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**Family Financial Socialisation and its Impact
on Financial Confidence, Intentions, and Behaviours
among New Zealand Adolescents**

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Family Financial Socialisation and its Impact on Financial Confidence, Intentions, and Behaviours among New Zealand Adolescents

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Abstract: This study investigated the impact of family financial socialisation on the financial perceptions and behaviours of adolescents. Drawing from social learning theory, Gudmunson and Danes' model of family financial socialisation, and the theory of planned behaviour, we examined the influence of family affluence, financial anxiety, and values on adolescents' financial confidence, intentions, and behaviours. The research also explores gender differences and the distinct effects of family socialisation in banking and budgeting contexts. With a large sample of adolescents in New Zealand ($n = 5,370$), results using structural equation modelling reveal that family affluence corresponds with a higher perception of family financial anxiety and a stronger emphasis on financial values on savings. We highlight the significant role of family financial values in shaping adolescents' general confidence in money management, which influences their confidence in specific financial domains. Our results also highlight a gap between confidence and action in financial behaviours, with gender differences impacting this dynamic. The findings offer insights for parents, policymakers, and financial institutions, emphasising the importance of family financial socialisation in fostering responsible financial practices among young people.

Keywords: family socialisation; financial socialisation; adolescents; affluence; confidence

JEL Classifications: D14, J16, D91, Z13

Data Availability Policy: The data that support the findings of this study are available from Banqer, but restrictions apply to the availability of these data, which were used under licence for the current study and so are not publicly available. The data are, however, available from the authors upon reasonable request and with the permission of Banqer.

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Introduction

Financial education has long been integrated into school curricula, underscoring the widely-held belief that financial knowledge empowers better decision-making and promotes positive financial behaviours. However, establishing a direct causal link between early financial education and subsequent financial outcomes has remained elusive. Recent literature acknowledges that financial literacy encompasses more than mere knowledge; factors like attitudes, values, and confidence play crucial roles (LeBaron & Kelley, 2021). Such an understanding has redirected attention to alternative sources of financial capability formation, especially within the home: family financial socialisation. Grounded in social learning theory (Bandura, 1977, 1986) and Gudmunson and Danes' (2011) conceptual framework for financial socialisation, it becomes imperative for researchers, parents, and financial institutions to better understand how family characteristics impact an individual's financial confidence, intentions, and behaviours. This exploration becomes even more significant when considering family affluence, potential gender biases in adolescents' financial perspectives, as well as the cascading effects of family socialisation on different types of financial domains, such as banking and budgeting. Given this backdrop, the current research embarks on a detailed examination of these topics with a large sample of adolescents in Aotearoa New Zealand.

Family Financial Socialisation Processes

Bandura's seminal research in the 1970s and 1980s laid the foundation for a paradigm shift in understanding behavioural patterns (Bandura & Walters, 1977; Bandura, 1986). Contrary to prevailing theories which posited that behaviours are primarily derived from direct experiences, Bandura postulated that a person's behaviour is not only influenced by direct experiences but is also shaped by observing the actions of others. Bandura contended that "most of the behaviours that people display are learned, either deliberately or

inadvertently, through the influence of example” (1977, p. 5). More recently, social learning theory has been applied to understand the origins and development of financial behaviours. This application led to a model by Gudmunson and Danes (2011) in which “financial socialisation” is conceptualised as a specific facet of the broader socialisation process, referring to the manner in which individuals form attitudes, values, perceptions, and behaviours related to financial matters (Danes, 1994). A notable aspect of this literature is the role of the family environment in shaping financial self-perceptions and behaviour. Gudmunson and Danes (2011) highlight the key factors comprising family financial socialisation, as well as providing a pathway by which connections can be observed. Their model posits that family socialisation processes—including family dynamics, relational patterns, and financial upbringing—collectively contribute to the formation of financial attitudes, knowledge, and capabilities. LeBaron and Kelley’s (2021) literature review, which included articles from 2010 to 2019, affirmed the significance of Gudmunson and Danes’ model. Their analysis reaffirmed the central role of parents in the financial education of children, concluding that “parents are the primary source of children’s financial learning,” and that “parents are key to financial socialization” (LeBaron and Kelley, 2021, p. S197). Indeed, the research literature has highlighted diverse factors that influence financial socialisation outcomes. These include—but are not limited to—parents’ experiences working with money, role modelling, communication, money allowance, and financial monitoring (Putri et al, 2020). Parents’ education and their financial background (whether they have high-interest investments, for example) have also been shown to influence children’s financial literacy (Bohm et al, 2023). Aligned with social learning theory, adolescents who are exposed to constructive financial discussions within the family may develop more positive attitudes towards saving and prudent spending, given the actions of their parents.

In the present study, we operate under the premise that parents' transmission of financial values and their explicit communication of financial anxieties can exert a substantial influence on the financial socialisation outcomes of their children, specifically affecting adolescents' attitudes and behaviours concerning money. For instance, in a family where values of frugality are prioritised, a sudden job loss might not result in overt panic; instead, the family might use it as an opportunity to teach resilience and the importance of having an emergency fund. Conversely, in a household where financial anxieties are frequently pronounced and saving is not prioritised, similar financial setbacks might amplify stress and result in impulsive, short-term financial decisions. In this study, we focus on the notion that core family values—such as financial openness, saving values, and achievement and success values—lay the groundwork for the socialisation process (Gudmunson & Danes, 2011; LeBaron et al., 2020). Alongside these values, the manner and magnitude of financial anxieties conveyed by a family (e.g., the regularity and severity of expressed financial concerns or a family's reluctance to discuss financial challenges), further shape the socialisation process (Potter et al, 2020).

While a range of familial and personal traits are likely to influence family financial values and anxieties, we posit that two particular characteristics are theoretically relevant: (a) family affluence and (b) the child's gender. We argue that the financial behaviours exhibited by parents—be it disciplined saving, strategic budgeting, or impulsive spending—are not mere standalone actions. They are intricately shaped by the family's socioeconomic standing, nuanced gender dynamics, and, in turn, lead to the financial attitudes, knowledge, and capabilities of adolescents.

Financial Socialisation and Family Affluence

Socioeconomic status (SES) influences the financial socialisation process. For example, as observed by Luhr (2018), there are disparities in how middle-class and working-

class parents impart financial knowledge to their children. Notably, middle-class parents tend to be more proactive in their financial teachings, aligning their lessons with their financial behaviours. In contrast, working-class parents may shield their children from the realities of their financial situations, resulting in a gap between observed financial behaviours and the formal teachings these children receive. This disparity, as highlighted by Luhr (2018), may be attributed to the differing anticipations each socioeconomic group has regarding their children's future economic prospects. The work of Serido et al. (2020) found individuals from high-SES families received more financial parenting and engaged in higher rates of positive financial behaviours than their low-SES counterparts.

Indeed, this observed relationship can be understood more deeply through the lens of social learning theory and Gudmunson and Danes' conceptual model for family financial socialisation. For example, in affluent families, the consistent alignment between parental teachings and financial behaviours may reinforce positive financial habits in adolescents. Such reinforcement, stemming from the combined effects of explicit teaching and observed behaviours, exemplifies the principles of social learning. However, in less affluent families—where there is a notable disconnect between what is taught and what is observed—the conflicting signals might hinder the internalisation of positive financial behaviours. The Gudmunson and Danes (2011) model might also suggest that, in certain scenarios, the protective mechanisms employed by parents (though well-intentioned) might inadvertently reduce the efficacy of their financial teachings. Such disparities emphasise the interconnectedness of family affluence and financial socialisation, highlighting the necessity for research in this sub-discipline to incorporate family affluence as a driving factor that contributes to family financial socialisation processes and individual outcomes.

Financial Socialisation and the Role of Gender

A crucial dimension of Gudmunson and Danes' (2011) model is the recognition of personal traits within family financial socialisation. While it is important to make sense of the overarching constructs of financial socialisation—from its theoretical underpinnings to its determinants—the significance of individual traits in shaping financial behaviour should not be overlooked. For example, a gender gap in financial literacy has been well-documented in the literature (for an overview, Lusardi & Mitchell, 2011; Hung et al., 2012; Hasler & Lusardi, 2017; as cited in Blaschke, 2022). The financial literacy gap between males and females is a widely researched area, with evidence consistently showing a notable advantage for males. Identifying the precise causes of this gap is complex; however, one compelling hypothesis presented by Jorgensen et al. (2019, as cited in LeBaron, 2020b) suggests that differential familial financial socialisation occurs based on the child's gender. That is, parents might educate daughters and sons differently when it comes to financial matters. From a social learning perspective, we can work on the assumption that familial financial socialisation is the process by which families impart financial values and anxieties to their children. When these teachings are influenced by gender perceptions, they can lead to varied financial attitudes and behaviours as children mature into adolescence and adulthood. For instance, if young girls consistently observe female family members being less proactive or confident in financial domains, they may internalise these behaviours, potentially affecting their own financial confidence and skills in later years.

Rudeloff et al. (2019) underscored the need to promote financial literacy among women, especially given their generally longer lifespans. This extended lifespan often implies that many women manage their financial affairs independently for more extended periods. Given societal norms that might place women in lower-earning positions or necessitate career breaks for family reasons, the risk of financial insecurity for women intensifies. Grohmann (2016, as cited in Rudeloff et al., 2019) added that such societal and

familial patterns are key factors driving higher financial vulnerability and poverty rates among older women. As such, it is imperative for researchers to examine how familial financial socialisation shapes adolescents' financial attitudes and behaviours as a function of gender. Acknowledging that gender differences are likely at play, we contend it is important to control for gender differences to obtain a clearer understanding of the underlying factors. This, in turn, can offer insight into the processes of familial financial socialisation are not solely a result of inherent gender differences.

Financial Socialisation Outcomes: Confidence, Intentions, and Behaviour

Financial socialisation is a combination of financial knowledge, attitudes, and capabilities. From this perspective, knowing about finances is not the only outcome of family socialisation, and factors such as confidence matter. Indeed, Palameta et al. (2016) suggest that financial confidence, rather than mere knowledge, plays a pivotal role in guiding day-to-day money management:

“Those with high levels of knowledge are likely to experience relatively poor outcomes in areas such as meeting financial commitments, making bill payments, budgeting, and managing debt, if they also have low levels of confidence. Conversely, those with low levels of knowledge achieve good outcomes in these areas if they have high levels of confidence” (Palameta et al. 2016, p. iii).

It is our interpretation that, while financial knowledge remains indispensable, the confidence to apply such knowledge is equally important. During the stages of adolescent financial socialisation, the objective should be twofold: nurturing financial knowledge and simultaneously instilling confidence in its application. Parents who model knowledge and confidence create powerful reinforcement for children, thus laying the foundation for sound financial behaviours. In contrast, any inconsistencies in parental knowledge or confidence could result in mixed messages for adolescents, potentially impacting their financial

confidence. Zhu (2018) further illuminates how parental socialisation processes foster positive financial behaviours by bolstering financial attitudes, given that children often emulate their parents' financial habits. Shim et al.'s findings (2015, as cited in Zhu, 2018) reinforce this notion, suggesting that positive financial attitudes can directly amplify the quality of financial behaviours. Furthermore, LeBaron et al. (2018) advocate for continuous financial education for parents to better guide their children.

In the current research, we focus on the interplay between an individual's financial self-beliefs—particularly their confidence—and their consequent financial behaviours. There can be a considerable gap between one's confidence and their engagement in certain behaviours; thus, to explain this confidence-behaviour association, we draw upon the seminal Theory of Planned Behavior (TPB; Ajzen, 1991, 2011). Central to TPB is the pivotal role of intentions, a feature which is not explicitly captured in Gudmunson and Danes' (2011) model. From TPB, an individual's actions are principally informed by their immediate intentions. These intentions, in turn, are affected by a triad of factors: their attitude towards the behaviour, prevailing social norms, and their confidence or perceived behavioural control. In the context of adolescent financial behaviours, we argue that TPB can offer an additional perspective. For instance, a young person with a (socialised) perspective on finances—bolstered by certain social norms (such as familial values and the individual's gender) and underpinned by financial confidence—is well-equipped to formulate and actualise financial intentions. It is these crystallised intentions that, given the right circumstances, can give rise to tangible financial behaviours.

Financial Socialisation for Distinct Financial Domains

As described, family socialisation processes have the potential to influence adolescents' financial confidence, intentions, and behaviours. However, the impact of this socialisation can manifest differently when examining distinct financial domains, such as

banking or budgeting. Previous research has examined predictors of specific finance-related activities in the home (Lewis & Scott, 2003). In a sample of 205 parents, the three most popular finance-related activities in the home were (a) giving a piggy bank (66%), (b) giving pocket money (63%) and (c) encouraging a child to open a bank account (50%). Age of the child and social class were significant predictors of these activities. By comparison, only 11% of parents reported they encouraged their children to set up a spending/budgeting plan. Age and gender were significant predictors.

By extension, we contend that banking activities—with their inherent complexities of terminologies, digital platform navigations, and interactions with formal financial institutions—demand a specific kind of exposure. Adolescents who have been acquainted with these activities within their familial context might exhibit increased confidence in navigating such tasks. Their intentions regarding banking could be influenced by early exposure to concepts like savings accounts or debit cards. Consequently, their behaviours might be more procedural, reflecting the nuances of tasks like depositing money, using ATMs, or online account monitoring—processes they would have familiarised with through familial guidance. Meanwhile, budgeting introduces adolescents to a different realm of financial management, focusing on arithmetic skills and everyday financial decision-making. Confidence in budgeting may be increased when families prioritise discussions around expenses, savings, and the balancing act between them. An adolescent's intentions related to budgeting might evolve based on their observations of familial spending habits, witnessing the tangible benefits of prudent budgeting or the repercussions of fiscal indiscretions. Behaviourally, budgeting decisions (e.g., allocating portions of their allowance to savings or delineating entertainment expenses) can be reflections of the financial discipline and habits they have learned from the family environment. Thus, while both banking and budgeting are

pillars of financial literacy, the manner in which familial financial socialisation impacts them can vary, given the unique skills and perspectives each domain demands.

The Current Research

The primary objective of the current research is to empirically validate a theoretical model that explains the impact of family financial socialisation on the financial perceptions and behaviours of New Zealand adolescents. Grounded in social learning theory (Bandura, 1977, 1986), Gudmunson and Danes' (2011) model of family financial socialisation, and the theory of planned behaviour (Ajzen, 1991, 2011), we specifically aim to explore the relative influences of family affluence, family financial anxiety, and family financial values on adolescents' financial confidence, intentions, and behaviours. We examine potential gender differences which may impact these patterns, as well as the differential influences of family socialisation on financial confidence, intentions, and behaviour in the domains of banking and budgeting. This research seeks to enrich the understanding of financial socialisation, offering insights beneficial for educators, parents, policymakers, and financial institutions.

Our research questions were:

1. Whilst controlling for gender differences, to what extent do family affluence, family financial anxiety, and family financial values contribute to individual differences in financial confidence, intentions, and behaviours among New Zealand adolescents?
2. Does this model differ between banking and budgeting financial domains?

Method

Participants

Our study encompassed a sample of 5,370 adolescents from across Aotearoa New Zealand. The gender distribution of the sample was fairly balanced, with 50.6% identifying as females ($n = 2,717$) and 49.4% as males ($n = 2,653$). In terms of educational level, the distribution was as follows: Year 7 (0.1%), Year 8 (0.2%), Year 9 (30.3%), Year 10 (58.7%),

Year 11 (3.2%), Year 12 (3.3%), and Year 13 (4.2%). Within the New Zealand education system, students in Year 7 are typically around 11-12 years old, progressing to approximately 17-18 years old by Year 13.

Procedures

The secondary dataset utilised in this research was supported by a nationwide financial education programme that is dedicated to imparting essential financial knowledge to children and adolescents across participating primary and secondary schools in New Zealand. This programme offers students a comprehensive series of educational modules that cover a wide array of financial topics, including banking, budgeting, insurance, the stock market, and the intricacies of debit and credit cards. As a preliminary step in their involvement with the programme, students were invited to describe their current attitudes, perceptions, and prior experiences with personal finances. The responses to these items constitute the primary data explored in our current research. A fully anonymised version of this dataset was generously shared with our research team, and the project has been granted an exemption by the [Institution's] Human Ethics Committee, ensuring its ethical appropriateness for research purposes.

Initial enrolment for the programme comprised 9,533 secondary students spanning Years 7 to 13. However, a significant portion of this dataset (23.49%; $n = 2,239$) had logged into the system without completing any items on the questionnaire. A significant number of schools completed a subset of the modules available. The modules offered varied from school to school; however, the banking and budgeting modules were consistently offered by the vast majority of schools. These two modules are, therefore, the focus of this study. Given the limited scope of the instruments included and the large sample size, we opted against employing single imputation processes to address missing cases. Instead, we favoured the use of casewise deletion to maintain the integrity and accuracy of our dataset. This brought us to

a sample of 5,600 complete cases. Furthermore, in our pursuit of presenting a precise representation of gender within the dataset, we made the decision to exclude 131 participants who chose not to disclose their gender (2.34%) and an additional 99 participants who identified as gender diverse (1.77%). This resulted in a total sample of 5,370 participants.

Instruments

Family Affluence. Family Affluence was measured using a modified version of the Family Affluence Scale (Currie et al, 2014). The FAS is a widely recognised tool designed to measure socioeconomic status, especially in the context of adolescent health and lifestyle studies. The self-report scale measures affluence by examining the tangible assets and certain experiences that a family possesses. Example items include “Do you have your own bedroom?” with possible binary responses “Yes” (1) or “No” (0). Other items measure the number of computers owned by the family, ranging on a Likert-style scale from “None” (0) to “More than two” (3). In order to be appropriate for the New Zealand context, there were slight modifications in the phrasing of the original questions. We calculated Family Affluence by taking the sum of participant scores, and the possible range of scores was from (0) low affluence to (12) high affluence.

Family Financial Anxiety. Four self-report items had been included to estimate participants’ perceived level of financial-related stress and unease within their family unit. Participants were asked to reflect on the financial behaviours and attitudes of their parents, caregivers, and other household members. Individuals responded to each item based on a five-point, Likert-style scale ranging from (1) strongly disagree to (5) strongly agree. Items included were: (1) “My family often worries about money” (i.e., the frequency and intensity of financial concerns within the family); (2) “My family avoids talking about money problems” (i.e., the family’s apparent willingness or reluctance to address and communicate about financial challenges); (3) “My family doesn’t understand money very well” (i.e., the

perceived financial literacy and understanding of the family, indicating whether they have the knowledge to make informed decisions about money; and, (4) “My family doesn’t know how to help with my questions about money” (i.e., the family’s ability to provide guidance and support when the participant seeks advice or information regarding financial matters). Collectively, these items represent the emotional, communicative, and knowledge-based aspects of financial anxiety within the family setting.¹

Family Financial Values. We interpreted Family Financial Values as a concept representing the multifaceted financial attitudes inherent within a family unit. Specifically, we considered three distinct—but interconnected—domains: Financial Openness, Saving Values, and Achievement and Success Values. For each of the subscales, participants responded to the items using a five-point, Likert-style scale that ranges from (1) strongly disagree to (5) strongly agree. To measure Family Financial Values, we calculated the sum of the three subscales, with a range of possible responses from (3) low to (20) high.

Financial Openness was designed to measure the extent to which families appear transparent and inclusive when discussing financial matters with their children, and how proactive they are in educating them about finances. We included four items to capture Financial Openness: (1) “My family openly talks about money,” (i.e., the level of candidness and willingness of the family to discuss financial topics without reservation), (2) “My family includes me in talks and decisions about money” (i.e., the inclusivity of the family in financial conversations and decisions, indicating how much they value the input or awareness of their children in money-related matters); (3) “My family explains their money talks and decisions to me” (i.e., the family's effort to clarify their financial decisions and discussions to

¹Because this is a secondary dataset, the average of these items had been calculated by the supporting organisation; therefore, we are only able to use the manifest variable and not present a reliability coefficient—we acknowledge this as a limitation in the research. This is the case for the following three variables in the Instruments section.

their children), and (4) “My family teaches me about money” (i.e., the proactive approach of the family in imparting financial knowledge, wisdom, and skills to their children).

Saving Values was measured by assessing the attitudes and practices a family exhibits towards saving money, emphasising the intent beyond just routine expenditures. This included four items: (1) “My family regularly saves money” (i.e., the consistency and routine of the family in setting aside money, indicating a disciplined approach to savings); (2) “My family saves money over long periods of time to buy significant things (e.g., a car or television)” (i.e., the family's forward-thinking and long-term saving habits, emphasising the accumulation of funds for substantial purchases or investments); (3) “My family openly talks about their saving goals” (i.e., the family's transparency and communication around financial aspirations and saving objectives, emphasising a collective and informed approach to money management); and (4) “My family tries to not run out of money” (i.e., the family's precautionary attitude towards financial management, highlighting their efforts to ensure financial stability and prevent financial hardships).

Third, to measure Achievement and Success Values, we created four self-report items that were designed to measure the beliefs and perceptions families might hold regarding the relationship between money, financial fluency, and success in life. This comprises the following items: (1) “My family believes more money means more success” (i.e., the family's perception between monetary wealth and the broader concept of success); (2) “My family believes that the amount of money people have makes them ‘better’ or ‘worse’ in life” (i.e., the family's stance on financial status as a determinant of a person's value or worth in societal hierarchies, indicating an external validation based on monetary assets); (3) “My family has a goal to make more money” (i.e., the family's ambitions and aspirations related to financial accumulation); and, (4) “My family wants me to make good money in life” (i.e., the

family's expectations and aspirations for the participant's financial future, emphasising the importance they place on economic success as a mark of personal achievement).

General Financial Confidence. We created three items to approximate an individual's self-assuredness in various financial contexts, from interpersonal discussions about money to personal money management and decision-making. Participants were asked to respond to three items, each on a 5-point, Likert-style scale ranging from (1) not at all confident to (5) very confident to the following statements: (1) "How confident do you feel talking about money with family or friends?" (i.e., one's comfort level when engaging in financial discussions with those close to them); (2) "How confident do you feel managing your own money?" (i.e., one's belief in their capability to oversee and handle their finances effectively, capturing their self-efficacy in money management; and (3) "How confident do you feel when you have to make financial decisions?" (i.e., an individual's level of assurance when confronted with monetary choices, highlighting their confidence in their judgment and decision-making abilities in financial matters). $\alpha = .77$.

Confidence in Banking and Budgeting. Because financial confidence can presumably vary across contexts and domains, we created three items that could approximate participants' confidence in completing (a) banking-related activities ("How confident do you feel choosing the right bank accounts for you into the future?" and "How confident do you feel making and meeting savings goals in the future?"; $\alpha = .78$), and (b) budgeting activities ("How confident are you that you can have budget surpluses in the future?"). Participants were asked to respond to these items, each on a 5-point, Likert-style scale ranging from (1) not at all confident to (5) very confident.

Intentions in Banking and Budgeting. We included four items to evaluate participants' prospective behavioural inclinations concerning banking and budgeting activities, respectively. Responses were on a five-point Likert scale, ranging from (1) not at

all likely to (5) very likely, giving insight into the likelihood of participants engaging in relevant financial behaviours in the future. The items for Intentions in Banking were: “In the future, how likely do you think you are to open high interest savings accounts?” (i.e., one’s inclination towards optimising their savings by considering high-interest-bearing accounts), and “In the future, how likely do you think you are to create savings goals?” (i.e., one’s likelihood to set defined, purposeful savings objectives, reflecting their forward-thinking and goal-setting approach to finances); $\alpha = .66$. The items for Intentions in Budgeting were: “How likely are you to create a budget (or modify your current budget) in the future?” (i.e., one’s likelihood of establishing or adjusting a financial plan, indicating their proactive approach to money management) and “How likely are you to start or continue tracking your spending in the future?” (i.e., one’s willingness to monitor and record their expenditures, highlighting their commitment to financial awareness and discipline); $\alpha = .85$.

Behaviour in Banking and Budgeting. Two items were designed to capture participants’ current financial behaviours in the respective domains of banking and budgeting. Instead of future intentions, the items approximate the present status of participants’ financial involvement. The item for Behaviour in Banking was “Do you currently have a bank account for saving?” with binary responses of (1) yes and (0) no. The item for Behaviour in Budgeting Subscale was “Do you currently have a budget?”, with binary responses of (1) yes and (0) no. Although these are limited in scope, these items offer an estimate of participants’ actual engagement in these financial domains, enabling a better understanding of their current financial habits.

Statistical Analysis

First, we thoroughly examined descriptive statistics, including means, standard deviations, and other pertinent measures that typify the sample for our primary variables of interest. Second, bivariate correlations were performed to inspect the potential associations

between the variables. Third, we tested theoretical models in which family characteristics were expected to predict individual differences in financial confidence, intentions, and behaviours for the banking and budgeting domains. This was achieved using path model procedures facilitated by the lavaan package in R (Rosseel, 2012). We adhered to standard cutoffs for model fit criteria. Model fit was assessed against a range of established indicators including χ^2 , Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA). We use goodness-of-fit criteria in which CFI and TLI are greater than .95, and RMSEA is less than .05 (e.g., Hair et al., 2010; Kline, 2015). We also inspect factor loadings to ensure the robustness and relevance of each item in our models, following the commonly accepted guideline that, for a larger sample, standardised factor loadings should be greater than .40 (Hair et al., 2010).

Results

Descriptive Statistics

We present descriptive statistics among the key variables of interest in Table 1. It is particularly noteworthy to highlight that participants in this sample represent a population of young people from relatively affluent backgrounds. Additionally, it is clear that about half of the sample had engaged in behaviours in banking (52%) and budgeting (53%).

Table 1

Descriptive statistics for family characteristics, financial confidence, and confidence, intentions, and behaviours relating to banking and budgeting among New Zealand adolescents (n = 5,370)

	Min	Max	Mean	SD	Skewness	Kurtosis
Family Affluence	0	12	9.82	1.82	-1.10	1.33
Family Financial Anxiety	1	17	12.25	2.69	-0.48	0.36
Family Financial Values	4	20	13.41	2.40	-0.07	0.07
General Financial Confidence	1	5	3.52	0.88	-0.30	-0.19
Confidence in Banking	1	5	3.59	0.81	-0.31	0.04
Intentions in Banking	1	5	3.91	0.80	-0.59	0.48
Behaviours in Banking	0	1	0.52	0.32	-0.05	-0.99
Confidence in Budgeting	1	5	3.69	0.91	-0.31	0.02
Intentions in Budgeting	1	5	3.96	0.90	-0.75	0.37
Behaviours in Budgeting	0	1	0.53	0.50	-0.14	-1.98

Bivariate correlations are presented in Table 2. As shown, there are notable trends related to gender and family affluence. Females may have slightly more financial anxiety and less financial confidence when compared to males. Individuals from more affluent families tend to have stronger financial values and greater overall financial confidence. Additionally, family financial anxiety appears to be a significant factor influencing confidence in banking and budgeting, with higher anxiety levels associated with lower confidence. There is a strong positive association between confidence, intentions, and behaviours in both banking and budgeting, indicating that individuals who feel confident and express intentions in these areas are more likely to follow through with corresponding behaviours.

Table 2

Bivariate correlations for gender, family affluence, financial confidence, and confidence, intentions, and behaviours relating to banking and budgeting among New Zealand adolescents (n = 5,370).

	Gender	Family Financial Affluence	Family Financial Anxiety	Family Financial Values	General Financial Confidence	Confidence in Banking	Intentions in Banking	Behaviours in Banking	Confidence in Budgeting	Intentions in Budgeting	Behaviours in Budgeting
Gender (0 = Female)	--										
Family Affluence	-.029*	--									
Family Financial Anxiety	-.076**	.248**	--								
Family Financial Values	.039**	.125**	.084**	--							
General Financial Confidence	.155**	.122**	.155**	.373**	--						
Confidence in Banking	.146**	.119**	.149**	.382**	.869**	--					
Intentions in Banking	0.011	.118**	.101**	.358**	.447**	.555**	--				
Behaviours in Banking	.080**	.082**	.089**	.075**	.110**	.095**	.148**	--			
Confidence in Budgeting	.075**	.120**	.123**	.311**	.444**	.521**	.448**	.122**	--		
Intentions in Budgeting	-0.015	.126**	.136**	.332**	.379**	.439**	.514**	.160**	.631**	--	
Behaviours in Budgeting	-0.009	.060**	0.002	.176**	.179**	.218**	.148**	-0.022	.208**	.247**	--

Note. * $p < .05$. ** $p < .001$

Structural Equation Modelling

Banking Model. Figure 1 presents the structural regression path model and its standardised coefficients (β) in which family-related factors (Affluence, Financial Anxiety, and Financial Values) were tested to predict adolescents' general financial confidence and their confidence, intentions, and behaviours specific to the domain of banking. Gender was included as a covariate; however, we do not include Gender in the model for ease of interpretation. Our results show good model fit: $\chi^2(9) = 127.29, p < .001$; CFI = .99, TLI = .97; RMSEA = .052 (CI = .044, .060), and these indices suggest that the model is a reasonable representation of the observed data.

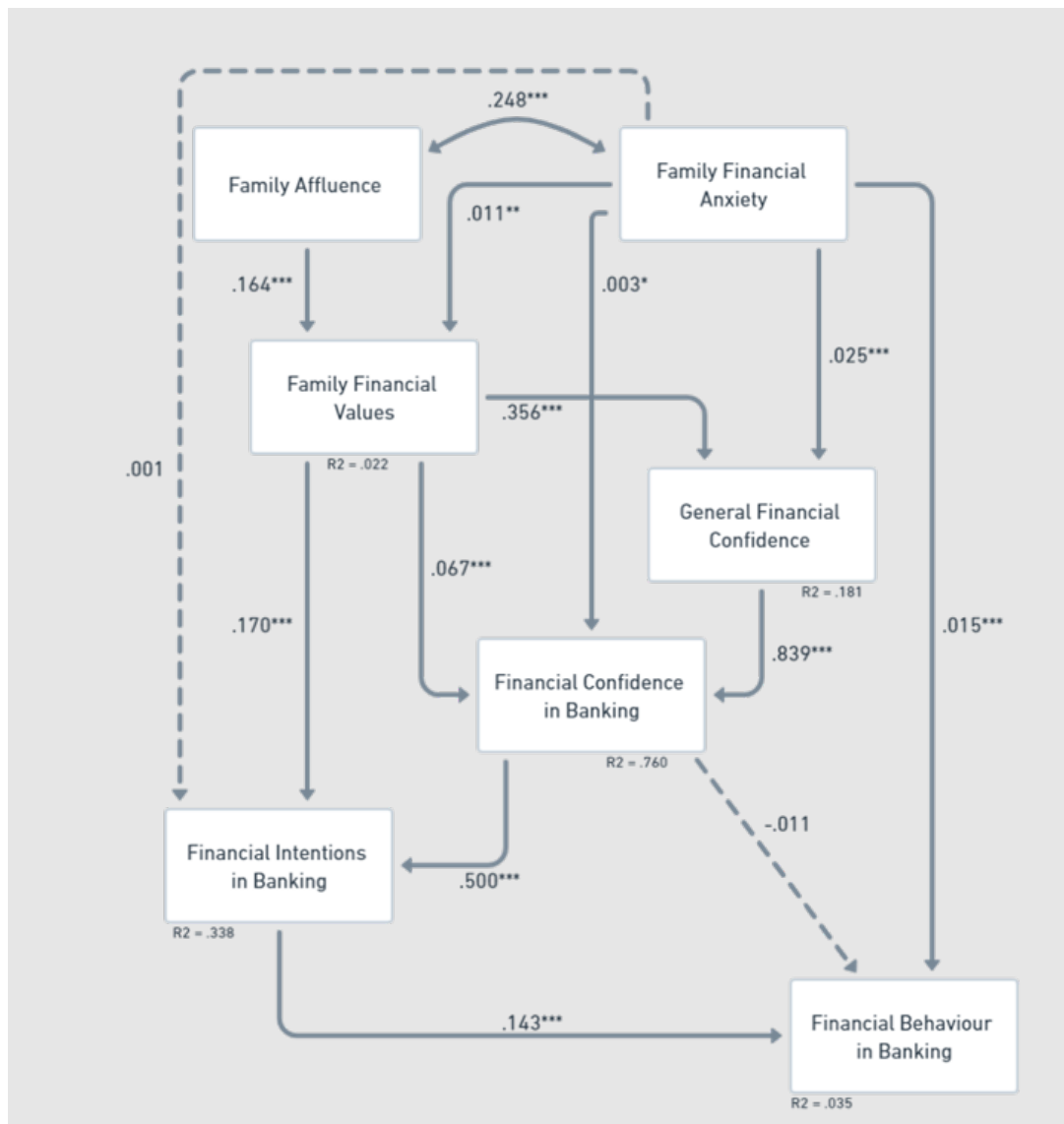


Figure 1

Standardised coefficients (β) for the structural model predicting financial behaviour in the banking domain ($n = 5,370$). Gender was included as a covariate but is not presented in the structural model for ease of interpretation.

Upon examining the path coefficients, it was evident that most regression paths were statistically significant, even with very small β coefficients. This is not surprising given the sample size ($n = 5,370$), so we interpret our results with an appropriate level of caution. Several paths were particularly meaningful. First, we report a moderate, positive correlation between Affluence and Anxiety. Although we are not able to ascertain whether more affluent families report greater financial anxiety (as our dataset is self-reported by adolescents), we can offer new evidence that more affluent families may be more likely to openly express concerns about money in the presence of their children. Second, we report that Affluence contributes positively to Values. This suggests that both more affluent families and those experiencing greater financial anxiety tend to promote financial values within their households. These values include open dialogue surrounding money management, the significance of savings, and discussions about financial goals and achievements. Third, Values appear to contribute strongly to a young person's general confidence in working with money (General Confidence), and this General Confidence is a strong determinant of how confident participants are in the sub-field of banking. Fourth, our model shows that Confidence in Banking does not necessarily lead to current banking-related Behaviours; rather, this confidence appears to create Intentions, which correlate positively with existing financial behaviour. Last, our results highlight the crucial role of gender in this dataset. Our findings show that male participants reported greater confidence in working with money, both in general ($\beta = .300, p < .001$) and in the banking domain ($\beta = .030, p = .03$). Males were more likely to report financial values in their family ($\beta = .095, p < .001$). In contrast,

females were more likely to report having banking-related intentions ($\beta = .134, p < .001$), but this did not appear to translate into existing banking-related behaviour ($\beta = -.171, p < .001$).

Budgeting Model. Figure 2 presents the structural regression path model for the budgeting domain.

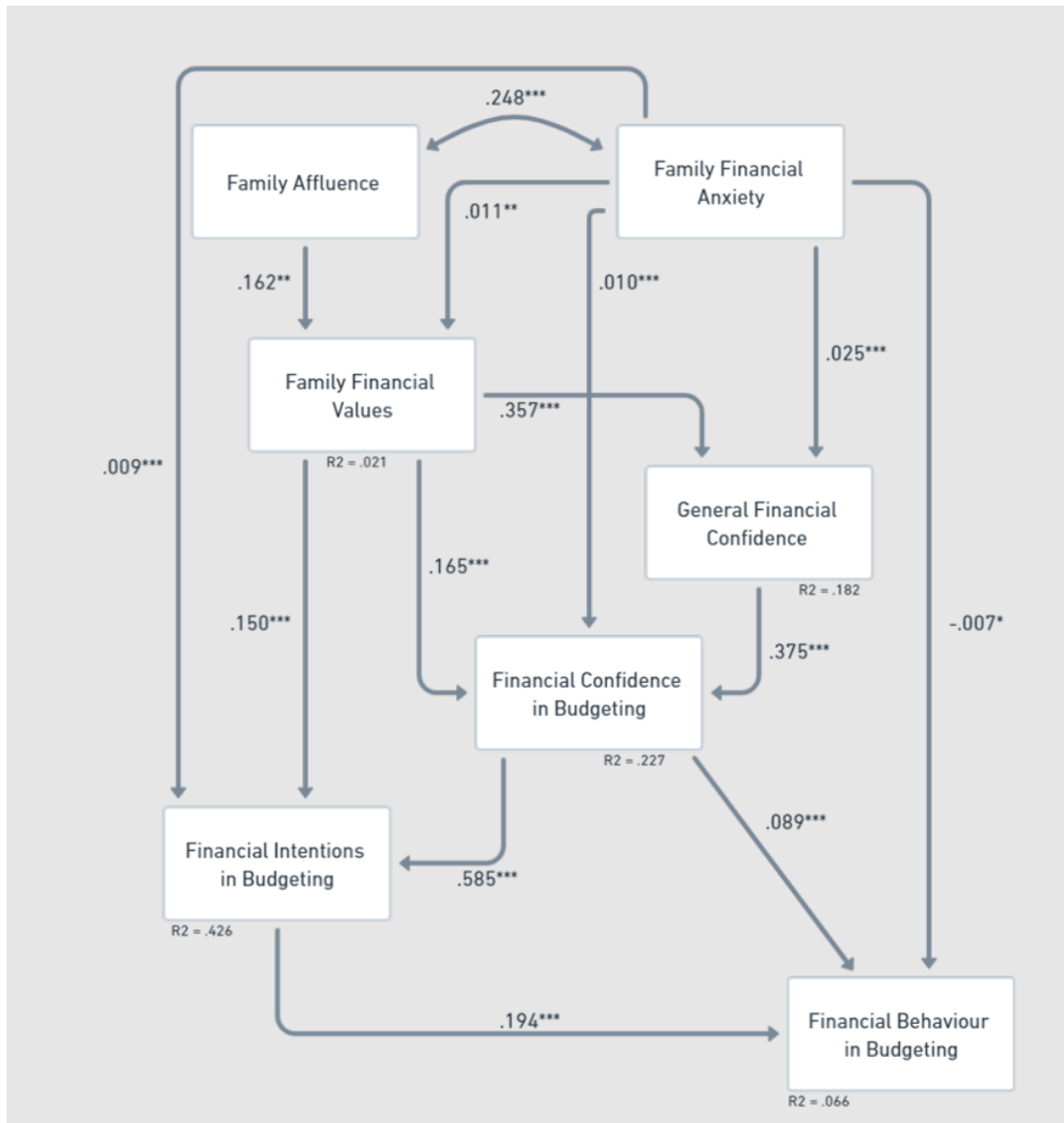


Figure 2

Standardised coefficients (β) for the structural model predicting financial behaviour in the budgeting domain ($n = 5,370$). Gender was included as a covariate but is not presented in the structural model for ease of interpretation.

Our results show acceptable model fit to the data: $\chi^2 (9) = 179.42, p < .001$; CFI = .97, TLI = .91; RMSEA = .063 (CI = .055, .072). Our results for the Budgeting model are similar to the Banking model with a few notable differences. First, Values appeared to exert a larger influence on one's Financial Confidence in Budgeting than in Banking. Second, General Financial Confidence was a considerably weaker—yet still statistically meaningful— influence on Financial Confidence in Budgeting. Third, domain-specific confidence in budgeting exerted a small positive effect on current behaviour, suggesting that young people who feel confident in their ability to budget are more likely to have experience with budgeting. Although more research is needed, this finding may suggest that adolescents' confidence has a stronger influence on budgeting behaviours than on banking.

Discussion

The primary aim of this research was to empirically test a theoretical model that examines the influence of family financial socialisation on the financial perceptions and behaviours of adolescents in New Zealand. Drawing from social learning theory (Bandura, 1985), Gudmunson and Danes' (2011) model of family financial socialisation, and the theory of planned behaviour (Ajzen, 1991, 2011), the study focused on assessing the impacts of family affluence, financial anxiety, and financial values on adolescents' financial confidence, intentions, and behaviours. The project investigated the potential variations in these dynamics based on gender, as well as the differing effects of family socialisation on financial confidence, intentions, and behaviour in banking and budgeting contexts. Our findings offer a deeper understanding of financial socialisation processes, providing valuable insights for educators, parents, policymakers, and financial institutions.

First, the present findings reveal notable trends between family affluence and the family socialisation process. For example, we found that higher family affluence is associated with increased financial anxiety as perceived by adolescents in their households. This

outcome is somewhat unexpected, as conventional wisdom suggests that greater affluence should correspond to fewer financial worries. However, it is important to interpret these results with caution. The data in the current study do not definitively establish that wealthier families experience more financial anxiety. Instead, the reliance on self-reported information signals that younger individuals may lack a complete understanding of the complexities of their family's financial situation. Although complex, the current evidence does hint at a noteworthy trend that aligns with Jorgensen and Savla (2010): more affluent families might be more transparent about their financial concerns in front of their children. This openness can be interpreted in several ways in light of the broader academic literature. For example, more affluent families might have access to more financial resources and prioritise financial education, leading them to discuss money matters, including concerns, more openly with their children. More affluent families tend to be more deliberate in teaching children about financial responsibilities (Clarke et al., 2005). Furthermore, greater affluence often comes with a more complex financial environment, including investments, multiple income streams, and perhaps larger debts (like mortgages for bigger properties); as such, it is plausible that discussing these complexities might inadvertently lead to young people perceiving them as “anxieties” or “concerns.”

Our results also highlight the positive contribution of family affluence to family financial values. Specifically, we report that adolescents from wealthier backgrounds report a stronger family emphasis placed on certain financial values around saving money. Building on the extant literature (e.g., Danes & Yang, 2014), it is likely that more affluent families—due to their potentially complex financial environment—might recognise the importance of financial literacy and education. As a result, such families may be more proactive in instilling financial values in their children. This assumption is consistent with the broader literature that underscores the importance of financial education and values in shaping responsible financial

behaviours (Clarke et al., 2005; Danes & Yang, 2014; Jorgensen & Savla, 2010). From this perspective, more affluent families are likely to have exposure to a variety of financial instruments, such as investments, trusts, and diversified portfolios. This exposure might naturally lead to discussions about money management, savings, and financial goals, providing a practical context for children to understand these concepts. We posit that affluent families might also be thinking about legacy and wealth transfer, and ensuring the next generation is equipped with the right values and knowledge about money management becomes crucial in this context.

Second, we present a deeper understanding of the role of parents in shaping an individual's financial attitudes, behaviours, and confidence. We report that perceived family financial anxiety and values about savings influence a young person's confidence in money management and its subsequent impact on specific financial domains like banking and budgeting. Specifically, family financial values contribute strongly to a young person's general confidence in working with money. Since families often serve as the first point of contact for financial education, it becomes clear that the values, principles, and attitudes towards money that are instilled during one's formative years can set the tone for future financial confidence and behaviours (e.g., Danes & Yang, 2014; Gudmunson & Danes, 2011). We contend that informal household conversations around savings, investments, expenditures, and financial planning can provide young individuals with practical exposure to money management, bolstering their confidence. Although we did not explore this explicitly in the current research, we work on the extant literature (e.g., Schrodt et al., 2022) that family communication patterns can offer a safe environment for young individuals to ask questions, make mistakes, and learn about finances without the fear of judgment, further enhancing their financial self-efficacy beliefs.

We also present new evidence that general confidence in working with money is a strong determinant of confidence in specific areas such as banking and budgeting. This suggests a cascading effect: foundational financial values shape general confidence, which in turn influences confidence in more specialised financial domains. For instance, being confident in money management can naturally translate to confidence in navigating banking systems, understanding various banking transactions, and making informed decisions related to banking. Similarly, a strong foundational confidence can lead to better budgeting practices. As such, young people who are confident in their general financial knowledge might be more adept at planning, allocating resources, and ensuring financial sustainability.

Third, according to the current results, having confidence in the banking and budgeting domains does not necessarily translate to current actions. This is a significant observation, as one might typically assume that higher confidence would naturally lead to more proactive banking behaviours. Instead, the relationship appears to be more nuanced. Consistent with Azjen's theory of planned behaviour (2011), our results suggest that an individual's financial behaviour is driven by behavioural intentions, where these intentions are a function of the individual's socialised attitudes toward the behaviour and their perceived ability to perform the behaviour (self-efficacy beliefs). In the context of banking, for example, a young person with high confidence might have the intention to explore various banking products, consider investments, or engage in financial planning. Thus, our current research adds to the family socialisation model by Gudmunson and Danes (2011) by drawing attention to the gap between intentions and actions. Put simply: while intentions are a crucial step towards action, they do not always guarantee those actions will immediately occur. It is important to reiterate here that the participants in this study were adolescents and, to some extent, it may be that a lack of financial commitments negates the need for them to complete

banking activities or create a budget. Importantly, however, such individuals will presumably use this knowledge in the future when circumstances necessitate it, such as leaving home.

Further, we demonstrate that gender plays a major role in the confidence → intention → action dynamic. Consistent with a large body of literature (e.g., Sierminska et al., 2010; Bannier & Schwarz, 2018), our findings reveal that male participants consistently reported higher confidence levels in financial matters and they were more likely to acknowledge the presence of financial values in their upbringing. Interestingly, we found that female participants exhibited stronger financial *intentions* than male participants despite their lower confidence levels; however, these heightened intentions did not translate into corresponding current financial actions for females. When viewed through the lens of gender, these relationships underscore the multifaceted nature of financial attitudes, intentions, and behaviours among adolescents. The disparity we observed where females exhibit stronger intentions for financial activities but lack corresponding confidence may be attributed to an interplay of societal, cultural, educational, and psychological factors (see Authors, 2018; Robson & Peetz, 2020). Literature on financial literacy consistently shows that men outperform women in this area (Chen & Volpe, 2002; Lusardi & Mitchell, 2008) and that financial preferences—particularly regarding risk-taking—differ between women and men (Charness & Gneezy, 2012; Fisher & Yao, 2017). From a family socialisation perspective, many societies have traditionally designated financial management roles predominantly to males, often relegating females to roles with limited emphasis on financial decision-making. This societal paradigm can significantly impact females' confidence in their financial capabilities, notwithstanding their intentions to engage in financial activities.

Limitations & Future Directions

In this study, several limitations warrant consideration. The data is self-reported by young people, and we emphasise that perceptions may not accurately reflect actual family

dynamics (such as financial anxiety and values). While we argue these perceptions are valuable—and essential in predicting financial intentions and behaviours—they represent adolescents' viewpoints rather than objective measures of what family members do and say. To address this limitation, future research could incorporate a mixed-methods approach, combining self-reports with qualitative interviews or observations to gain a more comprehensive understanding of family dynamics. Another limitation is the cross-sectional nature of our data. Although our study benefits from a large and diverse sample across New Zealand, this design restricts our ability to make causal inferences. Future research should employ repeated-measures designs to better ascertain the directionality of variables like family socialisation and adolescents' financial attitudes, intentions, and behaviours. Longitudinal studies would be particularly beneficial in understanding how these variables evolve over time.

We acknowledge concerns regarding the reliability and validity of the psychometric instruments used in this study. As ours is a secondary dataset, the choice of specific items by the collaborating organisation was not entirely based on validated instruments. While we have endeavoured to demonstrate adequate validity and reliability, we strongly encourage researchers to prioritise the use of validated instruments to enhance the precision of findings. Finally, our sample composition presents a limitation to generalisability. The cohort predominantly comprises individuals from more affluent backgrounds. Consequently, it would be imprudent to assume that these findings are representative of all young people in New Zealand, let alone applicable to an international population. This limitation underscores the need for caution in generalising the study's conclusions beyond the specific demographic context of our sample. Future research should aim to include a more diverse sample, particularly focusing on individuals from a range of socioeconomic backgrounds, to ensure broader applicability and representation.

Conclusion

This research provides a deeper exploration of the intricate ways family financial socialisation impacts adolescents' financial attitudes, intentions, and behaviours in New Zealand. Our findings reveal a positive correlation between family affluence and family financial anxiety as perceived by adolescents, challenging conventional expectations and underscoring the complexity of financial discussions within more affluent families. We also identify a positive correlation between family affluence and the emphasis on financial values, particularly regarding savings, indicating the pivotal role of financial education in affluent households. Furthermore, our study underscores the critical influence of family financial values on adolescents' confidence in money management, which subsequently shapes their confidence in specific financial domains such as banking and budgeting. Importantly, we observe a disconnect between confidence and action in financial behaviours, suggesting that intentions—while important—do not always translate into immediate actions. Additionally, gender differences are pronounced in this dynamic, with male participants exhibiting higher confidence in financial matters, while female participants show stronger intentions but lower confidence levels. Overall, our research offers insights into family financial socialisation, offering valuable implications for parents and financial institutions aiming to foster responsible financial practices among young people.

References

Authors. (2015).

Authors. (2018).

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.

Ajzen, I. (2011). The theory of planned behaviour: Reactions and reflections. *Psychology & Health*, 26(9), 1113-1127.

- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A., & Walters, R. H. (1977). *Social learning theory*. Prentice Hall; Toronto.
- Böhm, P., Böhmová, G., Gazdíková, J., & Šimková, V. (2023). Determinants of Financial Literacy: Analysis of the Impact of Family and Socioeconomic Variables on Undergraduate Students in the Slovak Republic. *Journal of Risk and Financial Management*, 16(4), 252.
- Bandura, A., & Walters, R. H. (1977). *Social learning theory*. Prentice Hall.
- Blaschke, J. (2022). Gender differences in financial literacy among teenagers-Can confidence bridge the gap?. *Cogent Economics & Finance*, 10(1), 2144328.
- Charness, G., & Gneezy, U. (2012) Strong evidence for gender differences in risk taking. *Journal of Economic Behavior and Organization*, 83(1), 50–58.
- Chen, H. and Volpe, R.P. (2002) Gender differences in personal financial Literacy among college students. *Financial Services Review*, 11, 289–307.
- Clarke, M. C., Heaton, M. B., Israelson, C. L., & Eyring, J. B. (2005). The acquisition of family financial roles and responsibilities. *Family and Consumer Sciences Research Journal*, 33(4), 321-340.
- Currie, C., Molcho, M., Boyce, W., Holstein, B., Torsheim, T., & Richter, M. (2008). Researching health inequalities in adolescents: the development of the Health Behaviour in School-Aged Children (HBSC) family affluence scale. *Social Science & Medicine*, 66(6), 1429-1436.
- Currie, C., Inchley, J., Molcho, M., Lenzi, M., Veselska, Z., & Wild, F. (eds.). (2014). *Health behaviour in school-aged children (HBSC) study protocol: background, methodology and mandatory items for the 2013/14 survey*. St Andrews: CAHRU.

- Danes, S. M. (1994). Parental perceptions of children's financial socialization. *Journal of Financial Counseling and Planning*, 5, 127-149.
- Danes, S. M., & Yang, Y. (2014). Assessment of the use of theories within the Journal of Financial Counseling and Planning and the contribution of the family financial socialization conceptual model. *Journal of Financial Counseling and Planning*, 25(1), 53-68.
- Fisher, P.J. and Yao, R. (2017) Gender differences in financial risk tolerance. *Journal of Economic Psychology*, 61, 191–202.
- Grohmann, A. (2016). Gender gap in financial literacy: income, education and experience only partially explain it. *DIW Weekly Report*, 83(46), 1083-1090.
- Gudmunson, C. G., & Danes, S. M. (2011). Family financial socialization: Theory and critical review. *Journal of Family and Economic Issues*, 32(4), 644-667.
- Gudmunson, C. G., Ray, S. K., & Xiao, J. J. (2016). Financial socialization. *Handbook of Consumer Finance Research*, 61-72.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Prentice Hall.
- Hasler, A., & Lusardi, A. (2017). The gender gap in financial literacy: A global perspective. *Global Financial Literacy Excellence Center, The George Washington University School of Business*. Retrieved: <https://gflec.org/wpcontent/uploads/2017/07/the-gender-gap-in-financial-literacy-a-global-perspective-report.pdf>
- Hibbert, A. M., Lawrence, E. R., & Prakash, A. J. (2013). Does knowledge of finance mitigate the gender difference in financial risk-aversion?. *Global Finance Journal*, 24(2), 140-152.

- Hung, A., Yoong, J., & Brown, E. (2012): OECD working papers on finance, insurance and private pensions. In *OECD Working Papers on Finance, Insurance and Private Pensions* (14), pp. 1–42. Retrieved: <https://doi.org/10.1787/20797117>.
- Jorgensen, B. L., Allsop, D. B., Runyan, S. D., Wheeler, B. E., Evans, D. A., & Marks, L. D. (2019). Forming financial vision: How parents prepare young adults for financial success. *Journal of Family and Economic Issues*, 40, 553-563.
- Jorgensen, B. L., & Savla, J. (2010). Financial literacy of young adults: The importance of parental socialization. *Family Relations*, 59(4), 465-478. *Journal of Family and Economic Issues*, 1–11.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- LeBaron, A. B., Hill, E. J., Rosa, C. M., & Marks, L. D. (2018). Whats and hows of family financial socialisation: Retrospective reports of emerging adults, parents, and grandparents. *Family Relations*, 67(4), 497-509.
- LeBaron, A. B., Marks, L. D., Rosa, C. M., & Hill, E. J. (2020). Can we talk about money? Financial socialization through parent–child financial discussion. *Emerging Adulthood*, 8(6), 453-463.
- LeBaron, A. B., & Kelley, H. H. (2021). Financial socialization: A decade in review. *Journal of Family and Economic issues*, 42(Suppl 1), 195-206.
- Lewis, A., & Scott, A. J. (2002). A study of economic socialisation: Financial practices in the home and the preferred role of schools among parents with children under 16. *Citizenship, Social and Economics Education*, 5(3), 138-147.
- Luhr, S. (2018). How social class shapes adolescent financial socialization: Understanding differences in the transition to adulthood. *Journal of Family and Economic Issues*, 39(3), 457-473.

- Lusardi, A., & Mitchell, O.S. (2008) Planning and financial literacy: how do women fare? *American Economic Review*, 98(2), 413–417.
- Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of Pension Economics & Finance*, 10(4), 497-508.
- Palameta, B., Nguyen, C., Hui, T. S. W., Gyarmati, D., Wagner, R. A., Rose, N., & Llp, F. (2016). *Link between financial confidence and financial outcomes among working-aged Canadians*. Social Research and Demonstration Corporation.
- Potter, D., Jayne, D., & Britt, S. (2020). Financial anxiety among college students: The role of generational status. *Journal of Financial Counseling and Planning*.
- Putri, D. N., & Wijaya, C. (2020). Analysis of parental influence, peer influence, and media influence towards financial literacy at University of Indonesia students. *SSRG Int. J. Humanit. Soc. Sci*, 7, 66-73.
- Robson, J., & Peetz, J. (2020). Gender differences in financial knowledge, attitudes, and behaviors: Accounting for socioeconomic disparities and psychological traits. *Journal of Consumer Affairs*, 54(3), 813-835.
- Rosseel, Y. (2012). lavaan: An R Package for Structural Equation Modeling. *Journal of Statistical Software*, 48(2), 1 - 36. doi:
- Rudeloff, M., Brahm, T., & Pumptow, M. (2019). Does gender matter for the use of learning opportunities? Potential explanation for the gender gap in financial literacy. *Citizenship, Social and Economics Education*, 18(3), 128-142.
- Schrodt, P., George, M., & Ledbetter, A. M. (2023). Emerging adults' financial conversations with parents as mediators of family communication patterns and financial independence. *Communication Quarterly*, 71(2), 195-218.

Serido, J., LeBaron, A. B., Li, L., Parrott, E., & Shim, S. (2020). The lengthening transition to adulthood: Financial parenting and Recentering during the college-to-career transition. *Journal of Family Issues*, 41(9), 1626-1648.

Shim, S., Serido, J., Tang, C., & Card, N. (2015). Socialization processes and pathways to healthy financial development for emerging young adults. *Journal of Applied Developmental Psychology*, 38, 29-38.

Zhu, A. Y. (2018). Parental socialization and financial capability among Chinese adolescents in Hong Kong. *Journal of Family and Economic Issues*, 39(4), 566-576.