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Financial Socialization of College Students: Domain-General and Domain-Specific Perspectives

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Abstract

This study investigated the association of domain-general and domain-specific parenting practices with college students' financial attitudes and behaviors. Data came from a survey of college students ($n = 585$, 156 males) aged 19–32 attending a Midwestern University. Parents' financial behaviors significantly predicted college students' financial attitudes. Path analysis indicated that college students' financial attitudes mediated the association between their perceptions of parents' financial behaviors and their own financial behaviors. Parental avoidance of financial conversation was inversely associated with college students' financial attitudes, and parental disclosure of financial information was positively associated with college students' financial attitudes. Family communication pattern significantly predicted college students' financial attitudes and moderated the association between parents' financial behaviors and college students' financial attitudes. These findings underscore the importance of examining both domain-general and domain-specific parenting practices in socialization and indicate that parental explicit financial communication may amplify or attenuate the influence of parental modeling.

Keywords: Parent financial socialization, Family communication patterns, Domain-general and domain-specific socialization, Financial attitudes, College students

Introduction

Acquiring responsible financial attitudes and behaviors is an important developmental task because the financial habits that are formed during early adulthood tend to persist throughout life (Jorgensen and Savla 2010; Shim et al. 2010). Financial socialization is the process through which children develop values, attitudes, standards, norms, knowledge, and behaviors regarding financial practices (Danes 1994). According to Allen (2008) and Danes (1994), college students reported that they learned most of their financial management knowledge and skills from their parents. Healthy financial attitudes were positively related to positive financial behaviors such as savings and money management (Dowling et al. 2009) and were negatively related to problematic outcomes such as financial stress (Hayhoe et al. 2000). Therefore, it is important to understand the socialization processes that influence children's development of positive financial attitudes and behaviors.

Parental financial communication is a tool for educating children about financial issues such as saving, budgeting, investing, consumer skills, and avoiding financial problems (Allen 2008). Jorgensen et al. (2017b) found that financial communication played as a mediating role between the emerging adults' attachment with parent and financial behaviors. Research on the effect of parent-child communication has focused primarily on credit card spending or credit card debt. For example, Palmer et al. (2001) found that college students tended to have more positive credit card spending behavior when parents discussed credit cards with them. In addition, lack of communication between parents and their children about financial matters was associated with increased debt over time (Norvilitis and MacLean 2010).

However, financial communication also involves other factors such as family processes, conversational environments, and even individuals' characteristics (Allen 2008). Therefore, it is important to understand family dynamics and communication more generally in order to understand the influence of parent-child financial communication on financial outcomes specifically. Grusec and Davidov (2010) proposed that some socialization processes such as parenting styles and attachment influenced children's development generally and were considered "domain-general," whereas some parenting roles such as reciprocal compliance and teaching focused on a specific domain of development, so were conceptualized as "domain-specific." Communication between parents and children is a key mode of explicit socialization, and we consider family communication pattern as "domain-general" communication, and we consider the disclosure of financial information and avoidance of financial discussions as "domain specific" communication. This study tested a model of financial socialization that

incorporates domain-general and domain-specific parent communication processes and college students' financial attitudes and behaviors. Each of these concepts is reviewed below, followed by a description of the conceptual model for this study.

Financial Socialization

Financial socialization includes the processes through which children and adolescents develop consumer skills and learn about the adult economic world, directly or indirectly (Riley et al. 1969). Explicit financial socialization includes positive and negative reinforcement, parental financial monitoring, and direct instruction about the importance of money management (Churchill and Moschis 1979; Kim et al. 2011), whereas implicit financial socialization includes children's observation of their parents' financial behaviors or parents' arguments over financial issues, for example. Gudmunson and Danes (2011) found that implicit financial socialization was more frequent than explicit financial socialization. However, explicit financial socialization significantly predicted financial attitudes and behaviors; college students who reported explicit financial instruction had higher scores on financial attitudes and behaviors than those who reported only implicit learning (Jorgensen and Savla 2010). Palmer et al. (2001) found that college students tended to have more positive credit card spending behavior when parents discussed credit cards with them. In addition, lack of communication between parents and their children about financial matters was associated with increased debt over time (Norviltis and MacLean 2010). Similarly, a study of children aged 8–18 reported that parent communication about charitable donations was positively associated with children's saving for future education and the tendency to donate to charities (Kim et al. 2011). Moreover, college students who learned through a combination of observation and explicit mentoring engaged in more positive financial behaviors than those who learned about parents' financial activities through only observation (Norviltis and MacLean 2010). Financial attitudes is an intermediate variable to lead the financial end product of the "financial socialization theory" such as financial behavior and financial well-being Gudmunson and Danes (2011). In addition, as the term attitudes refer to an psychological tendency based on the individual's subjective evaluation (Serido et al. 2015), financial attitudes include the believes or feeling about money management or related matters.

Gudmunson and Danes (2011) proposed a conceptual model that includes family interaction and relationships, purposive financial socialization, and financial attitudes, knowledge, and capabilities. We adapted the financial socialization model proposed by Gudmunson and Danes (2011) to provide

the conceptual basis of this study (Fig. 1). The model conceptualizes family interaction and parental purposive financial socialization as predictors of college students' financial attitudes and financial behaviors. We proposed that implicit financial socialization will indirectly influence financial attitudes and behaviors. In this study, college students' perceptions of parents' financial behaviors are an indicator of implicit financial socialization. To further understand processes of parental modeling in financial socialization, we tested the relationship between the perceptions of parents' financial behaviors (i.e., modeling) and the college students' financial behaviors. We also examined college students' financial attitudes as a mediator of the association between their perceptions of their parents' financial behaviors and their own financial behaviors. Additionally, we proposed that family interaction and parental purposive financial socialization would moderate the association between implicit financial socialization and financial attitudes.

Avoidance of Financial Communication

Many studies have found that parents are reluctant to discuss money issues with their children (Plander 2013; Romo and Vangelisti 2014). Trachtman (1999) argued that talking about financial issues such as income or personal financial status with children is still considered a taboo topic to most American parents. Few studies have investigated how parents' avoidance of communication about financial issues may influence college students' financial attitudes and behaviors. One study indicated that financial attitudes were positively associated with college students' openness about financial matters with parents and inversely associated with college students' avoidance of financial discussions (Edwards et al. 2007), but there is little research on the influence of parents' avoidance of financial discussion. The current study tested the effect of college students' perceptions of parental avoidance of financial communication on the college students' financial attitudes and the moderation effect of the perceptions of parental avoidance on the implicit financial socialization.

Disclosure of Parental Financial Information

Romo (2011) applied the Communication Privacy Management theory to financial communication and conducted a qualitative study to investigate why parents conceal or disclose their own financial information to their children. Results showed that most parents were willing to teach their children about saving, budgeting, and financial management, but they were reluctant to reveal their own personal financial information. Most parents concealed

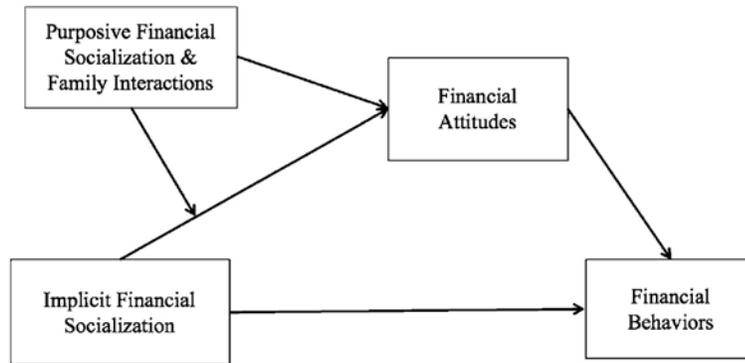


Fig. 1. Conceptual model of family financial socialization theory. Reproduced with permission from Gudmunson and Danes (2011).

financial information from their children so as not to make their children worry, feel shame, or judge their parents. It is difficult for most parents to disclose their financial information to their children even if it might be helpful to their children in some ways (Romo 2011). On the other hand, some parents chose to share their financial information with their children to help them prepare for the real world. Other parents said that they shared their financial information so that their children would not repeat the same financial mistakes that they made, and to help their children become financially responsible. They also believed that financial openness fostered trust. Parents' openness with their children about financial issues is important because it influences the quality of family relationships and relationship satisfaction (Morr Serewicz et al. 2007; Serewicz and Canary 2008). Therefore, the current study tested the effect of college students' perception of parental disclosure of financial information on the college students' financial attitudes and the moderation effect of the perceptions of parental disclosure on the implicit financial socialization.

Family Communication Patterns

Patterns of family communication influence family members' values, worldviews, and behaviors through sharing values and beliefs (Fitzpatrick and Ritchie 1994). Family communication is one of the important ways to socialize the children. Kagotho et al. (2017) measured the concept of "family financial socialization" using communication of financial matters, and they found communication of financial matters affected financial management skills and the savings. The revised family communication pattern theory has two dimensions, *conversation orientation* and *conformity orientation* (Ritchie

and Fitzpatrick 1990). *Conversation orientation* (Ritchie 1991) reflects concern with open discussion of ideas between parents and children. High *conversation orientation* families freely share ideas, feelings, personal thoughts, and private activities, whereas low *conversation orientation* families communicate less with each other about concerns and feelings and have limited conversation topics (Schrodt et al. 2007). *Conformity orientation* reflects the degree to which the family communication climate stresses homogeneity of attitudes, beliefs, and values among all family members (Koerner and Fitzpatrick 2002). Families high on *conformity orientation* are characterized by a hierarchical family structure and prioritize family interests above those of individual family members, whereas low *conformity orientation* families respect individual values, beliefs, and equality of all family members.

Financial socialization studies from the perspective of family communication pattern have focused more on marketing and consumer behaviors (Carlson et al. 1992; Kim et al. 2009). However, one study examined the associations between family communication pattern and college students' willingness to discuss their credit card behaviors with their parents. College students who perceived their family as high in conversation orientation were more open in their communication with their parents about their credit card behaviors, whereas college students whose families had a more conformity-oriented communication pattern were less so (Thorson and Horstman 2014). Although family communication pattern has been associated with more open communication with parents about their financial behavior, it is important to understand how family communication pattern may influence college students' financial attitudes, which have been associated with financial behaviors (Jorgensen and Salva 2010; Shim et al. 2010). To address this gap, the current study tested the effect of college students' perceptions of conversation-oriented and the conformity-oriented family communication on the college students' financial attitudes separately, and the moderation effect of the two kinds of family communication patterns on the implicit financial socialization.

Hypotheses

- H1 The relationship between college students' perceptions of parents' financial behaviors (i.e., modeling) and college students' financial behaviors will be mediated by college students' financial attitudes.
- H2a College students' perception of parental avoidance of financial conversation will be inversely associated with college students' responsible financial attitudes.

H2b The high levels of perceived parental avoidance will attenuate the association between perceptions of parents' financial behaviors and college students' financial attitudes.

H3a College students' perception of parental disclosure of financial information will be positively associated with college students' responsible financial attitudes.

H3b The high level of perceived parental disclosure of financial information will amplify the association between perceptions of parents' financial behaviors and college students' financial attitudes.

H4a College students' perception of conversation-oriented family communication pattern will be positively associated with college students' the responsible financial attitudes.

H4b The high level of college conversation orientation of the family will amplify the association between perceptions of parents' financial behaviors and college students' financial attitudes.

H5a College students' perception of conformity-oriented family communication pattern will be inversely associated with college students' responsible financial attitudes.

H5b The high level of conformity orientation of the family will attenuate the association between perceptions of parents' financial behaviors and college students' financial attitudes.

Methods

This correlational study of financial socialization was conducted via online survey of college students' perceptions of their parents' financial behaviors, their own financial attitudes and financial behaviors, family communication pattern, and parental communication about finances.

Participants

Participants included 585 undergraduate students ($n = 156$ men; 26.7%) enrolled in a public university in the Midwestern United States. Participants ranged from 19 to 32 years of age ($M = 21.04$ years, $SD = 2.63$). Majority of

participants were European American ($n = 515$, 84.6%), followed by Asian American ($n = 36$, 5.9%), African American ($n = 21$, 3.4%), Latino or Hispanic ($n = 17$, 2.8%), and American Indian/Native American ($n = 12$, 2.0%). Majority of participants were living away from their family of origin, were employed part-time, and had very little credit card debt. Specific demographic information is presented in Table 1.

Measures

College Students' Financial Attitudes

The survey of Emerging Adult Financial Capability Study (EAFCS; Jorgensen 2017a) was used to measure financial attitudes and consists of 31 items that assess general money management (seven items, e.g., "I feel in control of my financial situation"), insurance (seven items, e.g., "Maintaining adequate insurance coverage is important [health, auto, home/rent]"), budgeting (nine items, e.g., "Saving money regularly is important"), and debt and credit (eight items, e.g., "I am confident in my ability to understand loan terms"). A total score was computed for the scale in which a higher score indicates better financial attitudes ($M = 3.34$, $SD = .31$, $\alpha = .86$). Participants rated how much they agreed with each item on a 5-point scale (1 = *strongly disagree* to 5 = *strongly agree*). Negative items were reverse coded.

College Students' Financial Behaviors

The Financial Behavior Scale (Fitzsimmons et al. 1993) includes 16 items rated on a five-point scale (1 = *strongly disagree* to 5 = *strongly agree*). Examples are "I live from paycheck to paycheck (reverse coded)," "I write down where money is spent," and "I estimate household net worth." A mean score was computed with higher scores indicating better financial behaviors ($M = 2.86$, $SD = .76$, $\alpha = .89$).

Parents' Financial Behaviors

The Financial Behavior Scale (Fitzsimmons et al. 1993), was adapted to measure perceptions of parents' financial behaviors. For example, "I think my mother/father regularly sets aside money for saving" was adapted from "I regularly set aside money for saving." This measure was completed for mothers ($M = 3.84$, $SD = .82$, $\alpha = .94$) and fathers ($M = 3.91$, $SD = .85$, $\alpha = .95$), and mothers' financial behaviors was used for the analysis. Participants indicated their agreement with the statements on a five-point scale (1 = *strongly disagree* to 5 = *strongly agree*).

Parents' Avoidance of Financial Communication

To measure the parental avoidance of financial communication with their children ($M = 2.47$, $SD = .84$, $\alpha = .67$), three items of reticence subscale of the Parental Financial Education Scale (PFES: Norvilitis and MacLean 2010) were with me," "I wish that my parents taught me more about how to manage money (reserve-coded question), "I rarely saw my parents paying the bills"). Participants responded on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Parents' Disclosure of Financial Issues

To measure perceptions of parents' disclosure of financial issues, three items were created for the purpose of this study based on the results of Romo's (2011) qualitative research ("My parents share their financial information with me," "My parents are open about their income with me," and "My parents talk about their financial debt with me"). Participants responded using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree) and higher scores reflect more parental disclosure of financial information ($M = 3.12$, $SD = 1.01$, $\alpha = .85$).

Family Communication Pattern

The Revised Family Communication Pattern Scale children's version (RFCP, Ritchie and Fitzpatrick 1990) assessed college students' perceptions of parent-child communication patterns. This measure consisted of 15 items measuring conversation orientation ($M = 3.61$, $SD = .75$, $\alpha = .92$; e.g., "My parents encourage me to challenge their ideas and beliefs," "I can tell my parents almost anything") and 11 items measuring conformity orientation ($M = 2.92$, $SD = .68$, $\alpha = .85$; e.g., "In our home, my parents usually have the last word," "My parents feel that it is important to be the boss") on a 5-point scale (1 = strongly disagree to 5 = strongly agree).

Demographics

Participants reported on age, gender, ethnicity, parental education, parental income, marital status, employment status, residential status, income, debts, student loans, and monthly expenses. Results are presented in Table 1.

Table 1. Demographic Characteristics of Sample ($N = 585$)

	<i>N</i>	%	% (<i>multiple choices</i>)
Gender			
Women	429	73.3	
Men	156	26.7	
Age			
19-25	577	98.6	
26-32	8	1.4	
Race (multiple choices)			
European American	515		88.2
Asian	36		6.2
African American	21		3.6
Latino or Hispanic	17		2.9
American Indian/Native American	12		2.1
Others	8		1.3
			104.3
Year in college			
Freshmen	173	29.6	
Sophomores	198	33.8	
Juniors	121	20.7	
Seniors	93	15.9	
Socioeconomic status growing up			
Lived in poverty	3	0.5	
Lower class	18	3.1	
Lower-middle class	70	12.0	
Middle class	276	47.2	
Upper middle class	204	34.5	
Upper class	14	2.4	
Parental income			
< \$20,000	17	2.9	
\$20,000-\$39,999	35	6.0	
\$40,000-\$59,999	81	13.8	
\$60,000-\$79,999	104	17.8	
\$80,000-\$149,999	182	31.1	
\$150,000 or more	140	23.9	
Missing	26	4.4	
Saving			
I don't have savings or investments	66	11.3	
Under \$500	88	15.0	
\$500-\$999	65	11.1	
\$1000-\$1999	95	16.2	
\$2000-\$4999	111	19.0	
\$5000-\$9999	75	12.8	
10,000-\$19,999	39	6.7	
Over \$20,000	18	3.1	
Missing	28	4.8	
Tuition is covered by (multiple choices)			
Parents' support	343		59.4
Student loan	280		48.5
Scholarship	332		57.5
Self-supported	145		25.1
Employer	16		2.8
Other funds including military	13		2.3
Grandparent or other relatives	9		1.6
			197.2

The dollars are in US currency.

Analysis

Preliminary analysis (descriptive analysis, correlations, Cronbach's alpha and exploratory factor analysis) were conducted using SPSS 22.0. Mplus 7.11 (Muthèn and Muthèn 2007) was used to conduct confirmatory factor analysis and path analyses. Models testing perceptions of parents' financial behaviors independent variables were examined in all analyses.

Results

Descriptive Results

Table 2 presents the means, standard deviations, Cronbach's alpha coefficients, and correlations among the study variables. All Cronbach's alpha coefficients were satisfactory. Family communication pattern-conversation orientation and family communication pattern-conformity orientation were inversely correlated ($r = -.48$). Parents' avoidance of financial communication was inversely correlated with all study variables except family communication pattern-conformity orientation.

Simple Mediation Model

To test H1, a simple mediation model (path analysis) was run using parents' financial behavior as an independent variable, college students' financial attitudes as a mediator, and college students' financial behavior as a dependent variable. For the perceptions of parents' financial behavior, parents'

Table 2. Correlation coefficients and descriptive statistics ($N = 585$)

	1	2	3	4	5	6	7	8
1. Conversation oriented family communication pattern	—							
2. Conformity oriented family communication pattern	-.48***	—						
3. Father's financial behaviors	.25***	-.10*	—					
4. Mother's financial behaviors	.32***	-.13**	.36***	—				
5. Young adult children's financial attitudes	.23***	-.17***	.34***	.30***	—			
6. Young adult children's financial behaviors	.22***	-.08	.20***	.25***	.43***	—		
7. Parents' avoidance of financial conversation	-.32**	.25***	-.25**	-.29***	-.33***	-.22***	—	
8. Patterns' disclosure of financial issues	.21**	-.11**	-.02	.06	.14**	.21**	-.38**	—
<i>M</i>	3.62	2.91	3.91	3.84	3.34	2.86	2.47	3.12
<i>SD</i>	.74	.68	.85	.82	.31	.76	.84	1.01
α	.92	.85	.95	.94	.86	.89	.67	.85

* $p < .05$; ** $p < .01$, *** $p < .001$

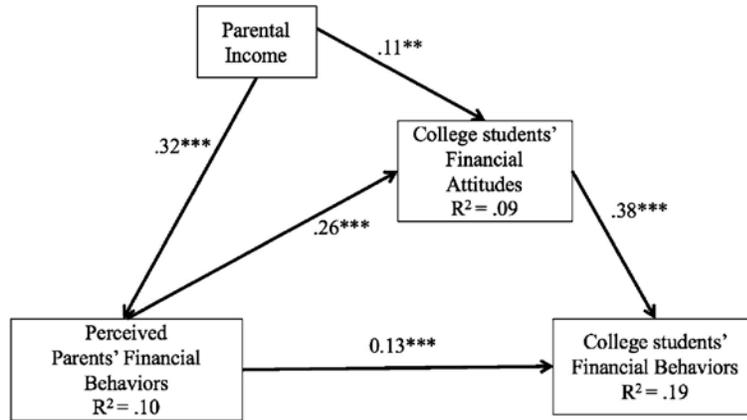


Fig. 2. Simple mediation model with parental income as control variable. Model fit statistics: $\chi^2 (1, N = 528) = 0.89, p = .35, CFI = 1.00, RMSEA = .00, SRMR = .01.$ * $p < .05, ** p < .01, *** p < .001$

financial behavior was used and the model was significant as shown in Fig. 2. Parental income was controlled as it could affect college students' financial attitudes and parents' financial behaviors.

The results supported H1. Parents' financial behaviors significantly predicted college students' financial attitudes for the model testing parents' financial behavior as an independent variable ($\beta = .26, p = .000$). The association between college students' financial attitudes and behaviors was significant for the model that tested parents' financial behavior as an independent variable ($\beta = .38, p = .000$). The direct path from parents' financial behavior to college students' financial behaviors was significant ($\beta = .13, p = .001$).

Moderated Mediation Models

To test H2–H5, moderated mediation models were analyzed using parents' behavior as an independent variable, college students' financial attitudes as a mediator, college students' financial behavior as a dependent variable, and college students' perception of parental avoidance of financial conversation (H2), parental disclosure of financial information (H3), conversation orientation (H4), and conformity orientation (H5) as moderators. The moderated mediation models are presented in Figs. 3, 4, 5, 6 and 7. Parental income was controlled as it could affect parental financial behavior and college students' financial attitudes.

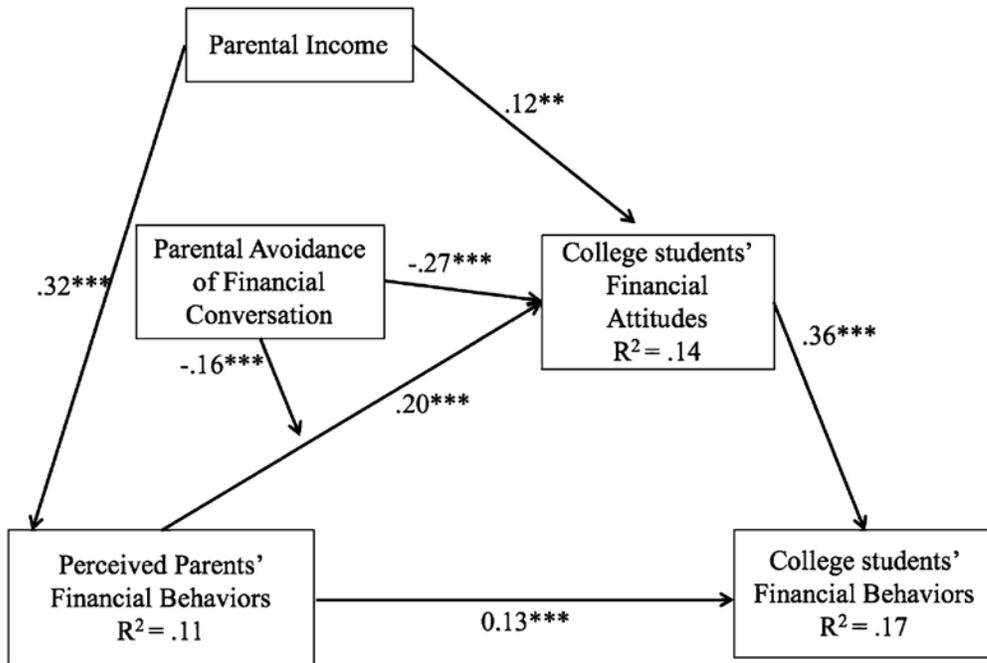


Fig. 3. Parental avoidance of financial conversation as a moderator of parents' financial behaviors. Model fit statistics: $\chi^2 (5, N = 527) = 48.60, p = .000, CFI = .86, RMSEA = .13, SRMR = .06.$ * $p < .05, ** p < .01, *** p < .001$

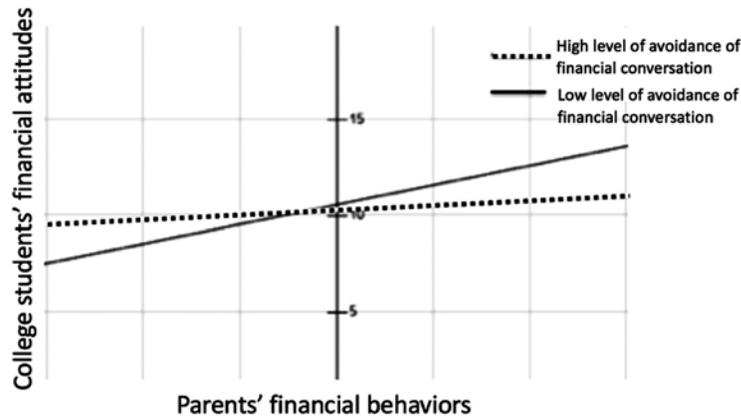


Fig. 4. Moderation effect of maternal avoidance of financial conversation on the association between parents' financial behaviors and college students' financial attitudes

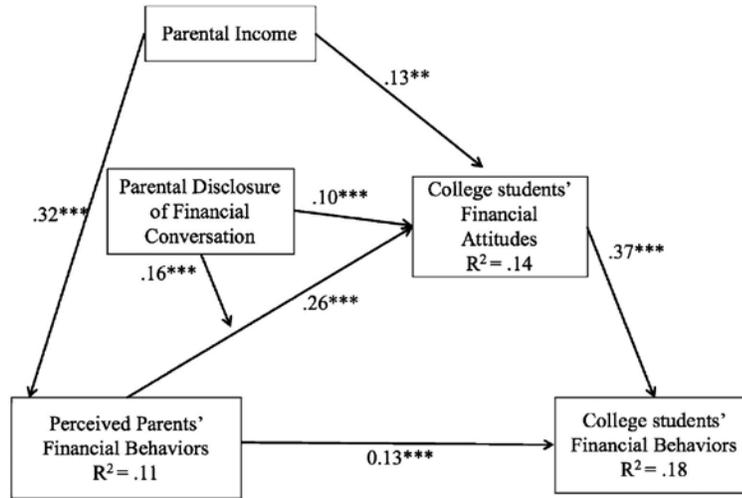


Fig. 5. Parental disclosure of financial information as a moderator of parents' financial behaviors. Model fit statistics: $\chi^2 (5, N = 527) = 19.33, p = .002, CFI = .94, RMSEA = .07, SRMR = .04.$ * $p < .05,$ ** $p < .01,$ *** $p < .001$

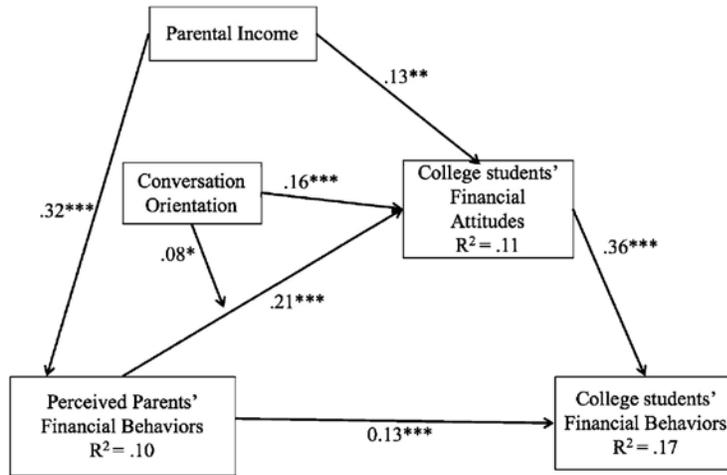


Fig. 6. Conversation oriented family communication pattern as a moderator of parents' financial behaviors. Model fit statistics: $\chi^2 (5, N = 527) = 50.58, p = .000, CFI = .83, RMSEA = .13, SRMR = .06.$ * $p < .05,$ ** $p < .01,$ *** $p < .001$

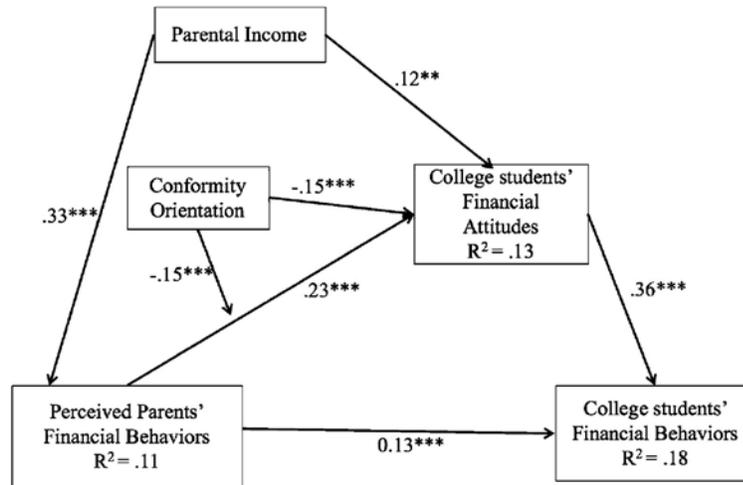


Fig. 7. Conformity oriented family communication pattern as a moderator of parents' financial behaviors. Model fit statistics: $\chi^2 (5, N = 528) = 9.82, p = .08, CFI = .98, RMSEA = .04, SRMR = .03$. * $p < .05$, ** $p < .01$, *** $p < .001$

Parental Avoidance of Financial Conversation

To test H2a and H2b, the models that tested the moderation effect of parental avoidance of financial conversation on the association between parents' financial behaviors and college students' financial attitudes were run with parents' financial behaviors, and the model was significant as shown in Fig. 3. The results provided strong support for H2a. Parental avoidance of financial conversation was inversely associated with college students' financial attitudes for the model testing parents' financial behavior as an independent variable ($\beta = -.27, p = .000$). H2b was supported. Parental avoidance of financial conversation decreased the strength of the association between parents' financial behaviors and college students' own financial attitudes ($\beta = -.16, p = .000$). Figure 4 shows the significant moderation effect. The graphs in Fig. 4 means that the high levels of perceived parental avoidance attenuate the inverse association between perceptions of parents' financial behaviors and college students' financial attitudes.

College Students' Perceptions of Parental Disclosure of Financial Information

To test H3a and H3b, models testing the moderation effect of parental disclosure of financial information on the association between parents' financial behaviors and college students' financial attitudes were analyzed separately for paternal and maternal financial behaviors (Fig. 5). College students'

perception of parental disclosure of financial information was positively associated with their financial attitudes for maternal financial behavior ($\beta = .10, p = .013$), supporting H3a and H3b. Parental disclosure of financial information increased the strength of the association between parents' financial behaviors and college students' financial attitudes ($\beta = .16, p = .000$).

Conversation Oriented Family Communication Pattern

To test H4a and H4b, models testing the moderation effect of conversation-oriented family communication pattern on the association between parents' financial behaviors and college students' financial attitudes were run for maternal financial behaviors, and the model was significant as shown in Fig. 6. H4a and H4b were supported. Conversation oriented family communication pattern was significantly positively associated with college students' financial attitudes for both the model that tested parents' financial behavior ($\beta = .16, p = .000$). Conversation oriented family communication pattern increased the strength of the association between parents' financial behaviors and college students' financial attitudes ($\beta = .08, p = .043$).

College Students' Perception of Conformity-Oriented Family Communication Pattern

To test H5a and H5b, models testing the moderation effect of conformity-oriented family communication pattern on the association between parents' financial behaviors and college students' financial attitudes were run for the maternal financial behaviors, and the model was significant as shown in Fig. 7. The results provided support for H5a and H5b. Conformity-oriented family communication pattern was significantly and negatively associated with college students' financial attitudes for both the model that tested parents' financial behavior ($\beta = -.15, p = .000$). Conformity-oriented family communication pattern significantly decreased the strength of the association between maternal financial behaviors and college students' financial attitudes ($\beta = -.15, p = .000$).

Discussion

The current study expanded the range of financial communication behaviors under investigation by examining parents' intentional financial communication, parental avoidance of financial communication, and parental disclosure of financial information. We examined the associations between domain-general socialization process (i.e., family communication pattern), domain-specific socialization process (i.e., parents' avoidance of financial

socialization and parents' disclosure of financial information on financial attitudes and behavior) and financial socialization. This study suggests that it is important to consider domain-general parental practices because practices such as family communication style and quality of parent-child relationships can affect domain-specific outcomes.

Helping young adult children to build healthy financial attitudes is important because financial attitudes have a significant effect on financial behavior (Jorgensen and Salva 2010; Shim et al. 2010). As expected, college students' financial attitudes mediated the association between their perceptions of their parents' financial behaviors and their own financial behaviors, controlling for parental income. In addition, this study examined the influences of domain-general and domain-specific financial socialization on young adult children's financial attitudes and financial behaviors. Family communication is one of the processes that is important to children's domain-general socialization because communication is the primary process through which values or culture can be conveyed (Fitzpatrick and Vangelisti 1995). Therefore, family communication patterns were examined as domain-general socialization processes in this study. We also examined parental avoidance of financial conversation and parental disclosure of financial information as domain-specific parental practices related to financial values (Grusec and Goodnow 1994).

Parental Financial Communication Practices and Young Adult Financial Outcomes

Parents' avoidance of financial communication was inversely associated with college students' responsible financial attitudes, and parents' disclosure of financial information was positively associated with college students' responsible financial attitudes. However, parents' avoidance and disclosure of financial information moderated the association between parents' financial behaviors and college students' financial attitudes. These results are similar to the results of Edwards et al. (2007) who reported a positive association between college students' financial attitudes and college students' openness about their own finances. However, the present study focused on parents' disclosure of their financial information, whereas Edwards et al. (2007) focused on college students' openness about their own financial situation.

This is the first quantitative study of financial socialization to examine parents' disclosure of financial information, while one qualitative study examined why parents chose to reveal or conceal their financial information with their children (Romo 2011). Results of this study indicate that parents' disclosure of their income or debt may help their young adult children to have healthy financial attitudes, consistent with Romo's (2011) qualitative findings.

Family Communication Environment and Young Adult Financial Outcomes

Family communication pattern was examined as a moderator of the association between perceptions of parents' financial behaviors and college students' financial attitudes, and conversation-oriented family communication pattern significantly amplified the association for parents' financial behaviors only. Similarly, conformity-oriented family communication pattern attenuated the association between perceptions of parents' financial behaviors and college students' financial attitudes. This is consistent with research demonstrating positive association between family communication pattern and college students' openness about their credit card usage (Thorson and Horstman 2014). The models were tested using mother's financial behaviors for the variable "parents' financial behavior" in the current study because mostly parents spend more time with children from the early age, and have more opportunities to be modeled from them about economic concepts. However, it will be meaningful for future research to examine the differential influences of mothers' and fathers' financial behavior, determining whether these results are replicated and examining potential processes such as the specific financial behaviors children observe (i.e., paying bills, balancing a checkbook, or buying groceries).

Results of this study indicate that parents' communication with their children is important to support development of college students' responsible financial attitudes and behaviors. Specifically, we found that parents' explicit financial socialization may compensate for the effects of potentially negative implicit socialization about financial matters. Parent educators and money management consultants could use these findings to guide parents' explicit financial socialization of their children.

Limitations and Future Directions

Despite the unique contributions of this study, limitations point to future research directions. First, the data in this study were collected from one university in the Midwestern United States. Because the sample was recruited through the several classes from this university, the portion of demographic status of students depended who enrolled the classes. So, the distribution of some demographic information such as gender was not distributed as the entire population with high portion of females. Therefore, future research should consider this issue.

Another limitation is related to the methods of collecting the data. Some questions that participants answered about their parents such as perceived avoidance of financial conversation and disclosure of financial information

were not collected for both mothers and father separately as two parents' communication styles were assumed to be similar. Mothers and fathers may have different communication patterns or different quality of relationship with their young adult children. Therefore, future research should examine financial communication styles of mother and father mothers separately to obtain more specific information about effects of mothers' and fathers' financial socialization on young adult children's financial attitudes and behaviors.

Lastly, questions about parents' behaviors (i.e., perceived financial behaviors, parents' avoidance of financial conversation, and parents' disclosure of financial information) were measured by college students' perspective, not by parents' self-report. The college students' perceptions could be inaccurate. In this study, parents' behaviors perceived by their children were measured because children can be influenced by their perceptions of their parents' behaviors, as well as their parents' actual behaviors. However, according to the model of adolescent value socialization (Grusec and Goodnow 1994), to internalize the parents' values, adolescents should accurately perceive the values that their parents want their children to internalize and then adolescents must accept their parents' values as their own values. If parent reports of their own behaviors would enrich understanding of dynamics between parental socialization and college students' perceptions, attitudes, and behaviors, it would provide information about the socialization process in more detail such as when young adult children are more accepting of parents' values or which kinds of variables affect the gap.

Contributions and Implications

Results of this study indicate that college students whose parents disclosed information about their finances were more financially responsible. Conversely, parental avoidance of discussions with their children about finances did not help children develop positive financial attitudes or learn responsible financial skills. This evidence is important because it indicates that parental communication about family finances can help children develop knowledge and skills related to positive financial attitudes and behaviors. Acquiring positive financial attitudes and responsible financial behaviors is an important developmental task of early adulthood, and these attitudes and behaviors tend to be stable throughout adulthood (Jorgensen and Savla 2010; Shim et al. 2010). Therefore, the results of this study suggest that it is important for parents to clearly communicate with their children regarding financial matters.

In addition, this study examined both implicit and explicit communication, which is important because children observe their parents' behavior even when parents are not intentionally modeling behaviors they want their

children to learn. Both implicit (modeling) and explicit communication about financial matters significantly predicted college students' financial attitudes, and implicit communication significantly predicted college students' financial behaviors. Therefore, it is important for parents to be aware of financial behaviors they are modeling, as well as to communicate explicitly about positive financial behaviors.

This study also examined family communication pattern (Fitzpatrick and Ritchie 1994; Ritchie 1991) as a domain-general parenting process and found that conformity-oriented family communication attenuated the effect of parental modeling on college students' financial attitudes, while conversation-oriented family communication amplified the effect of parental modeling on college students' financial attitudes. These results are important because children (and college students) are more likely to accept parental socialization messages when they feel accepted and validated (e.g., Grusec and Goodnow 1994). Conversation-oriented family communication respects each person's unique point of view, so that even if parents and children disagree, each person's right to their own opinion is respected. When parents are open to a child's point of view, the child is more open to the parents' perspectives as well.

Compliance with Ethical Standards

Conflict of interest – The authors declare that they have no conflict of interest.

Ethical Approval – All procedures performed in studies involving human participants were in accordance with the ethical standards of the University of Nebraska-Lincoln Institutional Review Board and the United States Office of Human Research Protections, as well as with the 1964 Helsinki declaration and the 1974 Belmont Report.

Informed Consent – Informed consent was obtained from all individual participants included in the study.

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