebread & Bingham, 2013). This is particularly problematic because children can engage in behaviors they do not fully understand. If an individual whose parent(s) engaged in sub-optimal financial behaviors or patronizes predatory financial institutions, he or she may do the same without understanding the dire consequences that can affect his or her financial well-being.

The evolution of the financial literacy and personal finance literature has shown that the research focus has gone from looking at just the effect of financial knowledge, attitudes, or capabilities to the interaction of all three factors. An area that is in need of further examination is the role of financial attitudes, knowledge, and capabilities on financial management behaviors and well-being when viewed through a conceptual framework that encompasses family socialization processes and its relationship with financial socialization outcomes for young adults.

Parent-Child Relationship Quality on Financial Well-Being

The research examining parental financial socialization has been effective in capturing how purposive and implicit financial socialization are associated with financial management behaviors and well-being. However, one area of research that is lacking includes studies examining the role of parent-child relationship quality and this factor's association with an individual's financial well-being. When reviewing the family studies literature, the reason for this gap in the personal finance literature is understandable. John (1999) wrote that "family influences on socialization seem to proceed through subtle influences on socialization than purposive education efforts by parents" (p. 206). In addition to the complexity of measuring these subtleties, family interactions are often complex due to the intrinsic system a family relies on to meet the needs of each individual and the entire unit (Gudmunson & Danes, 2011). Feedback on behaviors is not only received from parents but also from siblings and extended family members. Again, the complexity of the family system makes it difficult to understand the direction of associations regarding financial socialization and who or what is influencing whom.

To try to mitigate the complexity of family interactions and relationships, Gudmunson and Danes (2011) suggested that researchers should focus on broader constructs, such as family interpersonal communication, relationship quality, and parenting style to measure family interactions and relationship in the context of financial well-being. Although few, there are some studies in the financial socialization literature that focus on parent-child communication. For example, Pliner et al. (1996) found that children whose mothers gave them financial guidance and warmly communicated economic expectations exhibited positive financial behaviors in later life. Kim, LaTaillade, and Kim (2011) found that adolescents who reported receiving parental warmth and explicit socialization were more likely to save for college. These parents

communicated to their children the importance of goal planning and understanding financial values. Similar findings for college students were found in a study by Serido et al. (2010). The Serido et al. study found that students who talked about money with their parents were more likely to save for their future needs compared to those who had not when they perceived their parents as financial role models. Serido et al. contended that open and supportive discussions about financial topics can result in positive financial behaviors for young adults. However, negative family interactions or perceptions about parental financial management abilities can have an adverse effect on a person's financial socialization. Moore-Shay and Berchmans (1996) conducted a study examining students' perceptions of their parents' financial communication. Students who viewed their parents as competent money managers exhibited higher levels of security and stability. Conversely, those students who viewed their parents as less competent money managers worried more about money than their counterparts who had positive perceptions of their parents. These findings are interesting to note due to the intercommunication between parents can have in shaping perceptions of their children's perceived financial well-being. Kim, Lee, and Tomiuk (2009) found that mother-child communication patterns were associated with their children's consumption decisions. An association between mothers who engaged in dialogue and encouraged communication about purchasing decisions with their children and children being more cautious when making utilitarian and hedonic purchases was noted. However, mothers who expected children to conform to parental purchasing desires was negatively associated with the purchasing decisions of their children.

Although parenting methods are often contested, family studies researchers have found an agreement that warmth, engagement, and positive communication promote better well-being outcomes (Nash, McQueen, & Bray, 2005). Serido and Deenanath (2016) wrote that the quality

of family relationships is important, as this gives individuals the motivation to perform expected financial behaviors independently. Given that warm, positive relationship qualities have been found to promote well-being and better behavior outcomes in other disciplines, conducting a study to examine parent-child relationship quality on financial management behaviors and its association with financial well-being is warranted.

Summary

This chapter provides a review of past studies related to the financial socialization and financial well-being literature. Personal and individual characteristics, purposive financial socialization, family interaction and relationships, financial attitudes, knowledge, and capabilities, and financial behaviors are the proposed constructs of financial well-being based on the conceptual model that was used in this study. Also presented were the Gudmunson and Danes Family Financial Socialization Framework (2011), and a review of studies found that have adopted this framework. Chapter Three will cover the description of the data, sampling procedures, and how each FFS Framework construct was operationalized for statistical purposes.

CHAPTER THREE

METHODOLOGY

The purpose of this study is two-fold: (1) to test the validity of the full Gudmunson and Danes Family Financial Socialization Framework (2011), and (2) to test the pathways linking parent-child relationship quality to financial well-being. Using structural equation modeling (SEM) methods, this study will examine whether parent-child relationship quality is associated with two latent constructs (i.e., purposive financial socialization, financial attitudes, financial knowledge, and financial capabilities) and indirectly associated with financial well-being. This study will use Wave Three of the Arizona Pathways to Life Success for University Students (APLUS) dataset.² APLUS is a longitudinal dataset based on responses from young adults between the ages of 23 and 26 years old. The dataset includes information on respondents' relationship quality, financial attitudes, financial knowledge, parental socialization, financial behaviors, and financial well-being. This chapter provides descriptions of the dataset, including sampling and data collection methods, and detailed descriptions of the exogenous and endogenous variables. The remainder of this chapter includes an overview of the structural equation modeling (SEM) analysis process and the hypothesized conceptual model that was tested.

² This research uses data from the Arizona Pathways to Life Success for University Students Project (APLUS), directed by Joyce Serido at the University of Minnesota-Twin Cities and designed by Soyeon Shim at the University of Wisconsin-Madison & Joyce Serido. Information on how to obtain access to the APLUS data files is available on the APLUS website <u>https://www.aplushappiness.org/</u>

Data collection was funded by the National Endowment for Financial Education, Great Lakes Higher Education Corporation & Affiliates, and Citi Foundation.

Operationalization of Conceptual Framework



Figure 5. Gudmunson and Danes Family Financial Socialization Framework

The following hypotheses will be tested in this study:

H₁: Personal and family characteristics, or sociodemographics, will be positively associated with family interaction and relationships (Pathway A).

H₂: Personal and family characteristics related to the demographics of the household will be positively associated with parental engagement in purposive financial socialization (Pathway B). H₃: There will be a positive relationship between family interactions and relationships, measured as parent-child relationship quality, and purposive financial socialization, which will be measured by parental financial modeling and parent-child financial communication (Pathway C). H₄: Positive family interactions and relationship quality, measured as parent-child relationship quality, will be positively associated with financial attitudes, financial knowledge, and financial capabilities (Pathway D).

H₅: Purposive financial socialization will have a positive association on financial attitudes, knowledge, and financial capabilities development (Pathway E).

H₆: Individuals who report having healthier financial attitudes, knowledge, and capabilities will engage in more positive financial behaviors (Pathway F).

H₇: Individuals who report healthier financial attitudes, knowledge, and capabilities will report higher levels of positive financial well-being (Pathway G).

H₈: Individuals who engage in positive financial management behaviors will have higher levels of reported financial well-being (Pathway H).

Data Description and Sample

The Arizona Pathways to Life Success for University Students (APLUS) is a longitudinal dataset created in 2007. The dataset was created to better understand the determinants of "individuals' pathways to adult stability" (Shim & Serido, 2017). Questionnaires for the dataset focus on three concepts that are influential in adult happiness: (a) healthy relationships, (b) responsible financial decision-making, and (c) self-fulling work. The APLUS Study is premised on the following research question "How do young adults develop the knowledge, skills, and values that lead to long-term stability and happiness?" (Shim & Serido, 2017). APLUS researchers have been following the same respondents since the respondents' first year in college through young adulthood. Since the creation of this panel, five waves have been collected. Wave One served as baseline data for respondents and was collected in Spring 2008. Respondents were ages 18-21. Wave One-and-a-Half collected economic impact data in Spring 2009 when respondents were ages 19-22. Wave Two data were collected in Fall 2010 when respondents were ages 21-24. Wave Three data were collected in Spring and Summer 2013. During the collection of Wave Three data, respondents were ages 23-26. Wave Four is the most recent data collected. These data were collected in Spring and Summer 2016 when respondents were ages 26-29. Researchers initially collected over 2,000 student surveys. In 2016, researchers at the

University of Arizona received surveys from 855 respondents in the most recent wave of data collection.

Sampling Procedures

After the APLUS principal investigators received IRB approval to recruit respondents for the University of Arizona study, they met with campus administrators and student organizations to develop a marketing plan to target first-year enrolled students at the University of Arizona for Wave One. Next, the researchers used several methods of communication via flyers, posters, student newspapers, campus cable television, and other campus media to recruit students. Students were also contacted directly through campus e-mail with a link to the survey. Recruitment was done by giving campus presentations at events and locations where first-year students typically attended or occupied. The Wave One APLUS Report stated that 85.7 percent of students completed an electronic survey (Shim, Serido, & Xiao, 2009). The remaining 14.3 percent completed a paper and pencil version of the survey. Several financial incentives were used to recruit students. Students were offered a \$10 bookstore gift card for the first 1,000 respondents, whereas \$5 gift cards were given to the remaining students. All students were entered into a raffle to win an iPod Touch. Additional raffle entries were given to students for every student they recruited (Shim et al, 2009). For purposes of this study, the data were restricted to respondents in the Wave Three survey panel. Wave Three was selected since this is the most recent panel that collected information on parent-child relationship quality and variables related to all concepts in the financial knowledge, attitudes, and capabilities construct in the FFS Framework.

Operationalized Model

Measures

Financial Well-being

Subjective measure of financial well-being

Based on the FFS Framework, financial well-being should be measured with subjective and objective measures to assess an individual's financial well-being (Gudmunson & Danes, 2011). To measure subjective financial well-being, respondents were asked to rate two statements regarding their financial satisfaction. Those statements were: (a) "*I am satisfied with my current financial status*.", and (b) "*I am constantly worried about money*." The question was measured with a five-point Likert scale ranging from (1) "*Strongly Disagree*," (2) "*Disagree*," (3), "*Undecided*," (4) "*Agree*," and (5) "*Strongly Agree*." The second statement "*I am constantly worried about money*." was reverse-coded. Higher scores will indicate higher levels of subjective financial well-being.

Objective measure of financial well-being

Difficulty meeting financial obligations was used as an indicator of objective financial well-being since this concept is an indicator of income adequacy. Respondents were asked to rate the following statement: "*I have difficulty paying for things*." The question was measured with a five-point Likert scale ranging from "*Strongly Disagree*," (2) "*Disagree*," (3), "*Undecided*," (4) "*Agree*," and (5) "*Strongly Agree*." This question was reverse-coded with higher ratings indicating less difficulty paying for financial obligations, thus greater objective financial well-being. The reported reliability score for these questions was .84 (Serido et al, 2010; Shim et al., 2010).

Personal and Family Characteristics

The construct personal and family characteristics represent sociodemographic variables that the FFS Framework posited will be associated with financial well-being. Personal and family characteristics include the following variables:

Ethnicity

In Wave One of the panel, students were asked to report their ethnicity. Ethnicity is a categorical variable that is self-reported. Respondents were asked, "*My primary ethnic background is*…" Ethnicity was measured as (1) "*African-American/Black*," (2) "*Asian/Asian American/Pacific Islander*," (3) "*Hispanic/Latino*," (4) "*Native American/other*," and (5) "*White*." The variable was recoded as a dichotomous variable to compare differences in minority households, coded 0, to White households, coded 1.³

Education

Parent education

Education was measured as a continuous variable coded from 1 to 5. The measures for education were coded as (1) "*less than high school diploma*", (2) "*completed high school*," (3) "*Some college (including Associates Degree, Vocational or Technical degree)*," (4) "*College degree (B.A., B.S.)*," and (5) "*Graduate school or professional degree (i.e., M.A., M.B.A., Ph.D.)*." Respondents were asked to answer this question for both their mother and father's education levels.

³ The choice to make the ethnicity variable dichotomous was based primarily on the sample size. Given the way in which the model will be tested, there were too few minority respondents to maintain separate categories.

Gender

Respondents were asked to identify their gender with the following question: "*I am a*…" in Wave One on the panel. Responses were measured as (1) "*Male*" and (2) "*Female*." Gender was coded as a dichotomous variable. Male was recoded as 0, whereas female was recoded as 1.

Household Income

To measure household income, respondents were asked: "*What is your parents*' *combined annual gross income (before taxes) (Give an approximate amount)*?" Parents' total income was measured by a four-tier categorical question that ranged from less than \$50,000 to more than \$200,000. Values given were (1) "*Less than \$50,000"*, (2) "*Between \$50,000-\$99,999"*, (3) "*Between \$100,000- \$200,000"*, and (4) "*Over \$200,000"*. Binary variables were constructed for each income range for analysis.

Family Interactions and Relationships

Respondents were asked the following question regarding the relationship with their parents: "*How would you rate your overall relationship with your parent(s)?*" The question was measured with a five-point Likert scale ranging from (1) "*Poor*," (2) "*Fair*," (3) "*Good*," (4) "*Very Good*," and (5) "*Excellent*." Higher ratings indicate better parent-child relationship quality. This variable was used as an indicator of family interactions and relationships.

Purposive Financial Socialization

A summated scale was used to measure purposive financial socialization. Nine purposive financial socialization questions were asked that included measures of financial role modeling and financial communication. The following questions were asked to respondents regarding role modeling.

(a) "My parent(s) often talk to me about the importance of financial security for my later life."

(b) "I make financial decisions based on what my parents have done in similar situations."

(c) "When it comes to managing money, I look to my parent(s) as my role models."

(d) "My parent(s) often review my budgeting and spending patterns."

(e) "My parent(s) have carefully explained to me how to establish my credit rating."

(f) "When it comes to financial decisions, I avoid doing what my parents have done."

(g) "My parent(s) are role models for me about how to manage financial matters."

- (h) "My parents(s) have a positive influence on me when it comes to managing my money."
- (i) "My parent(s) frequently monitor how I use my credit cards."
- (j) "My parent(s) do not set a good example for being financially responsible."

The following questions were asked to respondents regarding financial communication with their parents.

- (a) "My relationship with my parents is not good because of money issues."
- (b) "My parents do not approve of my spending patterns in general."
- (c) "I argue a lot with my parent(s) about money matters."

These questions were measured with a five-point Likert scale ranging from (1) "Strongly Disagree," (2) "Disagree," (3), "Undecided," (4) "Agree," and (5) "Strongly Agree." The question "When it comes to financial decisions, I avoid doing what my parents have done," My parent(s) do not set a good example for being financially responsible.", "My relationship with my parents is not good because of money issues.", "My parents do not approve of my spending

patterns in general., and "I argue a lot with my parent(s) about money matters." were reversecoded. Higher scores serve as indicators of more positive purposive financial socialization. Based on previous studies, the reported reliability scores have ranged from .76 to .88 (Serido et al., 2010; Shim et al., 2010; Shim et al., 2013).

Financial Knowledge, Attitudes, and Capabilities

Within this construct are several concepts that were measured. These concepts include: (a) financial knowledge (objective and subjective), (b) financial attitudes, and (c) financial capabilities. Financial capabilities will include the concept of financial self-efficacy.

Objective financial knowledge

To measure objective financial knowledge, respondents were asked to answer 15 true/false questions. Questions included:

- (a) "If you expect to carry a balance on your credit card, the APR is the most important thing to look at when comparing credit card offers."
- (b) "Your credit card report includes employment data, your payment history, and any inquiries made by creditors, and any public record information."
- (c) "If you have a savings account at a bank, you may have to pay taxes on the interest you earn."
- (d) "Mutual funds pay a guaranteed rate of return."
- (e) "If you have any negative information on your credit report, a credit repair agency can help you remove that information."
- (f) "If the interest rate on an adjustable rate mortgage loan goes up, your monthly mortgage payments will also go up."

- (g) "If you buy certificates of deposit, saving bonds, or Treasury bills, you can earn higher returns than you can earn on a savings account, with little or no adding risks."
- (h) "You could save thousands of dollars in interest costs by choosing a 15-year mortgage rather than a 30-year mortgage."
- (i) "Making payments late on your bills can make taking out a loan difficult."
- (j) "With compound interest, you earn interest on your interest as well as on your principal."
- (k) "Your credit rating is not affected by how much you charge on your credit cards."
- (1) "A stock mutual fund combines the money of many investors to buy a variety of stocks."
- (m) "The finance charge on your credit card statement is what you pay in order to use credit."
- (n) "Over the long term, stocks have the highest rate of return on money invested."
- (0) "Using extra money in a bank savings account to pay off a high-interest rate credit card debt is a good idea."

Responses for each question was coded as a dichotomous variable with correct answers coded as 1 and incorrect answers coded as 0. Respondents were only given the options of true or false. An index was created to measure objective financial knowledge. Those who score higher on the index are deemed to have demonstrated higher levels of objective financial knowledge.

Subjective Financial Knowledge

To measure subjective financial knowledge, respondents were asked: "*How would you rate your overall understanding of personal-finance and money-management concepts and practices?*" Responses ranged from (1) "*Very Low*," (2) "*Low*," (3) "*Moderate*," (4) "*High*," and (5) "*Very High*." Higher scores indicate higher levels of subjective knowledge.

Financial Attitudes

To measure financial attitudes, respondents were asked to "*Indicate how favorably or unfavorably you feel toward each of the following activities*." The following activities were given as options (a) Tracking monthly expenses, (b) Spending within the budget, (c) Paying credit card balances in full each month, (d) Saving money each month for the future, (e) Investing for long-term financial goals regularly, and (f) Learning about money management regularly. Responses were measured with a five-point Likert scale and coded as (1) "Very *unfavorably*," (2) "*Unfavorably*," (3) "*Neither favorably nor unfavorably*', (4) "*Favorably*," and (5) "*Very favorably*." Responses were summed into a financial attitudes scale with higher scores indicating more positive financial attitudes. The reported reliability scores have ranged from .83 to .86 (Serido et al., 2013; Shim et al, 2010; Shim et al, 2013; Shim et al, 2015).

Financial Capabilities

Self-efficacy

Financial capabilities were measured with a self-efficacy scale. Respondents were asked to "Please read each item and indicate to what degree it reflects your own thoughts and feelings." Respondents were asked to rate their self-efficacy for the following statements: (a) "*I am satisfied with the way I pay my bills*," (b) "*I feel good about my money management abilities*," (c) "*Sometimes I don't like the way I manage my finances*." Responses were coded as (1) "*Strongly Disagree*," (2) "*Disagree*, (3), "*Undecided*," (4) "*Agree*," and (5) "*Strongly Agree*." The question "*Sometimes I don't like the way I manage my finances*." were reverse coded. A scale was created to measure financial self-efficacy with higher scores indicating higher levels of confidence in financial abilities.

Financial Behaviors

There are several questions that were asked in the APLUS Wave Three questionnaire related to financial management behaviors. Hilgert, Hogarth, and Beverly (2003) created a financial management scale for financial management behavior. Those who score highly on the scale are hypothesized to engage in more positive financial behaviors (Hilgert et al., 2003). The scale was used to examine debt, cash and credit management, saving, and investing behavior to determine if a person is engaging in positive financial behaviors. In the APLUS dataset, respondents were asked the following question for several financial management behaviors: *"Indicate how often you have engaged in the following activities within the past six months."* This question was asked in regarding the following financial behaviors:

- (a) budgeting on a regular basis
- (b) tracked monthly expenses
- (c) spent within budget
- (d) paid bills on time each month
- (e) borrowed money or took cash advance each month from credit cards
- (f) paid off my credit card
- (g) paid off my credit card balance in full every month
- (h) maxed out credit card limit
- (i) saved money each month for the future
- (j) saved for emergencies
- (k) contributed to an investment or retirement account
- (l) invested for long-term financial goals

Each question was asked using a five-point Likert scale where (1) "*Never*," (2) "*Rarely*," (3) "*Sometimes*," (4) "*Often*," and (5) "*Very often*." The questions *borrowed money or took cash advance each month from credit cards* and *maxed out credit card limit* were reverse coded. These answers were combined into a scale with higher scores indicating more positive financial management behaviors. Each question was then be grouped into one of the following categories: (a) cash management, (b) credit management, (c) saving, and (d) investing. The reported reliability scores have ranged from .64 to .69 (Serido et al., 2013; Shim et al, 2010; Shim et al, 2015).

Data Analysis

Descriptive Information

Descriptive statistics, including sample size, mean, standard deviation, and range (minimum and maximum), was estimated for each of the variables used in the analysis. Answers such as "*don't know*" and "*prefer not to say*," were treated as missing values and were excluded from the analysis as were any other missing values. In addition to these basic descriptive statistics, covariance matrices, factor loadings for latent variables, SEM analyses, model fit results, and the indirect, direct, and total model effect results are reported.

Statistical Analysis

The primary statistical analysis method for this study was a structural equation model (SEM). SEM is a statistical methodology that examines the relationships between measured (observed) variables and latent constructs (Suhr, 2006). SEM is a common statistical analysis technique that is used in human development and family science, psychology, sociology, and other social science fields (Hox & Bechger, 2007; Tarka, 2018). There are two components to SEM. The first is the measured model and the second is a structural model. The measurement
model is the general model in which latent variables (constructs) are linked to observed variables (indicators). The structural model is the defined relationship between latent variables and other measured variables that are not indicators of some other latent variable (Field, 2000).

Structural equation modeling was originally created by the geneticist Sewall Wright with influence from psychologist Charles Spearman's work on factor analysis (Tarka, 2018). In the early 1970s, Hauser and Goldberger (1971) combined Spearman's and Wright's work, which led to current SEM methods that have also been influenced by others' work in the social and medical sciences (Tarka, 2018). Tarka (2018) stated that the main advantage associated with SEM is that "SEM allows researchers to conduct a complex, multidimensional, and more precise analysis of empirical data taking into account different aspects of the examined reality and abstract concepts or theoretical constructs" (p. 338). According to Schumacker and Lomax (2010), there are three primary advantages associated with using structural equation modeling techniques. First, SEM allows for many variables to be analyzed for estimation in more complicated studies. This is important since more traditional analytical methods can only use a limited number of variables, making them insufficient for more complex studies. Second, SEM can consider measurement error that includes observed variables, latent variables, and measurement error in the model during the analysis. Third, advanced SEM models are more adept at analyzing complex studies, which makes SEM modeling very suitable for fields like social sciences, education, and behavioral finance, which often look at the connection between social and behavioral interactions (Schumacker & Lomax, 2010).

There are four underlying assumptions embedded in structural equation models. First, in order to obtain reliable parameter estimates, a large sample size is required. Typically, a minimum sample size of 200 is adequate to meet this assumption. Second, observations need to

be drawn from a continuous and multivariate normal population. Third, the model needs to be correctly specified. Finally, missing values must be removed from the data prior to analysis (Donaldson, 1999).

As previously mentioned, there are two types of models in SEM. There is the measurement model and the structural model. Measurement models are used to show the observed variables and the latent variable constructs used. All observed indicators have their own measurement error. In order to determine the relationship between a latent variable and the observed variable, that make up a latent construct, a researcher must show that covariance exists between the observed variables. Factor loadings can be computed between a latent variable and its observed variables. Analyzing the covariances of the observed variables provides an estimate of the levels of influence of latent variables on the observed variables for specification. In the structural model, the relationships among latent variables are examined. Structural coefficients represent the relationships between latent variables.

Variables in an SEM analysis are categorized as exogenous or endogenous. Exogenous variables are similar to independent/predictor variables. The latent exogenous variables in this study are personal and family characteristics, purposive financial socialization, financial attitudes, knowledge, and capabilities, and financial behavior. Family interaction and relationships is an exogenous observed variable. Endogenous variables are similar to dependent variables. The primary endogenous variable in this study is financial well-being. The following steps are used in the SEM process: (a) model conceptualization, (b) parameter identification and estimation, (c) model fit assessment, and (d) model modification (Mueller & Hancock, 2008). Confirmatory factor analysis is typically used when there is theoretical support for the initial creation of the model. To identify and estimate the model, SEM software is

typically equipped with parameter techniques and tools, such as maximum likelihood (ML) (Donaldson, 1999), which assumes multivariate normality and continuity of the data. ML also requires a large sample size, usually more than 200. The model fit assessment stage has multiple fit criterion classes: (1) absolute indices, such as standardized root mean square residual (SRMR) and chi-square test; (2) parsimonious indices, including root mean square error of approximation (RMSEA), Akaike information criterion (AIC), and adjusted goodness-of-fit index (AGFI); and (3) incremental indices, such as the comparative fit index (CFI) and normed fit index (NFI) (Mueller & Hancock, 2008). The purpose of the model fit assessment stage is to find discrepancies between the observed sample-based model covariance matrix and the true population sample estimation covariance matrix. The final step in this SEM process is model modification. This can usually be done by estimating the Lagrange multiplier statistics (i.e., modification indices).

Hypothesized Model Specifications



Figure 6. Hypothesized conceptual SEM model.

Figure 6 illustrates the SEM path diagram containing the measurement and structural components of the model that was tested for this dissertation. As previously noted, the variables in SEM analysis can be classified into two types, exogenous and endogenous. Exogenous variables can be compared to independent variables. Endogenous variables can be compared to dependent variables. In this study, there are four exogenous latent variables and one latent endogenous variable in this model (when viewed holistically). The four latent variables in this study include purposive financial socialization (PFS), financial attitudes, knowledge, and capabilities (FAKC), and financial behaviors (FinBeh). The exogenous observed variables are gender, age, race, household income (HHInc), and family interactions and relationship (FIR). The two-headed arrows indicated hypothesized collinearity among the observed exogenous variables.

The FFS Framework, as operationalized in Figure 6, is an hierarchy-of-effects model, meaning that the model is a system of several equations, where some variables appear as both exogenous (independent) and endogenous (dependent) measures. Essentially, it is impossible to move through the same variable twice. The structural model, therefore, is comprised of the following functions:

FIR = f(Gender, ParEdu, Race, HHInc) + E $PFE = f(Gender, ParEdu, Race, HHInc) + \lambda FIR + E$ $FAKC = \lambda FAKC1FIR + \lambda FAKC2PFE + EFAKC12$ $FinBeh = \lambda FinBeh3FAKC + EFinBeh3$ $FWB = \lambda FWB4FAKC + \lambda FWB5FinBeh + EFWB45$

The measurement models for the latent constructs are depicted by the following equations:

$$ParModel = \lambda PFE + \varepsilon$$

 $FinCom = \lambda PFE + \varepsilon$ $FinAtt = \lambda FAKC + \varepsilon$ $FinKno = \lambda FAKC + \varepsilon$ $FinCap = \lambda FAKC + \varepsilon$ $CrMgt = \lambda FinBeh + \varepsilon$ $CaMgt = \lambda FinBeh + \varepsilon$ $Saving = \lambda FinBeh + \varepsilon$ $Invest = \lambda FinBeh + \varepsilon$ $SWB1 = \lambda FWB + \varepsilon$ $SWB2 = \lambda FWB + \varepsilon$ $OWB = \lambda FWB + \varepsilon$

Summary

This chapter provided an overview of the research purpose which is: (1) to test the validity of the full Gudmunson and Danes (2011) Family Financial Socialization Framework, and (2) to test the pathways linking parent-child relationship quality to financial well-being. This chapter also provided information about the dataset, including sampling and data collection methods, detailed descriptions of the exogenous and endogenous variables, the statistical analysis tool, SEM, and the hypothesized conceptual model that was tested for this study. The remainder of this dissertation describes the results of the analysis. This will be followed by a discussion of the results.

CHAPTER FOUR

ANALYSIS AND RESULTS

The results from the statistical analyses are described in this chapter. The statistical procedures described in this chapter include descriptive statistics for all variables, covariance matrices, factor loadings for latent variables, SEM analyses, model fit results, and the indirect, direct, and total model effect results. Results are both summarized and presented in tables.

Statistical Analysis Procedure

As noted previously in this dissertation, the main goal of this study was (1) to test the validity of the full Gudmunson and Danes Family Financial Socialization Framework (2011) and (2) to test the pathways linking parent-child relationship quality to financial well-being. SPSS 25 and AMOS 25 were used as the main statistical analysis programs. The reporting of the results for each model consists of (1) descriptive statistical results of the sample; (2) factor analysis results for latent constructs; (3) the direct, indirect, and total effects obtained from the structural equation models; (4) covariance matrixes from the structural equation models; and (5) structural equation model fit indices.

Descriptive Statistics

The total sample in the APLUS Wave 3 dataset used in the analysis consisted of 925 respondents. Respondent ages ranged from 23 to 26 years old. Table 1 provides a summary of the descriptive information for the variables used in this study. Results included in the table are the number of observations, minimum and maximum values for variables, percentages or means (continuous variables), and standard deviations.

Based on respondents' personal and family characteristics, the majority of the respondents identified as female (64.5%) and White (67.5%). Thirty-five percent of respondents reported their mother had previously obtained a college degree. Other mother education categories included some college (22.8%), graduate school or professional degree (20.2%), completed high school (18.7%), and less than a high school diploma (3%). The largest reported education attainment for fathers was a college degree (32.9%). Father educational attainment also included graduate school or professional degree (27.2%), some college (19.6%), completed high school (15.7%), and less than a high school diploma (4.6%). Parental household income had a range of less than \$50,000 to over \$200,000. The majority of respondents reported their parents' combined household income level to be between \$100,000 to \$200,000 (34.6%).

Regarding the subjective financial well-being questions, the average score reported for the questions (a) *"I am satisfied with my current financial status,*" and (b) *"I am constantly worried about money*" was 2.92 and 3.07, respectively. The question *"I have difficulty paying for things*" was used to measure objective financial well-being. This item had a mean score of 3.47. A large percentage of respondents (44.5%) rated the relationship with their parents as *"excellent.*" Purposive financial socialization consisted of modeling and direct financial communication questions. The average score for parental financial modeling behaviors was 3.01, whereas financial communication had an average score of 1.61.

Subjective financial knowledge had a mean score of 3.47, with the majority of respondents rating their subjective financial knowledge as moderate (41.5%). Respondents reported a mean score of 3.85 regarding their financial attitudes. Objective financial knowledge consisted of 15 True/False questions. Objective financial knowledge had a mean score of 11.26. Regarding financial capabilities, on average, respondents gave themselves a rating of 3.65.

Financial behaviors were grouped into four categories: (1) cash management, (2) credit management, (3) saving, and (4) investing. Respondents rated their frequency for engaging in these financial behaviors. The average score for each category was 3.42, 3.36, 2.98, and 2.40, respectively.

Table 1

Descriptive Statistics of Variables (N = 925)

VARIABLE	OBS	PERCENT (MEAN)	MIN	MAX	STD. DEV.
Objective Well-					
Being					
Strongly Agree	75	8.1%			
Agree	128	13.8%	1	5	1.20724
Neither Agree nor	224	24.2%			
disagree					
Disagree	281	30.4%			
Strongly disagree	217	23.5%			
Total	925	100.0			
Subjective Well-					
being (1)					
Strongly disagree	158	17.1%	1	5	1.242
Disagree	189	20.4%			
Neither Agree nor	250	27.0%			
Disagree					
Agree	224	24.2%			
Strongly agree	104	11.2%			
Total	925	100.0			
Subjective Well-					
being (2)					
Strongly disagree	118	12.8%	1	5	1.20660
Disagree	177	19.1%			
Neither Agree nor	268	29.0%			
disagree					
Agree	238	25.7%			
Strongly agree	124	13.4%			
Total	925	100.0			

Father Education					
Less than high	43	4.6%			
school diploma					
Completed high	145	15.7%	1	5	1.17195
school					
Some college	181	19.6%			
College degree	304	32.9%			
Graduate school/	252	27.2%			
professional degree					
Total	925	100.0			
Mother Education					
Less than high	28	3.0%	1	5	1.10056
school diploma					
Completed high	173	18.7%			
school					
Some college	211	22.8%			
College degree	326	35.2%			
Graduate school/	187	20.2%			
professional degree					
Total	925	100.0			
Household income					
<i>Less than \$50,000</i>	155	16.8%	1	4	.94376
\$50,000 - \$99,000	309	33.4%			
\$100,000 - \$200,000	320	34.6%			
<i>Over</i> \$200,000	141	15.2%			
Total	925	100.0			
Gender			0	1	
Male	328	35.5%			
Female	597	64.5%			
Total	925	100.0			
Race					
White	624	67.5%	0	1	
Other	301	32.5%			
Total	925	100.0			
Family interactions					
and relationships					
Poor	7	.8%			
Fair	46	5.0%	1	5	.922
Good	151	16.3%			
Very good	309	33.4%			
Excellent	412	44.5%			
Total	925	100			

Purposive financial						
socialization						
Parent modeling	925	3.0105	1	5	.88791	
Financial	925	1.6112	1	5	.74989	
communication						
Total	925					
Financial Attitudes,						
Knowledge, and						
Capabilities						
	925	3.8520	1	5	.81972	
Financial attitudes						
Financial	925	3.6479	1	5	.85051	
capabilities						
Objective financial	925	11.2638	3	15	2.12378	
knowledge						
Subjective financial	925	3.47	1	5	.901	
knowledge						
Total	925	100.0				
Financial Behaviors						
Cash management	925	3.4208	1	5	.70457	
Credit management	925	3.3613	1	5	.63460	
Investing	925	2.4097	1	5	1.41276	
Saving	925	2.9876	1	5	1.35525	
Total	925					

Results from the Gudmunson and Danes Family Financial Socialization Framework Tests

The following discussion summarizes findings from tests of the Gudmunson and Danes Family Financial Socialization Framework (2011). To begin with, the full model, as described in Chapter Three, and shown in Figure 7 below, was tested using a structural equation modeling technique. To ensure that the observed indicators were related to their latent constructs, a factor analysis was conducted in SPSS 25 prior to analyzing the data. Table 2 shows the factor loadings for the latent variables: FAKC, PFS, FinBeh, and FWB. In order to determine if the observed variables were related to the latent construct, a minimum criterion value was established. Although there is no consensus for the factor loading criterion value, .40 or higher is a commonly accepted cutoff criterion (Matsunaga, 2010). The .40 criterion was used in this study. Table 2 shows each latent construct, each constructs' observed variables, and the factor loadings for each observed variable. For all of the constructs, each observed variable met the cut-off criterion score except for OFK⁴, which is a component of FAKC.

Table 2

Factor Loadings for Latent Constructs

Variables	Factor Loadings
FWB	
OWB	.880
SWB1	.839
SWB2	.854
FAKC	
FinCap	.816
FinAtt	.640
SFK	.777
OFK	.329
FinBeh	
CaMgt	.602
CrMgt	.614
Invest	.775
Save	.836
PFS	
FinCom	.708
ParModel	.708

⁴Although OFK did not meet the general factor loading cutoff, a decision was made to retain the variable. This decision was based on the sample size used in the study, and a subsequent finding that the OFK variable was statistically significant in the larger model.



Figure 7. Original Hypothesized Conceptual Model (Model 1)⁵

Structural Equation Model Results

Model 1. For the model analysis, a structural equation modeling (SEM) technique was used to test the hypotheses. Tables 3 through 9 include the unstandardized and standardized regression estimates for the hypothesized relationships in the model, total, direct and indirect effects, covariance matrixes, and model fit indices corresponding to Figure 7.

For interpretation purposes, the direct effects between variables are noted by a oneheaded arrow. Direct effects indicate if there is a significant relationship between variables in the model. Direct effects are shown both as direct arrows drawn from one variable to a latent construct or an arrow drawn from a latent mediating variable to a latent endogenous variable. Based on the results, gender was positively and significantly related to family interactions and

⁵ Variable definitions: HHInc = Household income; FatherEd = Father's education level; MotherEd = Mother's education level; FIR = Family interaction and relationships; PFS = Purposive financial socialization; ParModel = Parent modeling; FinCom = Financial communication; FAKC = Financial attitudes, knowledge, and capabilities; FinAtt = Financial Attitudes; SFK = Subjective financial knowledge; OFK = Objective financial knowledge; FinCap = Financial capabilities; FinBeh = Financial behaviors; CrMgt = Credit management; CaMgt = Cash management; Invest = Investing; Save = Saving; FWB = Financial well-being; OWB = Objective financial well-being; SWB = Subjective financial well-being.

relationships (FIR) and purposive financial socialization (PFS). Father's education (FatherEd) was positively and significantly related to family interactions and relationships (FIR) and purposive financial socialization (PFS). Mother's education (MotherEd) was not found to be significant with family interactions and relationships (FIR) nor purposive financial socialization (PFS). Race was not found to be significantly associated with family interactions and relationships (FIR) nor purposive financial socialization (PFS). Household income (HHInc) was positively and significantly related to family interactions and relationships (FIR) and purposive financial socialization (PFS). Family interactions and relationships (FIR) was found to be significantly and positively associated with purposive financial socialization (PFS). Family interaction and relationships (FIR) and financial knowledge, attitudes, and capabilities (FAKC) were found to be positively and significantly associated. There was a significant association between purposive financial socialization (PFS) and financial knowledge, attitudes, and capabilities (FAKC); however, the relationship was negative. Financial attitudes, knowledge, and capabilities (FAKC) had a positive and significant relationship with financial behaviors (FinBeh) and financial well-being (FWB). The latent construct for financial behaviors (FinBeh) was found to have a significant and positive relationship with financial well-being (FWB).

The direct effects of the latent constructs and their observed variables were also tested. FAKC was positively and significantly related to the observed variables OFK, SFK, FinAtt, and FinCap. FWB was also positively and significantly related to the observed variables SWB1, SWB2, and OWB. FinBeh was positively and significantly related to its observed variables CaMgt, CrMgt, Invest, and Save. ParModel and FinCom were found to be positively and significantly related to the latent construct PFS. These findings match with the factor analysis results that preceded the SEM tests. Based on these findings, all of the hypotheses were fully supported except one. Purposive financial socialization (PFS) was expected to have a positive association with financial attitudes, knowledge, and capabilities (FAKC). However, the relationship was negative but significant. This finding can be interpreted to mean that as purposive financial socialization (PFS) increases for a respondent, that individual would report a lower level of financial attitudes, knowledge, and capabilities (FAKC). For the observed variables measuring personal and family characteristics, only father education (FatherEd), gender, and household income (HHInc) supported the direct associations linking personal and family characteristics to family interaction and relationship (FIR) and to purposive financial socialization (PFS). Mother's education (MotherEd) and race were found to be insignificant.

Model Fit

To test the conceptual model fit, several assessments of fit were used. The model had a statistically significant chi-square of 759.29 with degrees of freedom equal to 136. Statistically significant chi-square values generally show a poor model fit. However, models with a sample size over 400 generally always have a significant chi-square value (Kenny, 2015). The other goodness-of-fit indices showed mixed results for model fit. The Root Mean Square Residual (RMR) had a relatively high value of .078. RMR values below .08 demonstrate a good model fit (Kenney, 2015). The CFI did not meet baseline criterion levels (CFI \geq .90). The reported CFI was .849. The Root Mean Square Error of Approximation (RMSEA) was .070, which was relatively robust (scores below .08 are considered acceptable) (Kenny, 2015). Tables 3 through 9 show the (1) unstandardized regression weights, (2) standardized regression weights, (3)

covariance matrix, (4) total, direct, and indirect effects, and (5) the model fit indices for Model

1.6

Table 3										
Unstandard	Unstandardized Regression Weights for Model 1									
			Estimate	S.E.	C.R.	Р				
FIR	<	Gender	.173	.062	2.773	.006				
FIR	<	FatherEd	.066	.032	2.081	.037				
FIR	<	MotherEd	004	.033	114	.909				
FIR	<	HHInc	.085	.036	2.368	.018				
FIR	<	Race	.044	.066	.675	.500				
PFS	<	MotherEd	001	.017	043	.966				
PFS	<	HHInc	.083	.019	4.281	.001				
PFS	<	Race	057	.034	-1.674	.094				
PFS	<	Gender	.149	.034	4.383	.001				
PFS	<	FatherEd	.056	.017	3.315	.001				
PFS	<	FIR	.295	.026	11.199	.001				
FAKC	<	FIR	.195	.033	6.001	.001				
FAKC	<	PFS	364	.080	-4.552	.001				
FinBeh	<	FAKC	.558	.061	9.121	.001				
FWB	<	FAKC	.767	.175	4.382	.001				
FWB	<	FinBeh	1.353	.227	5.966	.001				
FinCom	<	PFS	675	.091	-7.380	.001				
ParModel	<	PFS	1.000							
FinAtt	<	FAKC	1.000							
SFK	<	FAKC	1.350	.121	11.160	.001				
OFK	<	FAKC	.969	.213	4.549	.001				
CrMgt	<	FinBeh	1.000							
CaMgt	<	FinBeh	1.035	.103	10.004	.001				
Invest	<	FinBeh	3.088	.248	12.453	.001				
FinCap	<	FAKC	1.741	.143	12.207	.001				
Save	<	FinBeh	3.423	.263	12.991	.001				
OWB	<	FWB	1.000							
SWB1	<	FWB	.889	.040	22.188	.001				
SWB2	<	FWB	.863	.039	22.166	.001				

Notes. *p<.05. **p<.01. ***p<.001

As shown in Table 4, financial behaviors (FinBeh) had the greatest direct association with financial well-being (FWB). For every one standard deviation increase in financial behaviors (FinBeh), financial well-being increased by .41 standard deviations. All direct effects

⁶ Variable definitions: HHInc = Household income; FatherEd = Father's education level; MotherEd = Mother's education level; FIR = Family interaction and relationships; PFS = Purposive financial socialization; ParModel = Parent Modeling; FinCom = Financial communication; FAKC = Financial attitudes, knowledge, and capabilities; FinAtt = Financial Attitudes; SFK = Subjective financial knowledge; OFK = Objective financial knowledge; FinCap = Financial capabilities; FinBeh = Financial behaviors; CrMgt = Credit management; CaMgt = Cash management; Invest = Investing; Save = Saving; FWB = Financial well-being; OWB = Objective financial well-being; SWB = Subjective financial well-being.

for the observed and latent variables were significant except race and mother's education. Neither observed variable had a direct effect on purposive financial socialization or the family interaction and relationship (FIR) construct.

Table 4			
Standara	lized R	egression Coefficie	nts for Model1
		8	Estimate
FIR	<	Gender	.090
FIR	<	FatherEd	.084
FIR	<	MotherEd	004
FIR	<	HHInc	.087
FIR	<	Race	.023
FAKC	<	FIR	.464
FinBeh	<	FAKC	.701
FWB	<	FAKC	.288
FWB	<	FinBeh	.405
FinAtt	<	FAKC	.473
SFK	<	FAKC	.581
OFK	<	FAKC	.177
CrMgt	<	FinBeh	.487
CaMgt	<	FinBeh	.454
Invest	<	FinBeh	.676
FinCap	<	FAKC	.794
Save	<	FinBeh	.781
OWB	<	FWB	.854
SWB1	<	FWB	.739
SWB2	<	FWB	.738

As shown in Table 5, each of the covariances in the model was statistically significant. This implies that the observed family characteristic variables were associated.

Table 5						
Covariance.	Matrix	for Model 1				
			Estimate	S.E.	C.R.	Р
FatherEd	<>	HHInc	.456	.039	11.606	.001
MotherEdu	<>	HHInc	.342	.036	9.517	.001
FatherEd	<>	MotherEdu	.692	.048	14.385	.001
FatherEd	<>	Race	.064	.018	3.495	.001
MotherEdu	<>	Race	.077	.017	4.494	.001
HHInc	<>	Race	.103	.015	6.912	.001

When interpreting Table 6, total effects illustrate the combined direct and indirect effect of a variable in the model. For example, gender did not have a direct hypothesized effect on financial well-being (FWB). The tested effect was indirect through FIR, PFS, and FAKC, and FinBeh. In the case of gender, the total effect was negative (-0.028). The total effect of father

education (FatherEd) on financial well-being was -.025. Race had a total effect of .017 on financial well-being (FWB) but was found to be not significant. MotherEd was found to be insignificant, with no effect on financial well-being (FWB). Household income (HHInc) had a total effect of -.032 on FWB. FAKC and FinBeh had a total effect of .573 and .405 on financial well-being (FWB), respectively. As shown in Table 4 the PFS variable failed to load in the model. Since the PFS variable had a negative error, a standardized value could not be estimated.

Table 6										
Standard	dized T	Total Eff	fects for	Model	1					
	Race	HHInc	MotherEd	FatherEd	Gender	FIR	PFS	FAKC	FinBeh	FWB
FIR	.023	.087	004	.084	.090	.000	.000	.000	.000	.000
PFS	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
FAKC	.030	055	.000	044	048	.209	.000	.000	.000	.000
FinBeh	.021	039	.000	031	034	.146	.000	.701	.000	.000
FWB	.017	032	.000	025	028	.119	.000	.573	.405	.000

Table 7 shows the direct effects of between variables in the model. When evaluating the coefficients in the table, it is worth noting that FIR, PFS, Race, MotherEd, Gender, HHInc, and FatherEd were not hypothesized to have a direct effect on FWB. Financial behaviors (FinBeh) had the largest direct effect on FWB. The direct effect of FinBeh on FWB was .405. FAKC had a direct effect of .288 on FWB. Both FinBeh and FAKC were found to be positively and significantly associated with FWB.

Table 7 Standard	dized L	Direct H	Effects F	For Mo	del 1					
	Race	HHInc	MotherEd	FatherEd	Gender	FIR	PFS	FAKC	FinBeh	FWB
FIR	.023	.087	004	.084	.090	.000	.000	.000	.000	.000
PFS	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
FAKC	.000	.000	.000	.000	.000	.464	.000	.000	.000	.000
FinBeh	.000	.000	.000	.000	.000	.000	.000	.701	.000	.000
FWB	.000	.000	.000	.000	.000	.000	.000	.288	.405	.000

Table 8 shows the indirect effects of the variables on financial well-being (FWB). FinBeh and FAKC were hypothesized to have a direct effect on FWB, so no indirect effects for these variables are shown. The variable FIR had an indirect association with FWB through the variables, PFS, FAKC, and FinBeh. FIR's indirect effect on FWB was .119. Gender had an indirect effect through FIR, PFS, and FAKC, and FinBeh. Gender's effect on FWB was -.028. Race had an indirect effect of .017 through FIR, PFS, FAKC, and FinBeh; however, Race was not significant in the model. Household income (HHInc) had an indirect effect of -.032 on FWB

through FIR, PFS, FAKC, and FinBeh. MotherEd was not found to be significant and had no indirect effects on FWB. FatherEd had an indirect effect of -.025 on FWB through FIR, PFS, FAKC, and FinBeh. FAKC had the largest indirect effect on FWB through FinBeh. FAKC's indirect effect was .284.

Table 8	dizad I	ndiract	Effects	of Mov	lal 1					
Standard	e e	<u>າແກບປະ</u> ຊ	p Djjeeus	2 2	Je	ĸ	S	U	ų	B
	Rac	HIr	lerE	lerE	ende	Ы	ΡF	AK	nBe	FW
		Η	Aoth	Fath	Ğ			Ц	汪	
			4							
FIR	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
PFS	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
FAKC	.030	055	.000	044	048	255	.000	.000	.000	.000
FinBeh	.021	039	.000	031	034	.146	.000	.000	.000	.000
FWB	.017	032	.000	025	028	.119	.000	.284	.000	.000

Table 9 shows the model fit indices of Model 1. The χ^2 statistic was found to be significant, which was not unexpected given the sample size. RMR and RMSEA were below benchmark criterion values (< .08), but the CFI was slightly below the .90 criterion level.

Table 9	
Model Fit Indi	ces Model 1
Chi-square (df)) 759.292 (<i>136</i>), p < 0.001
RMR	0.078
CFI	0.849
RMSEA	0.070 LO 90 .066 HI 90 .075

Model 2. Due to the poor model fit and discrepancies between and among variables in the test of the conceptual model, a second model was created in an attempt to make a more precise and better fitting model. Since the variable race was found to have an insignificant effect on both family interaction and relationship (FIR) and purposive financial socialization (PFS), the variable was removed to create a more parsimonious model.⁷ Also, as noted above, the way in which purposive financial socialization (PFS) was conceptualized caused problems when

⁷ MotherEd was also found to be insignificant. Although the variable was insignificant in Models 1 and 2, when the variable was dropped from the model, the fit indices decreased. Given the negative result associated with removing the variable, the MotherEd variable was retained in the second and third models in order to maximize model fit.

estimating model fit. The variable was found to be significantly, but negatively, associated with financial attitudes, knowledge, and capabilities (FAKC). Additionally, a problem was found in that the error term associated with the variable was negative, which caused a problem in the SEM test. Based on this issue, and the finding showing the relationship between PFS and FAKC being negative, the PFS construct was reevaluated. A factor analysis was conducted to examine the questions used in the parental modeling (ParModel) and parental financial communication (FinCom) variables. Both variables were created in the original dataset to separately measure parent financial modeling and financial communication between respondents and their parents. Although both variables exhibited high factor loadings for the latent construct—PFS—the construct did not perform well in the model. When ParModel and FinCom were used together, PFS had a negative error term. The negative error term indicated the construct was doing a poor job of explaining the PFS construct. An exploratory factor analysis (EFA) was conducted to ensure that the PFS indicator variables, parental modeling (ParModel) and financial communication (FinCom), were consistent with the FFS Framework. After the EFA was conducted, two factor loadings were identified. The questions from the first factor were used to construct a new variable since this new factor included questions related to parental financial modeling behaviors and financial communication, which is consistent with the FFS Framework. Items in the factor were used to create a summed scale. The mean score for this new variable was used as an observed variable in Model 2. Table 10 shows the factor loadings for the questions used to construct the new observed PFS, renamed PFS2, variable.

Table 10

Factor Analysis for PFS2 Variable

	New PFS Factor
Q48_4_To what extent do you agree: When it comes to managing money, I	.902
look to my parent(s) as role models.	
Q48_9_To what extent do you agree: My parent(s) are role models for me about how to manage financial matters.	.887
Q48_11_To what extent do you agree: My parent(s) have a positive influence on me when it comes to managing money.	.837
Q48_3_To what extent do you agree: I make financial decisions based on what my parents have done in similar situations.	.799
Reverse	.729
Q48_2_To what extent do you agree: My parent(s) do not set a good example for being financially responsible.	687
Q48_1_To what extent do you agree: My parent(s) often talk to me about the importance of financial security for my later life.	.608
Q48_6_To what extent do you agree: My parent(s) have carefully explained to me how to establish my credit rating.	.601

Figure 8 shows the revised model with the Race variable omitted and the new PFS (PFS2) variable included in the model.



Figure 8. Revised Conceptual Model 2⁸

After removing the Race variable and using the newly constructed PFS (PFS2) variable, the significance and associations for the direct, indirect, and total effects were unchanged for all other variables except gender. The relationships between gender and purposive financial socialization (PFS) and family interactions and relationships (FIR) were significant and positive in Model 1. However, in Model 2, gender showed only a significant and positive relationship with family interactions and relationships (FIR) but not with purposive financial socialization (PFS2). The CFI goodness-of-fit measure improved from 0.85 to 0.89, which was still below the

⁸ Variable definitions: HHInc = Household income; FatherEd = Father's education level; MotherEd = Mother's education level; FIR = Family interaction and relationships; PFS2 = Purposive financial socialization; FAKC = Financial attitudes, knowledge, and capabilities; FinAtt = Financial Attitudes; SFK = Subjective financial knowledge; OFK = Objective financial knowledge; FinCap = Financial capabilities; FinBeh = Financial behaviors; CrMgt = Credit management; CaMgt = Cash management; Invest = Investing; Save = Saving; FWB = Financial well-being; OWB = Objective financial well-being; SWB = Subjective financial well-being.

criterion level for this model fit index (CFI \ge .90). The reported RMR and RMSEA were .06 and

.07 respectively. Both measures met criterion guidelines.

Tables 11 through 17 show the (1) unstandardized regression weights; (2) standardized regression weights; (3) covariance matrix; (4) total, direct, and indirect effects; and (5) the model fit indices for Model 2.⁹ Financial behaviors (FinBeh) continued to have the largest direct effect on financial well-being. FinBeh was significant at the p < .001 significance level.

Table 11									
Unstand	ardize	d Regression	n Weights M	Iodel 2	2				
			Estimate	S.E.	C.R.	Р			
FIR	<	Gender	.176	.063	2.810	.005*			
FIR	<	FatherEd	.066	.032	2.070	.038*			
FIR	<	MotherEd	002	.033	062	.951			
FIR	<	HHInc	.090	.035	2.548	.011*			
PFS2	<	MotherEd	.012	.024	.509	.611			
PFS2	<	HHInc	.181	.026	6.959	.001***			
PFS2	<	FatherEd	.093	.023	3.977	.001***			
PFS2	<	Gender	.078	.046	1.675	.094			
PFS2	<	FIR	.261	.024	10.742	.001***			
FAKC	<	FIR	.055	.018	3.156	.002**			
FAKC	<	PFS2	.086	.021	4.007	.001***			
FinBeh	<	FAKC	.565	.061	9.289	.001***			
FWB	<	FAKC	.707	.184	3.834	.001***			
FWB	<	FinBeh	1.362	.243	5.597	.001***			
FinAtt	<	FAKC	1.000						
SFK	<	FAKC	1.326	.117	11.331	.001***			
OFK	<	FAKC	.901	.207	4.348	.001***			
CrMgt	<	FinBeh	1.000						
CaMgt	<	FinBeh	1.041	.103	10.090	.001***			
Invest	<	FinBeh	3.069	.246	12.487	.001***			
FinCap	<	FAKC	1.639	.133	12.301	.001***			
Save	<	FinBeh	3.402	.261	13.051	.001***			
OWB	<	FWB	1.000						
SWB1	<	FWB	.888	.040	22.142	.001***			
SWB2	<	FWB	.862	.039	22.113	.001***			

⁹ Variable definitions: HHInc = Household income; FatherEd = Father's education level; MotherEd = Mother's education level; FIR = Family interaction and relationships; PFS2 = Purposive financial socialization; FAKC = Financial attitudes, knowledge, and capabilities; FinAtt = Financial Attitudes; SFK = Subjective financial knowledge; OFK = Objective financial knowledge; FinCap = Financial capabilities; FinBeh = Financial behaviors; CrMgt = Credit management; CaMgt = Cash management; Invest = Investing; Save = Saving; FWB = Financial well-being; OWB = Objective financial well-being; SWB = Subjective financial well-being.

As shown in Table 12, financial behaviors continued to have the greatest direct association with financial well-being (FWB). For every one standard deviation increase in financial behaviors (FinBeh), financial well-being increased by .409 standard deviations. All direct effects for the observed and latent variables were significant except mother education. Also, in Model 1, gender was found to have a positive and significant direct effect on the purposive financial socialization (PFS) and family interaction and relationships (FIR) constructs. However, in Model 2, gender only had a positive and significant relationship with FIR after replacing the original PFS variable with PFS2. Also, the relationship between the constructs purposive financial socialization (PFS) and financial attitudes, knowledge, and capabilities (FAKC) was negative and significant in Model 1. The relationship between the constructs purposive financial socialization (PFS) and financial attitudes, knowledge, and capabilities (FAKC) became positive using the new PFS variable PFS2.

Table 12			
Standardi	zed Reg	gression Weight	ts Model 2
			Estimate
FIR	<	Gender	.091
FIR	<	FatherEd	.083
FIR	<	MotherEd	002
FIR	<	HHInc	.092
PFS2	<	MotherEd	.018
PFS2	<	HHInc	.223
PFS2	<	FatherEd	.142
PFS2	<	FIR	.314
PFS2	<	Gender	.048
FAKC	<	FIR	.128
FAKC	<	PFS2	.165
FinBeh	<	FAKC	.728
FWB	<	FAKC	.274
FWB	<	FinBeh	.409
FinAtt	<	FAKC	.487
SFK	<	FAKC	.588
OFK	<	FAKC	.169
CrMgt	<	FinBeh	.489
CaMgt	<	FinBeh	.458
Invest	<	FinBeh	.673
FinCap	<	FAKC	.770
Save	<	FinBeh	.778
OWB	<	FWB	.855
SWB1	<	FWB	.738
SWB2	<	FWB	.737

Table 13						
Covariance	Matrix	Model 2	Estimate	S.E.	C.R.	Р
FatherEd	<>	HHInc	.456	.039	11.606	.001
MotherEdu	<>	HHInc	.342	.036	9.517	.001
FatherEd	<>	MotherEdu	.692	.048	14.385	.001

Table 13 shows the covariance matrix for Model 2. As expected, all associations were found to be positively associated.

When interpreting Table 14, total effects illustrate the combined direct and indirect effect of a variable in the model. For example, and similar to the situation with Model 1, gender did not have a direct hypothesized effect with financial well-being (FWB). The tested effect was indirect through FIR, PFS, FAKC, and FinBeh. In the case of gender, the total effect was .014. The total effect of father education (FatherEd) on financial well-being positive (.022). MotherEd had a total effect of .001 on FWB, but the relationship was not significant in the model. FAKC and FinBeh had a total effect of .571 and .409 on financial well-being, respectively. The new PFS variable, PFS2, had a total effect of .094 on financial well-being. HHInc had a total effect of .030 on FWB.

Table 14	Table 14										
Standardized Total Effects Model 2											
	HHInc	MotherEd	FatherEd	Gender	FIR	PFS2	FAKC	FinBeh	FWB		
FIR	.092	002	.083	.091	.000	.000	.000	.000	.000		
PFS2	.252	.017	.169	.077	.314	.000	.000	.000	.000		
FAKC	.053	.002	.038	.024	.180	.165	.000	.000	.000		
FinBeh	.039	.002	.028	.018	.131	.120	.728	.000	.000		
FWB	.030	.001	.022	.014	.103	.094	.571	.409	.000		

Table 15 shows the direct effects between variables in the model. Similar to Model 1, FIR, PFS, MotherEd, Gender, HHInc, and FatherEd were not hypothesized to have a direct effect on FWB. Financial behaviors (FinBeh) continued to have the largest direct effect on FWB. The direct effect of FinBeh on FWB was .409. FAKC had a direct effect of .274 on FWB. Both FinBeh and FAKC were found to be positively and significantly associated with FWB.

Table 15	Table 15									
Standardized Direct Effects Model 2										
	HHInc	MotherEd	FatherEd	Gender	FIR	PFS2	FAKC	FinBeh	FWB	
FIR	.092	002	.083	.091	.000	.000	.000	.000	.000	
PFS2	.223	.018	.142	.048	.314	.000	.000	.000	.000	
FAKC	.000	.000	.000	.000	.128	.165	.000	.000	.000	
FinBeh	.000	.000	.000	.000	.000	.000	.728	.000	.000	
FWB	.000	.000	.000	.000	.000	.000	.274	.409	.000	

Table 16 shows the indirect effects of the variables on financial well-being (FWB). FinBeh and FAKC were hypothesized to have a direct effect on FWB; as such, no indirect effects for these variables on FWB are shown The variable FIR had an indirect association with FWB through the variables, PFS, FAKC, and FinBeh. FIR's indirect effect on FWB was .103. Gender had an indirect effect through FIR, FAKC, and FinBeh. Its effect on FWB was .014. Household income (HHInc) had an indirect effect of .030 on FWB through FIR, PFS, FAKC, and FinBeh. MotherEd was not found to be significant and had no indirect effects on FWB. FatherEd had an indirect effect of .022 on FWB through FIR, PFS, FAKC, and FinBeh. FAKC had the largest indirect effect on FWB through FinBeh. FatherEd's indirect effect was .298.

Table 16	Table 16										
Standardized Indirect Effects Model 2											
	HHInc	MotherEd	FatherEd	Gender	FIR	PFS2	FAKC	FinBeh	FWB		
FIR	.000	.000	.000	.000	.000	.000	.000	.000	.000		
PFS2	.029	001	.026	.029	.000	.000	.000	.000	.000		
FAKC	.053	.002	.038	.024	.052	.000	.000	.000	.000		
FinBeh	.039	.002	.028	.018	.131	.120	.000	.000	.000		
FWB	.030	.001	.022	.014	.103	.094	.298	.000	.000		

Table 17 shows the model fit indices of Model 2. Similar to Model 1, the χ^2 statistic was found to be significant. RMR and RMSEA exceeded criterion values (<.08), but CFI continued to be below its threshold (\geq .90).

Table 17	
Model Fit India	ces Model 2
Chi-square (df)	530.812 (<i>108</i>), p <0.001
RMR	0.063
CFI	0.889
RMSEA	0.065 LO 90 .060 HI 90 .071

Model 3. In an effort to improve the model fit indices, particularly the CFI estimate from Model 2, a third model (Model 3) was created.¹⁰ Given the low level of significance of gender in Model 2, gender was removed from the model. The third revised model is shown in Figure 9.¹¹



Figure 9. Final Conceptual Model (Model 3)

After removing gender, the direction and significance of the direct, indirect, and total effects for the other variables within the model were unchanged. Model 3 was found to be the best fitting model. The CFI goodness-of-fit measure improved from 0.89 to 0.90 meeting the CFI criterion level. The reported RMR and RMSEA indices were .06 and .07, respectively, both of which exceeded minimum criterion thresholds.

¹⁰ Variable definitions: HHInc = Household income; FatherEd = Father's education level; MotherEd = Mother's education level; FIR = Family interaction and relationships; PFS2 = Purposive financial socialization; FAKC = Financial attitudes, knowledge, and capabilities; FinAtt = Financial Attitudes; SFK = Subjective financial knowledge; OFK = Objective financial knowledge; FinCap = Financial capabilities; FinBeh = Financial behaviors; CrMgt = Credit management; CaMgt = Cash management; Invest = Investing; Save = Saving; FWB = Financial well-being; OWB = Objective financial well-being; SWB = Subjective financial well-being.

¹¹ In addition, some researchers find the use of variables coded dichotomously problematic in structural equation models. While not the primary reason for removing gender as a variable, this potential concern was used to guide the variable selection process.

Tables 18 through 24 show the (1) unstandardized regression weights; (2) standardized regression weights; (3) covariance matrix; (4) total, direct, and indirect effects; and (5) the model fit indices for Model 3. As shown in Table 18, financial behaviors (FinBeh) continued to have the greatest direct effect on financial well-being (FWB). Financial attitudes, knowledge, and capabilities (FAKC) had the greatest total effect on financial well-being.

Table 1	8					
Unstand	ardize	d Regression	ı Weights N	Iodel 3	3	
			Estimate	S.E.	C.R.	Р
FIR	<	FatherEd	.064	.032	2.003	.045*
FIR	<	MotherEd	002	.033	059	.953
FIR	<	HHInc	.085	.035	2.415	.016*
PFS2	<	MotherEd	.012	.024	.510	.610
PFS2	<	HHInc	.179	.026	6.866	.001***
PFS2	<	FatherEd	.092	.024	3.927	.001***
PFS2	<	FIR	.265	.024	10.925	.001***
FAKC	<	FIR	.055	.018	3.156	.002**
FAKC	<	PFS2	.086	.021	4.003	.001***
FinBeh	<	FAKC	.565	.061	9.288	.001***
FWB	<	FAKC	.707	.184	3.834	.001***
FWB	<	FinBeh	1.362	.243	5.597	.001***
FinAtt	<	FAKC	1.000			
SFK	<	FAKC	1.326	.117	11.329	.001***
OFK	<	FAKC	.901	.207	4.347	.001***
CrMgt	<	FinBeh	1.000			
CaMgt	<	FinBeh	1.041	.103	10.089	.001***
Invest	<	FinBeh	3.069	.246	12.486	.001***
FinCap	<	FAKC	1.639	.133	12.299	.001***
Save	<	FinBeh	3.402	.261	13.050	.001***
OWB	<	FWB	1.000			
SWB1	<	FWB	.888	.040	22.141	.001***
SWB2	<	FWB	.862	.039	22.112	.001***

Notes. *p<.05. **p<.01. ***p<.001

As shown in Table 19, financial behaviors (FinBeh) had the greatest direct association with financial well-being. For every one standard deviation increase in financial behaviors (FinBeh), financial well-being (FWB) increased by .409 standard deviations. All direct effects for the observed and latent variables were significant except mother education (MotherEd). It is important to note that all direct paths were found to be significant. As such, Model 3 was deemed to be representative of the Gudmunson and Danes Family Financial Socialization Framework (2011) and useful as a testable model to examine family socialization processes and financial socialization outcomes. Furthermore, the indirect links between FIR, measured as parent-child relationship quality, was also supported since each direct path linking FIR to FWB were found to be significant.

Table 19			
Standardi	zed Reg	ression Weights	Model 3
FIR	<	FatherEd	.081
FIR	<	MotherEd	002
FIR	<	HHInc	.087
PFS2	<	MotherEd	.018
PFS2	<	HHInc	.221
PFS2	<	FatherEd	.141
PFS2	<	FIR	.319
FAKC	<	FIR	.128
FAKC	<	PFS2	.164
FinBeh	<	FAKC	.728
FWB	<	FAKC	.274
FWB	<	FinBeh	.409
FinAtt	<	FAKC	.487
SFK	<	FAKC	.588
OFK	<	FAKC	.169
CrMgt	<	FinBeh	.489
CaMgt	<	FinBeh	.458
Invest	<	FinBeh	.673
FinCap	<	FAKC	.770
Save	<	FinBeh	.778
OWB	<	FWB	.855
SWB1	<	FWB	.738
SWB2	<	FWB	.737

Similar to Models 1 and 2, the paired variables in the covariance matrix were all significantly associated (Table 20).

Table 20	Table 20										
Covariance Matrix Model 3											
			Estimate	S.E.	C.R.	Р					
FatherEd	<>	HHInc	.456	.039	11.606	.001					
MotherEdu	<>	HHInc	.342	.036	9.517	.001					
FatherEd	<>	MotherEdu	.692	.048	14.385	.001					

When interpreting Table 21, total effects illustrate the combined direct and indirect effect of a variable in the model. The total effect of father education (FatherEd) on financial well-being (FWB) was .022. MotherEd had a total effect of .001 on FWB, but was not significant in the model. HHInc had a total effect of .030 on FWB. FIR did not have a direct hypothesized effect on financial well-being. The tested effect for FIR was indirect through, PFS, FAKC, and FinBeh. In the case of FIR, the total effect was .103. PFS2 had a total effect of .094 on financial well-

being (FWB); the effect was indirect through FAKC and FinBeh. FAKC had both a direct and indirect effect on FWB. The total effect was .571. FinBeh's total effect on FWB was direct. The effect was .409.

Table 21	Table 21									
Standardized Total Effects Model 3										
	HHInc	lotherEd	FatherEd	FIR	PFS2	FAKC	FinBeh	FWB		
		2								
FIR	.087	002	.081	.000	.000	.000	.000	.000		
PFS2	.248	.017	.167	.319	.000	.000	.000	.000		
FAKC	.052	.002	.038	.180	.164	.000	.000	.000		
FinBeh	.038	.002	.027	.131	.120	.728	.000	.000		
FWB	.030	.001	.022	.103	.094	.571	.409	.000		

Table 22 shows the direct effects between variables in the model. As noted previously, FIR, PFS, MotherEd, HHInc, and FatherEd were not hypothesized to have a direct effect on FWB. Financial behaviors (FinBeh) continued to have the largest direct effect on FWB. The direct effect of FinBeh on FWB was .409. FAKC had a direct effect of .274 on FWB. Both FinBeh and FAKC were found to be positively and significantly associated with FWB.

Table 22									
Standardized Direct Effects Model 3									
	HHInc	MotherEd	FatherEd	FIR	PFS2	FAKC	FinBeh	FWB	
FIR	.087	002	.081	.000	.000	.000	.000	.000	
PFS2	.221	.018	.141	.319	.000	.000	.000	.000	
FAKC	.000	.000	.000	.128	.164	.000	.000	.000	
FinBeh	.000	.000	.000	.000	.000	.728	.000	.000	
FWB	.000	.000	.000	.000	.000	.274	.409	.000	

Table 23 shows the indirect effects of the variables on financial well-being (FWB). FinBeh and FAKC were hypothesized to have a direct effect on FWB, so no indirect coefficients are reported. The variable FIR had an indirect association with FWB through the variables, PFS, FAKC, and FinBeh. FIR's indirect effect on FWB was .103. Household income (HHInc) had an indirect effect of .030 on FWB through FIR, PFS, FAKC, and FinBeh. MotherEd was not found to be significant in the model and had no indirect effect on FWB. FatherEd had an indirect effect of .022 on FWB through FIR, PFS, FAKC, and FinBeh. FAKC had the largest indirect effect on FWB through FinBeh. FAKC's indirect effect was .298.

Table 23									
Standardized Indirect Effects Model 3									
	HHInc	MotherEd	FatherEd	FIR	PFS2	FAKC	FinBeh	FWB	
FIR	.000	.000	.000	.000	.000	.000	.000	.000	
PFS2	.028	001	.026	.000	.000	.000	.000	.000	
FAKC	.052	.002	.038	.052	.000	.000	.000	.000	
FinBeh	.038	.002	.027	.131	.120	.000	.000	.000	
FWB	.030	. 001	.022	.103	.094	.298	.000	.000	

Table 24 shows the model fit indices of Model 3. Similar to the previous models, and based on the sample size, the χ^2 statistic was found to be significant. RMR and RMSEA exceeded criterion thresholds (< .08). The CFI value met the criterion threshold of \geq .90. Overall, Model 3 met the criteria values for RMR, RMSEA, and CFI, indicating that Model 3 was the best fitting model.

Table 24					
Model Fit Indices Model 3					
Chi-square (<i>df</i>) 468.016 (94), p <0.001					
RMR	0.064				
CFI	0.900				
RMSEA	.066 LO 90 .060 HI 90 .072				

Hypothesis Tests

To examine the Family Financial Socialization (FFS) Framework's validity, eight hypotheses were created to test the pathways in the Framework. In addition to testing the validity of the full FFS Framework, this study also examined the indirect effect of the family interactions and relationship (FIR) construct's indirect association with financial well-being (Hypothesis 3). For this study, parent-child relationship quality was used to measure the family interaction and relationship construct.

Hypothesis one (H₁) tested the link between the constructs personal and family characteristics (PFC) and family interaction and relationships (FIR). This hypothesis stated that personal and family characteristics related to the demographics of the household—

sociodemographics—will be positively associated with family interaction and relationships (FIR). Based on the results from Model 3, this hypothesis was *partially* supported. The conceptual model included five sociodemographic variables. In the final model (Model 3), three variables were found to add to the model fit indices: father education (FatherEd), mother education (MotherEd), and household income (HHInc). Two of the three observed variables were significantly and positively associated with family interaction and relationships (FIR). The standardized direct effect of father education (FatherEd) on family interaction and relationships (FIR) was .081. This means that for every one standard deviation increase in father education (FatherEd) family interactions and relationship (FIR) increased by .081 standard deviations. The standardized direct effect of household income (HHInc) on family interaction and relationships (FIR) was .087. For every one standard deviation increase in household income (HHInc) family interactions and relationships (FIR) increased by .087 standard deviations. In other words, family interactions and relationships improved proportionally with a father's level of education and household income. There was no effect of mother education (MotherEd) on family interaction and relationships (FIR).

Hypothesis two (H₂) tested the links between the constructs personal and family characteristics and purposive financial socialization (PFS2). This hypothesis stated that personal and family characteristics related to the demographics of the household would be positively associated with parental engagement in purposive financial socialization. Based on the results from Model 3, this hypothesis was *partially* supported. Father education (FatherEd), mother education (MotherEd), and household income (HHInc) were the three sociodemographic variables found to add value in the final model. Two of the three observed variables were significantly and positively associated with purposive financial socialization (PFS2). The

standardized direct effect of father education (FatherEd) on purposive financial socialization (PFS2) was .141. This means that for every one standard deviation increase in father education purposive financial socialization (PFS2) increased by .141 standard deviations. There was no effect of mother education (MotherEd) on purposive financial socialization (PFS2). The standardized direct effect of household income (HHInc) on purposive financial socialization (PFS2) was .221. This means that for every one standard deviation increase in household income (HHInc) purposive financial socialization (PFS2) increased by .221 standard deviations. Stated another way, purposive financial socialization (PFS2) was positively associated with a father's income and household income.

Hypothesis three (H₃) tested the relationship between parent-child relationship quality, as measured with family interactions and relationships (FIR), and purposive financial socialization (PFS2). It was hypothesized that there would be a positive relationship between these two constructs. Based on data from Model 3, this hypothesis was fully supported. The standardized direct effect of family interactions and relationships (FIR), measured as parent-child relationship quality, on purposive financial socialization (PFS2) was .319. This means that for every one standard deviation increase in family interactions and relationships (FIR) purposive financial socialization (PFS2) increased by .319 standard deviations. That is, the relationship between these two variables was positive, suggesting that those who report healthier parent-child relationship quality also exhibit higher purposive financial socialization.

The fourth hypothesis (H₄) stated positive parent-child relationship quality, measured as family interactions and relationship quality (FIR), will be positively associated with financial attitudes, financial knowledge, and financial capabilities (FAKC). Based on the findings related to Model 3, this hypothesis was supported. The standardized direct effect of family interactions

and relationships (FIR) on financial attitudes, knowledge, and capabilities (FAKC) was .128. This means that for every one standard deviation increase in parent-child relationship quality, financial attitudes, knowledge, and capabilities education increased by .128 standard deviations. Stated another way, the relationship between FIR and FAKC was positive, which indicates that those who report healthier parent-child relationship quality exhibit healthier financial attitudes, financial knowledge, and financial capabilities.

The fifth hypothesis (H₅) stated that purposive financial socialization (PFS2) would have a positive association with financial attitudes, knowledge, and financial capabilities (FAKC). Findings from the test of Model 3 support this hypothesis. The standardized direct effect of purposive financial socialization (PFS2) on financial attitudes, knowledge, and financial capabilities (FAKC) was .164. This means that for every one standard deviation increase in purposive financial socialization (PFS2), financial attitudes, knowledge, and capabilities (FAKC) increased by .164 standard deviations. Stated another way, those who reported higher purposive financial socialization exhibited healthier financial attitudes, financial knowledge, and financial capabilities.

Hypothesis six (H₆) stated that individuals who report having healthier financial attitudes, knowledge, and capabilities (FAKC) would engage in more positive financial behaviors (FinBeh). Findings from a test of Model 3 support this hypothesis. The standardized direct effect of financial attitudes, knowledge, and capabilities (FAKC) on financial behaviors (FinBeh) was .728. This means that for every one standard deviation increase in financial attitudes, knowledge, and capabilities (FAKC) financial behaviors (FinBeh) increased by .728 standard deviations. In other words, those who exhibited better financial attitudes, financial knowledge, and financial capabilities reported engaging in healthier (i.e., less problematic) financial behaviors.

Hypothesis seven (H₇) stated that individuals who report healthier financial attitudes, knowledge, and capabilities (FAKC) would report higher levels of positive financial well-being (FWB). Findings from a test of Model 3 support this hypothesis. The standardized direct effect of financial attitudes, knowledge, and capabilities (FAKC) on financial well-being (FWB) was .274. This means that for every one standard deviation increase in financial attitudes, knowledge, and capabilities (FAKC) financial well-being (FWB) increased by .274 standard deviations. That is, those who reported better financial attitudes, financial knowledge, and financial capabilities were more likely to also exhibit higher financial well-being.

Finally, hypothesis eight (H₈) stated that individuals who engage in positive financial management behaviors (FinBeh) would have higher levels of reported financial well-being (FWB). Findings from the test of Model 3 support this hypothesis. The standardized direct effect of financial behaviors (FinBeh) on financial well-being (FWB) was .409. This means that for every one standard deviation increase in financial management behaviors (FinBeh) financial well-being (FWB) increased by .409 standard deviations. Stated another way, those who exhibited the best financial behaviors reported higher levels of financial well-being.

Given the purpose of this study, it is worth revisiting the relationship between the family interactions and relationships construct (FIR), measured as parent-child relationship quality, and financial well-being. The original conceptualization of this relationship was indirect through financial attitudes, knowledge, and capabilities (FAKC), purposive financial socialization (PFS2), and financial management behaviors (FinBeh). Overall, the relationship was found to be significant and positive. Specifically, the total effect (i.e., the combination of direct and indirect effects in the model) of family interactions and relationship quality (FIR) on financial well-being (FWB) was .103, which suggest that for every one standard deviation increase in parent-child

relationship quality financial well-being increases by .10 standard deviations. Stated another way, those who report healthier parent-child relationships exhibit higher financial well-being. **Summary**

This chapter summarized the results obtained from the statistical analyses and procedures used in this study to test the Gudmunson and Danes Family Financial Socialization Framework (2011). Significant results and findings were described in this chapter. The statistical procedures included descriptive statistics for all variables, covariance matrices, factor loadings for the latent variables in each model, a summary of each SEM analysis, model fit results from each SEM analysis, and the indirect, direct, and total effects from the separate SEM analyses. Based on the results from a test of the final model (Model 3), each pathway in the Gudmunson and Danes Family Financial Socialization Framework (2011) was supported. The findings from this study provide evidence that the FFS Framework provides a valid framework in which to examine family socialization processes associated with financial socialization outcomes. Based on the findings from the final model (Model 3), six of the eight hypotheses were fully supported, and two were partially supported. Discussions of the major findings, the implications of results for stakeholders, limitations, and future research directions are included and discussed in Chapter Five.

CHAPTER FIVE

DISCUSSIONS AND CONCLUSIONS

This chapter includes discussions of the purpose of the study, interpretations of the findings for each hypothesis, and a review of implications, limitations, and conclusion. The purpose of this study was two-fold: (1) to test the validity of the full Gudmunson and Danes Family Financial Socialization Framework (2011), and (2) to test the pathways linking parent-child relationship quality to financial well-being. Structural equation modeling (SEM) was the primary analysis methodology used to examine the research objectives. The findings from this study provide contributions and implications for policymakers, financial services providers, family studies, and personal finance researchers who create educational interventions that focus on personal finance.

Family Socialization Processes and Financial Socialization Outcomes

Again, the purpose of this study was two-fold: (1) to test the validity of the full Gudmunson and Danes Family Financial Socialization Framework (2011), and (2) to test the pathways linking parent-child relationship quality to financial well-being. The final model used in this study was based on the FFS Framework created by Gudmunson and Danes (2011) depicted in Figure 10.


Figure 10. Final Conceptual Model

This study examined the direct relationship between the constructs personal and family characteristics and family interactions and relationships (Pathway A) and personal and family characteristics and purposive financial socialization (Pathway B). The final model consisted of mother's education level, father's education level, and household income to measure the construct personal and family characteristics. The family interactions and relationships construct was measured as parent-child relationship quality. Father education and household income were found to have a significant and positive association with parent-child relationship quality and purposive financial socialization, but a mother's education level did not have a significant association with either construct.

Since a mother's education level did not a have a significant association with family interactions and relationships or purposive financial socialization, it was determined that this variable, although important in the context of the overall model, was not useful in describing financial well-being. However, the opposite was found when examining a father's education level. As father's education level increased, a respondent's relationship quality with his or her parents also increased. Additionally, respondents reported higher levels of purposive financial socialization as father education increased. This is of particular interest since it was found that a father's education level, not a mother's education level, had a significant association with parentchild relationship quality and purposive financial socialization. This finding suggests that higher educated fathers have better relationships with their children, which has a direct and indirect association on a respondent's engagement in purposive financial socialization. Also, father education can indirectly affect one's financial attitudes, knowledge, and capabilities as depicted in the FFS Framework. These relationships generally support what has been reported in the literature. Specifically, higher education levels have been found to be associated with both family interactions and purposive financial socialization (Gudmunson & Danes, 2011). To the researcher's knowledge, no previous study has been conducted to explicitly study if mother or father education attainment is associated with parent-child relationship quality and its associations with purposive financial socialization.

Household income was found to be positively and significantly associated with parentchild relationship quality and purposive financial socialization. This finding is consistent with the literature that shows those who come from higher-income homes report higher purposive financial socialization interactions with their parents (e.g., Johnson & Sherraden, 2007; Sherraden, 2010; Stacey 1987). Household income has also been found to be positively associated with family interactions and relationship quality. This holds true even when this construct has been proxied by other measures (e.g., parent-child communication quality) (Gudmunson & Danes, 2011); however, the specific relationship with parent-child relationship quality, in relation to financial socialization outcomes, has not been examined previously.

Findings from this study indicate that those who come from higher-income homes report having better relationships with their parents, which is consistent with the FFS Framework.

The relationship between parent-child relationship quality and purposive financial socialization (Pathway C) and parent-child relationship quality and financial attitudes, knowledge, and capabilities (Pathway D) were found to be positive and significant. To date, there has been no research examining the association between parent-child relationship quality and purposive financial socialization or its connection with an individual's financial attitudes, knowledge, and capabilities. Findings from this study suggest that the parent-child relationship is meaningful when parents are seeking to impart financial knowledge, model financial behaviors, or engage in activities related to financial education. Additionally, in this study, parent-child relationship quality had the highest total effect on purposive financial socialization. This means that the construct was more significant than household income, father education, or a mother's education level when describing purposive financial socialization interactions between a respondent and his or her parents. Also, better parent-child relationship quality was found to be associated with the development of a person's financial attitudes, knowledge, and capabilities. When examined together, the indirect association of parent-child relationship quality was also determined to be positively and significantly associated with a respondent's overall financial well-being. Parent-child relationship quality also had the highest total effect on financial attitudes, knowledge, and capabilities. Parent-child relationship quality was more important than household income, mother or father education level, and purposive financial socialization when describing financial attitudes, knowledge, and capabilities.

Purposive financial socialization was found to have a positive association with financial attitudes, knowledge, and financial capabilities (Pathway E). Findings from the study supported

this hypothesis. Findings are also consistent with the financial socialization literature (Drever et al., 2015; Gudmunson & Danes, 2011; Gudmunson et al., 2015; Kim & Chatterjee, 2013; Serido et al., 2010; Shim et al. 2010; Shim et al., 2015). Also, the findings show that purposive financial socialization had the second highest total effect on financial attitudes, knowledge, and financial capabilities. This construct was second to family interactions and relationships, which was measured as parent-child relationship quality.

Findings from the study supported the hypothesis that those with healthier financial attitudes, knowledge, and capabilities engaged in more positive financial behaviors (Pathway F). This finding was not surprising as it has been well-documented in the financial socialization literature that those with higher levels of financial attitudes, knowledge, and capabilities tend to engage in more positive financial behaviors (Gudmunson & Danes, 2011; Danes & Yang, 2014). Financial attitudes, knowledge, and financial capabilities had the largest total effect on financial behaviors, rendering this latent variable the most significant descriptor of financial management behaviors.

Based on the FFS Framework, the hypothesis that individuals who report healthier financial attitudes, knowledge, and capabilities will report higher levels of positive financial well-being was confirmed. The findings show that financial attitudes, knowledge, and financial capabilities had a large and significant association with respondents' financial well-being (i.e., the total effect was the highest in the model). These findings are consistent with the Gudmunson and Danes FFS Framework, and as such, findings validate this pathway in the conceptual model.

Finally, the last hypothesis stated individuals who engage in positive financial management behaviors would have higher levels of reported financial well-being. Findings from the study support this hypothesis. These results are also consistent with published studies in the

financial socialization literature that have reported a positive association between financial management behaviors and an individual's subjective and objective financial well-being (e.g., Gudmunson & Danes, 2011; Hibbert et al., 2004; Jorgensen & Savla, 2010; Kim & Chattejee, 2013). Based on the total effects of the variable in the model, financial behaviors was found to have the second largest association with financial well-being, and it had a greater direct effect on financial well-being than financial attitudes, knowledge, and capabilities.

Based on the results of tests of the final model, each hypothesized pathway in the Gudmunson and Danes Family Financial Socialization Framework (2011) was supported. The findings from this study show the FFS Framework is a valid construct that can be used to examine family socialization process associations with financial socialization outcomes. Also, the indirect associations of family interactions and relationships, measured as parent-child relationship quality, were found to be significantly and positively associated with financial wellbeing. Parent child-relationship quality had the third largest association with financial well-being (only financial attitudes, knowledge, and capabilities, and financial behaviors exhibited a higher association).

Implications

Policymakers

To better understand the antecedents to financial well-being, policymakers have, over the years, created numerous task forces to understand how to help individuals increase their personal finance acumen. Many of local, state, and federal agencies have created public service announcements, printed and online materials, and developed guidance for external organizations on how to create effective financial education programs. The FFS Framework, as depicted in Model 3 from Chapter Four, can be used as a guide to help policymakers understand how family

socialization affects financial socialization outcomes, such as financial well-being. This framework provides additional insight into the nuances of how family members' interactions are associated with personal financial behaviors and financial well-being of young adults. Given that the family is often the most influential group shaping human development, it seems rather obvious that interventions and materials related to financial well-being be as inclusive as possible in creating healthy family dynamics to ensure better financial socialization outcomes. The importance of healthy family dynamics should be focused on to ensure (1) parents are able to comfortably discuss personal finance in the home, and (2) household factors, such as parentchild relationship quality, can contribute to successful learning experiences for children. Parentchild relationship quality had the greatest association with purposive financial socialization in this study. Given this finding, if policymakers want to ensure more successful financial education learning outcomes for individuals, then parental financial education materials should also focus on fostering healthy parent-child relationship quality.

Policymakers are in a strong position to encourage more interdisciplinary research into financial well-being by providing funding for projects and research focused on improving family dynamics. One way to do this is to expand existing Cooperative Extension programs. Personal finance extension agents and specialists should receive additional training related to family studies. Doing so will enhance agents' ability to integrate family relations concepts into personal finance curricula. This approach will be different from traditional financial education approaches. Incorporating family studies concepts into a financial management teaching program will be a challenge, but the outcome of such an effort can, as shown in this study, improve financial well-being. Additionally, funding for longitudinal research projects should be provided. Longitudinal studies give more in-depth insight into attitudes and behaviors since researchers can

study factors that change over time to examine if interventions have a lasting impact and potential causes for these impacts. These types of studies can focus on how parent-child relationship quality is associated with financial well-being and other contributing or harmful factors. Also, since parent-child relationship quality is instrumental to shaping an individual's financial attitudes, knowledge, and capabilities, additional interventions may need to be created for those who have a poor relationship with his or her parents. Creating flexible personal finance interventions will give financial educators methods to increase an individual's financial attitudes, knowledge, and capabilities if she or he comes from a home with poor family dynamics. Such programs should incorporate content on financial knowledge (subjective and objective), improving financial attitudes and capabilities, and helping individuals to engage in healthy financial behaviors such as saving, investing, credit management, and cash management.

Financial Services Providers

The term financial service providers encompasses a broad range of professionals. Financial educators are an important financial services provider. Educators often work closely with individuals to help them become more competent in areas related to personal finance. The role that financial educators play is instrumental in helping individuals gain the skills and confidence needed to engage in positive financial behaviors, which can affect an individual's financial well-being. Often, financial educators deliver programs that are targeted to adults or youth; however, what may be more beneficial is to target programs specifically for families (Van Campenhout, 2015). The FFS Framework can help guide the development of interventions that hope to teach families how to conceptualize and talk about money and day-to-day financial situations collectively. Interventions should also be developed to make the dynamics of money management less stressful as a way to ensure that knowledge can be successfully transferred

from parent to child. Financial educators should work with family studies professionals to create unique interventions targeted toward families to ensure that aspects of family dynamics are properly incorporated into existing personal finance curricula. For this to be done, organizations that provide training to financial educators, such as NEFE and the National Financial Educators Council, should begin to include concepts from family studies research into existing and new curricula. Issues related to family dynamics are often sensitive topics, and financial educators are seldom trained to deal with family stress. Training related to family studies can help current and future financial educators feel confident in their ability to address these issues. Financial education organizations should also take steps to establish a network where family studies and personal finance professionals collaborate to create interventions that improve parent-child relationship quality. This collaboration should lead to better financial well-being outcomes for individuals and families.

Financial counselors and financial planners play an important role in helping their clients establish healthy financial behaviors, mitigate financial and investment risks, and develop plans to manage household financial resources to meet current and future financial needs. Financial counselors and financial planners often work with parents to achieve financial goals and help improve the financial positions of clients, both pre- and post-college and retirement. These professionals have unique opportunities to help parents learn how to address not only their household's financial positions, but also to help parents (as clients) understand ways to effectively engage children in learning opportunities about money. Through their position as a trusted advisor, financial counselors and financial planners can help increase advocacy for parents to demonstrate optimal financial behaviors and engage in conversations with their children.

It is also important for financial services providers to collaborate with specialists such as financial therapists. Although financial counselors and financial planners can be financial socialization advocates, this may not be within their professional scope. By working with a financial therapist, financial services providers can rely on the expertise of an affiliated profession who can help families navigate how the dynamics within the home affect an individuals' financial management behaviors and well-being. For those clients that need financial therapy, this collaborative approach can help to improve family relations and assist these clients achieve their financial goals.

The CFP Board of Standards, Inc. and the Association for Financial Counseling and Planning Education (AFCPE) are both responsible for the curricula for the registered academic programs that offer the CFP® and AFC® marks, respectively. Both organizations' curricula include content that financial counselors and financial planners need to master in order to obtain technical competency; very little of each organization's curricula is dedicated to the integration of family studies content, however. By integrating family studies topics into the curricula, future financial counselors and financial planners will have a better understanding of how family dynamics can affect the financial behaviors and well-being of clients. This is a particularly important issue because among some financial counselors and financial planner there is little awareness or sensitivity about the manner in which family problems can negatively impact household outcomes. Although some financial counselors and financial planners may exhibit this sensitivity, many may not feel adept in addressing these concerns. The CFP Board of Standards, Inc. and AFCPE can help address this issue by providing continuing education related to family studies topics to help increase the confidence and skill set of financial counselors and financial planners. For example, the Financial Therapy Association (FTA) recently created the Certified

Financial Therapist (CFTTM) credential for financial and mental health providers. This unique certification will provide training for those professionals looking to help their clients integrate personal finance with therapeutic techniques as a tool to help clients maximize financial well-being.

Family Studies and Personal Finance Researchers

Family studies researchers have historically provided extensive documentation on the benefits of parent-child relationship quality across a number of life domains, including teen pregnancy, academic achievement, and child conduct. Although these and other areas have been covered extensively within the family studies literature, there have been very few studies designed to explore how family interactions and relationships, such as the quality of parent-child relationships, is associated with financial well-being. As researchers adopt more interdisciplinary approaches to understanding human behavior, family studies and personal finance researchers can collaborate to create a more holistic view of the household in an attempt to maximize the financial well-being of individuals. The FFS Framework appears to be a valid tool that can help guide interdisciplinary studies designed to understand how family socialization processes are associated with financial socialization outcomes. As shown in this study, parent-child relationship quality had the highest total effect on financial attitudes, knowledge, and capabilities. This finding provides an indication that suboptimal SES factors in a home can be difficult to overcome if the family does not have a warm and loving environment, which could lead to sub-optimal financial well-being outcomes for individuals within the household. Given this information, it is imperative to better understand how other factors such as financial capabilities and cultivating healthy financial behaviors can be used to overcome problematic familial relationships.

For example, concepts from the family life education certification, offered by the National Council on Family Relations, can be incorporated into existing and new personal finance education and training programs. It is well known that strong communication skills, knowledge of human development, good decision-making skills, positive self-esteem, and healthy interrelationships (i.e., social capital) enhance the teaching effectiveness of teachers in general. It is highly likely that helping financial professionals learns about these topics and encouraging incorporation of family models into financial education programs will improve client and stakeholder outcomes. Although it may seem like a stretch, evidence from the current study suggests that helping families learn to deal with and communicate about issues as diverse as substance abuse, domestic violence, unemployment, child abuse, and household debt may lead to healthier parent-child interactions, which will ultimately lead to enhanced financial well-being for the child in later life.

Limitations

While the results from this study are noteworthy, particularly in validating the FFS Framework, there are several limitations associated with this study that need to be acknowledged. Although the APLUS dataset is a longitudinal dataset, analyses for this study were restricted to only Wave Three of the panel, making the study cross-sectional. Results from this study should only be used to describe associations between family socialization constructs and financial well-being. Since the study is cross-sectional, causations of financial well-being cannot be derived from the findings.

The family interactions and relationships construct was restricted to one variable: parentchild relationship quality. Family dynamics involving interactions and relationships are often complex and difficult to observe. Due to these complexities, a single-item variable may not fully

capture this construct. Also, respondents were recruited from one southwestern university in the United States. As such, results from this study cannot be generalized to the national or international population.

This study also has limitations regarding ethnicity, gender, and age within the sample. The demographics within the APLUS dataset was very diverse compared to other datasets, but the sample sizes for many minority respondents were small in comparison to national percentages for these groups. Also, respondents in the sample were mostly women. Sixty-four percent of the individuals surveyed were women; however, the ratio of men to women was nearly 1:1 based on the 2010 US Census. This study was also focused on the financial well-being of young adults between the ages of 23-26, so results cannot be generalized to those outside of this age range.

The data collected for this study was self-reported by respondents. Responses to questions could be biased since many items required respondents to be retrospective. Many of the questions also required introspective responses, so respondents' responses may not have been as accurate even if earnest efforts were given to be honest. Also, since respondents were able to opt into participating, self-selection bias could be a possible issue.

Since this study used secondary data, procedures used to collect these data were outside the researcher's control. The validity and reliability of measurement instruments were determined by the primary investigators of the APLUS Survey. The APLUS dataset is a relatively large dataset which helps to reduce sample bias. Although multiple methods were used to recruit a diverse group of respondents, sample selection bias may also be present in the data.

Future Directions

Future studies should attempt to examine the FFS Framework and parent-child relationship quality on financial well-being using longitudinal data. The APLUS dataset provides a unique opportunity to see if parent-child relationship quality in one wave of the dataset continues to influence financial well-being in subsequent periods, since APLUS is a longitudinal dataset. Also, future research should focus on family interactions and relationships with other family members. This study specifically focused on parent-child relationship quality; however, future studies can examine spousal relationship or sibling relationship quality. Also, intergenerational factors associated with financial well-being should be examined. This type of study can provide a unique insight into how the dynamics between family members outside of the home are associated with family dynamics within a home (e.g., grandparent-grandchild relationship quality).

Another area to examine is how financial socialization outcomes can differ for family members who are raised in the same home. For example, although many siblings may experience the same level of family socialization, their financial socialization outcomes can vary. The FFS Framework can be used to guide researchers who are interested in these differences to better understand how the socialization processes within a family affect members differently. Findings from these types of studies will be useful to help parents who are not able to use a "blanket approach" when teaching their children about money due to each child's unique characteristics.

It was the original intent of this dissertation to examine racial differences using the FFS Framework; however, race was found to be a non-significant variable in the model. Although the variable was found to be insignificant, race and culture should not be excluded from future

studies. Future studies should look at separate models for each ethnic/racial group to see if paths within the model vary between and within racial groups.¹²

Not only should racial groups be examined, but researchers should also test the role of cultural identity in shaping outcomes. Group identities, such as collectivistic, individualistic, religious and political, can vary significantly across racial groups. How these factors are specifically associated with young adults' financial well-being is not yet known. Often race is used as a proxy for cultural identities. Reducing culture to a single construct can lead to a loss regarding the intricacies across and within ethnic and cultural groups. Future studies should focus on better understanding cultural identities associations with financial socialization outcomes.

The role of gender should also be examined. Prior to removing gender from the final model, gender was found to be significantly associated with the family interactions and relationship construct but not purposive financial socialization. Also, gender had a very small effect on financial well-being. Like race, future studies should use a transformed variable to include gender in future SEM analyses. These studies may find that there is a more meaningful association between gender and financial well-being. It is possible, however, that the role of gender may also not be as significant as previous studies have found. Of all the variables used in this study, gender has had more mixed results across studies. Another related line of study involves testing the association between gender and purposive financial socialization using a different methodology. It is possible that gender differences seen in previous studies may not be present within younger cohorts, as today's parents may be treating their sons and daughters

¹² It is also possible that the race variable was non-significant because binary variables can be problematic in an SEM analysis. Some software programs are able to transform these variables (i.e., polychoric correlations) for inclusion in an SEM model; this type of transformation is recommended in future studies.

equally in efforts to financially socialize children. At this time, this possibility is purely speculative. More research should be conducted to fully understand the role of gender on financial well-being and incorporate intersectionality, primarily because financial well-being can vary across cultural groups.

In this study, father education was found to be a significant predictor of financial wellbeing. This was not the case for mother's education. The findings from this study suggest that respondents who report better parent-child relationship quality and engage in more purposive financial socialization also live in a household with fathers who have a high attained education level. Future research should investigate the reasons why a father's education level is associated with parent-child relationship quality and how a father's education is associated with the level of purposive financial socialization within a home. Results from such a study might suggest that fathers with more education may take a more active role in the purposive financial socialization of their children compared to lower-educated fathers. Another point of speculation is that higher educated fathers are the primary financial education provider for their children. This does not mean that mothers are not instrumental in the purposive financial socialization of their children; however, one parent may be more influential or actively engaged than the other.

The role of parent-child relationship quality is important to consider in future studies. Evidence for this need stems from the results showing that financial attitudes, knowledge, and capabilities had the highest level of association with financial well-being. The FFS Framework provides researchers with a unique tool that can be used to examine the indirect relationships of important variables on financial well-being. In this study, the parent-child relationship had the largest total effect on financial attitudes, knowledge, and capabilities, which had the largest association on financial well-being. Given these relationships, it important that additional

research be conducted to better understand these connections. The outcome of such research is a mechanism to help families increase a young adult's financial attitude, knowledge, and capabilities, which can (and should) result in more positive financial well-being in the future.

Conclusion

The family is a complex and unique unit that is instrumental in shaping a person's development. The values, beliefs, and attitudes that individuals hold are often shaped by influential socialization agents. Parents are often the primary socialization agent for their children. The values parents impart upon their children from birth continue to have lasting effects into adulthood. For young adults, this notion still holds true regarding their financial well-being.

This study's findings support the validity of the Gudmunson and Danes Family Financial Socialization Framework (2011). To the researcher's knowledge, this is the first study that has tested the full conceptual framework. Additionally, this is the first study to examine the indirect association of parent-child relationship quality on financial well-being. The family interactions and relationships construct, measured as parent-child relationship quality, had the largest total effect on financial attitudes, knowledge, and capabilities (FAKC). The FAKC construct had the largest total effect on financial well-being. Gudmunson and Danes (2011) posited that financial well-being should not be looked at only as a direct effect of a model's predictors. Gudmunson and Danes argued that a more comprehensive framework should be used to examine the indirect associations of family socialization processes connected to financial socialization outcomes such as financial well-being. Based on the findings from this study, Gudmunson and Danes's FFS Framework appears to be valid. The FFS Framework is a tool that can help guide researchers who are focused on the role the family plays in shaping an individual's financial well-being.

Parent-child relationship quality has been found to be instrumental in other areas of human development and financial well-being. The findings from this research can be used to help personal finance policymakers, financial services professionals, and other stakeholders incorporate a more holistic approach to the development and delivery of personal finance curricula. As noted above, it is imperative that families, particularly parents, understand their role in determining the financial well-being of young adults. Financial education advocacy should build upon the work of this dissertation in ways that assist parents with creating healthy environments to raise their children, in addition to teaching parents methods to help shape their children's financial attitudes, knowledge, and capabilities. This comprehensive approach can, as shown in the FFS Framework tests, lead to individuals having healthier financial well-being.

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Appendices

Model 1- Sample Covariance Matrix

	Race	HHInc	MotherEd	FatherEd	Gender	FIR	SWB2	SWB1	OWB	Save	FinCap	Invest	CaMgt	CrMgt	OFK	SFK	FinAtt	ParModel	FinCom
Race	.220																		
HHInc	.103	.890																	
MotherEd	.077	.342	1.210																
FatherEd	.064	.456	.692	1.372															
Gender	.009	026	015	025	.229														
FIR	.024	.104	.071	.125	.036	.850													
SWB2	.007	.099	.077	.144	059	.097	1.454												
SWB1	.045	.141	.099	.165	053	.166	.832	1.540											
OWB	.016	.174	.060	.180	060	.113	.936	.918	1.456										
Save	.009	.123	.060	.061	.010	.080	.450	.625	.690	1.835									
FinCap	.039	.044	.028	.036	023	.127	.350	.404	.419	.424	.723								
Invest	.034	.168	.020	.101	029	.137	.388	.617	.625	1.129	.325	1.994							
CaMgt	002	.022	013	002	.008	.039	.043	.136	.129	.328	.245	.238	.496						
CrMgt	.033	.064	.054	.073	.000	.021	.225	.234	.279	.284	.197	.245	.111	.402					
OFK	.097	037	.042	068	151	025	.270	.438	.229	.138	.208	.417	.054	.079	4.506				
SFK	.018	.045	.006	006	054	.088	.126	.229	.176	.353	.385	.317	.222	.127	.237	.811			
FinAtt	.022	.050	.084	.080	.011	.053	.173	.231	.257	.385	.233	.324	.208	.142	.186	.186	.671		
ParModel	.008	.272	.182	.299	.018	.280	.170	.146	.158	.144	.044	.178	.035	.077	177	.047	.062	.788	
FinCom	033	025	011	030	036	172	192	208	222	147	244	135	086	085	261	084	122	.002	.562

Model 1- Sample Correlation Matrix

	Race	HHInc	MotherEdu	FatherEd	Gender	FIR	SWB2	SWB1	OWB	Save	FinCap	Invest	CaMgt	CrMgt	OFK	SFK	FinAtt	ParModel	FinCom
Race	1.000																		
HHInc	.234	1.000																	
MotherEdu	.149	.330	1.000																
FatherEd	.116	.413	.537	1.000															
Gender	.040	059	029	045	1.000														
FIR	.055	.120	.070	.116	.082	1.000													
SWB2	.013	.087	.058	.102	101	.087	1.000												
SWB1	.077	.120	.072	.114	088	.145	.556	1.000											
OWB	.028	.153	.045	.127	104	.102	.643	.613	1.000										
Save	.014	.097	.040	.038	.015	.064	.276	.372	.422	1.000									
FinCap	.099	.055	.030	.036	057	.162	.342	.382	.408	.368	1.000								
Invest	.051	.126	.013	.061	043	.105	.228	.352	.367	.591	.271	1.000							
CaMgt	006	.033	017	003	.023	.061	.051	.155	.152	.344	.409	.239	1.000						
CrMgt	.112	.107	.078	.098	.001	.035	.295	.298	.365	.330	.366	.274	.248	1.000					
OFK	.097	018	.018	027	148	013	.105	.166	.090	.048	.115	.139	.036	.058	1.000				
SFK	.042	.053	.006	005	125	.106	.116	.205	.162	.290	.503	.249	.350	.222	.124	1.000			
FinAtt	.057	.064	.093	.083	.028	.071	.175	.227	.260	.347	.334	.280	.360	.274	.107	.252	1.000		
ParModel	.020	.325	.187	.287	.043	.342	.159	.132	.148	.120	.058	.142	.056	.137	094	.059	.086	1.000	
FinCom	094	035	014	034	101	249	212	223	245	145	383	127	163	179	164	125	199	.004	1.000
Model 2- Sample Covariance Matrix

	HHInc	MotherEdu	FatherEd	Gender	FIR	PFS2	SWB2	SWB1	OWB	Save	FinCap	Invest	CaMgt	CrMgt	OFK	SFK	FinAtt
HHInc	.890																
MotherEdu	.342	1.210															
FatherEd	.456	.692	1.372														
Gender	.000	.000	.000	.229													
FIR	.109	.074	.130	.040	.851												
PFS2	.237	.161	.253	.028	.258	.589											
SWB2	.033	.023	.037	.006	.088	.082	1.454										
SWB1	.034	.023	.038	.006	.091	.085	.815	1.541									
OWB	.039	.026	.043	.007	.102	.096	.918	.946	1.456								
Save	.051	.034	.055	.009	.133	.124	.570	.588	.662	1.835							
FinCap	.043	.029	.047	.008	.114	.106	.333	.343	.386	.502	.723						
Invest	.046	.031	.050	.008	.120	.112	.514	.530	.597	1.003	.453	1.994					
CaMgt	.015	.010	.017	.003	.041	.038	.174	.180	.202	.340	.154	.307	.496				
CrMgt	.015	.010	.016	.003	.039	.037	.168	.173	.194	.327	.148	.295	.100	.402			
OFK	.024	.016	.026	.004	.062	.058	.183	.188	.212	.276	.236	.249	.084	.081	4.506		
SFK	.035	.024	.038	.006	.092	.086	.269	.277	.312	.406	.347	.366	.124	.119	.190	.811	
FinAtt	.026	.018	.029	.005	.069	.065	.203	.209	.235	.306	.262	.276	.094	.090	.144	.211	.671

	HHInc	MotherEd	FatherEd	Gender	FIR	PFS2	SWB2	SWB1	OWB	Save	FinCap	Invest	CaMgt	CrMgt	OFK	SFK	FinAtt
HHInc	1.000																
MotherEd	.330	1.000															
FatherEd	.413	.537	1.000														
Gender	.000	.000	.000	1.000													
FIR	.125	.073	.120	.091	1.000												
PFS2	.327	.190	.282	.077	.365	1.000											
SWB2	.029	.017	.026	.010	.079	.089	1.000										
SWB1	.029	.017	.026	.010	.079	.089	.544	1.000									
OWB	.034	.020	.030	.012	.092	.103	.631	.632	1.000								
Save	.040	.023	.035	.014	.106	.120	.349	.350	.405	1.000							
FinCap	.054	.031	.048	.019	.145	.163	.324	.325	.376	.436	1.000						
Invest	.034	.020	.030	.012	.092	.104	.302	.302	.350	.524	.377	1.000					
CaMgt	.023	.014	.021	.008	.063	.070	.205	.206	.238	.357	.257	.309	1.000				
CrMgt	.025	.014	.022	.009	.067	.075	.219	.219	.254	.380	.274	.329	.224	1.000			
OFK	.012	.007	.010	.004	.032	.036	.071	.071	.083	.096	.131	.083	.057	.060	1.000		
SFK	.041	.024	.036	.014	.110	.124	.248	.248	.287	.333	.453	.288	.196	.209	.100	1.000	
FinAtt	.034	.020	.030	.012	.092	.103	.205	.206	.238	.276	.375	.239	.163	.173	.083	.287	1.000

	HHInc	MotherEd	FatherEd	FIR	PFS2	SWB2	SWB1	OWB	Save	FinCap	Invest	CaMgt	CrMgt	OFK	SFK	FinAtt
HHInc	.890															
MotherEd	.342	1.210														
FatherEd	.456	.692	1.372													
FIR	.104	.071	.125	.850												
PFS2	.233	.159	.250	.256	.587											
SWB2	.033	.022	.036	.088	.082	1.454										
SWB1	.034	.023	.037	.090	.085	.815	1.540									
OWB	.038	.026	.042	.102	.095	.918	.946	1.456								
Save	.050	.034	.054	.133	.124	.570	.588	.661	1.835							
FinCap	.042	.029	.046	.113	.106	.333	.343	.386	.502	.723						
Invest	.045	.030	.049	.120	.112	.514	.530	.597	1.002	.453	1.994					
CaMgt	.015	.010	.017	.041	.038	.174	.180	.202	.340	.154	.307	.496				
CrMgt	.015	.010	.016	.039	.036	.168	.173	.194	.327	.148	.295	.100	.402			
OFK	.023	.016	.026	.062	.058	.183	.188	.212	.276	.236	.249	.084	.081	4.506		
SFK	.034	.023	.038	.091	.086	.269	.277	.312	.406	.347	.366	.124	.119	.190	.811	
FinAtt	.026	.018	.028	.069	.065	.203	.209	.235	.306	.261	.276	.094	.090	.144	.211	.671

Model 3- Sa	mple Corr	elation	Matrix
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	HHInc	MotherEd	FatherEd	FIR	PFS2	SWB2	SWB1	OWB	Save	FinCap	Invest	CaMgt	CrMgt	OFK	SFK	FinAtt
HHInc	1.000															
MotherEd	.330	1.000														
FatherEd	.413	.537	1.000													
FIR	.120	.070	.116	1.000												
PFS2	.323	.188	.279	.363	1.000											
SWB2	.029	.017	.026	.079	.089	1.000										
SWB1	.029	.017	.026	.079	.089	.544	1.000									
OWB	.033	.020	.030	.092	.103	.631	.632	1.000								
Save	.039	.023	.034	.106	.119	.349	.349	.405	1.000							
FinCap	.053	.031	.047	.144	.162	.324	.325	.376	.436	1.000						
Invest	.034	.020	.030	.092	.103	.302	.302	.350	.524	.377	1.000					
CaMgt	.023	.013	.020	.062	.070	.205	.206	.238	.357	.257	.308	1.000				
CrMgt	.024	.014	.022	.067	.075	.219	.219	.254	.380	.274	.329	.224	1.000			
OFK	.012	.007	.010	.032	.036	.071	.071	.083	.096	.131	.083	.056	.060	1.000		
SFK	.040	.023	.036	.110	.124	.248	.248	.287	.333	.453	.288	.196	.209	.100	1.000	
FinAtt	.033	.019	.030	.091	.103	.205	.206	.238	.276	.375	.239	.162	.173	.083	.286	1.000