

This article was downloaded by: [University of Arizona]

On: 07 August 2012, At: 09:50

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Journal of Family Communication

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/hjfc20>

The Association between Parent and Adult Child Shyness, Social Skills, and Perceived Family Communication

Analisa Arroyo ^a, Natalie Nevárez ^a, Chris Segrin ^a & Jake Harwood ^a

^a Department of Communication, University of Arizona

Version of record first published: 06 Aug 2012

To cite this article: Analisa Arroyo, Natalie Nevárez, Chris Segrin & Jake Harwood (2012): The Association between Parent and Adult Child Shyness, Social Skills, and Perceived Family Communication, *Journal of Family Communication*, 12:4, 249-264

To link to this article: <http://dx.doi.org/10.1080/15267431.2012.686941>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.tandfonline.com/page/terms-and-conditions>

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

The Association between Parent and Adult Child Shyness, Social Skills, and Perceived Family Communication

Analisa Arroyo, Natalie Nevárez, Chris Segrin, and Jake Harwood

Department of Communication, University of Arizona

This investigation examined how parents' and adult children's behavioral manifestations of shyness are associated with perceived family communication. A theoretical model predicted that shyness would be negatively associated with social skills, and social skills would, in turn, be positively associated with perceived family communication. Participants included 111 parent-adult child dyads. Parents and adult children completed measures of shyness, social skills, and perceived family communication in an online questionnaire. Results of structural equation modeling indicated that, as predicted, parent and adult child shyness were negatively associated with their own social skills. In addition, adult children's social skills were significantly associated with perceived family communication, but their parents' social skills were not.

Shy people feel discomfort or inhibition during interpersonal interactions (Henderson & Zimbardo, 1998). Shyness has overlapping characteristics with social anxiety and social phobia, but it is far more prevalent (Henderson & Zimbardo, 1998). Although shyness can vary across situations, a predisposition toward shyness is a lifelong issue that affects many people's interactions and relationships with others (e.g., Kagan & Snidman, 1999; Miller & Coll, 2007). In such cases, shyness contributes to significant and recurring problems, such as loneliness, depression, and poor relational quality (Bruch, 2001; Findlay, Coplan, & Bowker, 2009; Nelson et al., 2008).

The effects of shyness on people's interactions and relationships with others are believed to be influenced by and influence family communication, family functioning, and family environments. For example, adverse childhood environments (e.g., environments where mental illness, alcoholism, etc. are a problem) are associated with shyness well into adulthood (Aron, Aron, & Davies, 2005). The effect of people's upbringing and family interactions on their communicative abilities is understandable in that the family of origin is the primary context in which children develop effective social skills that are necessary for managing the myriad stressors encountered throughout development (e.g., Burlison & MacGeorge, 2002).

Exploring how individual traits, such as shyness, are associated with the family system allows for an understanding of the relational and communication dynamics that contribute to and are an outcome of individuals' social skills. In addition, and perhaps more importantly, it is vital to explore how *both* parents and their children interdependently create the family's communication

patterns because the larger family system cannot be understood by only exploring individual family members (White & Klein, 2002). Therefore, using a family systems perspective, the primary goal of this investigation was to examine how parents' and adult children's behavioral manifestations of shyness are associated with perceived family communication.

THEORETICAL PERSPECTIVES AND CONCEPTUALIZATIONS

General systems theory (von Bertalanffy, 1975) influenced the development of family systems theory, which is a major paradigm in family scholarship (e.g., Broderick, 1993). Family systems theory posits that all elements and events within the family are interrelated and are best understood when viewed in connection with one another (White & Klein, 2002). Families are organizationally complex and a family as a whole is greater than the sum of its parts (Cox & Paley, 1997). A family system must be considered in its entirety and viewed as a whole because it has properties that cannot be understood simply from the combined characteristics of each part (White & Klein, 2002).

Accordingly, one person's behaviors will ultimately affect the entire system. As Cox and Paley (1997) explain, "each individual within the family is a system of its own as well as a subsystem within the hierarchy of systems; carries forward its own organization; and like any system, is dynamic, open to constant revision, and constantly influenced by and influencing the other systems in which it is embedded" (p. 257). Therefore, the messages produced and the quality of relationships developed impact the individuals within the family – which ultimately affects the family system as a whole.

Although the specific mechanisms through which influence occurs are not clearly specified by family systems theory, social learning theory (Bandura, 1977) posits that people acquire different behaviors through observation. In addition to observation, social learning theory asserts that people learn from their own experience and from others' direct teaching and modeling (e.g., parents). Modeling, according to social learning theory, has broad psychological effects and functions, such as inhibitory and disinhibitory effects. By observing the behaviors of other people and the consequences of those behaviors, people can be motivated to turn off (i.e., inhibitors) or turn on (i.e., disinhibitors) behaviors.

Modeling processes play an important role in the acquisition of behavior, especially among children. When the behaviors of a model are observed to be positively reinforced, observers become motivated to enact those same behaviors. If children are exposed to the positive consequences of their parents' socially skilled behaviors (e.g., behaving in an outgoing, gregarious style around others who, in turn, respond positively to the parents) children are likely to enact similar behaviors. However, children can also be exposed to dysfunctional parental models (e.g., parents who live a reclusive lifestyle and avoid social contact). If children observe positive consequences (e.g., parents being relaxed or content only when they keep to themselves) or no negative consequences associated with such parental behaviors, they are likely to enact a similar pattern of behavior. To that end, social learning theory provides a plausible account of how parents' shyness and social skills could be transmitted to their offspring through observational learning.

Perceived Family Communication

Positive family communication is important for the quality of the relationships within the family as well as for the social consequences of the child (e.g., loneliness, maladjustment; Coplan, Arbeau, & Armer, 2008; Rokach, 1989). For example, families characterized by coldness, inhibited expression of feelings, and feeling misunderstood by parents are associated with child loneliness (Rokach, 1989). Individuals' behaviors are embedded in and contributors to the larger family system, thus both parents' and children's social skills should influence the overall tenor of the family.

Although family systems are traditionally characterized by something that is largely created by parents (e.g., Cox & Paley, 1997; White & Klein, 2002), children can also play a role in influencing the general family system. For instance, families who have children with major depressive disorders show higher levels of conflict and lower levels of cohesion than families of healthy children (Ogburn et al., 2010). Similarly, Schroeder and Kelley (2009) found that parents who have children diagnosed with attention deficit hyperactivity disorder (ADHD) report that their family environments are less organized and are higher in family conflict. Although depressive and behavioral disorders are different from shyness, they illustrate how conditions of the child can influence interaction patterns in the family, which is a departure from more commonly held assumptions that adults/parents are the architects of the family environment.

Therefore, the current study characterizes positive family communication by interactions in which family members feel free to express their thoughts and feelings and feel supported in doing so. We believe that positive family communication would allow family members to feel satisfied with their interactions and content with the family's communication patterns that are otherwise devoid of major problems. Because of the interdependent nature of the parent-child relationship and the mutual construction of the family system, it is important to assess perceived family communication from more than one family member's perspectives. Thus, one of the more novel elements of this study is the specification of perceived family communication as influenced by parent *and* child. This allows for a more comprehensive and accurate picture of the family's communication. The following sections further define and explain how perceived family communication may be a product of family members' shyness and social skills.

Characteristics of Shyness and its Relationship to Family Interactions

Shyness is associated with a number of affective, cognitive, and behavioral characteristics that influence people's social interactions. Among the most notable of the affective features has been fear of negative evaluation (e.g., Eisenberg, Fabes, & Murphy, 1995; Miller, 1995; Pilkonis, 1977). Shy persons' anxious feelings are associated with the perception that others are disapproving and rejecting (Bruch, Hamer, Ronald, & Heimberg, 1995; Jackson, Towson, & Narduzzi, 1997). Consequently, shy people are more likely to have negative perceptions of self-worth, social acceptance, and physical appearance (Nelson et al., 2008).

Shyness, however, is behaviorally manifested and observed through the social skills that people employ in both verbal and nonverbal communication behaviors. For example, compared to

their nonshy peers, shy people have a difficult time initiating and structuring conversations, speak less, make brief comments, and take a longer time to respond during conversations (Leary & Kowalski, 1995; Pilkonis, 1977). Nonverbally, shy people display higher levels of fidgeting, low reciprocity of smiling behavior, and are viewed by others as less friendly, less assertive, and less relaxed (Heerey & Kring, 2007; Pilkonis, 1977). Thus, shy people's perceived competence is reflected in the social skills they possess (or the lack thereof), which can affect the interactions and relationships within the family.

Given that shyness may negatively affect people's lives because it can inhibit their ability to communicate effectively with others, such interpersonal difficulties should negatively affect family interactions as well. Nelson et al. (2008) found, in fact, that shy people report lower levels of relationship quality with their parents. Accordingly, it is useful to first understand how family members, particularly in the parent-child relationship, promote or inhibit the development of social skills. Parents are the primary agents in the development of their children's social skills (e.g., Haslett & Samter, 1997; Stafford & Bayer, 1993). Thus, as suggested by social learning theory, children learn positive and negative social skills by observing and modeling the behaviors of their parents (Bandura, 1977).

Miller and Coll (2007) observed that shy tendencies might be propagated as a result of genetic predispositions, parenting practices, and other factors in the child's social environment (see also Daniels & Plomin, 1985; Fox & Calkins, 1993; Reiss, Neiderhiser, Hetherington, & Plomin, 2000). For example, infant shyness is associated with mothers' introversion, lack of sociability, and shyness (Daniels & Plomin, 1985). Parents influence the types of interactions in which their infants engage. If parents are uncomfortable in social situations themselves, they are less likely to expose their children to these same social situations. Because shy parents do not provide as many opportunities for their children to learn how to behave in social situations (Ledley & Heimberg, 2006), the child is likely to experience uncertainty and awkwardness when entering social situations (Jones, Freemon, & Goswick, 1981) and the inability to communicate effectively may create a significant and recurring cycle (Bruch, 2001).

The relationships between parents' and children's shyness and their social interactions is consistent with findings that show that socially anxious children's dysfunctional response patterns (i.e., avoidant, aggressive) might be maintained and fueled by their consistent modeling of negative behaviors and parents' negative expectations (Barrett, Rapee, Dadds, & Ryan, 1996). Therefore, if a child has a parent who does not know how to communicate effectively, that child might model the parent's behavior and learn ineffective communication behaviors and strategies.

In addition to parents' social skills, the quality of the parent-child relationship is also associated with child social skills (Bohlin & Hagekull, 2009). Parents who foster secure bonds with their children are likely to establish secure relationships that promote positive interactions and self-disclosure (Bowlby, 1969). For example, when children perceive security and comfort within the relationship, they are better able to openly express their emotions and understand the feedback they receive from emotionally toned interactions (Denham, Zoller, & Couchoud, 1994). Such positive factors encourage greater social competence (Rutter, 1996). The parent-child relationship also influences the child's social and communication competence into late childhood and adolescence (Reiss & Neiderhiser, 2000). Parents continue to have a significant impact on children's social development even after they start to become young adults and eventually leave their family of origin.

THE HYPOTHESIZED STRUCTURAL MODEL

The current study predicts that social skills are one mechanism that explains the relationship between shyness and perceived family communication (see Figures 1 and 2 for the hypothesized structural model). Parents' shyness is hypothesized to be positively associated with adult children's shyness, both parents' and adult children's shyness is predicted to be negatively associated with their own social skills, and individuals' shyness is predicted to be negatively associated with their family member's social skills as well. In turn, both parents' and adult children's social skills are predicted to be positively associated with perceived family communication. Perceived family communication is constructed from both the parent and the adult child's perspective because parents and children mutually construct family communication patterns. We believe that shy people fail to construct family communication patterns that enable them to feel supported or free to

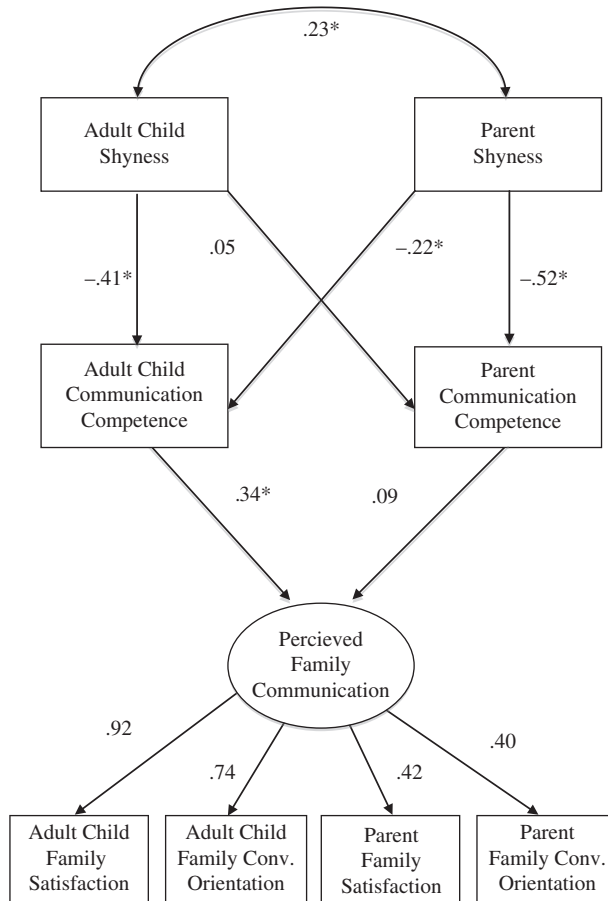


FIGURE 1 Results for the Structural Model of Shyness, Communication Competence, and Perceived Family Communication.

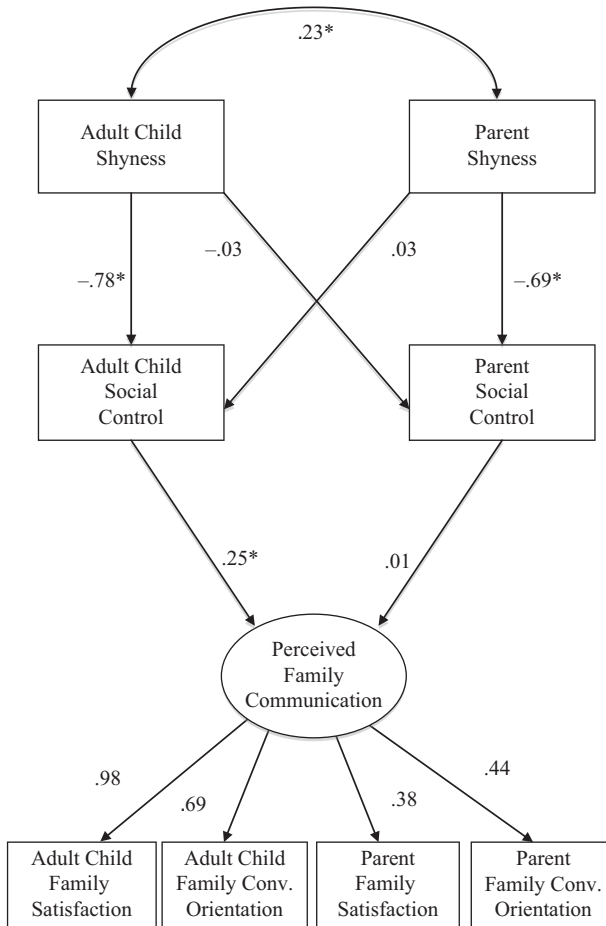


FIGURE 2 Results for the Structural Model of Shyness, Social Control, and Perceived Family Communication.

express themselves because shy people lack the social skills to do so. To that end, *we predict that family members' shyness will be negatively associated with their social skills, and these social skills will be positively associated with perceived family communication.*

METHOD

Participants and Procedure

Participants were 111 parent-child dyads. Adult children were 67% female, between the ages of 18–25 ($M = 20.77$, $SD = 2.93$), and were 83% White, 7% Latino, 3% African American,

TABLE 1
Correlations, Means, Standard Deviations, and Alphas of Major Study Variables

Variable	1	2	3	4	5	6	7	8	9	10
Adult Child										
1. Shyness	–									
2. Comm. Comp.	–.49**	–								
3. Social Control	–.81**	–.48**	–							
4. Family Conversation Orientation	–.14	.25*	.10	–						
5. Family Communication Satisfaction	–.24	.29**	.23*	.68**	–					
Parent										
6. Shyness	–.25*	–.32**	–.12	–.22*	–.17	–				
7. Comm. Comp.	–.04	.17	.11	.10	.11	–.47**	–			
8. Social Control	–.10	.06	.13	–.02	–.03	–.59**	.65**	–		
9. Family Conversation Orientation	–.14	.18	.21*	–.33**	.30**	–.26**	.31**	–.13	–	
10. Family Communication Satisfaction	–.06	.14	.10	.32**	.36**	–.24*	.28**	.28**	.74**	–
<i>M</i>	2.30	4.04	3.72	3.52	3.65	2.17	4.07	3.76	3.91	3.65
<i>SD</i>	0.64	0.58	0.63	0.81	0.90	0.76	0.62	0.67	0.03	0.71
<i>Alpha</i>	0.83	0.74	0.86	0.93	0.96	0.85	0.77	0.87	0.90	0.92

Note. * $p < .05$, ** $p < .01$.

3% Asian, and 4% reported other responses. The majority (76%) of the parents were mothers, and they had a mean age of 52.10 years ($SD = 5.09$). The parents were 86% White, 6% Latino, 4% Asian, 3% African American, and 1% American Indian. The adult child participants were recruited from undergraduate communication courses at a large university in the southwestern United States. Adult child participants completed an online questionnaire with measures described subsequently and provided the email address of a parent whom they selected to participate with them in the study. They were free to choose either a mother or father. Upon completion of the adult child's questionnaire, the parent was emailed a link to an online questionnaire. In exchange for both dyad members' participation, the adult child received extra credit toward his or her final course grade.

Measures

Parent and adult children completed the following measures. Means, standard deviations, and alpha reliabilities can be found in Table 1.

Shyness

Shyness was measured using The Revised Cheek and Buss Shyness Scale (RCBS; Crozier, 2005). The RCBS has been found to be a reliable measure of shyness, with strong internal consistency and test-retest reliability (Hopko, Stowell, Jones, Armento, & Cheek, 2005). This scale

included items that measured the affective (e.g., “I feel nervous when speaking to someone in authority”), cognitive (e.g., “When in a group of people, I have trouble thinking of the right things to talk about”), and behavioral (e.g., “I have trouble looking someone right in the eye”), characteristics of shyness. Its 14 items were rated on a five-point Likert scale (1 = *not true of me at all* to 5 = *extremely true of me*). Items were reverse coded, as suggested by Crozier (2005), and then averaged. High scores denote high shyness.

Social skills

The terminology used to explain the behaviors, motives, intentions, and skills used during interactions has varied throughout the literature (e.g., social skills, communication skills, social competence, interpersonal competence), however, they all capture one’s ability and effectiveness in communicative contexts. In the current study, we specifically test (1) communication competence and (2) social control as proxies of social skills.

Communication competence is the ability to effectively and appropriately manage interpersonal relationships, which allows us to assess observable behaviors that are the primary elements of competent communication (Rubin & Martin, 1994; Spitzberg & Cupach, 2003). Communication competence was measured with seven items chosen from Wiemann’s (1977) original 35-item scale. Only seven items were chosen to reduce response burden. The specific items were selected to assess perceptions of actual behavioral communication practices (e.g., “I am an effective conversationalist,” “I don’t follow the conversation very well”) as opposed to more peripheral relational characteristics (e.g., “I enjoy social gatherings where I can meet new people,” “People can go to me with their problems”). Communication competence was measured on a five-point Likert scale (1 = *strongly agree* to 5 = *strongly disagree*); items were averaged, with high scores denoting high communication competence.

Social control is one’s comfort and ease in social settings and impression management skills (Riggio, 1986). Social control was measured with the 15-item Social Control Subscale of the Social Skills Inventory (e.g., “Sometimes I find it difficult to look at others when I am talking about something personal;” Riggio, 1986, 1989). The social control subscale was selected from the 90-item Social Skills inventory because the scale is a measure of self-presentation skill and the dominant theoretical models of shyness and social anxiety (e.g., Aiken, 1987; Leary & Kowalski, 1995) implicate poor self-presentation skills as either a cause or consequent of the condition. Furthermore, the social control subscale exhibits the strongest correlation with shyness out of all of the six subscales of the Social Skills Inventory (Riggio, 1986). Items were measured on a five-point Likert scale (1 = *strongly agree* to 5 = *strongly disagree*). Items were averaged, with high scores denoting high social control.

Perceived family communication

We assessed perceived family communication with two indicators: family satisfaction and family conversation orientation. First, Olson & Wilson’s (1982) 10-item Family Satisfaction Scale was used to measure the degree to which participants are satisfied with various aspects of the family’s communication. Although labeled “family satisfaction,” this instrument actually assesses respondents’ satisfaction with various elements of the family’s interaction patterns (e.g.,

sharing positive feelings, resolving conflict, discussing problems, expressing concern for each other).

Additionally, the 15-item conversation orientation subscale of the revised Family Communication Patterns instrument (FCP; Ritchie & Fitzpatrick, 1990) was used to measure the extent to which the family engages in frequent discussion and promotes the free and open expression of ideas and feelings (e.g., "In our family we often talk about our feelings and emotions"). The family conversation orientation subscale of this instrument was used because of the theoretical connection between family encouragement of expression and shyness.

Presumably, families high in conversation orientation would produce offspring with low levels of shyness because they would be accustomed to expressing themselves with others. In contrast, the conformity orientation subscale of the FCP assesses an ideology of preserving family harmony rather than open expression of ideas and therefore does not have a clear theoretical connection to the experience of shyness. Both scales were measured on a 5-point Likert scale (1 = *strongly agree* to 5 = *strongly disagree*); items were averaged, with high scores denoting high family conversation orientation and satisfaction with the family's communication.

RESULTS

In an effort to obtain a comprehensive and accurate picture of the family's communication, we felt that it was important to assess perceived family communication from both the parent and the adult child's perspective. Thus, prior to testing the study's predictions, a measurement model was tested in which a latent perceived family communication variable was indicated by the perceived family communication and family satisfaction observed variables assessed from both young adult children and their parents. AMOS 18.0 was used to test this measurement model and the subsequent structural models in this paper. Although there are few universally accepted criteria for assessing model fit, evidence for a good fitting model can be found in a $\chi^2 / df \leq 3.0$, a comparative fit index (CFI) $> .90$, and a root mean square error of approximation (RMSEA) $\leq .08$ (Klein, 2005). An initial test of this measurement model revealed a poor fit to the sample data ($\chi^2 = 51.64$, $df = 2$, $p = .00$, $\chi^2 / df = 25.82$, CFI = .70, RMSEA = .48).

However, modification indices suggested that the fit of the model could be improved considerably by specifying a correlation between the error terms of the parent conversation orientation and parent family satisfaction variables. With that correlation specified, the perceived family communication latent variable exhibited a close fit to the sample data, $\chi^2 = 0.43$, $df = 1$, $p = .51$, $\chi^2 / df = 0.43$, CFI = 1.00, RMSEA = .00. Therefore, this was the model for perceived family communication used in following analyses.

It was predicted that family members' shyness would be negatively associated with their social skills, and these social skills would in turn be positively associated with perceived family communication. The model was tested twice, once for communication competence and then for social control. The first test of the study's prediction was conducted with a structural model that specified paths from parent and adult child shyness to parent and adult child communication competence. In accord with the actor-partner interdependence model (APIM; Kashy & Kenny, 2000), both actor effects (e.g., parent shyness \rightarrow parent communication competence) and partner effects (e.g., parent shyness \rightarrow adult child communication competence) were specified, and a correlation between the independent variables (i.e., parent and adult child shyness) was specified

to model the dyadic interdependence. Finally, paths from parent and adult child communication competence to the perceived family communication latent variable were specified. Maximum likelihood estimation was used to fit the model and provide estimates of its parameters. Results of this analysis are depicted in Figure 1.

The structural model of communication competence as the mechanism that explains the relationship between shyness and perceived family communication shown in Figure 1 had a very close fit to the sample data, $\chi^2 = 16.60$, $df = 16$, $p = .41$, $\chi^2 / df = 1.04$, CFI = 1.00, RMSEA = .02. There is evidence of dyadic (in this case parent-child) interdependence in shyness, $r = .23$, $p < .05$. Both actor effects for shyness were significant and negative, indicating that the more shy people are, the lower their self-reported communication competence. The partner effect from parent shyness to adult child communication competence was also significant and negative, $\beta = -.22$, $p < .05$. However, the partner effect from adult child shyness to parent communication competence was understandably nonsignificant. Finally, the path from adult child communication competence to perceived family communication was significant, $\beta = .34$, $p < .01$, but the complementary path from parent communication competence to perceived family communication was nonsignificant, $\beta = .09$, *ns*.

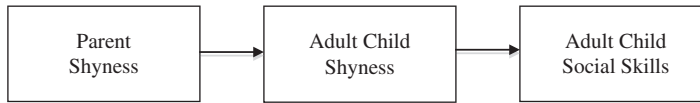
The second test of the study's predictions involved fitting a structural model that was identical to the first with the exception of substituting the social control measure of social skills for the communication competence measure. An initial test of this model indicated only a marginal fit ($\chi^2 = 30.28$, $df = 16$, $p = .017$, $\chi^2 / df = 1.89$, CFI = .96, RMSEA = .09). Modification indices suggested that specification of a correlation between the error terms of the parent social control and parent family satisfaction variables would substantially improve model fit. With that modification, the resultant structural model provided a good fit to the sample data, $\chi^2 = 20.78$, $df = 15$, $p = .14$, $\chi^2 / df = 1.39$, CFI = .98, RMSEA = .06.

In this model there was once again evidence of strong actor effects such that the more shy people were, the lower their self-reported social control (both $p < .001$). However, neither of the partner effects was significant. As in the first model, the path from adult child social skills, indicated by social control in this case, to perceived family communication was statistically significant, $\beta = .25$, $p < .05$. However, the complementary path from parent shyness to perceived family communication was not statistically significant, $\beta = .01$, *ns*.

Post-Hoc Analyses

The APIMs in Figures 1 and 2 specify a correlation between parent and adult child shyness, followed by actor and partner effects for shyness predicting social skills. Only one of the two possible partner effects from parent shyness to adult child social skills was significant. However, these are tests of direct effects. There remains a possibility that parents' shyness has an indirect effect on adult child social skills through higher shyness in the child. To test this possibility, we conducted post-hoc analyses to test the indirect effect of parent shyness to adult child social skill (i.e., communication competence, social control), through adult child shyness with a bootstrapping procedure in AMOS 18.0 that estimates indirect effects and two-tailed significance level based on 1000 bootstrap samples (see Figure 3A for hypothesized model of indirect effects). Results of these tests revealed a significant and negative indirect effect of parent shyness on adult child communication competence through adult child shyness ($\beta = -.10$, $p = .01$). Similarly, there was a significant and negative indirect effect of parent shyness on adult child social control,

- A. First post-hoc analysis of the indirect effect of parent shyness on adult child social skills through adult child shyness.



- B. Second post-hoc analysis of the indirect effect of parent shyness on perceived family communication through adult child social skills.

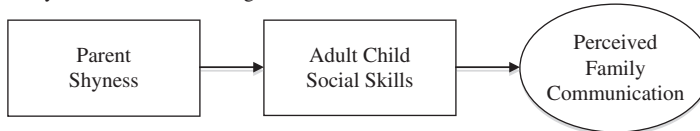


FIGURE 3 Structural Models for Post-Hoc Tests of Indirect Effects.

through adult child shyness ($\beta = -.18, p < .01$). These post-hoc findings add to the APIM results by showing that for both indicators of social skills, parental shyness has a significant effect on lowering adult child social skills through higher shyness in the child.

A second set of post-hoc tests was conducted to examine the potential indirect effect of parent shyness on perceived family communication through adult child social skills (see Figure 3B for hypothesized structural model of indirect effects). These tests were conducted with the same bootstrapping procedure that was used to estimate indirect effects of parent shyness on adult child social skills. Parent shyness had a standardized indirect effect of $\beta = -.10$ ($p < .01$) on the latent perceived family communication variable through adult child communication competence. The standardized indirect effect of parent shyness on perceived family communication through adult child social control was $\beta = -.03$ ($p = .07$). Thus, these results provide some evidence that parental shyness is associated with lower levels of open family communication in part because of the lower social skills of children with shy parents.

DISCUSSION

Family systems theory posits that family members influence the entire family system and such systems must be understood through the emergent properties of their combined elements (White & Klein, 2002). Grounded in this theory, the aim of this paper was to investigate the role of parent and adult child shyness and social skills on perceived family communication. Specifically, we predicted that adult children and parents high in shyness would report ineffective social skills that would be associated with less positive perceptions of family communication. Overall, our results revealed *children's* shyness and social skills, but not parents' social skills, were significantly associated with the tenor of perceived family communication. Through the use of dyadic data, these results add to and extend the current literature on shyness, social skills, and perceived family communication.

The results provided further evidence that shyness is associated with poor social skills. We were able to support this claim by replicating it four times in this sample (i.e., parent and child shyness were associated with their own communication competence and social control). Researchers have found this association among children, adolescents, and young adults (e.g.,

Brunet & Schmidt, 2007; Eggum et al., 2009; Miller, Brody, & Murry, 2010). The current results extend these findings because we found that shyness is related to social skills in young adults and middle-aged adults, suggesting that this association persists across the life span. Further, the results suggest that parent shyness may influence adult child communication competence directly (partner effect: parent shyness \rightarrow adult child communication competence) and indirectly (indirect effect: parent shyness \rightarrow adult child communication competence), such that higher parent shyness is associated with lower communication competence in their adult children. Taken together, parents' and adult children's social skills appear to be interdependent; particularly, parents' shyness predicted adult children's social skills. Such findings are important when considering how individual traits are associated with perceived family communication.

It was hypothesized that the perceived family communication would be predicted by the shyness and social skills of its members. Our predictions were only supported for the adult children. This is an interesting finding, given that past theorizing suggests that parents are the executive subsystem or primary agents in defining the family system (e.g., Cox & Paley, 1997; White & Klein, 2002). However, children naturally begin to impact the family environment even before they are born (Koivunen, Rothaupt, Wolfgram, & Susan, 2009). For example, transitioning to parenthood impacts marital satisfaction and involves partners renegotiating the division of labor and discussing parental involvement (Koivunen et al., 2009). As children develop, they continue to affect family functioning. Not only do children with illness and special needs create a new dynamic for the family and parents (e.g., Ogburn et al., 2010; Schieve, Blumberg, Rice, Visser, & Boyle, 2007), research documents the dramatic influence of children's delinquent and anti-social behaviors on the family system as well (Breivik, Olweus, & Endresen, 2009; Kim & Kim, 2008; Madden-Derdich, Leonard, & Gunnell, 2002). The current research demonstrates that variation in the nonpathological populations also has the ability to influence parents and the entire family.

Previous research has shown that parental shyness is associated with children's shyness and social skills (e.g., Fox & Calkins, 1993; Reiss et al., 2000), but the current data did not demonstrate any parent effects. This may be a product of the sample, as we examined parent-child dyads where the adult child was probably not living at home. Parents may have been reacting to the fact that the dynamic of their family's communication has changed, especially the conversation orientation, since their children have left home. However, although there were no direct effects of parents' social skills on perceived family communication, there were significant associations between parents' shyness and both the shyness and social skills of their adult children: parents' shyness directly predicted adult child communication competence *and* parents' shyness indirectly predicted adult child communication competence and social control through adult child shyness. Additionally, our post-hoc analyses revealed that there was evidence of indirect effects of parent shyness on perceived family communication through lower adult child's social skills. Therefore, albeit in indirect ways, shy parents might contribute to less open and satisfying family communication, in part, by raising children who are reticent to contribute openly to family interactions.

Future research can explore specific explanations for these findings. It is possible that parents adapt to and support children's needs and individual differences by making sacrifices that they feel are necessary for the child. For example, parental sacrifice has been conceptualized as an aspect of parental social support for their children (Chao & Kaeochinda, 2010), with such sacrifices usually being unrequested and part of parental duties (Wicclair, 1990). Perhaps children's shyness and social skills influence the functionality of the family system because parents adapt to

and tailor the family system in ways that suit the child's needs. If a child appears uncomfortable or timid when communicating, a parent might be reluctant to encourage open communication with that child, resulting in a child not feeling supported in expressing their thoughts and feelings in the family.

Past research finds that parental shyness is associated with child shyness and social skills because of genetic predispositions, parenting practices, and the parent-child relationship (e.g., Bohlin & Hagekull, 2009; Reiss et al., 2000). This suggests that further exploration of dispositional and relational factors as a result of the parent-child relationship should continue to be sought out. For example, this proposition can be framed in the context of attachment theory (Bowlby, 1969). According to Bowlby (1969), people's feelings of safety, social acceptance, and well-being are determined by relationships with attachment figures, namely a child's caregiver.

The relationships with attachment figures affect the development and affective management of an individual. The theory proposes that infants feel secure when their caregiver is available and responsive, and they feel distressed when their caregiver is distant, inaccessible, and show disapproval. Most work linking shyness to attachment has been done in the domain of young children (e.g., Borelli, David, Crowley, & Mayes, 2010; Rydell, Bohlin, & Thorell, 2005); however, attachment styles affect relationships well into early adulthood (Miga, Hare, Allen, & Manning, 2010). Thus, attachment may be a potential explanation for our findings, such that people's attachment style and parent-child relationship can explain the communication dynamic within the family.

Finally, the idea of social learning should be further explored as an explanation for the association between parent's and adult children's social skills, particularly as it pertains to modeling of maladaptive parental behaviors. We feel it would be beneficial to expand understanding of family systems by further exploring associations between learning of one form of maladaptive communication behavior and the modeling of additional behaviors.

Limitations to this study point to directions for the future. First, because of the cross-sectional nature of the data, we cannot make causal claims. For example, adult child shyness may lead to poor social skills and poor social skills may lead to less positive family communication. However, an alternative model could be put forth and predict that negative perceptions of family communication might also lead to higher shyness and poorer social skills.

In addition, participants were homogenous in terms of race/ethnicity, age, and educational attainment because this was a sample of university students and their parents, which limits the generalizability of these results. Finally, this study featured people who have successfully been admitted into a university. This is important to note because these students' social skills might vary from other young adults as a function of being in college and receiving a higher education. In addition, the young adult children in this study are in most cases no longer living at home with their parents. Therefore, it is important to assess parent-child dyads that are currently living together because the implications for less positive family communication in that case may be more harmful and predictive of negative outcomes.

In conclusion, this investigation showed that adult children's reported shyness and social skills, not their parents', contribute to perceived family communication. Specifically, adult children's shyness was negatively associated with their social skills, and these social skills were positively associated with perceived family communication that was characterized by more positive communication. Additionally, parent shyness was associated with adult children's shyness and social skills, suggesting that parents are a primary agent in the development of children's shyness, social skills, and perceived family communication. Taken together, this study offers an improved

understanding of how shyness and social skills may be harmful to perceptions of the family's communication.

REFERENCES

- Aiken, R.M. (1987). Shyness and self-presentation. In Y. Krysiak & T. Honess (Eds.), *Self and identity: Psychosocial perspectives* (pp. 187–196). Oxford, England: John Wiley & Sons.
- Aron, E. N., Aron, A., & Davies, K. M. (2005). Adult shyness: The interaction of temperamental sensitivity and an adverse childhood environment. *Personality and Social Psychology Bulletin, 31*, 181–197.
- Bandura, A. (1977). *Social learning theory*. New York, NY: General Learning Press.
- Barrett, P. M., Rapee, R. M., Dadds, M. M., & Ryan, S. M. (1996). Family enhancement of cognitive style in anxious and aggressive children. *Journal of Abnormal Child Psychology, 24*, 187–204.
- Bohlin, G., & Hagekull, B. (2009). Socio-emotional development: From infancy to young adulthood. *Scandinavian Journal of Psychology, 50*, 592–601.
- Borelli, J., David, D., Crowley, M., & Mayes, L. (2010). Links between disorganized attachment classification and clinical symptoms in school-aged children. *Journal of Child and Family Studies, 19*, 243–256.
- Bowlby, J. (1969). *Attachment and loss, Vol. 1: Attachment*. New York, NY: Basic Books.
- Breivik, K., Olweus, D., & Endresen, I. (2009). Does the quality of parent-child relationships mediate the increased risk for antisocial behavior and substance use among adolescents in single-mother and single-father families? *Journal of Divorce & Remarriage, 50*, 400–426.
- Broderick, C. B. (1993). *Understanding family processes: Basics of family systems theory*. Newbury Park, CA: Sage.
- Bruch, M. A. (2001). Shyness and social interaction. In W. R. Crozier & L. E. Alden (Eds.), *International handbook of social anxiety: Concepts, research and interventions relating to the self and shyness* (pp. 195–215). Chichester, England: Wiley.
- Bruch, M. A., Hamer, R. J., & Heimberg, R. G. (1995). Shyness and public self-consciousness: Additive or interactive relation with social interaction? *Journal of Personality, 63*, 47–63.
- Brunet, P. M., & Schmidt, L. A. (2007). Is shyness context specific? Relation between shyness and online self-disclosure with and without a live webcam in young adults. *Journal of Research in Personality, 41*, 938–945.
- Burleson, B. R., & MacGeorge, E. L. (2002). Supportive communication. In M. L. Knapp & J. A. Daly (Eds.), *Handbook of interpersonal communication* (pp. 374–424). Thousand Oaks, CA: Sage.
- Chao, R. K., & Kaeochinda, K. F. (2010). Parental sacrifice and acceptance as distinct dimensions of parental support among Chinese and Filipino American adolescents. In S. T. Russell, L. J. Crockett, & R. K. Chao (Eds.), *Asian American parenting and parent-adolescent relationships* (pp. 61–77). New York, NY: Springer Science + Business Media.
- Crozier, W. R. (2005). Measuring shyness: Analysis of the revised Cheek and Buss shyness scale. *Personality and Individual Differences, 38*, 1947–1956.
- Coplan, R. J., Arbeau, K. A., & Armer, M. (2008). Don't fret, be supportive! Maternal characteristics linking child shyness to psychosocial and school adjustment in kindergarten. *Journal of Abnormal Child Psychology, 36*, 359–371.
- Cox, M. J., & Paley, B. (1997). Families as systems. *Annual Review of Psychology, 48*, 243–267.
- Daniels, D., & Plomin, R. (1985). Origins of individual differences in infant shyness. *Developmental Psychology, 21*, 118–121.
- Denham, S. A., Zoller, D., & Couchoud, E. A. (1994). Socialization of preschoolers' emotion understanding. *Developmental Psychology, 30*, 928–936.
- Eggum, N. D., Eisenberg, N., Spinrad, T. L., Reiser, M., Gaertner, B. M., Sallquist, J., & Smith, C. L. (2009). Development of shyness: Relations with children's fearfulness, sex, and maternal behavior. *Infancy, 14*, 325–345.
- Eisenberg, N., Fabes, R. A., & Murphy, B. C. (1995). Relations of shyness and low sociability to regulation and emotionality. *Journal of Personality and Social Psychology, 68*, 505–517.
- Findlay, L. C., Coplan, R. J., & Bowker, A. (2009). Keeping it all inside: Shyness, internalizing coping strategies and socio-emotional adjustment in middle childhood. *International Journal of Behavioral Development, 33*, 47–54.
- Fox, N. A., & Calkins, S. D. (1993). Pathways to aggression and social withdrawal: Interactions among temperament, attachment, and regulation. In K. H. Rubin & J. B. Asendorpf (Eds.), *Social withdrawal, inhibition, and shyness in childhood* (pp. 81–100). Hillsdale, NJ: Lawrence Erlbaum Associates.

- Haslett, B. B., & Samter, W. (1997). *Children communicating: The first five years*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Heerey, E. A., & Kring, A. M. (2007). Interpersonal consequences of social anxiety. *Journal of Abnormal Psychology, 116*, 125–134.
- Henderson, L., & Zimbardo, P. (1998). *Encyclopedia of Mental Health*. San Diego, CA: Academic Press. Retrieved from: <http://www.shyness.com/encyclopedia.html>.
- Hopko, D. R., Stowell, J., Jones, W. H., Armento, M. E., & Cheek, J. M. (2005). Psychometric properties of the Revised Cheek and Buss Shyness Scale. *Journal of Personality Assessment, 82*, 185–192.
- Jackson, T., Towson, S., & Narduzzi, K. (1997). Predictors of shyness: A test of variables associated with self-presentational models. *Social Behavior and Personality, 25*, 149–154.
- Jones, W. H., Freemon, J. E., & Goswick, R. A. (1981). The persistence of loneliness: Self and other determinants. *Journal of Personality, 49*, 27–48.
- Kagan, J., & Snidman, N. (1999). Early childhood predictors of adult anxiety disorders. *Biological Psychiatry, 46*, 1536–1541.
- Kashy, D. A., & Kenny, D. A. (2000). The analysis of data from dyads and groups. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social psychology* (pp. 451–477). London: Cambridge University Press.
- Kim, H., & Kim, H. (2008). The impact of family violence, family functioning, and parental partner dynamics on Korean juvenile delinquency. *Child Psychiatry & Human Development, 39*, 439–453.
- Kline, R. B. (2005). *Principles and practice of structural equation modeling*, (2ND ED.) New York, NY: Guilford Press.
- Koivunen, J. M., Rothaupt, J. W., & Wolfgram, S. M. (2009). Gender dynamics and role adjustment during the transition to parenthood: Current perspectives. *Family Journal, 17*, 323–328.
- Leary, M. R., & Kowalski, R. M. (1995). *Social anxiety*. New York, NY: Guilford Press.
- Ledley, D. R., & Heimberg, R. G. (2006). Cognitive vulnerability to social anxiety. *Journal of Social and Clinical Psychology, 25*, 755–778.
- Madden-Derdich, D. A., Leonard, S. A., & Gunnell, G. A. (2002). Parents' and children's perceptions of family processes in inner-city families with delinquent youths: A qualitative investigation. *Journal of Marital & Family Therapy, 28*, 355–369.
- Miga, E. M., Hare, A., Allen, J. P., & Manning, N. (2010). The relation of insecure attachment states of mind and romantic attachment styles to adolescent aggression in romantic relationships. *Attachment and Human Development, 12*, 463–481.
- Miller, R. S. (1995). On the nature of embarrassment: Shyness, social evaluation, and social skill. *Journal of Personality, 63*, 315–339.
- Miller, S., Brody, G., & Murry, V. (2010). Mothers' and fathers' responsive problem solving with early adolescents: Do gender, shyness, and social acceptance make a difference? *Journal of Child and Family Studies, 19*, 298–307.
- Miller, S. R., & Coll, E. (2007). From social withdrawal to social confidence: Evidence for possible pathways. *Current Psychology, 26*, 86–101.
- Nelson, L. J., Padilla-Walker, L. M., Badger, S., Barry, C. M., Carroll, J. S., & Madsen, S. D. (2008). Associations between shyness and internalizing behaviors, externalizing behaviors, and relationships during emerging adulthood. *Journal of Youth and Adolescence, 37*, 605–615.
- Ogburn, K. M., Sanches, M., Williamson, D. E., Caetano, S. C., Olvera, R. L., Pliszka, S., Hatch, J. P., & Soares, J. C. (2010). Family environment and pediatric major depressive disorder. *Psychopathology, 43*, 312–318.
- Olson, D. H., & Wilson, M. (1982). Family inventories: Inventories used in a national survey of families across the family life cycle. In D. H. Olson, H. I. McCubbin, H. Barnes, A. Larsen, M. Muxen, & M. Wilson (Eds.), *Family social science* (pp. 25–31). St. Paul, MN: University of Minnesota.
- Pilkonis, P. A. (1977). The behavioral consequences of shyness. *Journal of Personality, 45*, 596–612.
- Reiss, D., & Neiderhiser, J. M. (2000). The interplay of genetic influences and social processes in developmental theory: Specific mechanisms are coming into view. *Development and Psychopathology, 12*, 357–374.
- Reiss, D., Neiderhiser, J. M., Hetherington, E. M., & Plomin, R. (2000). *The relationship code: Deciphering genetic and social influences on adolescent development*. Cambridge, MA: Harvard University Press.
- Riggio, R. E. (1986). Assessment of basic social skills. *Journal of Personality and Social Psychology, 51*, 649–660.
- Riggio, R. E. (1989). *Manual for the social skills inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Ritchie, L. D., & Fitzpatrick, M. A. (1990). Family communication patterns: Measuring intrapersonal perceptions of interpersonal relationships. *Communication Research, 17*, 523–544.

- Rokach, A. (1989). Antecedents to loneliness: A factorial analysis. *The Journal of Psychology*, *123*, 369–384.
- Rubin, R. B., & Martin, M. M. (1994). The interpersonal communication competence scale. *Communication Research Reports*, *11*, 13–22.
- Rutter, M. (1996). Transitions and turning points in developmental psychology: As applied to the age span between childhood and mid-adulthood. *International Journal of Behavioral Development*, *19*, 603–626.
- Rydell, A., Bohlin, G., & Thorell, L. B. (2005). Representations of attachment to parents and shyness as predictors of children's relationships with teachers and peer competence in preschool. *Attachment and Human Development*, *7*, 187–204.
- Schroeder, V., & Kelley, M. (2009). Family environment and parent-child relationships as related to executive functioning in children. *Journal of Child and Family Studies*, *18*, 227–235.
- Schieve, L. A., Blumberg, S. J., Rice, C., Visser, S. N., & Boyle, C. (2007). The relationship between autism and parenting stress. *Pediatrics*, *119*, S114–S121.
- Spitzburg, B. H., & Cupach, W. R. (2003). Interpersonal skills. In J. O. Greene & B. R. Burleson (Eds.), *Handbook of communication and social interaction skills* (pp. 564–611). Mahwah, NJ: Lawrence Erlbaum.
- Stafford, L., & Bayer, C. L. (1993). *Interaction between parents and children*. Newbury Park, CA: Sage.
- von Bertalanffy, L. (1975). *Perspectives on general systems theory: Scientific-philosophical studies*. New York, NY: George Braziller.
- White, J. M., & Klein, D. M. (2002). *Family theories: Understanding families*. Thousand Oaks, CA: Sage.
- Wicclair, M. R. (1990). Caring for frail elderly parents: Past parental sacrifices and the obligations of adult children. *Social Theory & Practice*, *16*, 163–189.
- Wiemann, J. M. (1977) Explication and test of a model of communication competence. *Human Communication Research*, *3*, 195–213.